

# Health services



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## Key points

- About 85% of Australians visit a doctor at least once a year.
- GPs are doing increasing work on conditions such as diabetes, hypertension and oesophageal disease, and less on upper respiratory tract infections and asthma.
- Ambulances attended over 2.7 million incidents in Australia in 2006–07, of which 39% were emergency incidents and 28% were urgent.
- In 2005–06, there were about 7.3 million hospital separations a 37% increase since 1996–97, 55% of them being same-day compared to 45% in 1996–97.
- On a typical day, there were 20,000 hospital separations, and 124,000 non-admitted hospital services provided in settings such as emergency departments and outpatient clinics.
- For the year 2005–06, over 9% of hospital separations were considered potentially preventable and rates for potentially preventable separations were higher for people living in more remote or disadvantaged areas.
- In 2006–07, about one in nine of all prescriptions under the PBS/RPBS were for a mental health-related medication.

This chapter presents an overview of Australia’s health services. The provision of health services by health professionals and other health service workers, and the delivery of health-care goods such as pharmaceuticals, account for the vast majority of expenditure described in the next chapter.

In this chapter, health services are grouped into the broad categories of public health services, primary care and community health services, hospital services and specialised health services (Figure 7.1). However, although these groupings are useful as a way to organise the information in this chapter, they cannot fully convey how health services are organised in Australia, the complex and changing patterns of health service delivery, or the similarly complex paths that some patients follow through the health sector. In addition, some types of service can belong to more than one category. For example, dental services are in the primary care and community health care category, but can also be included in the specialised health services category.

Sections on each of these broad categories are presented in turn in this chapter, and statistics relating to the National Health Performance Committee indicators (see chapters 1 and 9) are included where appropriate. The chapter also includes information on the use of medicines and on medical indemnity claims.

Public health services	Primary care and community health care services	Hospitals	Specialised health services
Cancer screening	General practitioner	Admitted patient care	Specialist medical practitioner
Immunisation	Primary health care for Aboriginal and Torres Strait Islander peoples	Emergency department	Specialised mental health
	Dental	Outpatient care and other non-admitted care	Sexual and reproductive health
	Allied health		Alcohol and other drug treatment
	Community health		National Diabetes Service Scheme
	Ambulance and Royal Flying Doctor Service		Hearing
	Complementary and alternative health		Palliative care
			Health services in the Australian Defence Force

**Figure 7.1: Health service categories used to structure this chapter**

### Box 7.1: How dates and time spans are presented here

Dates and time spans shown in this chapter and elsewhere in this book can be confusing. Please note:

- Periods based on full calendar years (1 January to 31 December) are written as, for example, 2001 for one year, then with the final year written in full if there is more than one year. For example, 2001–2002 is a two calendar-year span and 2001–2003 covers three calendar years.
- Periods based on financial years (1 July to 30 June, as with hospital statistics) are written with a second number which is abbreviated: for example, 2001–02 for one year, 2001–03 for two and 2001–04 for three. A longer span of financial years is written as 'In the 10-year period from 1997–98 to 2006–07...'
- Some surveys may be based on other 12-month spans—for example, the general practice BEACH survey is based on collection periods from 1 April to 31 March. These are presented as for financial years; for example, 2001–02 would be a 'year'.

## 7.1 Public health services

### What is public health?

A widely used definition of public health in Australia is 'the organised response by society to protect and promote health, and to prevent illness, injury and disability; the starting point for identifying public health issues, problems and priorities, and for designing and implementing interventions, is the population as a whole, or population subgroups' (NPHP 1998). The term 'public health' is often used interchangeably with 'population health' and 'preventive health'.

In essence, public health interventions focus on prevention, promotion and protection rather than on treatment; on populations rather than on individuals; and on the factors and behaviours that cause illness. Using a range of sources, the AIHW has estimated that around \$1.5 billion was spent by governments on public health activities in Australia in 2005–06, representing 1.8% of total health expenditure.

Public health activities can take the form of programs, campaigns, or events. They draw on a very large range of methods such as health education, lifestyle advice, infection control, risk factor monitoring, and tax loadings to discourage unhealthy lifestyle choices. They also apply in multiple settings (such as schools, homes, workplaces, through the media, and via general practitioner consultations), and relate to a broad spectrum of health issues. They are variously carried out by state, territory and local governments, the Australian Government, and other agencies such as anti-cancer councils and the Heart Foundation.

This section features cancer screening services (one of the more 'visible' sets of public health services) and immunisation services delivery. Information on public health expenditure is included in Chapter 8.

## Cancer screening

For breast, cervical and bowel cancers, there are national population screening programs in Australia. Their goals are to reduce morbidity and mortality from these cancers through early-as-possible detection of cancer and pre-cancerous abnormalities and effective follow-up treatment. These programs are called BreastScreen Australia (using mammography for screening), the National Cervical Screening Program (using Pap tests) and the National Bowel Cancer Screening Program (using faecal occult blood tests). They provide screening services that are free to females in the target age group (for breast screening) and to males and females invited to participate in bowel screening, or they are covered by a Medicare rebate (for cervical screening).

### BreastScreen Australia

The BreastScreen Australia program began in 1991 (Box 7.2). The proportion of females in the target age group 50–69 years who were screened under the BreastScreen Australia program in a 2-year period rose from 51.4% in 1996–1997 (the first period for which national data are available) to 56.9% in 2000–2001, before falling to 56.2% in 2004–2005 (Table 7.1).

#### Box 7.2: BreastScreen Australia

The BreastScreen Australia program is jointly funded by the Australian Government and state and territory governments. It aims at reducing mortality and morbidity from breast cancer by actively recruiting and screening females without symptoms in the target age group 50–69 years. The program comprises a network of dedicated screening and assessment services throughout metropolitan, rural and remote areas of all Australian states and territories. Services are available through both fixed and mobile centres. They provide free 2-yearly mammographic screening and follow-up of any suspicious breast areas identified at screening, to the point of either diagnosis of breast cancer or confirmation of the absence of the cancer. As well as those from the target age group, females aged 40–49 years and 70 years and over may use the screening service. Attendance at the service does not require a doctor's referral.

The program has performance objectives in the National Accreditation Standards agreed on by the Department of Health and Ageing and BreastScreen Australia state and territory programs for individual screening services. These objectives include 70% overall participation by females in the target age group 50–69 years for each 2-year screening interval; and rescreening rates of 75% after first screening and 90% after subsequent screening rounds.

**Table 7.1: Participation of females aged 50–69 years in BreastScreen Australia, 1996–1997 to 2004–2005**

Years of screening	Target population	Participation rate (%)
1996–1997	844,626	51.4
1998–1999	975,511	55.7
2000–2001	1,063,585	56.9
2002–2003	1,118,146	56.2
2004–2005	1,188,720	56.2

*Note:* Rates are the number of females screened as a percentage of the eligible female population calculated as the average of the Australian Bureau of Statistics estimated resident population and age-standardised to the Australian population at 30 June 2001.

*Source:* AIHW analysis of BreastScreen Australia data.

Table 7.2 shows the rescreen rates for 2002 and 2003 for females aged 50–67 years. Although the BreastScreen Australia target age group is 50–69 years, only data on females aged 50–67 years are reported for the rescreen indicator. This is because females aged 68–69 years in the index year were outside the target age group 27 months after their index screen.

The objectives of rescreening at least 75% of females in the age group 50–67 attending for their first screening round and at least 90% of females attending for their second or subsequent screening rounds were not achieved in 2002 and 2003. The age-standardised rescreen rate for females aged 50–67 years attending for their first screening round declined from 61.6% in 2002 to 60.5% in 2003, but this decline was not statistically significant. The rescreen rates for females aged 50–67 years participating in their second or subsequent rounds were higher than those achieved by females participating in their first screening round, but they did not reach the objective of at least 90%.

**Table 7.2: BreastScreen Australia rescreening rates for females aged 50–67 years, screened during 2002 and 2003**

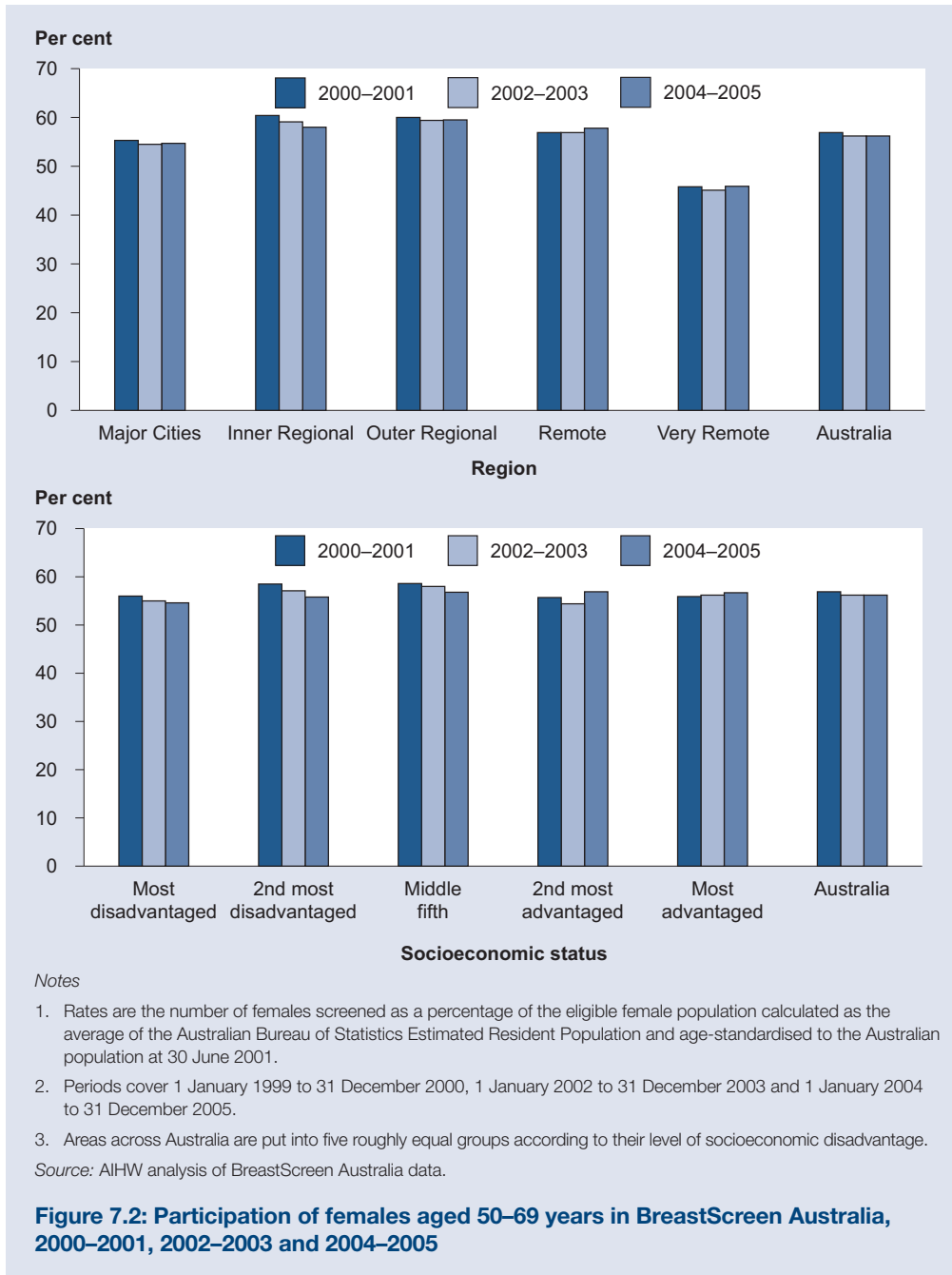
	Objective <sup>(a)</sup>	2002	2003
First screening round			
Rate (%) for females aged 50–67 years	≥ 75	61.6	60.5
Second screening round			
Rate (%) for females aged 50–67 years	≥ 90	70.3	69.5
Subsequent screening rounds			
Rate (%) for females aged 50–67 years	≥ 90	80.7	80.1

(a) Performance objective for BreastScreen services as set out in the National Accreditation Standards (NQMC 2004).

*Source:* AIHW analysis of BreastScreen Australia data.

Participation in the BreastScreen Australia program varied significantly across geographic regions. In 2004–2005, the age-standardised participation rates were lower than the national rate (56.2%) for females in the target age group in Major Cities (54.7%) and Very Remote areas (45.9%). The Inner Regional, Outer Regional and Remote areas had rates statistically significantly higher than the national rate (58.0%, 59.5% and 57.8%, respectively). The higher participation rates in Remote areas may reflect the use of mobile BreastScreen services in these areas.

In 2004–2005, females aged 50–69 years in the most socioeconomically disadvantaged areas had a 54.6% participation in BreastScreen Australia, significantly below the national average of 56.2%. Between the years 2000–2001 and 2004–2005 there were significant increases in participation for females in the two most socioeconomically advantaged areas (Figure 7.2), rising from 54.6% for both groups in 2000–2001 to 56.7% for the most advantaged group and to 56.9% for the second most advantaged in 2004–2005.



*Notes*

1. Rates are the number of females screened as a percentage of the eligible female population calculated as the average of the Australian Bureau of Statistics Estimated Resident Population and age-standardised to the Australian population at 30 June 2001.
2. Periods cover 1 January 1999 to 31 December 2000, 1 January 2002 to 31 December 2003 and 1 January 2004 to 31 December 2005.
3. Areas across Australia are put into five roughly equal groups according to their level of socioeconomic disadvantage.

Source: AIHW analysis of BreastScreen Australia data.

**Figure 7.2: Participation of females aged 50–69 years in BreastScreen Australia, 2000–2001, 2002–2003 and 2004–2005**

## National Cervical Screening Program

Cervical screening in Australia was standardised under the National Cervical Screening Program from 1995 (Box 7.3). The proportion of females in the target age group who were screened under the national program in a 2-year period changed little between the periods 1996–1997 and 2004–2005 (Table 7.3). There was a steady decline in participation among females aged under 40 years from 1998–1999 to 2004–2005 but improvement for older females in the 55–69 year age group. For example, participation fell from 68.7% in 1998–99 to 62.9% in 2004–05 for females aged 30–34 years but increased from 46.5% to 49.7% during the same period for females aged 65–69 years (Table 7.4).

### Box 7.3: National Cervical Screening Program

Screening to detect abnormalities of the cervix has been available for Australian females since the 1960s. However, until the early 1990s this screening was unstandardised, with no national agreement on the screening target group or the best interval between screens. Since then it has become progressively more organised and in 1995 the program became known as the National Cervical Screening Program. The major goals of the program are to reduce the incidence and mortality of cervical cancer in females. Cervical screening through Pap tests detects abnormalities of the cervix at an early stage and medical intervention can avert the possible progression to cervical cancer.

Unlike breast screening, cervical screening in Australia does not operate through a separate dedicated screening and assessment service. Instead, screening services are provided as part of mainstream health services, with the great majority of Pap tests performed by general practitioners. Females may claim Medicare rebates for their Pap tests and any subsequent diagnostic follow-up services.

The National Cervical Screening Program has both national and state and territory components. Although policy is usually decided at a national level, coordination of screening activity mainly happens at a state and territory level.

Cervical cytology registries operate in all states and territories. The major functions of the registries are to:

- remind females to attend for screening
- ensure the follow-up of females with abnormal Pap tests
- provide cervical screening histories to laboratories and clinicians to aid reporting and management
- monitor the effects of initiatives to improve participation by females in screening.

The Australian recommendation is for all females who have been sexually active at any stage in their lives to have a Pap test every 2 years until they reach the age of 70 years. Cervical screening is a matter for decision by females, in consultation with their medical practitioners, regardless of the age of the female. Screening may cease at the age of 70 for females who have had two normal Pap tests within the previous 5 years. Females over 70 years who have never had a Pap test or who request one are also screened. However, for reporting purposes the target group is taken to be all females aged 20–69 years who have not had a hysterectomy.



**Table 7.3: Females screened by the National Cervical Screening Program, 2-year periods, 1996–1997 to 2004–2005**

Years of screening	Target population (ages 20–69)	Participation rate (%) <sup>(a)</sup>
1996–1997	2,563,107	61.0
1998–1999	2,716,364	63.4
2000–2001	3,262,931	61.0
2002–2003	3,318,354	60.7
2004–2005	3,407,219	61.0

(a) Participation rates are age-standardised to the Australian 2001 female population.

*Notes*

1. Periods cover 1 January 1996 to 31 December 1997 and 1 January 2004 to 31 December 2005.
2. Participation rates have been adjusted for the estimated proportion of females who have had a hysterectomy.
3. These data exclude females who have opted not to be on the register.
4. The Queensland Health Pap Smear registry began in February 1999, so the cervical screening data presented here for years before 1999 exclude Queensland.

Source: AIHW analysis of state and territory Cervical Cytology Registry data.

**Table 7.4: Participation of females aged 20–69 years in the National Cervical Screening Program, by age, 1996–1997 to 2004–2005**

	Age group										
	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64	65–69	20–69
	Per cent										
1996–1997	50.0	64.5	66.9	66.4	64.0	64.3	64.0	62.7	50.9	41.2	61.0
1998–1999	53.5	65.5	68.7	68.2	66.5	66.7	64.7	65.9	56.0	46.5	63.4
2000–2001	50.3	61.0	64.9	64.8	64.4	65.0	63.0	64.9	55.3	46.7	61.0
2002–2003	49.0	59.0	63.4	63.9	64.1	65.6	63.1	66.2	56.4	48.8	60.7
2004–2005	47.7	57.8	62.9	64.4	64.8	66.5	64.7	66.9	57.7	49.7	61.0

*Notes*

1. Age-standardised to the Australian 2001 female population.
2. Periods cover 1 January 1996 to 31 December 1997 and 1 January 2004 to 31 December 2005.
3. Participation rates have been adjusted for the estimated proportion of females who have had a hysterectomy.
4. These data exclude females who have opted not to be on the register.

Source: AIHW analysis of state and territory Cervical Cytology Registry data.

## National Bowel Cancer Screening Program

The current phase of the National Bowel Cancer Screening Program began in August 2006, following the success of the Bowel Cancer Screening Pilot Program which was conducted earlier (Box 7.4). The proportion of people responding to an invitation to participate in the National Program in the first 12 months was 31.8% for those aged 55 years and 38.0% for those aged 65 years. The overall crude participation rate was 34.2%. Overall participation of people invited to participate in the Pilot Program cannot be estimated because of the late start of the Pilot Program in Victoria; however, crude participation rates for the Queensland region of Mackay were 70.0% for rescreening of Pilot participants and 19.2% for Pilot invitees.

The participation rates presented in Table 7.5 represent an underestimate of the true screening participation rate. This is because the rates were calculated based on all invitations sent up to 31 July 2007, but only people who had received the invitation and had time to respond by that date were counted as participants. This underestimation does not affect comparisons of rates for different groups, but it does mean that the absolute levels of participation are understated.

#### **Box 7.4: National Bowel Cancer Screening Program**

The major goals of the National Bowel Cancer Screening Program are to reduce the incidence and mortality of bowel cancer through screening to detect abnormalities of the colon and rectum early. Early detection of non-cancerous abnormalities can prompt medical intervention that can avert the possible progression to bowel cancer. Where bowel cancer has developed, detection at an early stage makes treatment much more effective.

The first phase of the National Bowel Cancer Screening Program has three components:

- initial screening of people aged 55 or 65 years of age (referred to as the National Program)
- rescreening of those people who participated in the Bowel Cancer Screening Pilot Program (referred to as Pilot participants)
- screening of people who were invited to participate in the Bowel Cancer Screening Pilot Program but declined (referred to as Pilot invitees).

The program was phased in gradually to help ensure that health services, such as colonoscopy and treatment services, were able to meet any increased demand. The program began in Queensland on 7 August 2006 and was progressively rolled out to the remaining states and territories over a period of 7 months.

Unlike the breast or cervical screening programs, eligible people are personally invited to participate in the program. Invitation packs, including a faecal occult blood test (FOBT) kit, are sent directly to eligible people by Medicare Australia and participants are asked to post their completed FOBT to the program's pathology laboratory for analysis. Results of this analysis are sent to the participant, the participant's nominated general practitioner and the National Bowel Cancer Screening Register. Participants with a positive result, indicating blood in their faeces, are advised to consult their general practitioner to discuss further testing. In most cases this will be colonoscopy.

The program is coordinated at the national level by the Australian Government Department of Health and Ageing with assistance from the states and territories. The National Bowel Cancer Screening Register is maintained by Medicare Australia. The major functions of this register are to:

- invite eligible people to participate in the screening program
- ensure follow-up of people with positive FOBT results through the screening pathway
- provide monitoring data to aid reporting and management.

**Table 7.5: People responding to the invitation to participate in the National Bowel Cancer Screening Program, 7 August 2006 to 31 July 2007**

		Invitations	Participants	Rate (%)
Males	55 years	132,525	37,188	28.1
	65 years	86,816	31,207	35.9
	Total	219,341	68,395	31.2
Females	55 years	132,070	46,911	35.5
	65 years	84,742	33,956	40.1
	Total	216,812	80,867	37.3
Persons	55 years	264,595	84,099	31.8
	65 years	171,558	65,163	38.0
	<b>Total</b>	<b>436,153</b>	<b>149,262</b>	<b>34.2</b>

*Notes*

1. Participants in the program are defined as members of the eligible population who have been sent an invitation to screen and who have returned a participant details form and/or a completed FOBT kit.
2. Participation rates are people responding as a percentage of the total number of the eligible population who have been sent an invitation to screen.
3. Due to the staggered rollout of the program, some states have had less time to send out and receive responses to invitations to participate by 31 July 2007. Therefore, participation levels are underestimated.

Source: AIHW analysis of National Bowel Cancer Screening Register data.

## Immunisation services

This section provides information on childhood and adult vaccinations in 2006–07, with a discussion of incentives that encourage Australians to have vaccinations (Box 7.5). Further information on immunisation services is presented in Chapter 4.

### Box 7.5: National Immunisation Program Schedule

The National Health and Medical Research Council—with expert advice from the Australian Technical Advisory Group on Immunisation—recommends a range of vaccinations for all children, older persons and others (including Indigenous Australians) who are medically at higher risk from vaccine-preventable diseases. For the diseases listed on the National Immunisation Program Schedule, free vaccines are funded by the Australian Government, and distribution and administration are the responsibility of the states and territories.

#### ***Incentives to vaccinate***

The Australian Government provides support to medical practitioners, parents and carers for providing immunisation services. A number of incentives aim at helping Australia reach and maintain national vaccination targets:

- The General Practice Immunisation Incentives scheme, which has three components:
  - a service incentive payment paid to a practitioner who notifies the Australian Childhood Immunisation Register (ACIR) of an immunisation that completes a child's vaccination schedule

(continued)

- an outcomes payment for practices that achieve 90% or greater proportions of full immunisation for the children attending the practice
- infrastructure funding, which provides funds to Divisions of General Practice, State-Based [general practice] Organisations, and funding for a national immunisation coordinator, to improve the proportion of children immunised.
- The Medicare Benefits Schedule includes an item for practice nurses to immunise on behalf of a GP. The item covers the administration of all vaccines on the National Immunisation Program Schedule.
- The Maternity Immunisation Allowance for parents and carers, payable in relation to children from 18 months of age when all their age-specific immunisations have been recorded on the ACIR (or there is documented conscientious objection or medical contraindication). Up-to-date vaccination (or the same exemptions) is also a prerequisite for receiving reimbursements under the Child Care Benefit arrangements.

## Childhood vaccinations

The National Immunisation Program Schedule in 2006–07 covered children's vaccinations for diphtheria, tetanus, pertussis (whooping cough), polio, measles, mumps, rubella, *Haemophilus influenzae* type b (Hib), meningococcal type C disease, varicella (chickenpox), pneumococcal disease, hepatitis B, rotavirus and, for females aged 12 years and over, human papillomavirus (HPV). Additionally, for Aboriginal and Torres Strait Islander children living in high-risk areas, hepatitis A is covered.

In 2006–07, nearly 3.7 million immunisations were delivered to children nationally (Table 7.6). The vast majority of these were done in general practice, which was the dominant provider in the six states and the Australian Capital Territory (Table 7.6). In the Northern Territory most vaccinations were administered through community health centres, and in Victoria nearly half were through local government councils.

**Table 7.6: Childhood vaccinations by state and territory, 2006–07**

Provider type	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust <sup>(a)</sup>
General practice	940,229	528,876	675,433	215,650	180,666	65,738	30,698	1,968	2,639,258
Local government council	46,102	400,437	52,862	17,449	64,488	6,508	0	0	587,846
Community health centre	81,743	3,159	57,742	61,397	19,875	475	23,760	51,598	299,841
Hospital	14,140	8,242	25,750	18,729	1,294	155	245	6,200	74,950
Aboriginal health service or worker	5,712	1,589	9,034	3,380	1,825	0	36	7,353	28,929
State/territory health department	0	0	68	25,859	333	0	17	109	26,386
Other	238	20	2,149	0	128	0	0	0	2,535
<b>Total</b>	<b>1,088,164</b>	<b>942,323</b>	<b>823,038</b>	<b>342,464</b>	<b>268,609</b>	<b>72,876</b>	<b>54,756</b>	<b>67,228</b>	<b>3,659,745</b>

(a) Includes Cocos/Keeling Island, Christmas Island, Norfolk Island and unknown; therefore rows do not add to the 'Australia' column.

Source: Medicare Australia unpublished data.

## Adult vaccinations

For adults, influenza and pneumococcal vaccines are available free to all Australians aged 65 years and over, to Indigenous Australians aged 50 years and over, and to medically at-risk younger Indigenous Australians.

For those in the main target group who were vaccinated in 2006, over 98% received their influenza vaccination from a general practitioner (GP) or other doctor. However, for those aged under 65 years who were vaccinated, about four-fifths received their vaccination from a GP and 15% received it from someone at their place of work.

## 7.2 Primary care and community health services

### General practitioner and other non-specialist services funded by Medicare

Seeing a doctor is a very common health-related action in Australia: the 2004–05 National Health Survey indicates that, over any 2-week period, almost one in four Australians visited a doctor (ABS 2006). Further, administrative data from Medicare—Australia's universal health insurance system (Box 7.6)—suggest that around 85% of the population see a doctor at least once in a year (Medicare Australia 2005). Medicare provides funding for general practitioner services (this section), specialist services (see Section 7.4) and other services (such as optometry and practice nurse services). The information in this section uses both Medicare data and data from the Bettering the Evaluation and Care of Health (BEACH) survey of general practice activity.

Medicare data provide an overview of the use of general practitioner (GP) and other non-specialist services funded through Medicare, including services provided outside hospitals as well as medical services for private patients in public and private hospitals.

Medicare provided benefits for 114.1 million non-specialist services during 2006–07, representing an increase of 3.7% over the 110.1 million services the previous year. Some of this increase in numbers can be attributed to population growth but it also represents an overall 1.6% increase in the number of GP and non-specialist items per person (DoHA 2007a).

Medicare use has increased over recent years across the broad types of non-specialist services. *Other allied health* and *Practice nurse* Medicare services had the largest percentage increases in items per person (145% and 15% respectively) between 2004–05 and 2006–07, largely attributable to new items. In 2006–07, an average 5.4 non-specialist services per Australian were provided under Medicare. These services included 4.9 *Non-referred medical attendances* per person (that is, GP services, emergency attendances after hours, other prolonged attendances, group therapy, and acupuncture), 0.3 *Optometry* items per person and 0.2 *Practice nurse* items per person (Table 7.7).

## Box 7.6: Medicare and Medicare benefits

Australia's universal health insurance scheme came into operation on 1 February 1984. Administered by Medicare Australia (formerly the Health Insurance Commission), the scheme provides for free or subsidised treatment by medical practitioners, participating optometrists, services delivered by a practice nurse on behalf of a general practitioner (GP), certain diagnostic and therapeutic procedures and, for certain services, eligible dentists and allied health practitioners. All Australian residents are eligible for Medicare. Short-term visitors are not eligible unless they are covered by a reciprocal health-care agreement and the services are of immediate medical necessity. The majority of Australian taxpayers contribute to the cost of Medicare through a Medicare levy, which is 1.5% of taxable income. Individuals and families on higher incomes may have to pay a 1% surcharge in addition to the Medicare levy if they do not have private hospital insurance.

Medicare has established a schedule of fees for medical services provided by private practitioners. The payments—known as 'benefits'—that Medicare contributes for those services are based on those fees. Practitioners are not obliged to adhere to the schedule fees, except in the case of participating optometrists and when bulk-billing. However, if they direct-bill (bulk-bill) Medicare Australia for any service rather than issuing a patient with an account, the amount then payable is the Medicare benefit; additional charges cannot be raised for the service and the patient pays nothing for it.

For private patients who are admitted to hospitals or day-hospital facilities, the Medicare benefit is 75% of the schedule fee. For non-hospital services, Medicare pays up to 100% of the schedule fee for GP consultations and up to 85% for services provided by medical specialists. The patient is responsible for the gap between the benefit paid and the schedule fee, up to a maximum of \$65.20 (from 1 November 2007), indexed annually. Patients are also responsible for payments of amounts charged above the schedule fee.

Further measures take into account situations where, despite normal Medicare benefits, the costs over time for a patient or family may still become a burden. First, for out-of-hospital services the maximum amount of gap payable by a family group or an individual in any one calendar year is \$365.70 (from 1 January 2008), indexed annually. Thereafter, patients are reimbursed 100% of the schedule fee unless the service was billed at less than the schedule fee. Second, under the extended safety net, Medicare will meet 80% of the out-of-pocket costs (that is, the difference between the fees charged by the doctor and the Medicare benefits paid) for out-of-hospital medical services, once an annual threshold is reached (\$529.30 for families in receipt of Family Tax Benefit Part A and for concession card holders, or \$1,058.70 for all other individuals and families). In addition, for medical expenditure in certain categories (including Medicare payable items), a 20% rebate on net medical expenses over \$1,500 can be claimed through the income tax system.

Another component of Medicare—sometimes termed 'hospital Medicare'—provides for free public hospital care for all Australian residents, either as an admitted patient, outpatient or emergency department patients. Doctors appointed by the hospitals provide medical care for such 'public' patients at no cost to the patient. Patients who choose to be treated in private hospitals, or as private patients in public hospitals, are liable for hospital accommodation and other charges, and for a portion of the medical fees charged by private practitioners.

*(continued)*

## Medicare statistics

Medicare data provide information on the use of private medical services, which include services provided outside hospitals as well as medical services for private patients in public and private hospitals. The scheme covers a range of different services, from a single doctor consultation to multiple pathology tests for a single patient episode, each of which is counted as a separate item. Consequently, it is not possible to directly compare different types of services based on the number of Medicare items. Also for this reason, the terms 'items' or 'items of service' are generally used when referring to Medicare services.

The count of items is subject to changes in bundling and unbundling of services, so the count is not always completely comparable between years. Further, the scope of coverage has changed over time; in particular, new items have been introduced in the past few years to cover things such as:

- practice nurses providing services on behalf of a GP
- selected mental health services including those provided by registered psychologists, clinical psychologists, occupational therapists and social workers
- selected allied health practitioner services for people with complex conditions that are being managed by a medical practitioner under an Enhanced Primary Care multidisciplinary care plan.

In 2006–07 Medicare provided:

- benefits for 257.9 million services (9.1% higher than in 2005–06)
- a total of \$11.7 billion in benefits
- an average of 12.3 services per Australian. There was considerable variability in the number of services. For example, 3.2% of the population received 51 or more services each (accounting for 24.0% of total benefits paid) and around a third of the population received 1–5 services per person, accounting for 6% of the total benefits (DoHA 2007a).

**Table 7.7: Medicare items processed for GP and other non-specialist services, 2004–05 to 2006–07**

Broad type of service	Items per person			Average annual change (%)	Items in 2006–07		
	2004–05	2005–06	2006–07		Number ('000)	Proportion of total (%)	Benefits paid (\$ million)
Non-referred medical attendances <sup>(a)</sup>	4.83	4.91	4.93	1.0	103,433	90.6	4,029.6
Practice nurse	0.13	0.16	0.17	14.8	3,664	3.2	38.9
Optometry	0.25	0.26	0.26	1.9	5,473	4.8	239.8
Other allied health	0.01	0.03	0.07	144.8	1,554	1.4	97.5
<b>Total non-specialist items<sup>(b)</sup></b>	<b>5.22</b>	<b>5.35</b>	<b>5.43</b>	<b>2.0</b>	<b>114,124</b>	<b>100.0</b>	<b>4,405.8</b>

(a) Includes GP attendances, emergency attendances, attendances after hours, other prolonged attendances, group therapy and acupuncture.

(b) Excludes dental services covered by Medicare.

Source: Medicare Australia 2007.

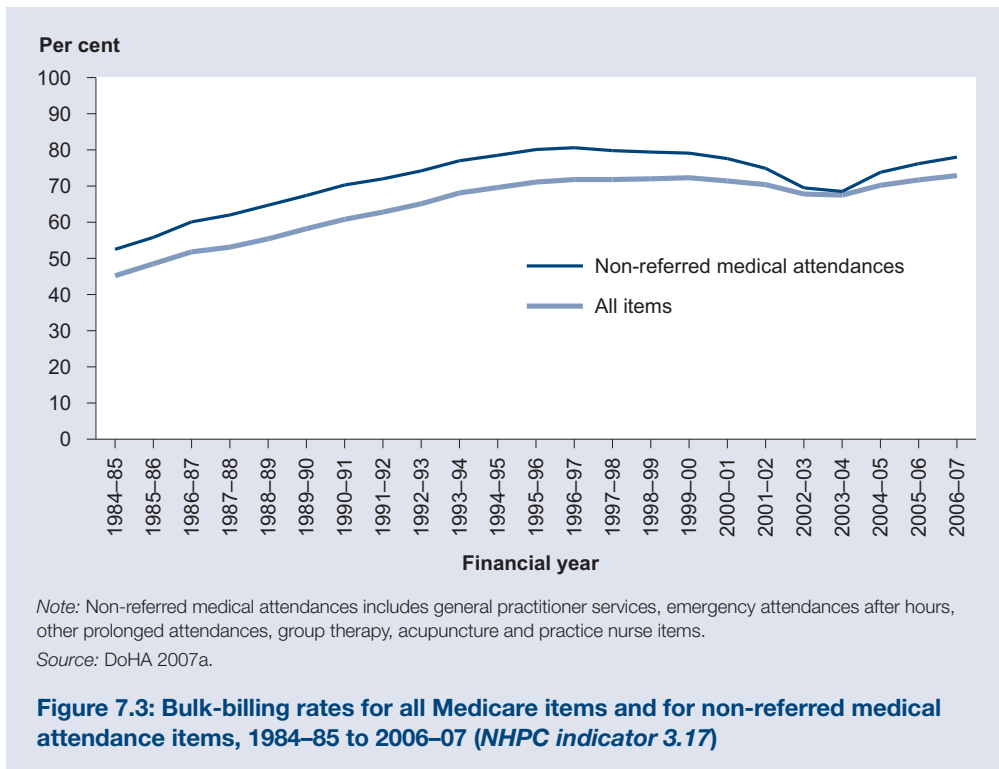
## Benefits paid

In 2006–07, a total of \$4,406 million was paid in Medicare benefits for non-specialist services, accounting for 38% of total Medicare benefits paid. The vast majority of these were paid for the 103 million *Non-referred medical attendances* (91% of non-specialist benefits or \$4,030 million). A further \$239.8 million (5%) was paid for 5.5 million *Optometry* items and \$97.5 million (2%) for 1.6 million *Other allied health* items (Table 7.7).

## Bulk-billing by GPs (NHPC indicator 3.17)

Bulk-billing rates act as a barometer of the affordability of medical care: when a service is bulk-billed, the provider directly bills Medicare Australia the amount payable under the Medicare Benefits Schedule, so there is no out-of-pocket expense for the patient. Cost is then not an obstacle to receiving care.

Bulk-billing rates for *Non-referred medical attendances* (including *Practice nurses*) increased from 52.5% in 1984–85 to a high of 80.6% in 1996–97, fell to 68.5% in 2003–04, and rose to 78.0% in 2006–07. The trend in bulk-billing for *Non-referred medical attendances* followed a similar pattern to overall service bulk-billing throughout this period. Bulk-billing rates across all items increased from 45.2% in 1984–85 to 72.3% in 1999–00, decreased to 67.5% in 2003–04, and rose to 72.9% in 2006–07 (Figure 7.3).



## Geographic variation

There are variations in the use of non-specialist Medicare services among the states and territories. In 2006–07, the highest number of non-specialist services per person was recorded in New South Wales with 5.9 services, followed by South Australia (5.6) and Victoria (5.4). The Northern Territory recorded the lowest per person use of medical



services with 2.9 (Table S39). However, this is partly offset by primary health services being provided to Aboriginal and Torres Strait Islander peoples through Medicare, in particular community controlled health-care services.

## General practice activity

An insight into GP activity and practice patterns since 1998 can be derived from data from the BEACH program, a continuous study of general practice activity in Australia. BEACH describes patient problems seen in general practice and how GPs manage them. This section provides an overview of results from the ninth year of the BEACH program, and describes some changes in practice patterns from 1998–99 to 2006–07. It also includes some Medicare Benefits Schedule (MBS) and other Department of Health and Ageing data on NHPC indicators for general practice services provided to particular population groups and for specific health problems.

### Box 7.7: The BEACH survey of general practice activity

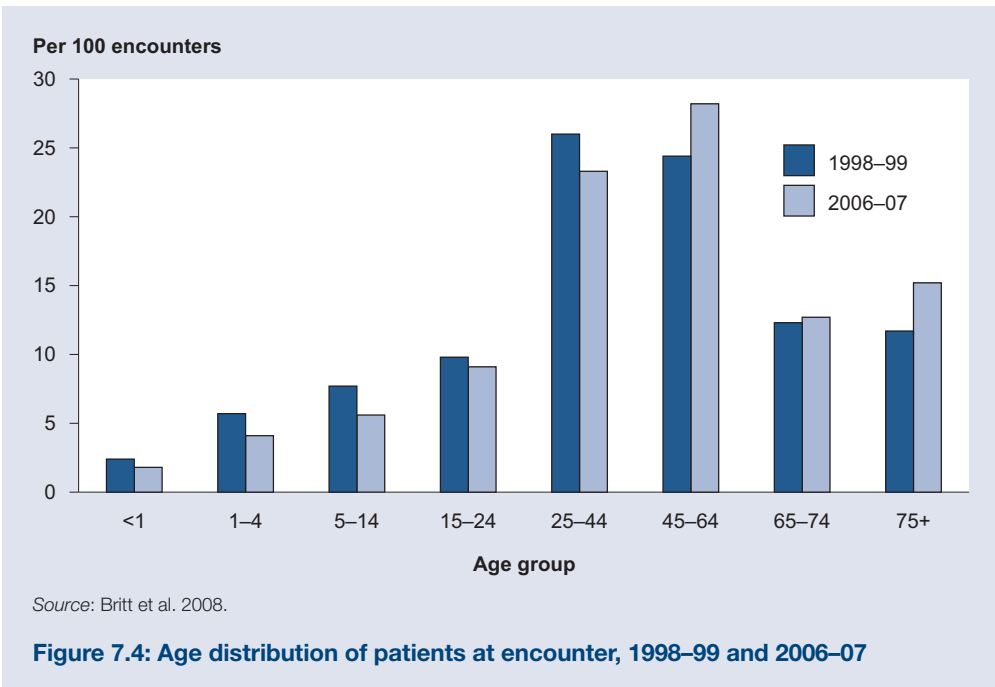
The BEACH survey (Bettering the Evaluation and Care of Health) is run by the Australian General Practice Statistics and Classification Centre (an AIHW collaborating unit within the Family Medicine Research Centre, University of Sydney). BEACH began in April 1998 and each year about 1,000 GPs from a random sample participate, providing details of about 100,000 GP–patient encounters which represent more than one hundred million such encounters across the country each year. No information identifying patients is collected.

GPs who claimed at least 375 general practice Medicare items of service in the previous 3 months form the source population. This equates with 1,500 Medicare claims a year and ensures inclusion of the majority of part-time GPs while excluding those who are not in private practice but may claim for a few consultations a year. Participating GPs each complete details on about 100 consecutive patient encounters on structured forms and provide information about themselves and their practice. Questions about selected patient health risk factors and health states are asked of sub-samples of patients.

From April 2006 to March 2007, 930 GPs provided details for 93,000 patient encounters. After weighting for an under-representation of young GPs, there were 91,805 encounters on which the following results are based.

## Who accounts for most general practice work?

The workloads of GPs are changing in terms of the patients with whom they spend most time. Between 1998–99 and 2006–07, encounters with patients aged 45–64 years increased from 24.4% to 28.2% of total encounters recorded. The proportion of patients 75 years and over also increased, from 11.7% to 15.2%. There was a decrease in the proportion of younger patients. Specifically, encounters with patients aged under 1 year fell from 2.4% to 1.8% of all encounters, those with patients aged 1–4 years fell from 5.7% to 4.1%, and those with 5–14 year olds fell from 7.7% to 5.6%. There was also a significant decrease in the proportion of patients aged 25–44 years (from 26.0% in 1998–99 to 23.3% in 2006–07) (Figure 7.4). There has been a slight but significant trend towards an increase in the proportion of encounters that were with males, although females still accounted for 56% of all GP encounters in 2006–07.



### Why do people see a general practitioner?

For every 100 GP-patient encounters, patients presented with an average of 151 reasons for their encounters (RFEs) in 2006-07. The RFEs are the patients' reasons for seeing the doctor, as stated or implied by the patient to the GP. Almost half the patient RFEs were descriptions of symptoms or complaints, about 20% were described in terms of a known diagnosis (for example, 'about my diabetes'), and the balance were requests or need for a service of some type (such as referrals, tests and administrative procedures). About half the RFEs related to the respiratory, musculoskeletal, skin, circulatory or digestive systems.

A request for a partial or full check-up was the most common RFE (14.6 per 100 encounters), followed by the need for medication or repeat prescriptions (11.8) and attendance to receive test results (6.9). Frequent symptoms presented included cough, throat complaints, back complaints, rash and abdominal pain. The fifth most common RFE was a need for immunisation or vaccination (Table 7.8).

Between 1998-99 and 2006-07, the rate at which patients present to GPs citing a need to get test results doubled, and requests for prescriptions rose 40%. The rate at which patients gave reasons associated with symptoms such as abdominal pain, headache and ear pain fell by 15-20% over these years.

**Table 7.8 : GP consultations: 20 most frequent patient reasons for encounter, 2006–07**

Patient reason for encounter	Per cent of total RFEs	Per 100 encounters
Check-up	9.7	14.6
Prescription	7.8	11.8
Test results	4.6	6.9
Cough	3.8	5.8
Immunisation/vaccination	2.9	4.3
Throat complaint	2.2	3.3
Back complaint	2.1	3.2
Rash	1.9	2.8
Upper respiratory tract infection	1.6	2.4
Hypertension/high blood pressure	1.4	2.1
Depression	1.3	1.9
Fever	1.2	1.8
Abdominal pain	1.2	1.8
Administrative procedure	1.1	1.6
Headache	1.0	1.6
Skin complaint	0.9	1.4
Ear pain	0.9	1.4
Weakness/tiredness	0.9	1.4
Diarrhoea	0.9	1.3
Knee complaint	0.8	1.3

Source: Britt et al. 2008.

## What problems do GPs manage?

GPs managed an average 1.5 problems at each patient encounter in 2006–07. The number of problems managed increased with age from 118 per 100 encounters among babies (under 1 year) to more than 170 with the elderly (75 years and over).

Problems related to the respiratory system, the skin, the cardiovascular system and the musculoskeletal system together accounted for about 60% of all problems managed. The 20 problems most frequently managed accounted for 43.3% of all problems managed, the most common being hypertension (high blood pressure: 9.6 per 100 encounters), check-ups (6.6), upper respiratory tract infection (5.8), immunisation/vaccination (4.7) and diabetes, arthritis and depression (each at 3.7) (Table 7.9). One in every five problems remained undiagnosed at the end of the consultation, the GP describing the problem in terms of a symptom or complaint.

Over a third of the problems managed were chronic (persisting over a long period). At least one chronic problem was managed at 40% of all encounters and they were managed at an average rate of 52 per 100 encounters.

The chronic problems managed most often by GPs were hypertension, diabetes, depressive disorder, lipid (cholesterol-related) disorders, osteoarthritis, oesophageal disease and asthma. Together these seven accounted for more than half of all the chronic problems managed and 20% of all the problems managed.

**Table 7.9: GP consultations: 20 problems most often managed, 2006–07**

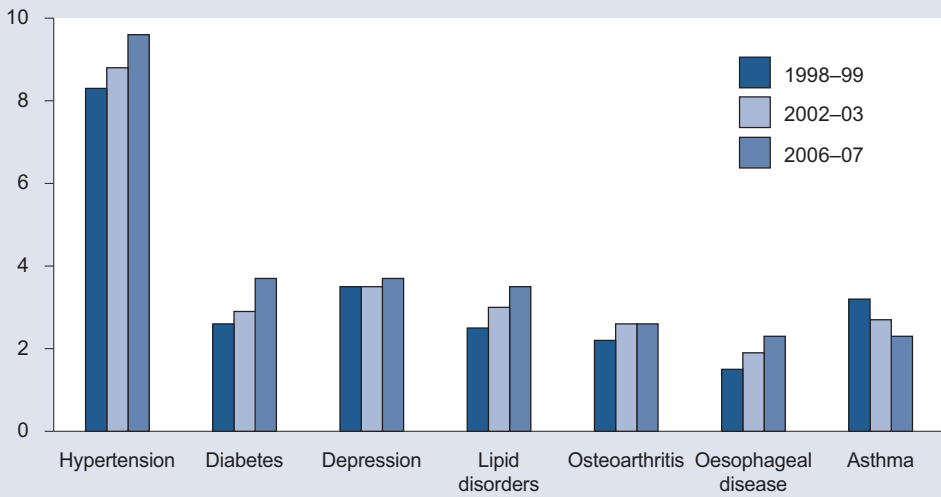
<b>Problem managed</b>	<b>Per cent of total problems</b>	<b>Per 100 encounters</b>
Hypertension	6.4	9.6
Check-up	4.4	6.6
Upper respiratory tract infection	3.9	5.8
Immunisation/vaccination	3.2	4.7
Arthritis	2.5	3.7
Diabetes	2.5	3.7
Depression	2.5	3.7
Lipid disorders	2.3	3.5
Back complaint	1.8	2.6
Oesophageal disease	1.5	2.3
Asthma	1.5	2.3
Acute bronchitis/bronchiolitis	1.5	2.2
Prescription	1.5	2.2
Contact dermatitis	1.3	1.9
Anxiety	1.2	1.7
Gastroenteritis	1.1	1.7
Urinary tract infection	1.1	1.6
Sleep disturbance	1.1	1.6
Test results	1.0	1.6
Sprain/strain	1.0	1.5

Source: Britt et al. 2008.

Between 1998–99 and 2006–07, there were statistically significant increases in the management rates of some problems including hypertension, diabetes, lipid disorders and oesophageal disease; and a marginal increase in the management rate of osteoarthritis (Figure 7.5). Over the same period there was a statistically significant decrease in the management rate of asthma and no significant change in the management rate of depression.

Some acute problems are being managed less often than they were previously. Acute problems less frequently managed in 2006–07 than in 1998–99 include upper respiratory tract infections, acute bronchitis, otitis media, tonsillitis and allergic rhinitis (Figure 7.6).

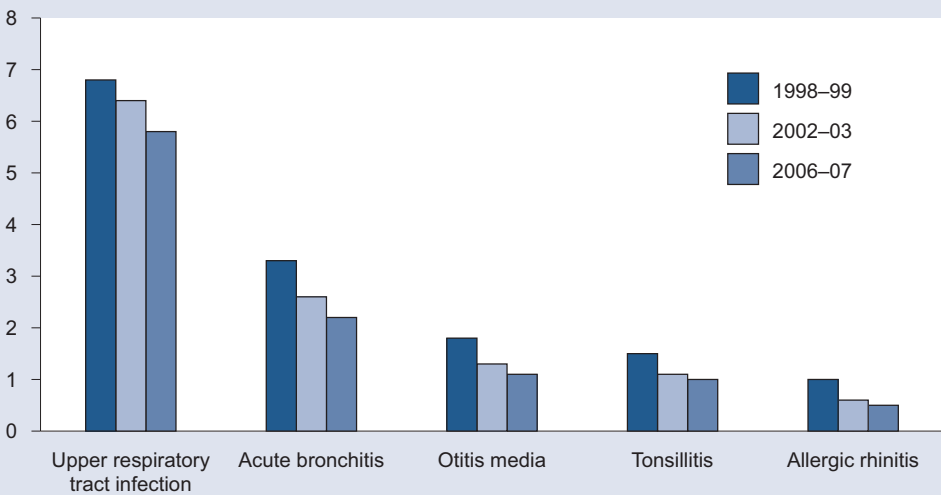
## Per 100 encounters



Source: Britt et al. 2008.

**Figure 7.5: Changes in management rate of selected chronic problems, 1998-99 to 2006-07**

## Per 100 encounters



Source: Britt et al. 2008.

**Figure 7.6: Decreases in management rate of selected acute problems, 1998-99 to 2006-07**

## How do GPs manage the problems?

GPs have a range of management techniques available to them including use of medications by prescription, direct supply (of some vaccines and product samples), or advice for purchase over-the-counter (OTC); providing advice and counselling; undertaking procedures; referring to other services; and conducting or ordering investigations. At the 91,805 encounters recorded in the 2006–07 sample, GPs undertook 193,591 management activities in total—211 per 100 encounters and 142 per 100 problems managed. For 15% of problems managed, there were no specific management actions recorded.

The most common management form was medication (prescribed, GP-supplied, or advised). For an 'average' 100 GP–patient encounters, GPs provided 83 prescriptions, 30 clinical treatments, undertook 15 procedures, made 8 referrals to specialists and 3 to allied health services, and placed 42 pathology test orders and 9 imaging test orders (Table 7.10).

**Table 7.10: GP consultations: management activities, 2006–07**

Management type	Number per 100 encounters	Number per 100 problems
Medications	101.5	68.4
Prescribed	83.3	56.1
GP-supplied	8.9	6.0
Advised OTC	9.4	6.3
Other treatments	44.7	30.1
Clinical (advice/counsel)	29.5	19.9
Procedures	15.2	10.2
Referrals	12.2	8.2
Specialist	8.0	5.4
Allied health	3.1	2.1
Hospital	0.4	0.3
Emergency department	0.2	0.1
Other medical services	0.1	0.1
Other referral	0.4	0.3
Pathology	42.4	28.6
Imaging	9.0	6.0
Other investigations	1.1	0.7
<b>Total management activities</b>	<b>210.9</b>	<b>142.0</b>

Source: Britt et al. 2008.

There were 102 medications recorded per 100 encounters, or 68 per 100 problems managed. The vast majority of these (82.1%) were prescribed, one in ten was advised for OTC purchase and 8% were supplied to the patient by the GP. Medications were prescribed at a rate of 83 per 100 encounters or 56 per 100 problems managed, at least one being prescribed for 47% of problems managed.

There was a significant decrease in the rate of prescribed medications, from 94 per 100 encounters in 1998–99 to 83 in 2006–07.

The use of clinical treatments in managing problems rose from 31 per 100 encounters in 1998–99 to 39 per 100 in 2004–05. However, it then fell sharply to 29 per 100 in 2005–06 and remained at that level in 2006–07. This probably reflects recent increasing reliance on practice nurses to undertake some of these clinical activities independently of the GP–patient consultations, and the introduction of MBS items for practice nurse services.

GPs are undertaking more procedures, with numbers increasing from 12 per 100 encounters in 1998–99 to 15 in 2006–07. They are also referring their patients more often (from 11 per 100 encounters in 1998–99 to 12 in 2006–07). This reflects significant increases in referrals to specialists (from 7 to 8 per 100 encounters), with no change in the referral rate to allied health professionals.

Between 2000–01 and 2006–07, the rate of pathology test ordering increased by 40%, from 30 orders per 100 encounters to 42. There was also a smaller but significant increase in the rate of imaging tests ordered, from 8 per 100 encounters in 2000–01 to 9 in 2006–07.

### **Appropriate use of antibiotics (*NHPC indicator 3.10*)**

This section presents information on the management of upper respiratory tract infections (URTIs) with antibiotics. URTIs without complications are most often caused by viruses. Antibiotics have no effectiveness in treating viral infections, but are still frequently prescribed. Overuse of antibiotics increases antibiotic resistance in the general population. A decline in the prescribing rate of antibiotics for URTI may be an indication of more appropriate management of viral infections.

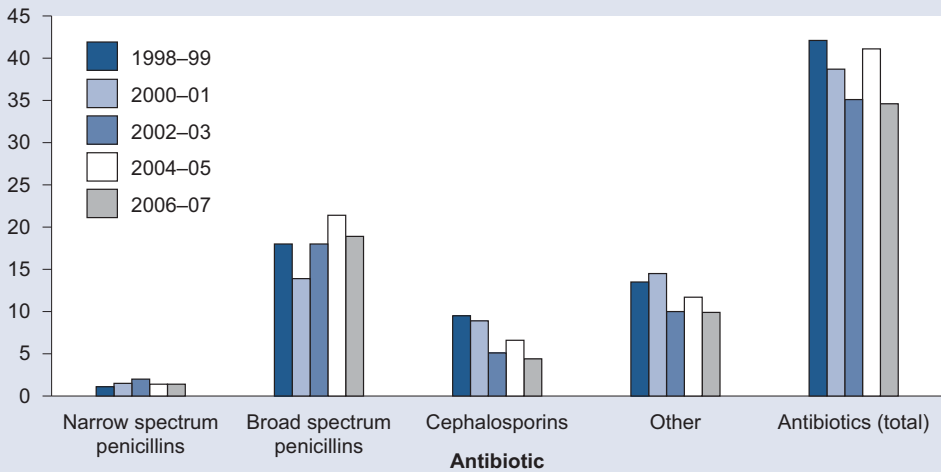
Prescriptions written by GPs in the BEACH survey were used as the data for this indicator (Britt et al. 2008). Data from the Pharmaceutical Benefits Scheme were not used for this indicator because they do not include information on diagnosis or on medications that fall below the subsidy threshold, or are provided through private prescriptions. It should be noted that GP prescribing numbers are somewhat higher than the prescriptions actually filled by pharmacists.

In 2006–07, URTI was the third most frequently managed problem in Australian general practice, at a rate of 5.8 per 100 encounters. This has decreased significantly since 1998–99 (6.8 per 100 encounters) (Britt et al. 2008). URTI was the second most common problem for which antibiotics were prescribed or supplied in 2006–07 (13.2%) after acute bronchitis/bronchiolitis (14.0%) (unpublished BEACH data).

The rate at which antibiotics (all types) were prescribed or supplied for URTI fluctuated during the period 1998–99 to 2006–07, and was 42.1 per 100 URTI problems in 1998–99 and 34.6 in 2006–07 (Figure 7.7). There was a statistically significant decline for both cephalosporins and ‘other’ antibiotics (which include tetracyclines and macrolides). The rate of prescription and supply of cephalosporins halved from 9.5 per 100 URTI problems in 1998–99 to 4.4 in 2006–07 and the corresponding rate for ‘other’ antibiotics decreased from 13.5 to 9.9.

The rate of prescription or supply of broad spectrum penicillins has fluctuated over the years but was no different in 2006–07 than in 1998–99. A slight increase in the prescription and supply rate of narrow spectrum penicillins did not reach statistical significance.

## Per 100 encounters



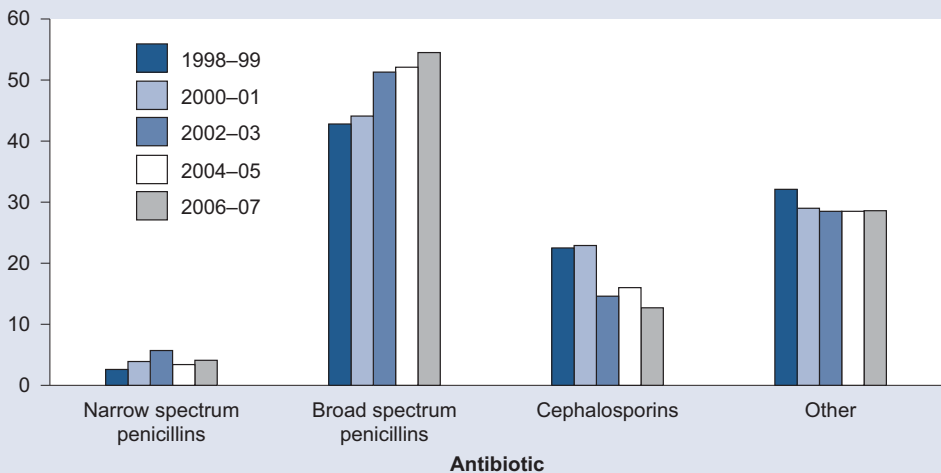
Note: Year refers to BEACH data year, which runs from April to March.

Source: Britt et al. 2008.

**Figure 7.7: Prescribing rates of antibiotics for URTIs, 1998-99 to 2006-07**

Examining the relative prescription and supply of specific groups of antibiotics as a percentage of all antibiotics prescribed and supplied for URTIs, shows that cephalosporins are taking up a much smaller proportion of the whole in 2006-07 (12.7%) than in 1998-99 (24.1%). Although the rate of 'other' antibiotic prescription and supply decreased overall, its proportion of total antibiotics did not significantly change between 1998-99 and 2006-07. However, broad spectrum penicillins, as a proportion of all antibiotics for URTI, increased from 42.8% in 1998-99 to 54.5% in 2006-07 (Figure 7.8).

## Per 100 encounters



Note: Year refers to BEACH data year, which runs from April to March.

Source: Britt et al. 2008.

**Figure 7.8: Percentage of antibiotics prescribed for URTIs, 1998-99 to 2006-07**



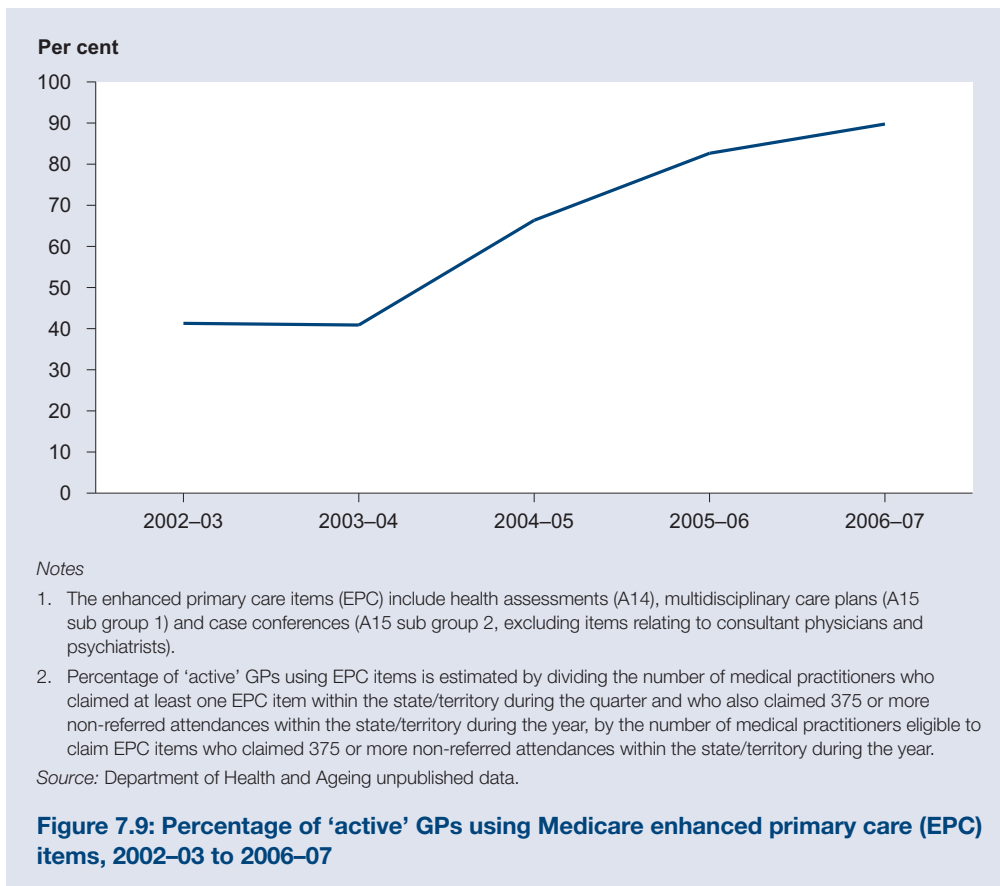
In summary, there has been a decrease in the prescription and supply of antibiotics for the management of URIs in Australian general practice, representing a 17% reduction since 1998–99. This change is most apparent in a 50% decrease in the prescription and supply of cephalosporins.

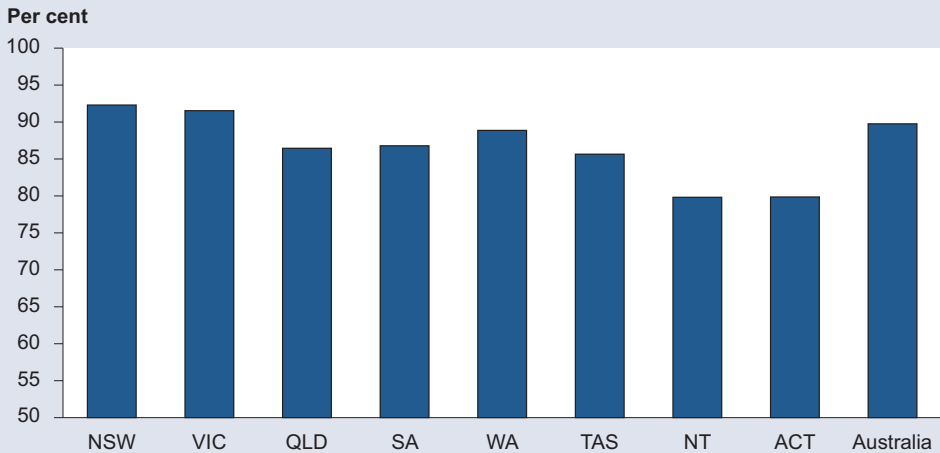
### Enhanced primary care services (NHPC indicator 3.22)

The enhanced primary care (EPC) Medicare items provide the framework for a multidisciplinary approach to health care through a more flexible, efficient and responsive match between care recipients' needs and services. The EPC items support annual voluntary health assessments for older Australians, and care planning and case conferencing services for people of any age with chronic conditions and complex care needs. The percentage of 'active' GPs who use EPC items in the MBS is a measure of the extent of GP involvement in continuity and coordination of care.

The uptake of Medicare EPC items by GPs increased markedly from 41% in 2002–03 to 90% in 2006–07 (Figure 7.9). There were 7,153, 'active' GPs who used at least one Medicare EPC item in 2002–03, compared with 16,594 in 2006–07.

At 92%, the uptake for 2006–07 was highest in New South Wales and Victoria (Figure 7.10). Other jurisdictions were close to the national average (90%) except the Northern Territory and the Australian Capital Territory, where the uptake was lower at 80%.





Notes

1. The enhanced primary care items (EPC) include health assessments (A14), multidisciplinary care plans (A15 sub group 1) and case conferences (A15 sub group 2, excluding items relating to consultant physicians and psychiatrists).
2. Percentage of 'active' GPs using EPC items is estimated by dividing the number of medical practitioners who claimed at least one EPC item within the state/territory during the quarter and who also claimed 375 or more non-referred attendances within the state/territory during the year, by the number of medical practitioners eligible to claim EPC items who claimed 375 or more non-referred attendances within the state/territory during the year.

Source: Department of Health and Ageing unpublished data.

**Figure 7.10: Percentage of 'active' GPs using Medicare enhanced primary care (EPC) items, by state and territory, 2006–07**

### Health assessments by general practitioners (*NHPC indicator 3.23*)

This indicator is derived from Medicare Benefits Schedule data for older Australians not in residential aged care who have received an EPC annual voluntary health assessment.

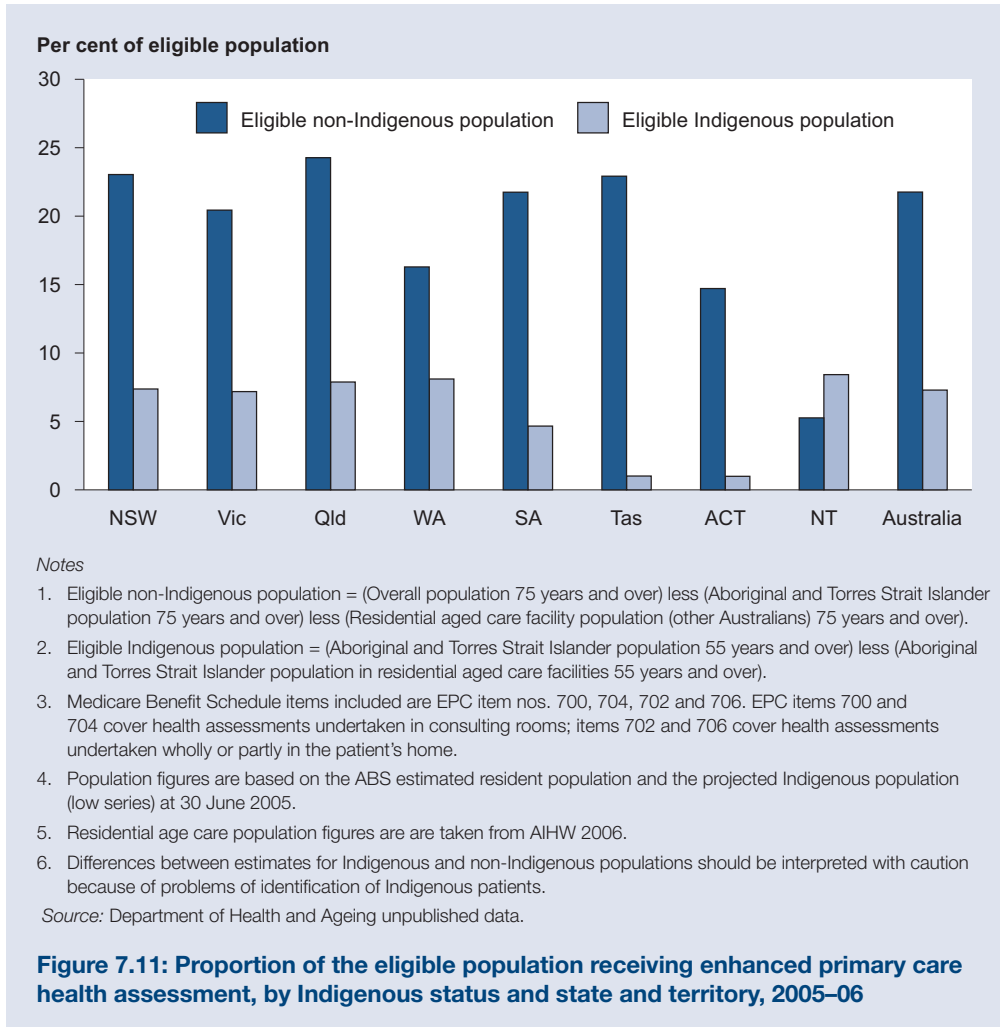
In 2005–06, 21% of the eligible non-Indigenous Australian population received a voluntary health assessment, compared with 7% in the eligible Aboriginal and Torres Strait Islander population. Differences between estimates for Indigenous and non-Indigenous populations should be interpreted with caution, because of problems of identification of Indigenous patients.

#### Box 7.8: Annual voluntary health assessments

Medicare Benefits Schedule (MBS) items for annual voluntary health assessments for older Australians were introduced in November 1999. These assessments provide an opportunity for a GP to undertake an in-depth assessment of the patient's health. Health assessments cover the patient's medical, physical, psychological and social function. These assessments enable timely preventive and treatment actions to enhance the health of the patient.

The eligible population is defined in terms of specific age ranges for both the non-Indigenous Australian population (ages 75 years and over) and for Aboriginal and Torres Strait Islander peoples (ages 55 years and over). The lower age range for Aboriginal and Torres Strait Islander peoples recognises that they face increased health risks at a much earlier age than most other groups in the population, and broadly reflects the difference in average life expectancy for the two population groups.

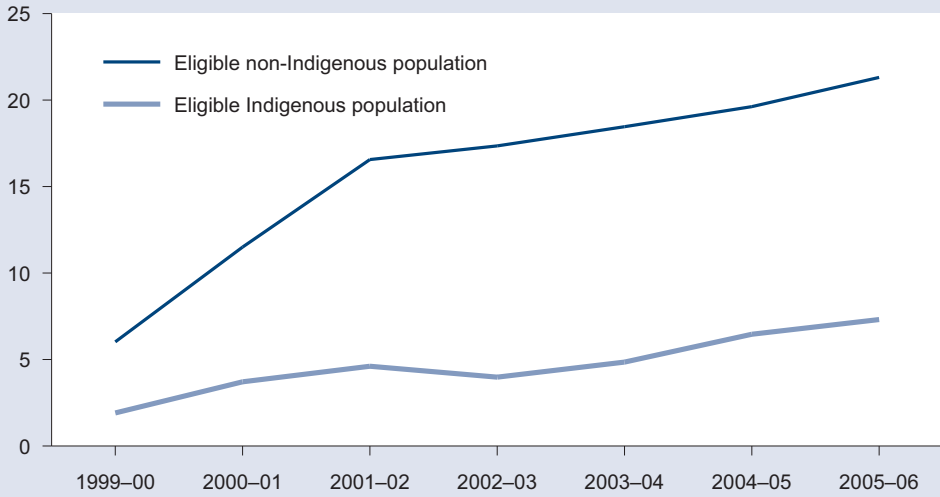
The proportion receiving annual health assessments showed a large variation across states and territories (Figure 7.11). For the non-Indigenous Australian population in 2005–06, it varied from 5% in the Northern Territory to 24% in Queensland. For the Aboriginal and Torres Strait Islander population, it varied from 1% in Tasmania and the Australian Capital Territory to 8% in Queensland, Western Australia and the Northern Territory.



Between 1999–00 and 2005–06, the proportion of people within the eligible population who received an annual voluntary health assessment increased from 6% to 22% for the non-Indigenous population, and from 2% to 7% for Aboriginal and Torres Strait Islander peoples (Figure 7.12).

The proportion of eligible Aboriginal and Torres Strait Islander peoples receiving an EPC annual health assessment in the Northern Territory was higher than that for the non-Indigenous population in 2005–06. In every other state and territory, the proportion of the eligible population receiving an EPC annual health assessment was higher among the non-Indigenous population than the Indigenous population.

### Per cent of eligible population



#### Notes

1. Eligible non-Indigenous population = (Overall population 75 years and over) less (Aboriginal and Torres Strait Islander population 75 years and over) less (Residential aged care facility population (other Australians) 75 years and over).
2. Eligible Indigenous population = (Aboriginal and Torres Strait Islander population 55 years and over) less (Aboriginal and Torres Strait Islander population in residential aged care facilities 55 years and over).
3. Medicare Benefits Schedule items included are EPC item nos. 700, 704, 702 and 706. EPC items 700 and 704 cover health assessments undertaken in consulting rooms; items 702 and 706 cover health assessments undertaken wholly or partly in the patient's home.
4. Population figures are based on the ABS estimated resident population and the projected Indigenous population (low series). The population at the start of the reporting period was used for each year.
5. Residential aged care population numbers are taken from *Residential aged care in Australia: a statistical overview* (1999-00 to 2004-05).
6. Differences between estimates for Indigenous and non-Indigenous populations should be interpreted with caution because of problems of identification of Indigenous patients. A voluntary Indigenous identifier was introduced on Medicare Australia records in November 2002.

Source: Department of Health and Ageing unpublished data.

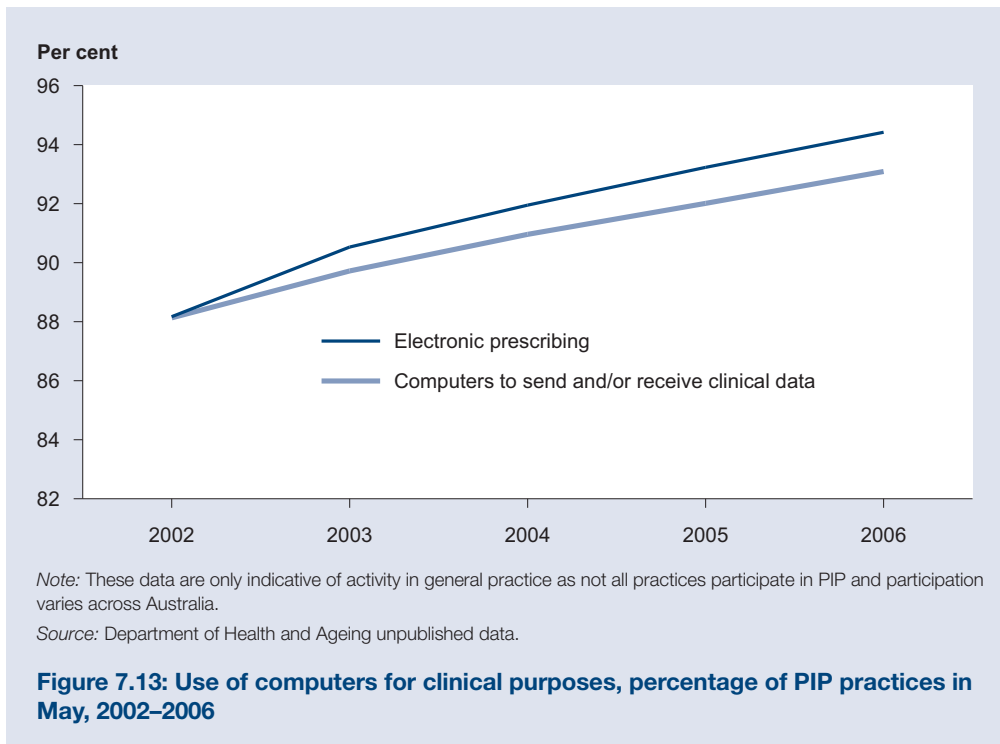
**Figure 7.12: Rate of enhanced primary care health assessment by Indigenous status, 1999-00 to 2005-06**

## Electronic prescribing and clinical data in general practice (NHPC indicator 3.20)

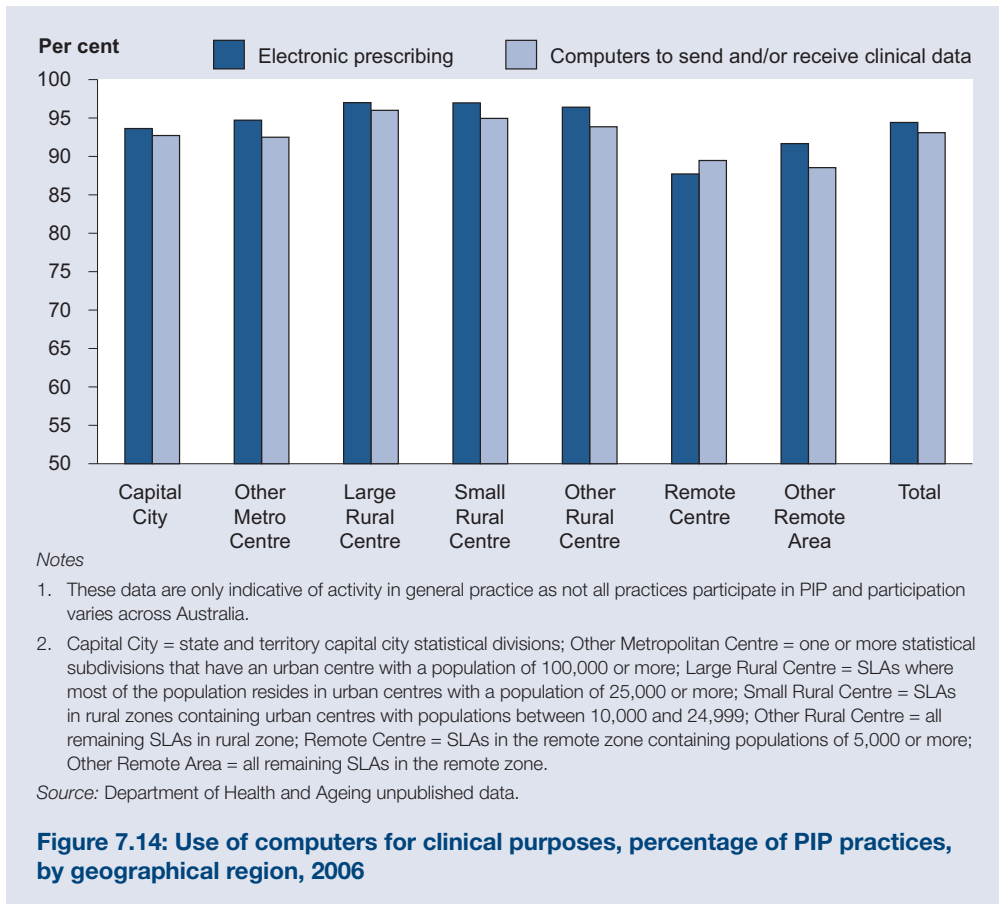
The use of software to generate prescriptions electronically improves safety by reducing errors of prescribing and dispensing and adverse drug reactions. Electronic transfer of clinical information improves practice efficiency by providing access to timely and reliable clinical data, and by improved maintenance of health records for patients.

The Practice Incentive Program (PIP) provides financial incentives for aspects of general practice (such as electronic prescribing) that contribute to quality care and better patient outcomes. In 2005–06, PIP practices covered 80% of all patient care provided by GPs in Australia, measured in terms of standardised whole patient equivalents.

In May 2006, there were a total of 4,745 practices participating in PIP. Most PIP practices used electronic prescribing (94%) and transferred clinical data electronically (93%) (Figure 7.13). Between 2002 and 2006, the use of computers increased from 88% to 94% for electronic prescribing, and from 88% to 93% for sending and receiving clinical data.



Use of computers for electronic prescribing was highest in rural areas (96 to 97% of PIP practices) and lowest in remote areas (88 to 92%). Use of computers for sending and/or receiving clinical data showed a similar pattern (Figure 7.14).



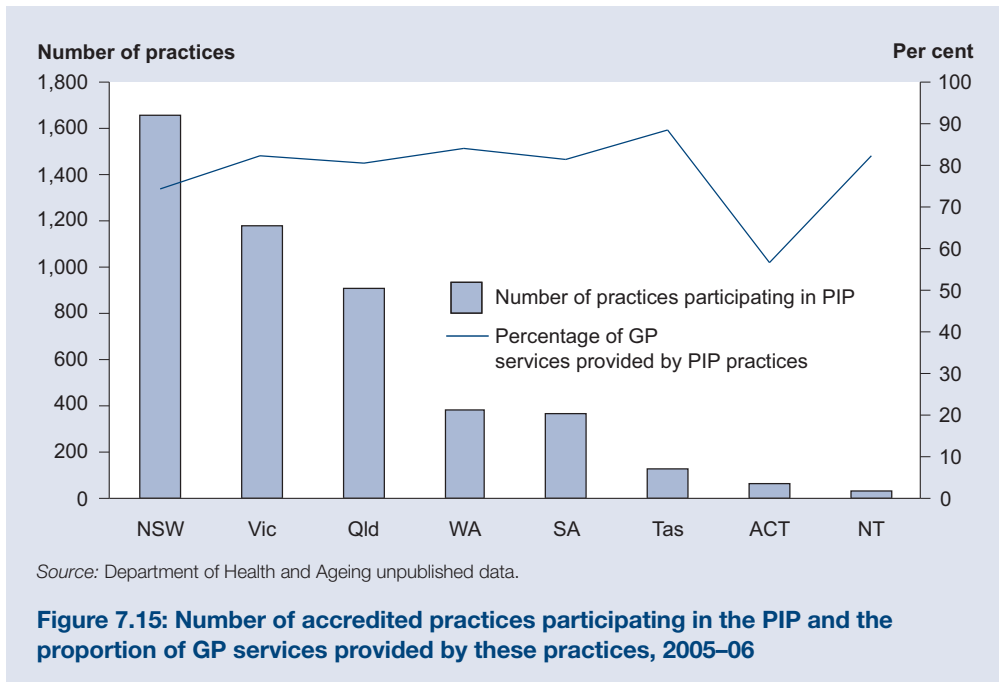
### Accreditation in general practice (NHPC indicator 3.24)

Accreditation of general practice is an indicator of the quality of health care delivered by GPs through a process of continuous quality improvement. It is a voluntary process of peer review that involves the assessment of general practices against standards developed by the Royal Australian College of General Practitioners.

Practices can gain accreditation through either Australian General Practice Accreditation Limited or GPA Accreditation Plus. This means that practices have shown that they complied with various criteria against a set of national standards.

A measure of the provision of quality health care through general practice is the proportion of total practices that are accredited in Australia. Due to data availability constraints, an alternative measure is presented here—the proportion of total GP services that are provided by practices participating in the Practice Incentives Program (PIP). Since practices must be accredited or registered for accreditation to join the PIP, data from this program are broadly representative of the number of accredited practices.

In May 2006, there were 4,745 practices participating in the PIP. PIP practices provided 85.2 million GP services during 2005–06. The proportion of GP services provided by practices participating in the PIP was 80% for Australia in 2005–06 and exceeded 75% of the total number of GP services in each jurisdiction, with the exception of the Australian Capital Territory (Figure 7.15).



### Availability of GP services (NHPC Indicator 3.18)

GPs are often the first point of contact for health services. Their availability, therefore, reflects accessibility to health services, particularly to primary care.

During 2006–07, there were 25,564 non-specialist medical practitioners who had at least one Medicare item processed. This figure provides an estimate of the stock of GPs who bill Medicare but does not account for large variations in the number of services provided, and gives the same weight to full-time, part-time and casual GPs. A standardised measure is used to estimate the workforce supply of GPs. The full-time workload equivalent (FWE) adjusts for the partial contribution of casual and part-time GPs, and the contribution of GPs who work more than the average full-time doctor does. In 2006–07, there were 18,091 FWE GPs in Australia.

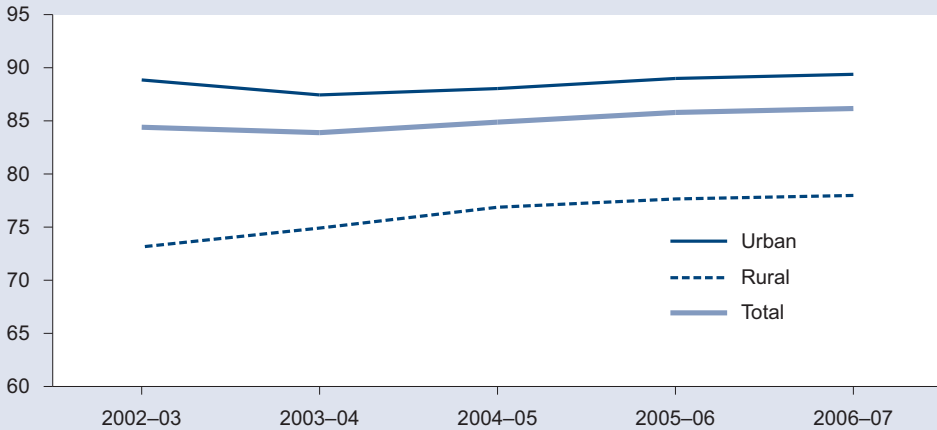
Between 2002–03 and 2006–07, the number of FWE GPs in Australia increased by 7.9% from 16,772 to 18,091. The increase in rural and remote areas was 12.5% and in urban areas it was 6.4%. Over the same period the number of FWE GPs per 100,000 population increased marginally for Australia overall, from 84 to 86 (Figure 7.16).

The distribution of GPs has become less uneven across the broad regions in recent years. Between 2002–03 and 2006–07 the number of FWE GPs per 100,000 increased from 73.1 to 78.0 in rural and remote regions, but for urban areas the increase was much less, from 88.9 to 89.4.

Female GPs made up 37.4% of GPs who had at least one Medicare claim processed in 2005–06, but only 27.1% of GP workload as measured by FWE (Figure 7.17). This reflects the high rate of part-time and casual workforce participation among female doctors.

Further information on the supply of primary care practitioners and their age and sex distribution is in Chapter 8.

**Number per 100,000**

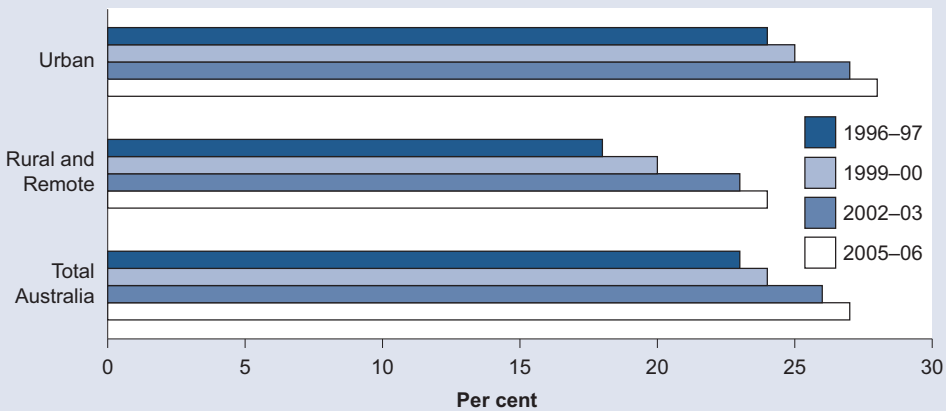


*Notes*

1. Refers to GPs and other medical practitioners for whom at least one Medicare service was processed during the year.
2. FWE is calculated by dividing each doctor's Medicare billing by the average billing of full-time doctors for the year. There is no cap on a doctor's FWE.
3. Location is based on the doctor's practice location at which most services were rendered at the last quarter within the reference period.
4. Urban areas consist of Capital City and Other Metropolitan Areas. Rural areas consist of Large Rural Centres, Small Rural Centres, Other Rural Areas, Remote Centres, Other Remote Areas and Other Areas.

Source: Australian Government Department of Health and Ageing unpublished data.

**Figure 7.16: FWE GPs per 100,000 population, by grouped RRMA, 2002-03 to 2006-07**



*Notes*

1. RRMA is Rural, Remote and Metropolitan Area.
2. Refers to GPs and other medical practitioners for whom at least one Medicare service was processed during the year.
3. FWE is calculated by dividing each doctor's Medicare billing by the average billing of full-time doctors for the year. There is no cap on a doctor's FWE.
4. Location is based on the doctor's practice location at which most services were rendered at the last quarter within the reference period.
5. Urban areas consist of capital city and other metropolitan areas. Rural areas consist of Large Rural Centres, Small Rural Centres, Other Rural Areas, Remote Centres, Other Remote Areas and Other Areas.

Source: Australian Government Department of Health and Ageing unpublished data.

**Figure 7.17: FWE GPs by grouped RRMA, per cent female, 1996-97 to 2005-06**



## Potentially preventable hospitalisations (*NHPC indicator 3.07*)

Rates of potentially preventable hospitalisations (PPH) measure the effectiveness, timeliness and adequacy of various types of care in preventing hospital admissions for particular conditions. Those types include population health, primary care, and outpatient services. A high rate of potentially preventable hospitalisation may indicate an increased prevalence of the conditions in the community, poorer functioning of the non-hospital care system or an appropriate use of the hospital system to respond to greater need. It is important to note that the reported PPHs are not comprehensive—there are other hospital admissions which may be preventable as well. Note also that the relevance of PPHs goes beyond primary care and community health-care services, but estimates are placed in this section for convenience of presentation.

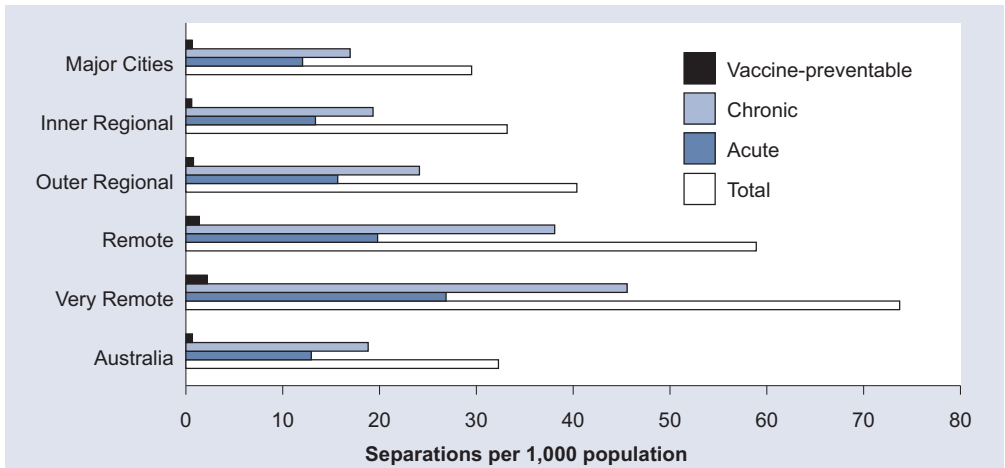
Three broad categories of PPHs are presented here—vaccine-preventable, chronic and acute. These categories have been sourced from the Victorian Ambulatory Care Sensitive Conditions study (DHS 2002).

There were over 676,000 hospital separations in 2005–06 that were identified as potentially preventable (AIHW 2007a). These included almost 14,000 separations for vaccine-preventable conditions (mainly influenza and pneumonia) and almost 266,000 separations for acute conditions (with the largest numbers for dental, dehydration/gastroenteritis, and kidney conditions). Chronic conditions accounted for over 400,000 separations, with diabetes complications (212,000) and chronic obstructive pulmonary disease (57,000) the conditions associated with the largest numbers of separations.

Separation rates for PPHs were highest in Very Remote regions, with rates almost 2.3 times the national average (Figure 7.18). Rates consistently dropped with decreased remoteness and were lowest in the Major Cities. Rates also varied between categories of socioeconomic status. Separation rates for PPHs in the most disadvantaged areas were 64% higher than those of the most advantaged areas (AIHW 2007a).

In a comparison between states and territories, rates for PPHs were lowest in the Australian Capital Territory and New South Wales (respectively, 32% and 13% below the national average) and highest in Western Australia and the Northern Territory (respectively, 46% and 48% higher than the national average). For the other states, the difference in rates from the national average was negligible (less than 1–2%)(AIHW 2007a).

There was little change in overall PPH rates during the 5-year period between 2001–02 and 2005–06 (Figure 7.19). There was little variation in vaccine-preventable rates (from 0.84 per 1,000 in 2001–02 down to 0.67 in 2005–06), and slight increases in the rates for both acute (up from 12.64 to 12.85) and chronic conditions (up from 17.35 to 18.62). Changes in the methods used over this period may affect the comparability of the data (Figure 7.19).

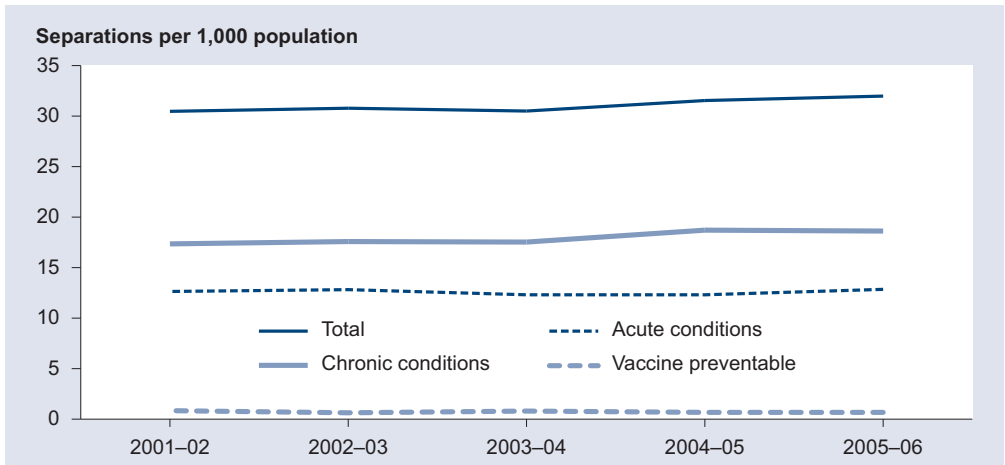


Notes

1. Separations for which the care type was reported as *Newborn* with no qualified days and records for *Hospital boarders* and *Posthumous organ procurement* have been excluded.
2. Separations per 1,000 population were age-standardised to the June 2001 Australian population.
3. Potentially preventable hospital separations—Vaccine-preventable conditions include influenza, bacterial pneumonia, tetanus, measles, mumps, rubella, pertussis and polio. Potentially preventable acute conditions include dental conditions, dehydration/gastroenteritis, ear, nose and throat infections, convulsions and epilepsy, cellulitis, kidney infections, pelvic inflammatory disease and appendicitis. Potentially preventable chronic conditions include diabetes complications, chronic obstructive pulmonary disease, angina, congestive heart failure, asthma, and iron deficiency anaemia.

Source: AIHW 2007a.

**Figure 7.18: Separation rates for potentially preventable hospitalisations by broad categories, by remoteness area of usual residence, 2005-06**



Notes

1. Separations for which the care type was reported as *Newborn* with no qualified days and records for *Hospital boarders* and *Posthumous organ procurement* have been excluded.
2. Separations per 1,000 population were age-standardised to the June 2001 Australian population.
3. See Figure 7.18 for list of conditions in each broad category.

Source: AIHW 2007a and earlier editions.

**Figure 7.19: Separation rates for potentially preventable hospitalisations by broad categories, 2001-02 to 2005-06**

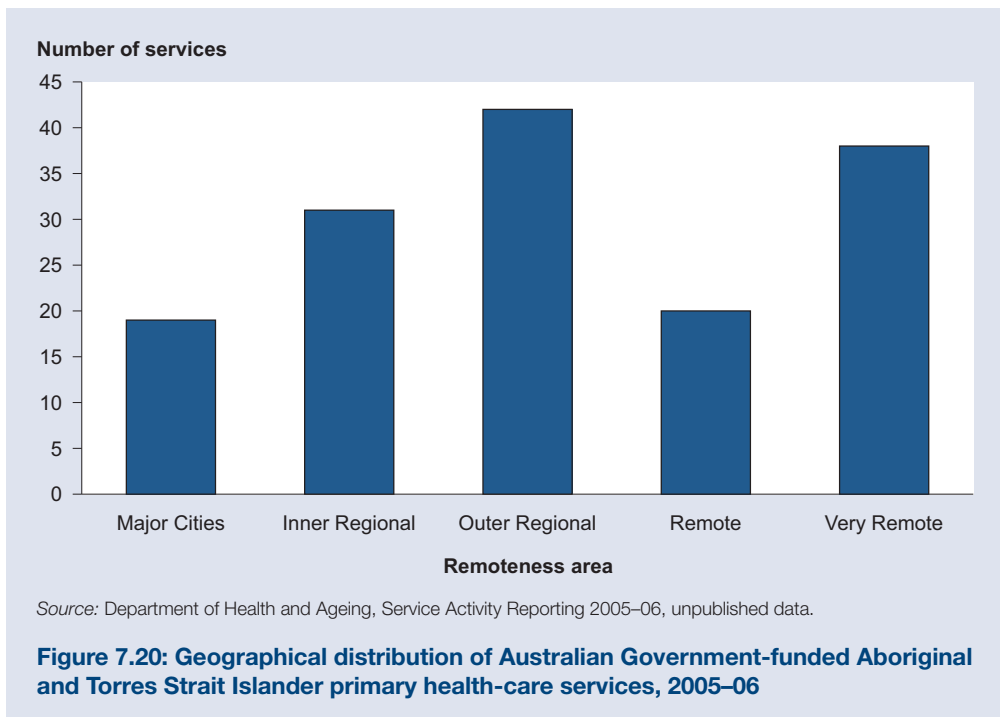
## Primary health-care services for Aboriginal and Torres Strait Islander peoples

Chapter 3 of this report provides data on the health status of Aboriginal and Torres Strait Islander peoples, their hospitalisation rates and their use of GPs. The statistics demonstrate that Indigenous Australians tend to use these mainstream services differently from the rest of the Australian population. Health expenditure data (Chapter 8) reinforce this point.

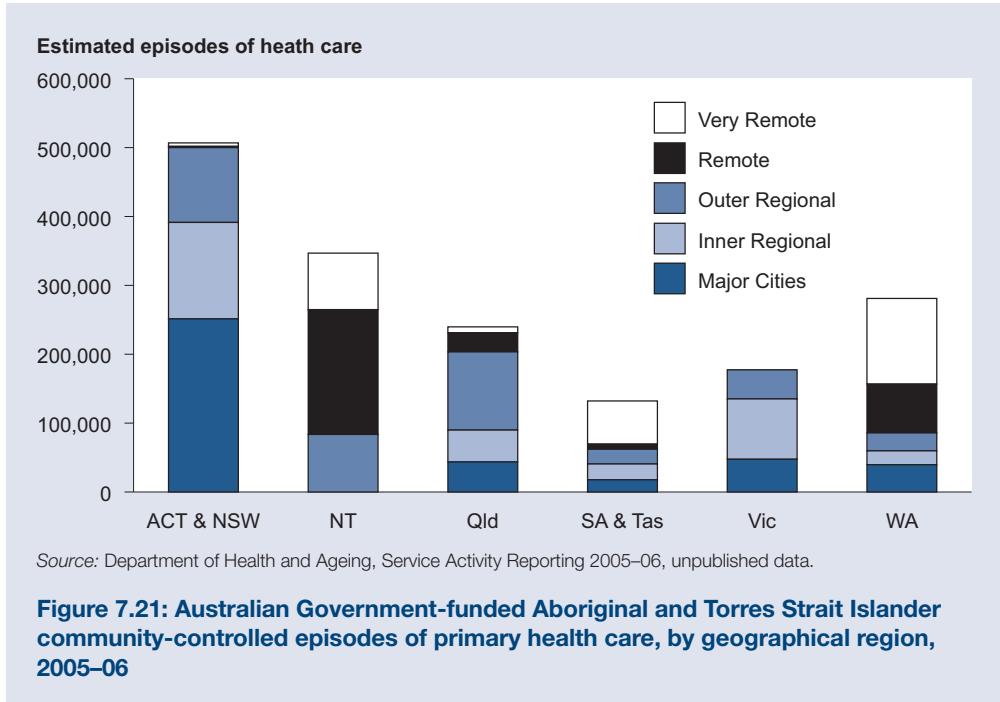
For geographic, social and cultural reasons, mainstream services are not always accessible to, or are the most appropriate provider of health care for, Indigenous Australians. Australian governments recognise this and, given the relatively poor health status of Aboriginal and Torres Strait Islander peoples, provide specific health-care services to meet their needs.

Indigenous-specific health services are important providers of comprehensive primary health care. These services have funding provided by the Australian Government, state and territory governments, or both. The state and territory governments provide community-based Indigenous primary health-care services. The Australian Government, through the Office for Aboriginal and Torres Strait Islander Health (OATSIH), provides funding for a range of Indigenous-specific community controlled primary health-care services.

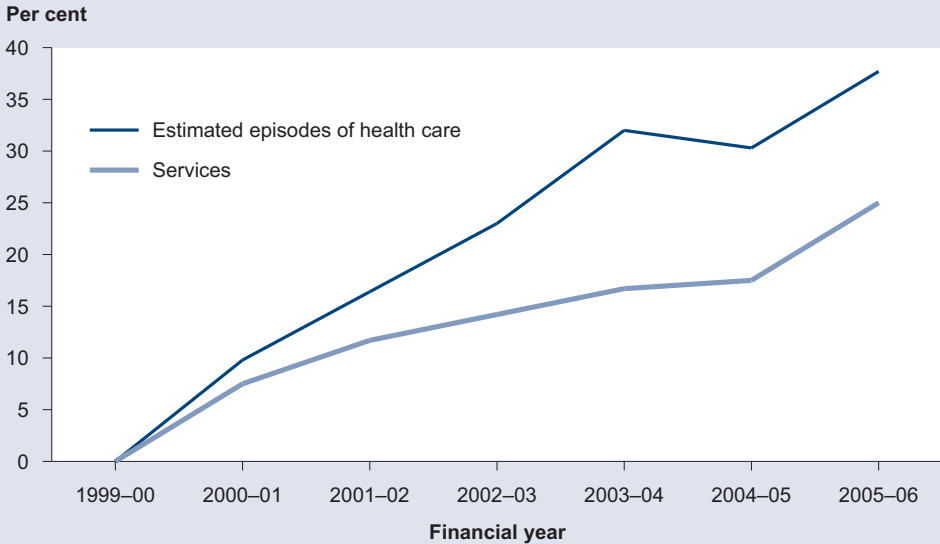
In 2005–06, OATSIH funded 151 services to provide or facilitate access to primary health care for Aboriginal and Torres Strait Islander peoples. Overall, 58 of these services (39%) were in Remote or Very Remote locations (Figure 7.20). These services offer many types of care, including management of acute and chronic health conditions, preventive health measures (such as immunisation and screening), health promotion activities, transport services and assistance in accessing other appropriate community and health services. A small number provide specific programs only, such as health promotion and counselling.



In 2005–06, an estimated 1.68 million episodes of health care were provided by Australian Government-funded Aboriginal and Torres Strait Islander primary health-care services. About 86% of these episodes of health care in 2005–06 were provided to Aboriginal and Torres Strait Islander clients. Total episodes of health care provided varied by state and territory and by remoteness. In 2005–06, the majority of episodes of health care reported for Western Australia, South Australia and the Northern Territory were provided in Remote and Very Remote areas of Australia, whereas for other jurisdictions the majority were provided in Major Cities, Inner Regional and Outer Regional areas (Figure 7.21).



There has been an increase in recent years in both the number of Aboriginal and Torres Strait Islander community-controlled primary health-care services and the episodes of health care provided. Over the period 1999–00 to 2005–06, there was around a 25% increase in the number of these services (from 120 to 151); and a 38% increase in the estimated episodes of health care provided to Indigenous and non-Indigenous clients (from 1.22 million to 1.68 million) (Figure 7.22).



Note: Includes data from all services which reported in any year over the period 1999-00 to 2005-06.

Source: Department of Health and Ageing, Service Activity Reporting, unpublished data.

**Figure 7.22: Cumulative changes to Aboriginal and Torres Strait Islander community-controlled primary health-care services, 1999-00 to 2005-06**

## Dental services

There are no national administrative data on the use of dental services. Although most dental services are provided by private dental practitioners, there are some public providers such as school dental programs (often delivered by dental therapists) and public dental clinics.

Medicare data provide some information on dental services, particularly services for cleft lip and cleft palette which are eligible for Medicare funding. In 2006-07, there were about 5,100 orthodontic episodes, 440 oral surgery episodes and 1,800 general orthodontic and prosthodontic services billed to Medicare. Since November 2007, Medicare has funded dental services to provide for people with chronic medical conditions and complex care needs. In 2006-07, 7,500 dental care services were provided under these arrangements, with benefits of around \$850,000 being paid through Medicare (Medicare Australia 2007).

State and territory governments provide public dental services of some kind to primary and secondary school children. Disadvantaged adults are also provided general dental services and some specialist services are provided to adult holders of concession cards issued by Centrelink (SCRGSP 2008).

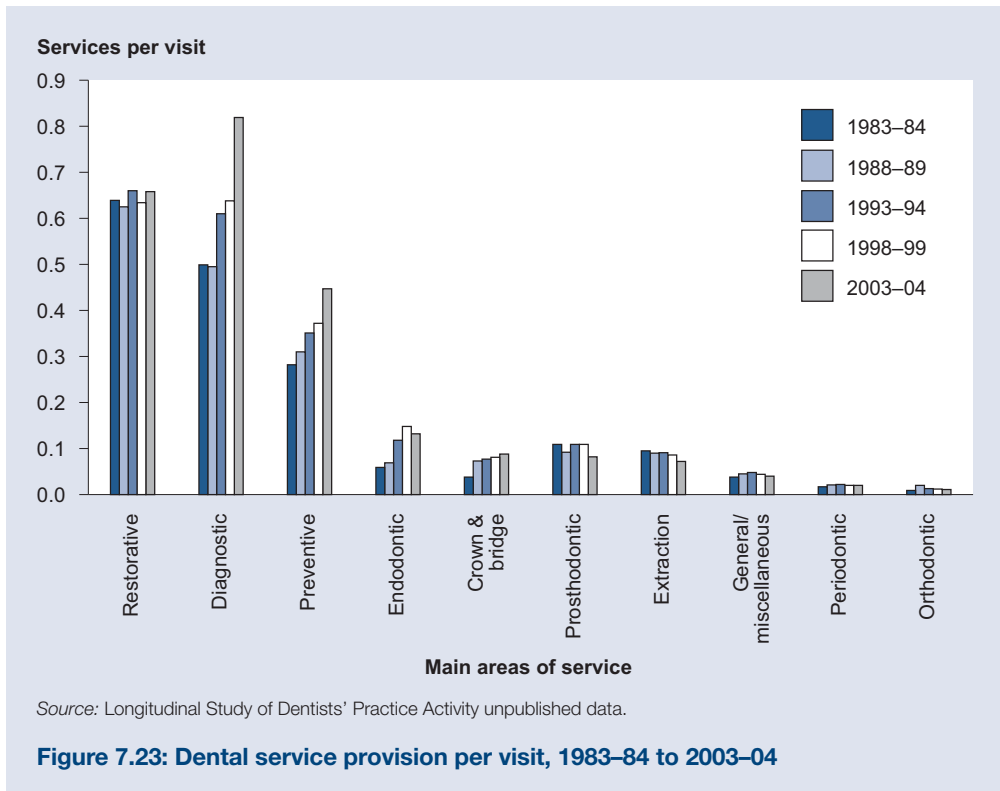
## Services provided at dental visits

As noted above, there are no national administrative data available on dental service provision, but the Longitudinal Study of Dentists' Practice Activity (based on a random sample of dentists in Australia) is a source of information on dental services provided by private practitioners. This survey collected data at 5-year intervals between 1983-84 and 2003-04. The scope of the survey is registered dentists across all areas of all states and

territories, with survey samples drawn from each state and territory dental register. The service data reported here were collected by dentists in service logs of typical clinical days. Dental care services provided by dental specialists and public dentists are not included.

Between 1983–84 and 2003–04, there was an increase in the average number of services per visit from 1.8 to 2.4. The rates of service provision per visit reflected increases in routine scheduled care such as diagnostic and preventive services, as well as interventions to maintain functional dentition such as endodontic (root canal) and crown and bridge services (Figure 7.23). Over that period, rates for prosthodontic (denture) and tooth extraction services declined, and periodontal (gum) services remained stable.

This observed shift towards diagnostic and preventive services reflects findings that, over time, there have been consistent decreases in tooth loss among the Australian population (Sanders et al. 2004), thereby increasing the pool of teeth potentially at risk of oral disease. At the same time, demographic trends point to increasing proportions of older adults in the population. These changes suggest a shift in dental practice towards treating adults who are increasingly retaining teeth into older age, often with complex treatment needs for maintaining their teeth and avoiding tooth loss.



## Allied health services

Allied health services are those services provided by licensed health professionals other than medical practitioners, such as pharmacists, physiotherapists, nurses, psychologists and dietitians. Note that the services described in this section may overlap with services described elsewhere in this chapter, because the allied health professionals may work in a range of settings such as hospitals and community health centres.

The 2004–05 National Health Survey asked respondents if they had consulted an allied health professional in the previous 2 weeks. The results suggested that in any 2-week period 1 in 10 Australians (2.0 million) consulted an allied health professional: 1 in 9 females (1.2 million) and 1 in 12 males (0.9 million). Four per cent of Australians (0.8 million) consulted a pharmacist, 2.1% (0.4 million) a physiotherapist/hydrotherapist, 1.2% (0.2 million) a nurse, and 0.9% (0.2 million) a chiropodist/podiatrist in any 2-week period (Table 7.11). Also, about 0.1 million people consulted an occupational therapist, speech therapist/pathologist, audiologist/audiometrist, Aboriginal health worker or alcohol and drug worker.

**Table 7.11: Persons ('000) consulting allied health professionals<sup>(a)</sup>, 2004–05**

Allied health professional	Age group					Total		
	0–14	15–24	25–44	45–64	65+	Males	Females	Persons
Accredited counsellor	17.2	*11.6	28.8	*16.4	**	26.5	48.3	74.8
Pharmacist	115.6	93.1	276.4	188.5	92.0	272.7	492.8	765.5
Chiropodist/podiatrist	*4.9	*10.9	*13.2	53.1	95.8	62.8	115.2	178.0
Dietitian/nutritionist	**	*14.4	31.6	228.0	*8.5	25.5	53.0	78.5
Nurse	83.6	*13.4	56.2	41.1	49.5	98.2	145.6	243.8
Optician/optometrist	*15.6	21.3	38.3	61.2	51.9	79.5	109.1	188.6
Physiotherapist/hydrotherapist	20.9	49.7	147.2	142.4	75.9	214.8	221.3	436.1
Psychologist	*13.8	24.8	40.9	28.0	*5.9	57.7	55.7	113.5
Social worker/welfare officer	*10.5	*10.1	27.4	*12.7	*8.2	35.2	33.7	68.9
Other <sup>(b)</sup>	59.2	*11.2	31.0	22.6	39.4	93.0	70.6	163.5
<b>Total<sup>(c)</sup></b>	<b>302.0</b>	<b>233.0</b>	<b>598.4</b>	<b>528.5</b>	<b>372.7</b>	<b>856.3</b>	<b>1,178.2</b>	<b>2,034.6</b>

\* Estimate has a relative standard error of 25% to 50% and should be used with caution.

\*\* Estimate has a relative standard error greater than 50% and is considered too unreliable for general use.

(a) Consultations in the 2 weeks before 2004–05 interview. Excludes consultations in/at hospitals or day clinics.

(b) Includes occupational therapist, speech therapist/pathologist, audiologist/audiometrist, Aboriginal health worker, and alcohol and drug worker.

(c) Totals will not necessarily be the sum of the rows, as some persons reported consultations with more than one type of professional.

Source: ABS unpublished data.

Medicare data can provide some information on use of private allied health services because, from 1 July 2004, Medicare rebates have been available for a maximum of five allied health services for eligible patients in a given year. Eligible patients are those with chronic conditions and complex care needs, provided that the treatment is part of a patient care plan drawn up by a GP. In 2006–07, about 930,000 allied health services were provided under these arrangements, with total benefits of around \$44.3 million being paid through Medicare (Medicare Australia 2007).

Medicare also covers the cost of visits to optometrists. In 2006–07, there were 5.5 million optometry services provided, with \$240 million in Medicare benefits being paid.

Most private health ancillary (or 'extras') insurance offers rebates for allied health services. In the quarter ending June 2007, there were benefits paid for about 1.86 million physiotherapy services, 1.45 million optical services, 504,000 chiropodist/podiatrist services, 90,000 speech therapy services and 88,000 psychologist/group therapy services (PHIAC 2007).

## Community health services

Government-funded community health services in each state and territory provide a diverse range of health services not described elsewhere in this chapter. They are either provided directly by governments (including local governments) or funded by government and managed by local health services or community organisations (SCRGSP 2008). Community health services usually consist of multidisciplinary teams of salaried health professions who aim at improving the health of particular communities (Quality Improvement Council 1998). Community services are delivered in a variety of settings, including specially built community health centres, local council buildings, schools and clients' homes.

Statistical information on these services is not as highly developed as that on other services (such as hospitals) and there is no nationally agreed basis for describing the nature of the services or for measuring the amounts of service provided. Therefore, a comprehensive national picture of community health services is not available. However, some information on the nature of the services follows (SCRGSP 2008).

In 2006–07, the Australian Government funded community health services that included:

- the Regional Health Services program, which provided funds to rural communities of up to 5,000 people to support primary health-care services
- Rural Primary Health Projects, which included the National Rural Primary Health Projects Program that provided funding for primary care initiatives targeting remote regions.

States and territories provide a variety of community health services, including:

- maternal and child community health services—these include antenatal and postnatal parenting support services, early childhood nursing programs, disease prevention programs and treatment programs relating to child development and health
- women's health services that provide services and health promotion programs for females across a range of health-related areas
- men's health programs, including mainly promotional and educational programs
- community rehabilitation programs, including case management, prosthetics services and equipment schemes, and home modification.

## Ambulance services and the Royal Flying Doctor Service

Ambulance services are provided by state and territory governments, except in Western Australia and the Northern Territory, which contract St John Ambulance Australia to provide the services.

The role of ambulance services generally includes providing emergency pre-hospital patient care and transport in response to sudden illness and injury, retrieving emergency patients, transporting patients between hospitals, conducting road accident rescues and coordinating patient services in multicase events. Some government ambulance services also provide first aid training courses, as do non-government providers such as St John Ambulance and the Red Cross.



In 2005–06, ambulance service organisations attended 2,719,000 incidents nationally, of which 1,057,000 (38.9%) were emergency incidents, 895,000 (32.9%) were non-emergency and a further 759,000 (27.9%) were urgent (SCRGSP 2008).

The numbers of incidents, responses and patients are interrelated: multiple responses/vehicles may be sent to a single incident, and there may be more than one patient per incident. There may also be responses to incidents that do not result in patients (that is, no one requires treatment). For every 100,000 Australians in 2006–07, there were 13,000 incidents, 15,000 responses and 13,000 patients. Between 2004–05 and 2005–06, there were increases of about 7% in all categories (SCRGSP 2008).

The Royal Flying Doctor Service (RFDS) provides aeromedical emergency health services, primary and community health care clinics at remote sites (for example, routine health checks and advice, immunisation, child health care, and dental, eye and ear clinics), telehealth consultations via radio, telephone or videoconference, pharmaceutical supplies at remote sites and transfers of patients between hospitals.

In 2006–07, there were 242,547 patient contacts with the RFDS. The service conducted 12,247 healthcare clinics, 75,439 telehealth services, and 35,089 aerial evacuations, including inter-hospital transfers. There were 47 aircraft used by the RFDS during 2006–07, which flew a total of 21.7 million kilometres. The RFDS had 21 bases (which house aircraft and provide health services), and six RFDS health facilities (which provide health services but do not house an aircraft)(RFDS 2007).

## Complementary and alternative health services

Australians have access to a range of services that either complement or are alternative to mainstream health-care services. The 2004–05 National Health Survey asked respondents whether they had consulted an ‘other health professional’ in the 2 weeks before the interview. Results suggest that in any 2-week period, 1 in 28 Australians (0.7 million) consulted a complementary or alternative health professional: 1 in 23 females (0.5 million) and 1 in 37 males (0.3 million) (Table 7.12). About 1 in every 47 Australians (0.4 million) consulted a chiropractor, 0.1 million a naturopath and about 0.2 million an acupuncturist, herbalist, hypnotherapist or osteopath.

**Table 7.12: Persons reporting consultations with complementary and alternative health professionals<sup>(a)</sup>, 2004–05 (’000)**

Health professional	Age group					Total		
	0–14	15–24	25–44	45–64	65+	Males	Females	Persons
Chiropractor	29.6	46.4	177.8	148.0	30.7	180.2	252.4	432.6
Naturopath	*13.0	*11.1	55.0	46.7	*7.9	35.6	97.9	133.6
Other <sup>(b)</sup>	*3.6	*14.2	82.3	76.4	24.8	68.5	132.7	201.2
<b>Total<sup>(c)</sup></b>	<b>44.5</b>	<b>69.5</b>	<b>297.4</b>	<b>253.4</b>	<b>57.8</b>	<b>271.6</b>	<b>451.0</b>	<b>722.6</b>

\* Estimate has a relative standard error of 25% to 50% and should be used with caution.

(a) Consultations in the 2 weeks before 2004–05 National Health Survey interview. Excludes consultations in/at hospitals or day clinics.

(b) Includes acupuncturist, herbalist, hypnotherapist and osteopath.

(c) Totals will not necessarily be the sum of the rows, as some persons reported more than one type of professional.

Source: ABS unpublished data.

A substudy on patient use of complementary and alternative therapies was conducted with the 2000–01 BEACH study of general practice consultations. Almost 22% of the substudy patients indicated that they used such therapies in the previous 12 months, and almost half said they would consider doing so in the future (Britt et al. 2007). Of those who had used complementary/alternative therapies in the previous 12 months, 40% had seen a chiropractor, 32% a naturopath, 23% had remedial massage and 20% had acupuncture.

Complementary and alternative health services have been incorporated into the general health-care system to a varying extent. For example, acupuncture performed by a medical practitioner attracts a Medicare rebate, for which a total of 589,796 claims were made in 2006–07, attracting benefits of \$21.1 million.

Under the Medicare Allied Health Initiative, from 1 July 2004 Medicare benefits are paid for up to five services to eligible patients managed by a GP under an enhanced primary care plan. Included in the list of eligible allied health services are chiropractors and osteopaths. In 2006–07, about 38,000 chiropractic and 17,600 osteopath services were provided under these arrangements, with total Medicare benefits of around \$1.7 million and \$0.8 million, respectively.

Private health ancillary insurance sometimes covers some of these services, such as those provided by naturopaths, osteopaths, chiropractors and acupuncturists. In the quarter ending June 2007, benefits were paid for about 1.95 million chiropractic services, 556,000 natural therapy services, 359,000 acupuncture/acupressure services and 102,000 osteopathic services (PHIAC 2007).

## 7.3 Hospitals

Hospitals accounted for more than one-third of recurrent health expenditure (more than \$31 billion) in Australia in 2005–06 and they generally attract the most media attention (AIHW 2007b). The hospital sector comprises more than 1,290 hospitals around Australia, with almost 82,000 beds available. The public hospital system employs the equivalent of more than 220,000 full-time staff, almost half are nurses and one-tenth are doctors.

Most hospital resources are consumed in providing care for the patients they admit, but hospitals provide a much higher number of non-admitted services, such as those provided by emergency departments and outpatient clinics (Box 7.9). On a typical day, around 20,000 Australians are admitted to a hospital, with about the same number leaving (separating), and there are about 124,000 non-admitted services.

The National Health Performance Framework includes nine areas in which to assess how well the health system is performing (NHPC 2004; see also chapters 1 and 9). For several of these areas there are indicators that relate to the performance of the acute care or hospital component of the health system. They include:

- the cost per casemix-adjusted separation (see below), as an indicator of efficiency
- waiting times for elective surgery, as an indicator of access
- emergency department waiting times, as an indicator of responsiveness
- hospital separations with an adverse event, as an indicator of safety.

The first three of these indicators are used for public acute hospitals and the last can apply to all hospitals.

## Box 7.9: Terms and data sources relating to the use of hospitals

### Admitted patients and the National Hospital Morbidity Database

Statistics on admitted patients are compiled when patients complete an 'episode of care' and are therefore considered to have 'separated'. An admitted patient is a patient who undergoes a hospital's formal admission process. The statistics are compiled at the end of the episode because that is when all the data pertaining to that episode of care (such as the length of stay and the procedures carried out) are known, and the diagnostic information is more accurate.

'Separation' is the term used to refer to the completion of an episode of admitted patient care. Such episodes can be a total hospital stay (from admission to discharge, transfer or death), or a portion of a hospital stay beginning or ending in a change of type of care (for example, from acute to rehabilitation). 'Separation' also means the process by which an admitted patient completes an episode of care by being discharged, dying, transferring to another hospital or changing type of care.

For each separation, patients are assigned a principal diagnosis, which describes the condition or its management considered the chief reason for the patient's episode of care. The principal diagnosis recorded for each separation is usually a disease, injury or poisoning, but can also be a specific treatment of an already diagnosed condition, such as dialysis for renal disease, or other reasons for hospitalisation. If applicable, procedures may also be reported. These can be described as surgical or non-surgical, and therapeutic or diagnostic. In 2005–06, diagnoses and procedures were reported using the fourth edition of the ICD-10-AM classification (Box 7.10). The term 'patient day' means the occupancy of a hospital bed (or chair in the case of some same-day patients) by an admitted patient for all or part of a day.

The state and territory health authorities compile information on patients admitted to hospitals and supply it to the AIHW for collation into the National Hospital Morbidity Database. This database is an electronic record for each separation from almost every hospital in Australia, including public acute and psychiatric hospitals (public sector), and private free-standing day hospital facilities and other private hospitals (private sector). Since 1993–94, data have been provided for all public hospital separations and, for most years, about 95% of private hospital separations.

As indicators of ill health in the population, hospital separations data have limitations. First, people who are attended to by the hospital but not admitted are not counted in the separations data. Also, the counting unit is the episode of care (the separation), not the patient. Further, the patient cannot be identified in the national database; so for example, one patient admitted five times cannot be distinguished from five patients admitted once each. Finally, hospital separations data are also affected by variations in admission practices, and in the availability of and access to hospitals and non-hospital services.

### Non-admitted patients

Hospitals provide services to many patients without admitting them. These patients receive care through emergency departments, outpatient clinics and a range of other specialised services. Summary information on these services is collated nationally for public hospitals by the AIHW and for private hospitals by the Australian Bureau of Statistics (ABS).

*(continued)*

An 'occasion of service' for a non-admitted patient is defined as any examination, consultation, treatment or other service provided to a patient in each functional unit of a health service establishment, each time the service is provided. National data are categorised into broad clinic- or service-based groupings.

Definitions used for non-admitted patient hospital care are not completely uniform among the states and territories, and have varied over time. Existing national systems for counting and classifying this care are being revised with the aim of improving consistency and comparability. For example, the collection of more detailed data for non-admitted patient care for 23 outpatient clinic types began on 1 July 2005 in selected public hospitals.

## Hospitals, bed numbers and public hospital costs

Nationally, the number of public acute care hospital numbers grew from 712 in 1995–96 to 736 in 2005–06. In contrast, over the same period, the number of private hospitals other than free-standing day hospital facilities decreased from 323 to 284 (Table 7.13). The number of private free-standing day hospital facilities, however, increased from 140 in 1995–96 to 252 in 2005–06. These free-standing facilities provide investigation and treatment services for admitted patients on a day-only basis.

The number of public psychiatric hospitals declined from 26 in 1995–96 to 22 in 1996–97 and has remained relatively stable since then. These hospitals are devoted mainly to the treatment and care of admitted patients with psychiatric, mental or behavioural disorders. Reforms under the National Mental Health Strategy meant that their role declined in the early to mid-1990s, with more services provided in acute care hospitals and community settings.

### Bed numbers

An indicator of the availability of hospital services is numbers of hospital beds. However, the concept of an available bed is also becoming less important due to factors such as increasing same-day hospitalisations and provision of 'hospital in the home' care. Bed numbers in hospitals can also be affected by the range and types (casemix) of patients admitted to those hospitals. For example, differing proportions of beds may be required for specialist services and services that are more general.

In 2005–06, there were 81,818 available beds in Australia, with 54,601 beds in public acute hospitals and public psychiatric hospitals (Table 7.13). Between 1995–96 and 2005–06, there was a 3.2% decrease in available beds and an 11% reduction in available beds per 1,000 population. The latter change was not evenly distributed between the public and private sectors, with private sector beds per 1,000 population remaining stable during this period and the public sector rate decreasing by 18%.

Public acute hospitals can be described in terms of 'peer groups' (Table 7.15), which group hospitals together based on their volume of admitted patient activity and geographical location (AIHW 2007a). This peer grouping was developed to assist in the comparison of the average cost per separation and also illustrate some of the attributes of the state and territory hospital systems. For example, the peer grouping reveals variation in bed numbers—*Small acute hospitals* each had an average of 23 beds in 2005–06, while *Principal referral and Specialist women's and children's hospitals* averaged 338 beds nationally.

**Table 7.13: Hospitals and available beds, 1995–96 to 2005–06**

Measure/hospital sector	1995–96	1997–98	1999–00	2001–02	2003–04	2005–06
<b>Hospitals</b>						
Public acute	712	738	726	724	741	736
Public psychiatric	26	22	22	22	20	19
<i>Total public</i>	738	760	748	746	761	755
Private free-standing day hospital facilities	140	175	190	246	234	252
Private other <sup>(a)</sup>	323	317	312	314	291	284
<i>Total private</i>	463	492	502	560	525	536
<b>Total</b>	<b>1,201</b>	<b>1,252</b>	<b>1,250</b>	<b>1,306</b>	<b>1,286</b>	<b>1,291</b>
<b>Available beds<sup>(b)</sup></b>						
Public acute	55,891	52,801	50,188	49,004	50,915	52,236
Public psychiatric	3,867	2,935	2,759	2,457	2,561	2,366
<i>Total public</i>	59,758	55,736	52,947	51,461	53,475	54,601
Private free-standing day hospital facilities	1,023	1,348	1,581	1,851	1,947	1,965
Private other <sup>(a)</sup>	22,757	23,019	23,665	25,556	24,642	25,252
<i>Total private</i>	23,780	24,367	25,246	27,407	26,589	27,217
<b>Total</b>	<b>83,538</b>	<b>80,103</b>	<b>78,193</b>	<b>78,868</b>	<b>80,064</b>	<b>81,818</b>
<b>Available beds (per 1,000 population)<sup>(b)</sup></b>						
Public acute	3.1	2.8	2.6	2.5	2.6	2.6
Public psychiatric	0.2	0.2	0.1	0.1	0.1	0.1
<i>Total public</i>	3.3	3.0	2.8	2.6	2.7	2.7
Private free-standing day hospital facilities	0.1	0.1	0.1	0.1	0.1	0.1
Private other <sup>(a)</sup>	1.3	1.2	1.2	1.3	1.2	1.2
<i>Total private</i>	1.3	1.3	1.3	1.4	1.3	1.3
<b>Total</b>	<b>4.5</b>	<b>4.3</b>	<b>4.1</b>	<b>4.0</b>	<b>4.0</b>	<b>4.0</b>

(a) Includes private acute and private psychiatric hospitals.

(b) Average available beds through the course of the year where possible, otherwise available beds at 30 June.

Sources: AIHW 2007a and earlier editions.

## State and territory variation

In 2005–06, the average number of public hospital beds per 1,000 population ranged from 2.2 in the Australian Capital Territory to 3.2 in South Australia. For the private sector, there was a range from 1.0 in New South Wales to 1.7 in Western Australia (Table 7.14). The ratio of public beds to private beds was 2.0 nationally, ranging from 1.4 in Tasmania and Western Australia to 2.8 in New South Wales.

**Table 7.14: Available hospital beds per 1,000 population, 2005–06**

Sector	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public acute hospitals	2.7	2.4	2.4	2.4	2.9	2.5	2.2	2.8	2.6
Public psychiatric hospitals	0.2	0.0	0.1	0.1	0.2	0.2	0.0	0.0	0.1
<i>Total public</i>	<i>2.9</i>	<i>2.4</i>	<i>2.5</i>	<i>2.5</i>	<i>3.2</i>	<i>2.7</i>	<i>2.2</i>	<i>2.8</i>	<i>2.7</i>
Private free-standing day hospital facilities	0.1	0.1	0.1	0.1	0.1	n.a.	n.a.	n.a.	0.1
Other private hospitals <sup>(a)</sup>	0.9	1.2	1.5	1.6	1.4	n.a.	n.a.	n.a.	1.2
<i>Total private</i>	<i>1.0</i>	<i>1.3</i>	<i>1.6</i>	<i>1.7</i>	<i>1.5</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>1.3</i>
<b>Total available beds per 1,000 population</b>	<b>3.9</b>	<b>3.7</b>	<b>4.1</b>	<b>4.2</b>	<b>4.6</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	<b>4.0</b>

n.a. Not available but included in totals.

(a) Includes private acute and private psychiatric hospitals.

Source: AIHW 2007a.

### Costs of public hospital care (*NHPC indicator 3.14*)

The cost per casemix-adjusted separation is a measure of the average cost of providing care for admitted patients, adjusted for the relative complexity of the patients' conditions. It is calculated for selected public acute hospitals as the average recurrent expenditure for each admitted patient, adjusted by the resources expected to be used for the separation. As such it can be taken as a measure of the relative technical efficiency of hospitals. Casemix weightings are based on the Australian Refined Diagnosis Related Groups (AR-DRGs) (Box 7.10).

Nationally, the average cost per casemix-adjusted separation was \$3,698 (Table 7.15), varying from \$3,299 for South Australia to \$4,250 for the Australian Capital Territory, and from \$3,524 for *Medium hospitals* to \$3,790 for *Small acute hospitals*.

In 2005–06, nursing staff costs accounted for 27% of the cost per casemix-adjusted separation, medical staff and VMOs 21%, other labour costs 20%, other recurrent expenditure 13%, medical supplies 9%, drug supplies 5% and superannuation 5%.

**Table 7.15: Public hospital cost per casemix-adjusted separation, excluding depreciation<sup>(a)</sup>, 2005–06**

Peer group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
<b>Principal referral and Specialist women's and children's hospitals</b>									
Number of hospitals <sup>(b)</sup>	28	17	17	4	5	3	1	2	77
Average beds per hospital	361	224	369	464	394	348	510	230	338
Average cost weight	1.12	0.99	1.07	1.12	1.08	1.06	1.02	0.77	1.05
Cost per casemix-adjusted separation (\$)	3,919	3,619	3,665	3,634	3,346	3,951	n.p.	4,102	3,726
<b>Large hospitals</b>									
Number of hospitals <sup>(b)</sup>	14	9	6	5	2	0	1	0	37
Average beds per hospital	170	105	138	123	212	..	194	..	145
Average cost weight	1.05	0.85	0.86	0.82	1.15	..	1.05	..	0.94
Cost per casemix-adjusted separation (\$)	3,710	3,702	3,024	3,706	3,420	..	n.p.	..	3,608

(continued)

**Table 7.15 (continued): Public hospital cost per casemix-adjusted separation, excluding depreciation<sup>(a)</sup>, 2005–06**

Peer group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
<b>Medium hospitals</b>									
Number of hospitals <sup>(b)</sup>	38	17	10	7	11	0	0	0	83
Average beds per hospital	62	47	62	82	59	..	..	..	60
Average cost weight	0.89	0.74	0.78	0.84	0.79	..	..	..	0.83
Cost per casemix-adjusted separation (\$)	3,637	3,626	2,929	4,047	3,024	..	..	..	3,524
<b>Small acute hospitals</b>									
Number of hospitals <sup>(b)</sup>	40	23	36	16	19	6	0	3	143
Average beds per hospital	25	19	23	21	25	14	..	37	23
Average cost weight	0.79	0.74	0.76	0.80	0.81	0.85	..	0.57	0.77
Cost per casemix-adjusted separation (\$)	3,882	4,566	2,755	4,271	3,047	5,914	..	4,810	3,790
<b>Total selected public acute hospitals</b>									
Number of hospitals <sup>(b)</sup>	120	66	69	32	37	9	2	5	340
Average beds per hospital	132	91	124	106	95	125	352	114	117
Average cost weight	1.07	0.95	1.01	1.00	1.01	1.06	1.03	0.73	1.01
Cost per casemix-adjusted separation (\$)	3,852	3,646	3,537	3,733	3,299	3,994	4,250	4,187	3,698

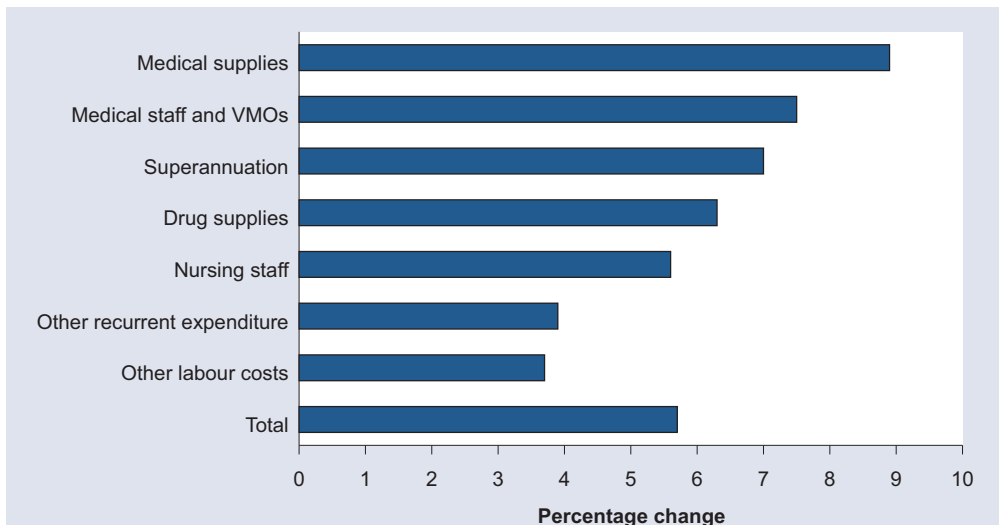
n.p. Not published because there was only one hospital in the peer group.

.. Not applicable.

(a) For details of the methods used see AIHW 2007a.

(b) Hospital counts refer to facilities with available financial data. As a result, the numbers of hospitals and beds will be different from those reported in Table 7.13.

Source: AIHW 2007a.



Note: VMOs are visiting medical officers.

Source: AIHW 2007a and earlier editions.

**Figure 7.24: Increases in components of average cost per casemix-adjusted separation, average annual change between 2000–01 and 2005–06**

Between 2001–02 and 2005–06, the average cost per casemix-adjusted separation rose by 5.7% annually (in current prices—not adjusted for inflation)(Figure 7.24). The rate of cost increase was not equal across all components. For example, the average annual cost increase in medical supplies (8.9%) and medical staff and VMOs (7.5%) was higher than the cost increase overall, and growth in the categories of other recurrent expenditure (3.9%) and other labour costs (3.6%) was lower than the average overall cost increase.

## Admitted patient care

In 2005–06, there were 7,311,983 separations in Australian hospitals, of which 4,466,076 were in public hospitals and 2,845,907 were in private hospitals. Between 1996–97 and 2005–06, separations from all hospitals increased by 37.3%. Separations increased by 22.8% in public acute hospitals and by 68.9% in private hospitals. Separations per 1,000 population increased by 6.4% for public acute hospitals and by 46.6% for private hospitals.

Between 1996–97 and 2005–06, the number of patient days in public acute hospitals increased by 7.2% and for private hospitals the increase was 25.8%. Over the same period, patient days per 1,000 population decreased by 10.5% for public acute hospitals and increased by 2.7% for private hospitals.

In 2005–06, about 4 million separations were for same-day care: 2.2 million from public acute hospitals, around 2,000 from public psychiatric hospitals and 1.8 million from private hospitals. The proportion of separations that are same-day increased from 44.7% in 1996–97 to 55.3% in 2005–06 (AIHW 2007a).

## What are people being admitted for?

The conditions that hospitals treat are of interest to health service managers, planners, funders and researchers. These conditions, the procedures that patients undergo in hospital and the consequent casemix of hospitals are detailed in the National Hospital Morbidity Database using the classification systems described in Box 7.10. Regardless of the classification used, the consistent picture is that a large proportion of hospital separations are due to a relatively small number of conditions and treatments. These conditions and treatments include renal dialysis (for which patients typically have around 150 separations a year), chemotherapy (also involving multiple stays for each patient), gastrointestinal endoscopies (viewing the inside of the stomach, bowel, and so on), replacement of the eye's lens (usually because of cataracts), and childbirth (including caesarean sections). The reason for which people are being admitted are presented below as the diagnosis view, the procedures view and the AR-DRG view.



## Box 7.10: Classification of diagnoses, procedures and separations for admitted patients

### Diagnoses and procedures

Hospital patient records contain information about a patient's diagnosis and about procedures performed during the hospital stay. To allow efficient storage and analysis of this information, detailed classification and coding systems are used to describe and record diagnoses and procedures. In 2005–06, diagnoses and external causes of injury were recorded using the fourth edition of the *International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification* (ICD-10-AM) (NCCH 2004). It comprises classifications of diseases and external causes of injuries and poisoning, based on the World Health Organization version of ICD-10. These ICD-10-AM codes can be a source of information on the diseases treated in hospitals and the operations performed, either at very detailed levels or combined into broad groupings.

Procedures were recorded using the *Australian Classification of Health Interventions* (ACHI) (NCCH 2004).

### Diagnosis Related Groups

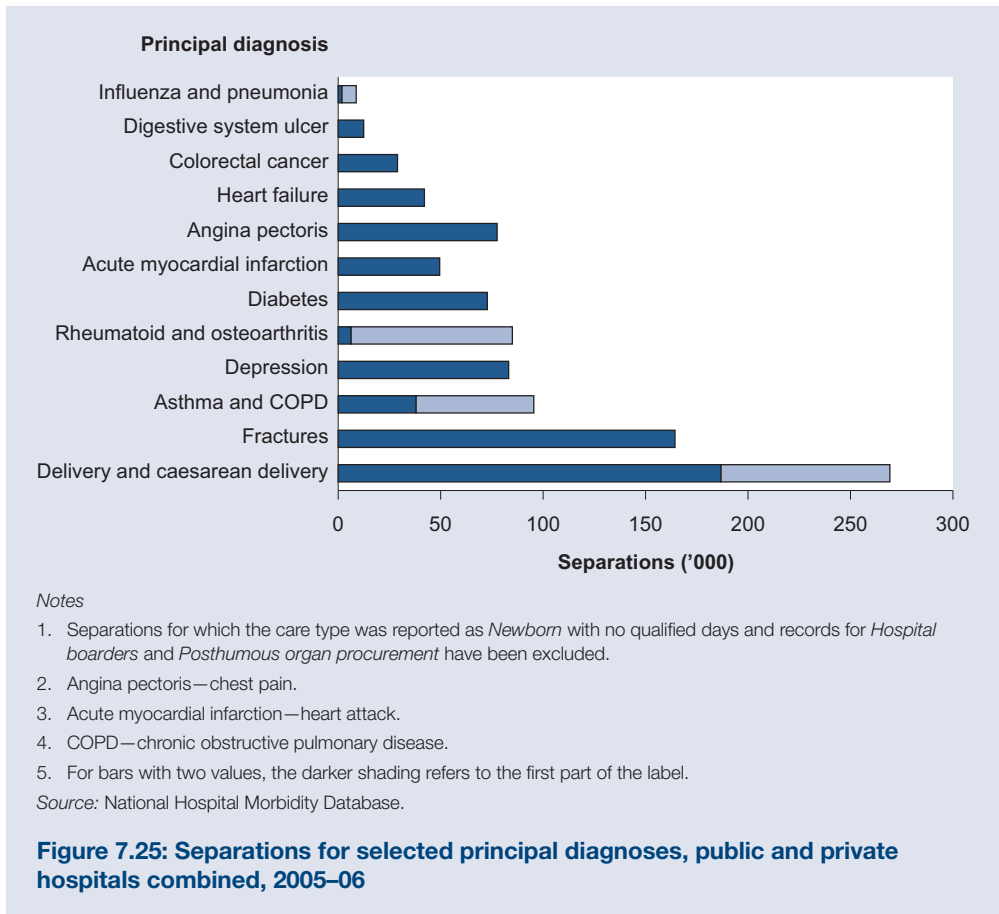
Australian Refined Diagnosis Related Groups (AR-DRGs) is a classification system used mainly for acute care admitted patient episodes. 'Acute' care applies to more than just emergency care and acute illnesses; it includes care and treatment for chronic conditions. The term distinguishes this type of care from other types, such as rehabilitation or palliative care. The AR-DRG classification provides a means of summarising and relating the number and type of acute admitted patients treated in a hospital (that is, its casemix) to the resources expected to be used in their treatment. This classification groups episodes with similar clinical conditions and similar use of hospital resources, using information in the hospital separation record such as diagnoses, procedures, and age of the patient. This grouping is first to broad Major Diagnostic Categories, then to 'surgical', 'medical' (care not involving surgery) and 'other' partitions, and then to the individual AR-DRGs. This report uses AR-DRG version 5.0 (DoHA 2002).

Each AR-DRG is associated with information on the average length of stay and estimated average cost for patients in the group in the public and private sectors. This classification therefore has use in measuring the outputs and performance of hospitals, and in planning and funding hospital service provision.

## The diagnosis view of admitted patient care activity

Nearly 40% of all separations in Australian hospitals in 2005–06 had a principal diagnosis in five of the broad ICD-10-AM chapter groups (see Boxes 7.9 and 7.10). These were: *Diseases of the digestive system; Neoplasms; Pregnancy, childbirth and the puerperium; Injury, poisoning and certain other consequences of external causes; and Factors influencing health state and contact with health services* (including dialysis, chemotherapy and rehabilitation) (tables S28 and S29).

The National Health Priority Areas were represented in some high-volume diagnoses in 2005–06. There were around 95,000 separations with a principal diagnosis of *Asthma and chronic obstructive pulmonary disease*, 85,000 for *Rheumatoid arthritis and osteoarthritis*, and 42,000 for *Heart failure* (Figure 7.25). Also of high volume was childbirth—there were 82,000 separations for *Childbirth by caesarean section* and 187,000 for *Other delivery*.

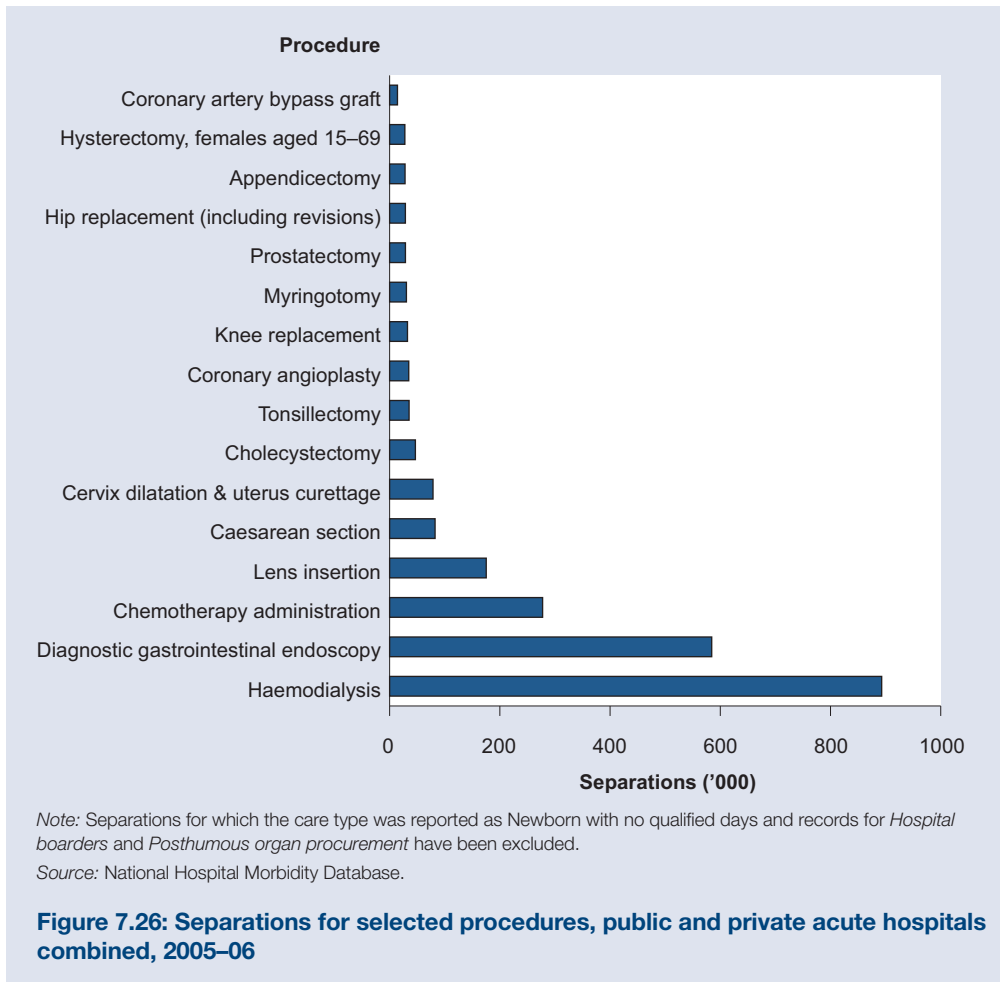


### The procedures view of admitted patient care activity

Procedures are clinical interventions that are surgical in nature, carry a procedural or anaesthetic risk, require specialised training, and/or require special facilities or equipment available only in an acute care setting. Procedures are a very common part of hospital treatment, especially so for private hospitals. A procedure was reported for 81.5% of separations from Australian hospitals in 2005–06 (AIHW 2007a). Of these, 55.8% were from public hospitals, although public hospitals accounted for 61.1% of separations overall. Similarly, although 69.8% of overall patient days were in public hospitals, only 67.3% of patient days associated with procedures were in public hospitals. This reflects the higher proportion of separations in private hospitals (92.5%) that had a procedure, compared with public hospitals (74.5%).

At the broad ICD-10-AM chapter level, if miscellaneous diagnostic and therapeutic procedures are not included, *Procedures on the urinary system* accounted for the largest proportion of public hospital separations for which a procedure was reported (over 850,000 separations) (Table S32). *Haemodialysis* accounted for 85% (726,000) of those urinary system separations. The most commonly reported procedure group for the private sector was *Procedures on the digestive system* (599,000) (Table S33). Within that grouping, *Panendoscopy with excision* and *Fibreoptic colonoscopy with excision* were both reported for 28% of such separations.

Other commonly reported procedures across both sectors were *Diagnostic gastrointestinal endoscopy* (584,000 separations), *Chemotherapy administration* (278,000) and *Lens insertion* (175,000) (Figure 7.26).



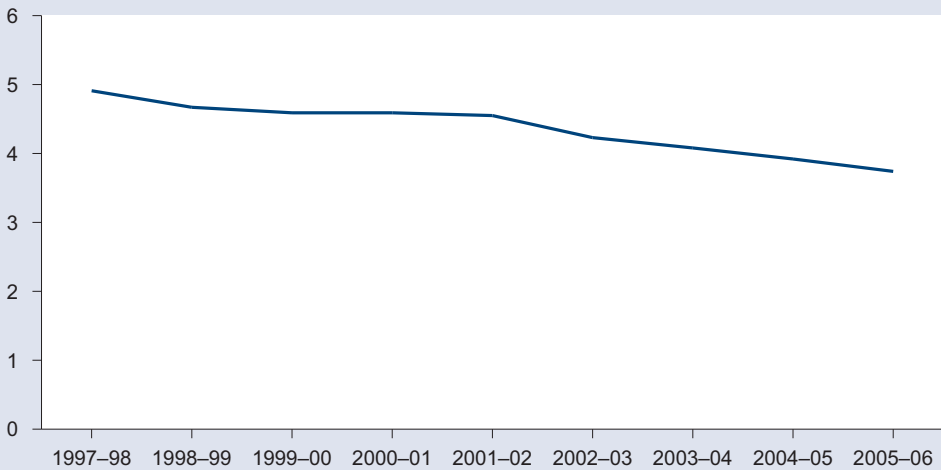
### Hysterectomy rates (NHPC indicator 3.13)

Hysterectomy involves the partial or full removal of the uterus. It is one of the most common surgical procedures performed in Australian hospitals, accounting for over 27,500 procedures in 2005–06 (AIHW 2007a). The procedure is performed to treat a range of conditions including recurrent uterine bleeding, chronic pelvic pain, or menopause, usually in some combination. Hysterectomies can also be performed to treat genital cancer or in cases of trauma.

Overall, the rates in 2005–06:

- had declined by around 24% compared with 1997–98 (Figure 7.27)
- were significantly lower for females in the most advantaged socioeconomic areas (3.0 per 1,000 females aged 15–69 years compared with an overall rate of 3.79 per 1,000) (AIHW 2007a)
- varied between jurisdictions, with the highest rates reported for South Australia (4.6) and the lowest for Victoria (3.5).

Separations per 1,000 females



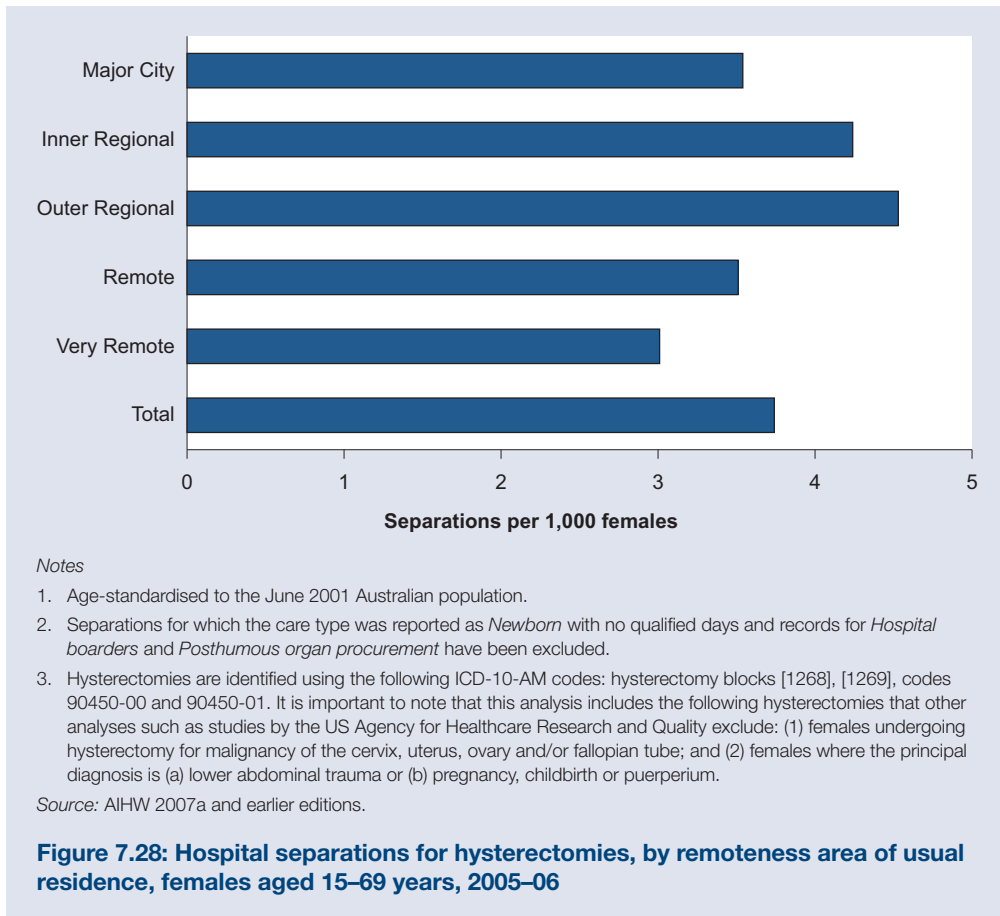
Notes

1. Age-standardised to the June 2001 Australian population.
2. Separations for which the care type was reported as *Newborn* with no qualified days and records for *Hospital boarders* and *Posthumous organ procurement* have been excluded.
3. Hysterectomies are identified using the following ICD-10-AM codes: hysterectomy blocks [1268], [1269], codes 90450-00 and 90450-01. It is important to note that this analysis includes the following hysterectomies that other analyses such as studies by the US Agency for Healthcare Research and Quality exclude: (1) females undergoing hysterectomy for malignancy of the cervix, uterus, ovary and/or fallopian tube; and (2) females where the principal diagnosis is (a) lower abdominal trauma or (b) pregnancy, childbirth or puerperium.

Source: AIHW 2007a and earlier editions.

**Figure 7.27: Hospital hysterectomy separation rate, females aged 15–69 years, 1997–98 to 2005–06**

Several studies have shown that the variation in hysterectomy rates between regions cannot be explained by the underlying patterns of disease (AHRQ 2002). In 2005–06 there were 3.79 hysterectomies performed for every 1,000 Australian females aged 15–69 years (Figure 7.27). Rates were highest in Outer Regional (4.42) and Inner Regional (4.28) areas, and were slightly lower than the national average for Major Cities (3.59) and Remote areas (3.26)(Figure 7.28). Rates were lowest for the Very Remote regions (2.68).



### Adverse events (NHPC indicator 3.21)

Adverse events are defined as incidents involving harm to a person receiving health care. They include infections, falls and other injuries, and reactions or complications due to surgery, medication or medical devices, some of which may be preventable. Adverse events in health care may occur inside or outside hospitals, and can be the cause of hospitalisation as well. The former Australian Council for Safety and Quality in Health Care estimated that an adverse event is associated with about 10% of hospital separations in Australia and other developed countries (ACSQHC 2001). About 2% of separations have been estimated to be associated with serious adverse events causing major disability (1.7%) or death (0.3%) (Runciman et al. 2000).

Public and private sector hospital separations data can be used to indicate the occurrence of adverse events because they include information on ICD-10-AM diagnoses, places of occurrence and external causes of injury and poisoning that can indicate that an adverse event was treated and/or occurred during the hospitalisation. However, other ICD-10-AM codes may also suggest that an adverse event has occurred, and some adverse events are not identifiable using these codes. The data presented below can be interpreted as representing selected adverse events in health care that have resulted in, or have affected, hospital admissions, rather than all adverse events that occurred in hospitals.

In 2005–06, there were over 353,000 separations with an ICD-10-AM code for an adverse event—or 4.8 per 100 separations—comprising 247,000 separations in the public sector (5.5 per 100 separations) and 106,000 separations in the private sector (3.7 per 100 separations) (Table 7.16). The data for public hospitals are not comparable with those for private hospitals because their casemix and recording practices may be different.

*Procedures causing abnormal reactions/complications* were reported for 223,000 separations, 96,000 separations included a report of *Adverse effects of drugs, medicaments and biological substances* and 71,000 separations were reported with *Complications of internal prosthetic devices, implants and grafts*.

**Table 7.16: Hospital separations<sup>(a)</sup> with an adverse event, by hospital sector<sup>(b)</sup>, 2005–06**

Adverse event	Public hospitals		Private hospitals		All hospitals	
	Separations with adverse events	Adverse event separations per 100 separations	Separations with adverse events	Adverse event separations per 100 separations	Separations with adverse events	Adverse event separations per 100 separations
<b>External cause codes</b>						
Adverse effects of drugs, medicaments and biological substances	77,040	1.7	19,395	0.7	96,435	1.3
Misadventures to patients during surgical and medical care	8,588	0.2	3,546	0.1	12,134	0.2
Procedures causing abnormal reactions/complications	145,760	3.3	77,381	2.7	223,141	3.1
Other external causes of adverse events	5,472	0.1	900	0.0	6,372	0.1
<b>Place of occurrence code</b>						
Health service area	224,777	5.0	99,925	3.5	324,702	4.4
<b>Diagnosis codes</b>						
Selected post-procedural disorders	40,256	0.9	23,060	0.8	63,316	0.9
Haemorrhage and haematoma complicating a procedure nec	21,177	0.5	12,673	0.4	33,850	0.5
Infection following a procedure nec	21,653	0.5	9,986	0.4	31,639	0.4
Complications of internal prosthetic devices, implants and grafts	46,127	1.0	24,915	0.9	71,042	1.0
Other diagnoses of complications of medical and surgical care	35,470	0.8	14,375	0.5	49,845	0.7
<b>Total<sup>(c)</sup></b>	<b>246,524</b>	<b>5.5</b>	<b>106,439</b>	<b>3.7</b>	<b>352,963</b>	<b>4.8</b>

nec Not elsewhere classified.

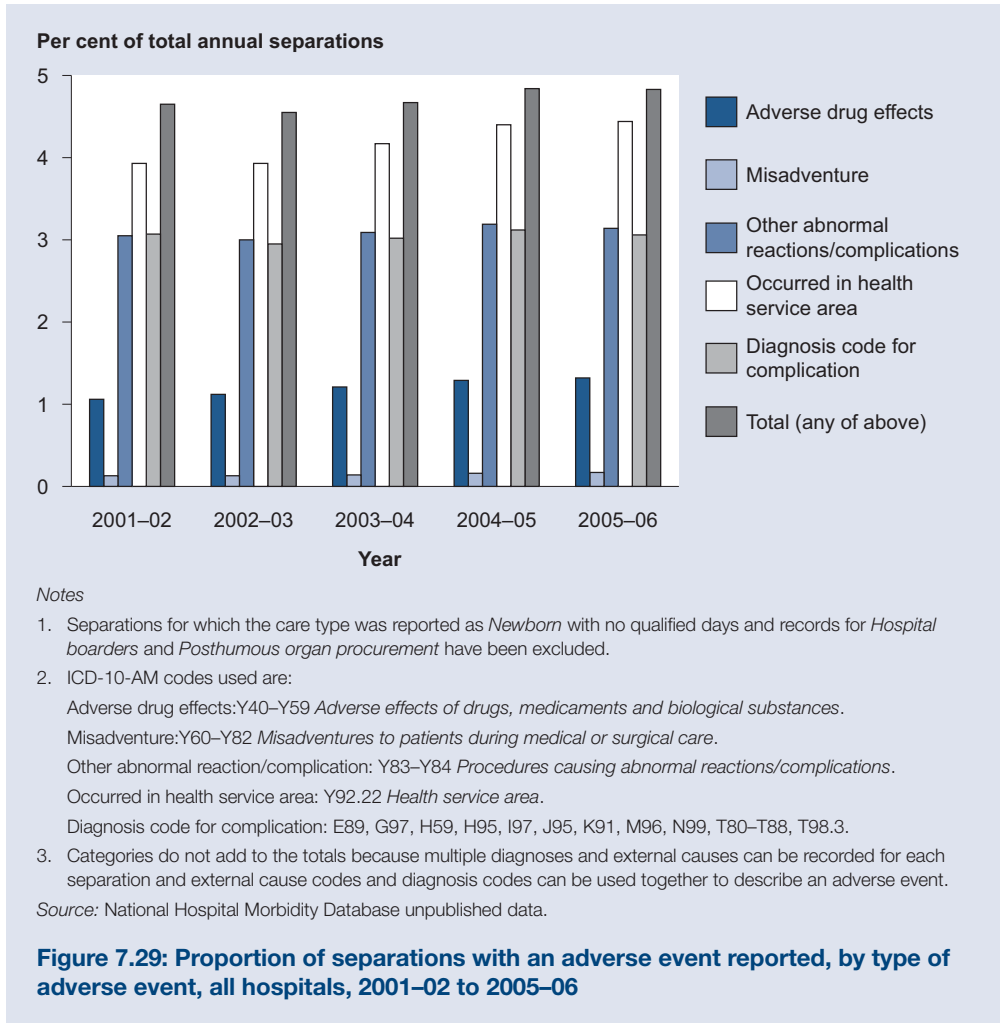
(a) Separations for which the care type was reported as *Newborn* with no qualified days, and records for *Hospital boarders* and *Posthumous organ procurement* have been excluded.

(b) The data for public hospitals are not comparable with the data for private hospitals because their casemixes differ and recording practices may also differ.

(c) Categories do not add to the totals because multiple diagnoses and external causes can be recorded for each separation and external cause codes and diagnosis codes can be used together to describe an adverse event.

Source: AIHW 2007a.

Between 2001–02 and 2005–06, the proportion of separations with an ICD-10-AM code for an adverse event remained relatively stable (Figure 7.29), with the number of separations reporting *Adverse effects of drugs, medicaments and biological substances* increasing from 1.1 to 1.3 per 100 separations. Over the same period the reporting of *Health service area* as the place of occurrence (of injury or poisoning) increased from 3.9 to 4.4 per 100 separations. However, these increases may reflect improvements in the documentation of adverse events rather than an increase in these events.

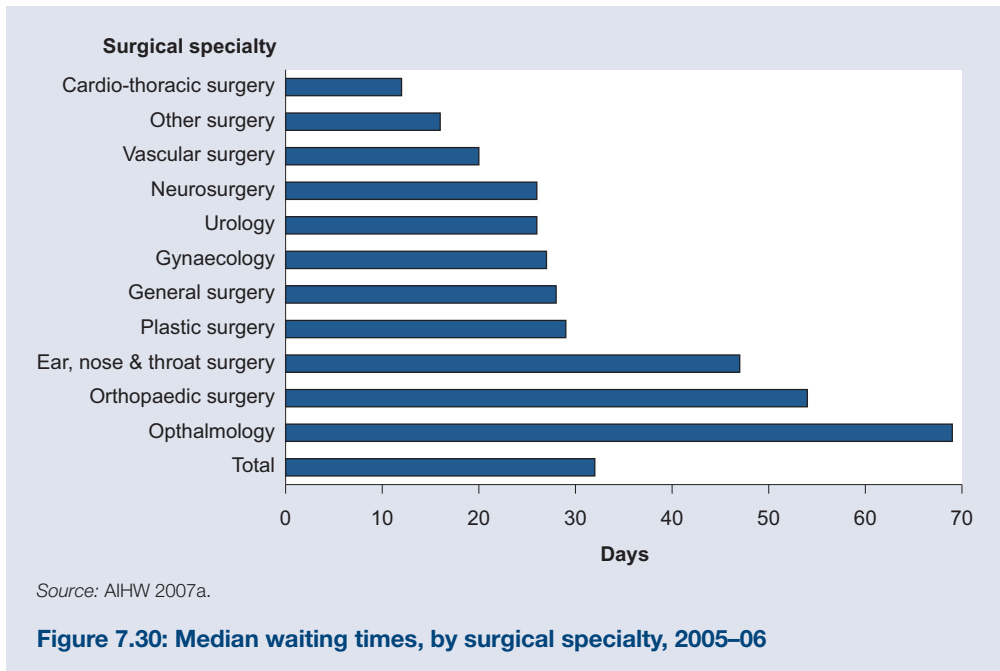


## Elective surgery waiting times

Waiting times for elective surgery are indicators of access to public hospital services; that is, they are an indicator of the provision of timely care according to need. The performance measure focuses on the length of time waited, rather than the size of the waiting list. This is because the size of a waiting list is not a reliable indicator of the time that patients wait for surgery unless it is considered in combination with other factors, such as the rate of removals for elective surgery.

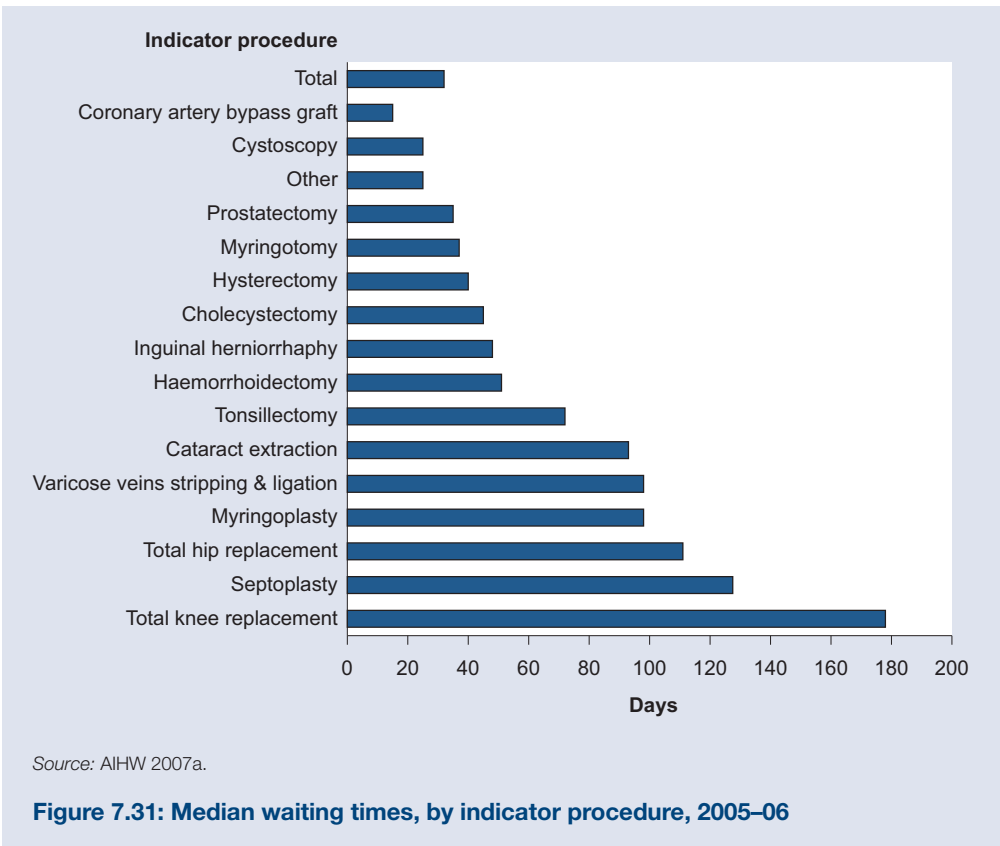
In 2005–06, the AIHW National Elective Surgery Waiting Times Data Collection included data for an estimated 87% of public hospital elective surgery admissions (AIHW 2007a). Data were not available for smaller hospitals in several states; these hospitals may not have performed elective surgery, may not have had waiting lists or may have had different waiting list characteristics compared with reporting hospitals. Although the Elective Surgery Waiting Times data in full are reported using clinical urgency categories, the AIHW does not report waiting times using those categories. This is because the data are not comparable between states and territories, due to differing structural arrangements and urgency categorisation practices.

Overall, the median waiting time for elective surgery has shown a steady pattern of increase from 27 days in 2001–02 to 32 days in 2005–06 (AIHW 2007a). *Ophthalmology* and *Orthopaedic surgery* were the surgical specialties with the longest median waiting times in 2005–06 (69 and 54 days respectively). All other surgical specialties except *Ear, nose and throat surgery* had median waiting times of less than 30 days; and *Cardio-thoracic surgery* had the shortest median waiting time (12 days)(Figure 7.30).



Another view of the waiting times is through indicator procedures, which are high-volume procedures sometimes associated with long waits. *Total knee replacement* was the indicator procedure with the longest median waiting time in 2005–06, at 178 days. The indicator procedure with the lowest median waiting time in 2005–06 was *Coronary artery bypass graft*, at 15 days (Figure 7.31).

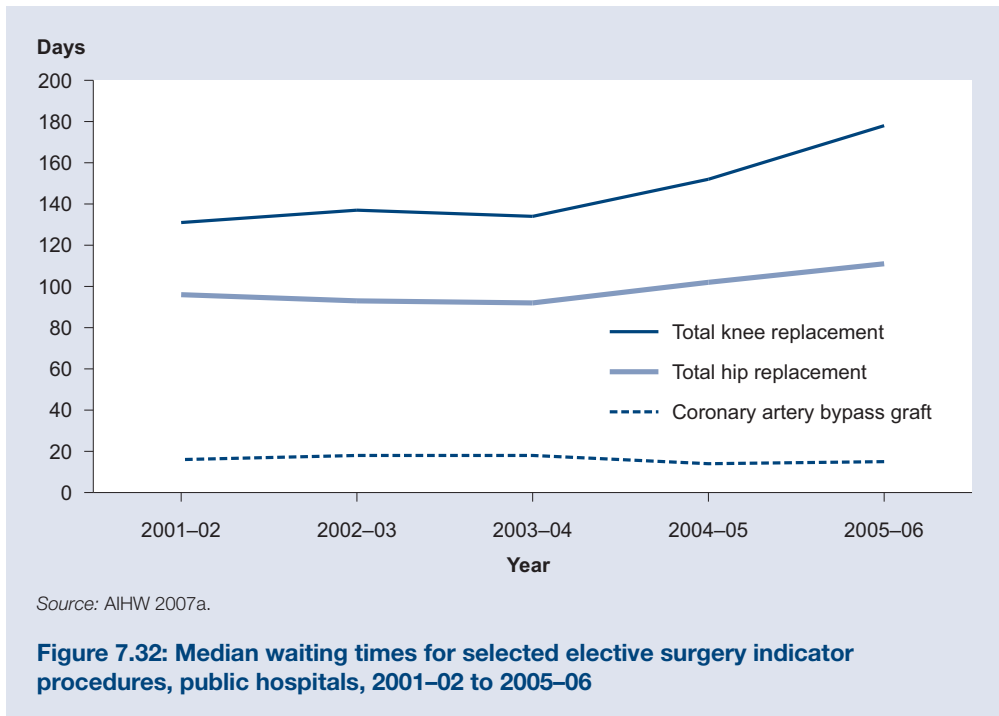




### Access to elective surgery (NHPC indicator 3.19)

As an indication of potential differences in access to elective surgery, separation rates for surgical procedures and elective surgery waiting times for those procedures can be examined. This indicator tracks median waiting times and separation rates for three surgical procedures in public hospitals: *Coronary artery bypass graft*, *Total hip replacement* and *Total knee replacement*.

From 2001–02 to 2005–06, elective surgery admissions for *Coronary artery bypass graft* per 100,000 population decreased by almost 20% (from 30.4 to 24.6), and elective surgery median waiting times for the procedure decreased by over 6% (from 16 to 15 days) (AIHW 2007a, Figure 7.32). For *Total hip replacement*, elective surgery separation rates increased by almost 21% (from 30.3 to 36.6 per 100,000 population) and the median waiting time increased by almost 16% (from 96 to 111 days). For *Total knee replacement*, elective surgery admissions increased by almost 43% (from 36.7 to 52.4 per 100,000), while the median elective surgery waiting time increased by almost 36% (from 131 to 178 days).



## The AR-DRGs view of hospital activity

The AR-DRG classification takes into account diagnoses, procedures, length of stay and other patient factors to create groups of similar conditions and/or similar expected resource use. It provides a composite view of hospitalisations and is useful for describing the overall nature of the care received in hospital.

In 2005-06, 73.1% of acute hospital separations in the public sector were for medical (that is, non-surgical) AR-DRGs (3.2 million), compared with 38.4% in the private sector (1.1 million). In contrast there was a larger proportion of separations for surgical AR-DRGs in the private sector (40.9%) than in the public sector (20.3%) (see also tables S34 and S35).

In public hospitals, separations with medical AR-DRGs increased by 16.5% between 2001-02 and 2005-06, those with surgical AR-DRGs increased by 6.3% and other AR-DRGs increased by less than 0.1%. In private hospitals, separations with medical AR-DRGs also increased over that period, by 22.8%, and those with surgical and other AR-DRGs increased by 12.6% and 11.4% respectively. Thus, in 2005-06 the number of surgical separations from private hospitals (1.1 million) exceeded those from public hospitals (0.9 million).

The AR-DRGs with the highest numbers of separations in 2005-06 featured several for which same-day separations dominated (Table 7.17). Among these were the top two groups in public hospitals, *Admit for renal dialysis* (726,000 public sector separations) and *Chemotherapy* (131,000 separations). *Chemotherapy* topped the list in the private sector (160,000 separations), followed by *Admit for renal dialysis* (153,000). *Vaginal delivery without complicating diagnosis* was the most common AR-DRG that was usually not a same-day hospitalisation. This group was the third most common in public hospitals (97,000 separations) and the fifteenth most common in private hospitals (36,000).

**Table 7.17: Top 12 AR-DRGs version 5.0 with the highest number of separations from public and private hospitals, 2005–06<sup>(a)</sup>**

AR-DRG	Separations	Same-day separations (%)	Patient days	ALOS (days)
L61Z Admit for renal dialysis	879,382	99.9	879,706	1.0
R63Z Chemotherapy	291,354	99.9	291,563	1.0
G44C Other colonoscopy, same-day	194,990	100.0	194,990	1.0
C16B Lens procedures, same-day	161,497	100.0	161,497	1.0
G45B Other gastroscopy for non-major digestive disease, same-day	141,094	100.0	141,094	1.0
O60B Vaginal delivery without catastrophic or severe complications or co-morbidities	132,292	2.0	435,521	3.3
D40Z Dental extractions and restorations	108,950	96.3	111,081	1.0
U60Z Mental health treatment, same-day, without electroconvulsive therapy	97,016	100.0	97,016	1.0
Z64B Other factors influencing health status, same-day	96,500	100.0	96,500	1.0
G46C Complex gastroscopy, same-day	94,375	100.0	94,375	1.0
J11Z Other skin, subcutaneous tissue and breast procedures	88,960	91.7	101,787	1.1
F74Z Chest pain	87,811	38.1	136,008	1.5

(a) Includes separations for which the care type was reported as *Acute*, or as *Newborn* with qualified patient days, or was *Not reported*.

Source: AIHW National Hospital Morbidity Database.

### Length of stay in hospital (NHPC indicator 3.15)

Although some categories of patients (such as those requiring rehabilitation, some specialised mental health services or palliative care) can have relatively long stays in hospital, most patients are admitted for acute care services and require a relatively short stay. There is an increasing trend towards day surgery and procedures for these acute care patients, with improvements in medical technology (keyhole surgery, for example) enabling a wider range of procedures to be performed on a same-day basis. Improved drug treatments and efforts to increase hospital productivity have also tended to result in shorter lengths of stay. Some treatments that have previously been undertaken during short-stay admissions are not now included in these data as they are being delivered in non-admitted settings.

With public psychiatric hospitals excluded, the average length of stay was 3.2 days overall in 2005–06—3.7 days in public acute hospitals and 2.6 in private hospitals. Excluding same-day separations, however, the average length of stay was 6.3 days in public acute hospitals and 5.4 in private hospitals.

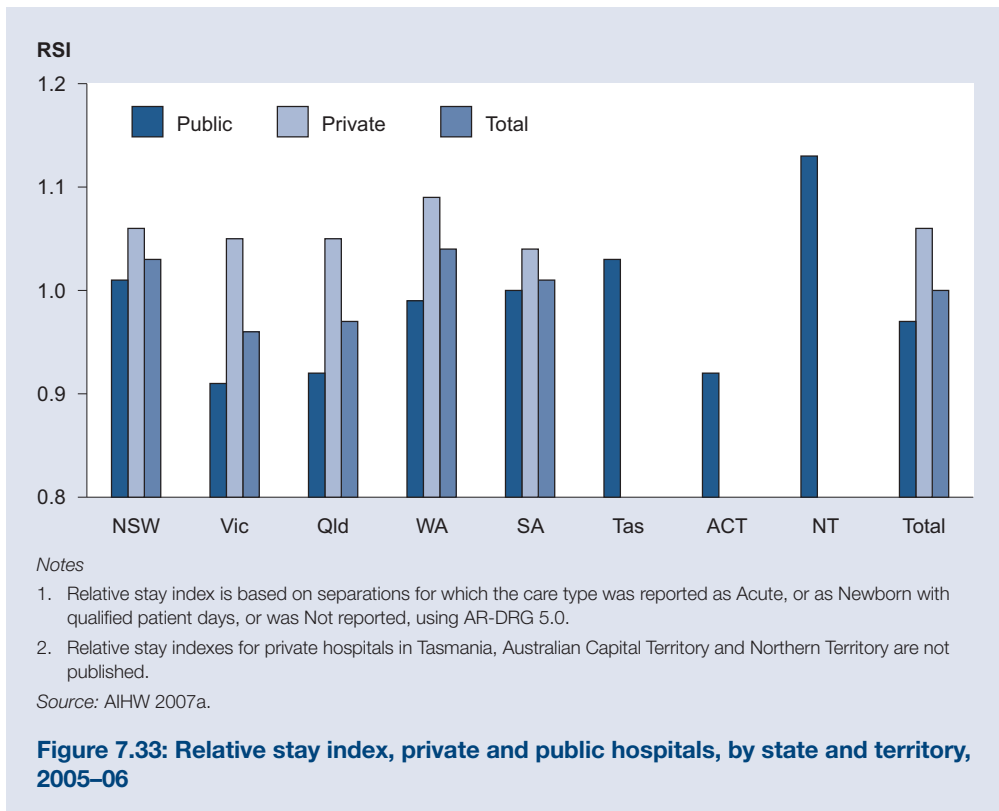
The difference between public and private hospitals at least partly reflects the different range of patients cared for and treatments undertaken (together known as casemix) in the two hospital sectors. For example, public hospitals had more children under the age of 5 years as patients (5.7% of separations), compared with private hospitals (1.8% of separations) (tables S28 and S29). There were also differences in the socioeconomic status of the patients' residential areas, in the proportion of separations for which procedures were reported, and in the average number of procedures reported per separation.

If same-day separations are included, the average length of stay in hospital declined from 3.6 days in 2001–02 to 3.3 in 2005–06. If those same-day separations are excluded, the average length of stay still fell over the period from 6.5 days to 6.2. This partly reflects the steady upward trend in the proportion of separations that were day-only. In 2001–02, 52.3% of separations were same-day, but by 2005–06 this had increased to 55.3% (Table 7.13).

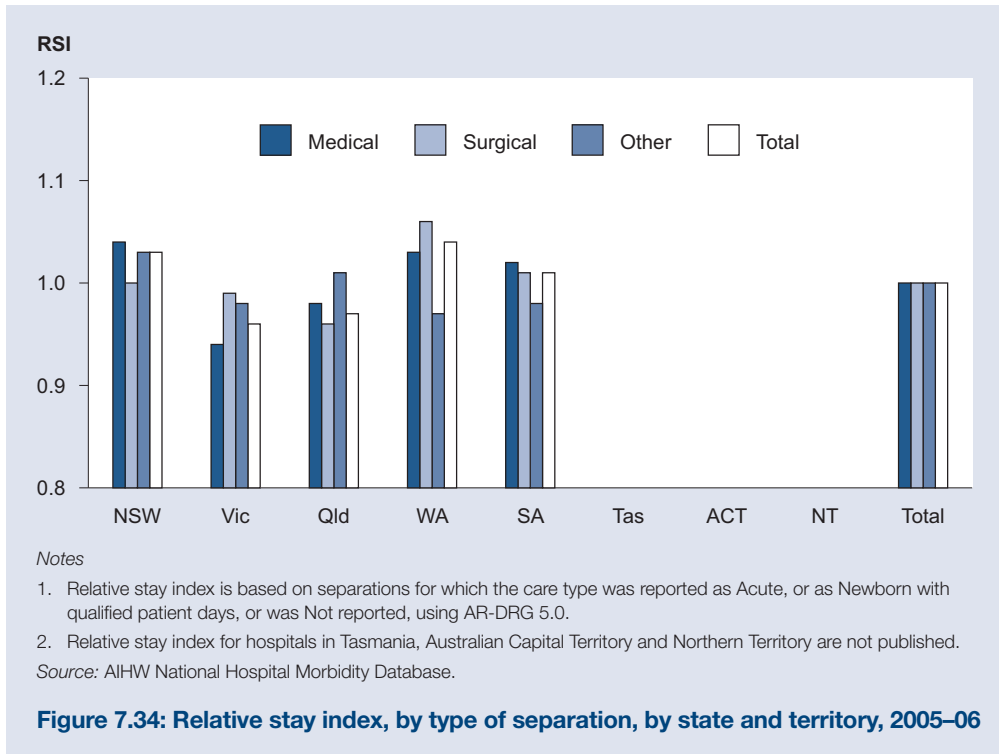
The average length of hospital stay per separation is a measure of the efficiency of acute care hospitals. However, because hospitals and jurisdictions vary in terms of their casemix, it is appropriate to adjust length of stay measures to account for casemix.

The relative stay index (RSI) compares the actual length of stay in a hospital with the expected length of stay. If the RSI of an average stay is more than 1.00 the stay is longer than expected and if it is less than 1.00 it is shorter than expected. The RSIs presented here are calculated using the direct standardisation method. This method uses AR-DRGs (Box 7.10) to adjust the casemix of the jurisdiction or hospital sector to the national casemix (which then has a value of 1.00, by definition), allowing values to be directly comparable. For all hospitals, the directly standardised RSI decreased from 1.02 in 2001–02 to 0.97 in 2005–06 (AIHW 2007a).

There were variations between jurisdictions and between the public and private sectors in the RSIs for 2005–06 (Figure 7.33). For public hospitals the RSI was 0.97 in 2005–06 (shorter stay than expected) and 1.06 for private hospitals (longer stay than expected). In the public sector, the Northern Territory (1.13) had the highest RSI, followed by Tasmania (1.03) and NSW (1.01).



For surgical separations, the RSI was 1.02 for public hospitals and 0.98 for private hospitals. Within the public sector, Queensland had the lowest RSI for surgical separations at 0.97. For medical separations, the RSI was 0.95 for public hospitals and 1.18 for private hospitals. Within the public sector, Victoria had the lowest RSI for medical separations at 0.88 (Figure 7.34).



## Accident and emergency services

Non-admitted services are also provided through public and private hospital emergency departments. In 2005–06 there were 6.3 million accident and emergency occasions of service provided in public hospitals (Table 7.18). Private hospitals reported 451,000 accident and emergency occasions of service in 2004–05 (ABS 2005).

### Geographic variation in the use of accident and emergency services

The ratio of services provided in an area to the number of residents there is an approximation of population use, although services provided in one area may be used by persons residing in others.

In terms of public hospital accident and emergency services in 2005–06, nationally the ratio varied from 256 occasions of service per 1,000 people in Major Cities to 385 in Regional areas and 854 in Remote areas (Table 7.18). This variation may reflect a number of factors, including the availability of other health-care services, patterns of disease and injury, and the generally poorer health of Aboriginal and Torres Strait Islander peoples, who have higher population concentrations in remote areas.

In contrast with public hospitals, there are fewer accident and emergency non-admitted patient occasions of service per 1,000 population for private hospitals in regional and remote areas than in Major Cities. In 2003–04, the ratio of services provided to the population resident in the area ranged from 27 occasions of service per 1,000 people in Major Cities to 19 per 1,000 people in regional areas and 8 per 1,000 people in remote areas (ABS 2005).

**Table 7.18: Accident and emergency occasions of service in public acute hospitals, 2005–06**

	NSW	Vic <sup>(a)</sup>	Qld	WA	SA	Tas	ACT	NT	Total
<b>Services ('000)</b>									
Major Cities	1,251	936	514	300	339	..	100	..	3,440
Inner Regional	640	359	361	60	51	71	..	..	1,542
Outer Regional	207	114	301	114	69	58	..	52	915
<i>Total Regional</i>	<i>848</i>	<i>472</i>	<i>662</i>	<i>174</i>	<i>121</i>	<i>129</i>	<i>..</i>	<i>52</i>	<i>2,457</i>
Remote	28	n.a.	79	88	25	4	..	46	270
Very Remote	11	..	49	66	12	1	..	22	161
<i>Total Remote</i>	<i>39</i>	<i>n.a.</i>	<i>128</i>	<i>154</i>	<i>36</i>	<i>5</i>	<i>..</i>	<i>68</i>	<i>431</i>
<b>Total</b>	<b>2,137</b>	<b>1,409</b>	<b>1,304</b>	<b>629</b>	<b>496</b>	<b>134</b>	<b>100</b>	<b>120</b>	<b>6,328</b>
<b>Services per 1,000 population resident in area<sup>(b)</sup></b>									
Major Cities	258	255	245	212	306	..	306	..	256
Inner Regional	458	332	345	222	258	228	..	..	358
Outer Regional	428	441	436	613	390	353	..	464	442
<i>Total Regional</i>	<i>450</i>	<i>353</i>	<i>381</i>	<i>382</i>	<i>320</i>	<i>271</i>	<i>..</i>	<i>464</i>	<i>385</i>
Remote	737	n.a.	838	983	530	496	..	1,087	830
Very Remote	1,378	..	917	1,315	880	471	..	442	897
<i>Total Remote</i>	<i>846</i>	<i>n.a.</i>	<i>866</i>	<i>1,103</i>	<i>609</i>	<i>490</i>	<i>..</i>	<i>739</i>	<i>854</i>
<b>Total</b>	<b>316</b>	<b>280</b>	<b>328</b>	<b>313</b>	<b>322</b>	<b>276</b>	<b>306</b>	<b>588</b>	<b>311</b>

.. Not applicable.

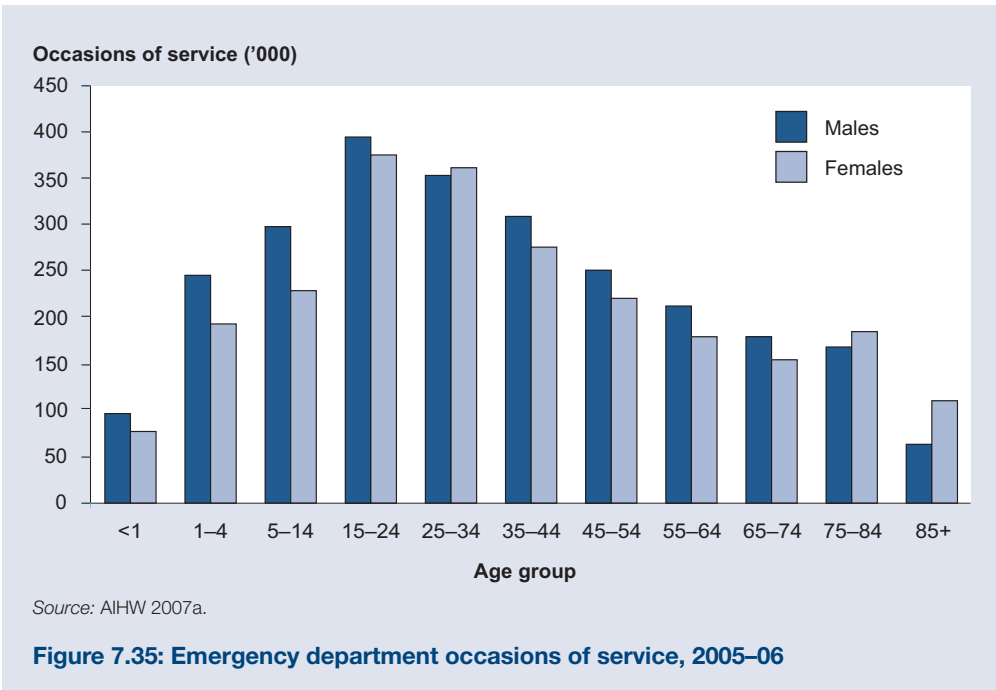
(a) In Victoria, it is not possible to separately identify emergency occasions of service in hospital campuses located in remote areas.

(b) The ratio of services provided in the area to the number of residents in the area only approximates population use because services provided in an area may be provided to persons residing in other remoteness area categories.

Source: AIHW 2007a.

### Age and sex distribution

For 2005–06, data on the patient's age group and sex were available for over 4.9 million emergency department occasions of service in public hospitals (about 78% of all emergency department occasions of service), mostly in hospitals classified as *Principal referral and Specialist women's and children's hospitals* and *Large hospitals* (AIHW 2007a). About 52% of all emergency department occasions of service were for male patients, and there were more male patients than female patients for all age groups except for those aged 75 years and over (Figure 7.35). The use of emergency departments was highest in the 15–24 and 25–34 years age groups, and is different from the use of admitted patient care, which rises with age.



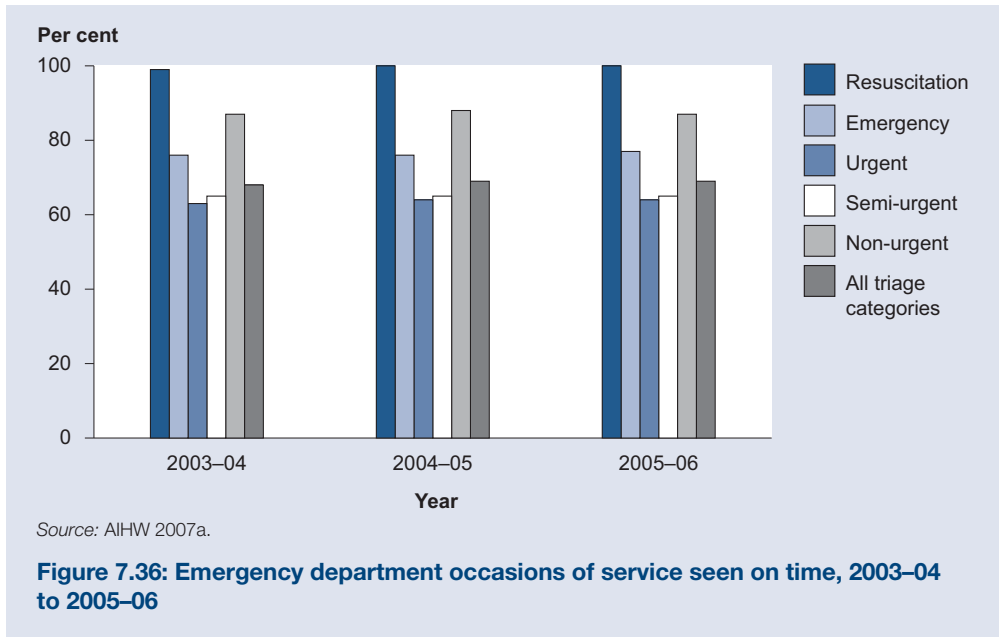
### Emergency department waiting times (NHPC indicator 3.16)

Emergency department waiting times in public hospitals are regarded as indicators of responsiveness of the acute care sector (NHPC 2004). This information is summarised as the proportions of patients who are treated within a time appropriate for the urgency of their condition, and is presented for selected public hospital emergency departments.

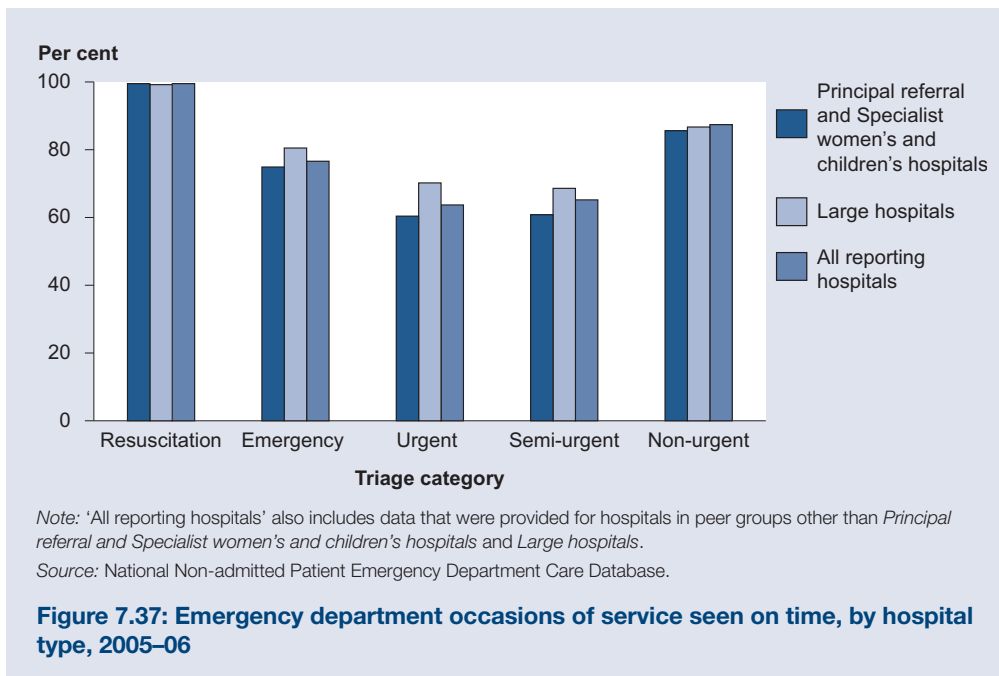
The urgency of the patient's need for medical and nursing care is indicated by a triage category. When patients present to the emergency department a triage nurse promptly assesses their overall condition and assigns them to one of five categories which indicate how soon they should receive care:

- Resuscitation: immediate (within seconds)
- Emergency: within 10 minutes
- Urgent: within 30 minutes
- Semi-urgent: within 60 minutes
- Non-urgent: within 120 minutes.

Between 2003–04 and 2005–06, information on emergency department waiting times was available for between 73% and 78% of all public hospital emergency department visits. Over this period, the proportion of patients assigned to each triage category remained fairly stable, with about 1% of patients assigned to the triage category of *Resuscitation*, 8% as *Emergency*, and about 78% as either *Urgent* or *Semi-urgent* (AIHW 2007a). Overall, the proportion of patients seen on time also remained fairly stable at around 69%. Almost all *Resuscitation* cases and over three-quarters of *Emergency* cases received treatment within the recommended time (Figure 7.36).

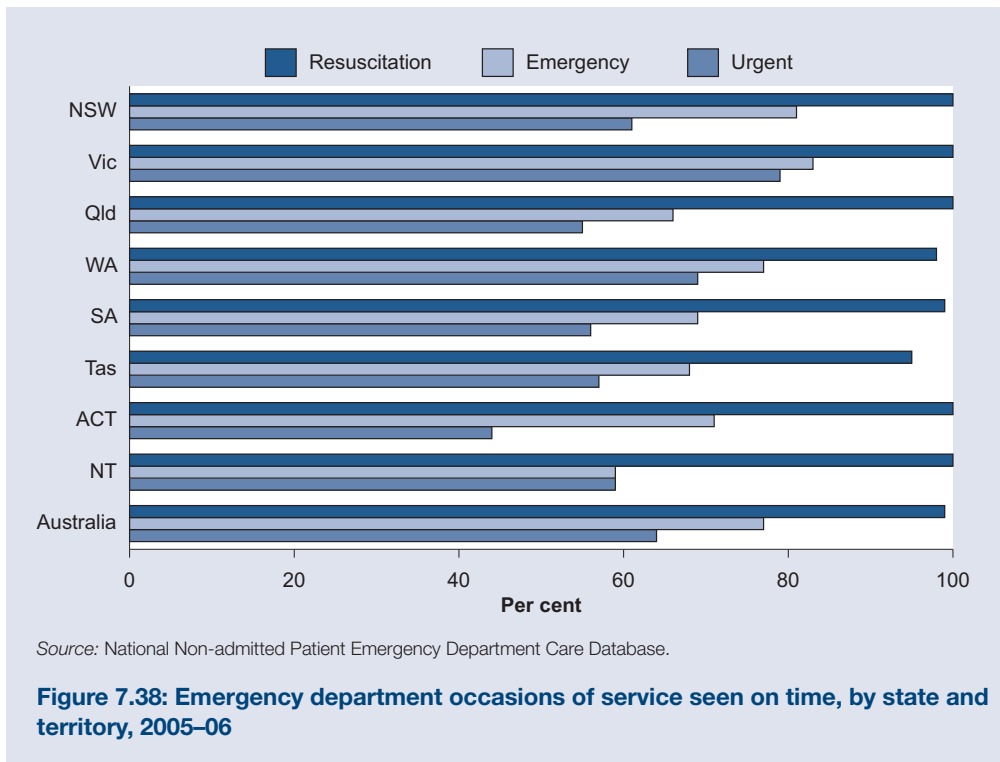


In 2005-06, information on emergency department waiting times was available for about 78% of all public hospital emergency department occasions of service, including almost 100% of emergency department occasions of service in public hospitals that were classified as *Principal referral and Specialist women's and children's hospitals* and *Large hospitals* (AIHW 2007a). There was some variation among hospital peer groups in the proportion of patients receiving care on time. Overall, 65% of patients in the *Principal referral and Specialist women's and children's hospitals* and 73% of patients in the *Large hospitals* were treated in an appropriate time for their condition (Figure 7.37).





There was also some variation between jurisdictions in the proportion of patients treated within the recommended time, which may reflect variation in coverage, in how waiting times are recorded, in triage categorisation and in the types of patients who present to emergency departments (Figure 7.38).



## Outpatient and other non-admitted hospital services

In 2005–06, there were over 14.9 million occasions where individuals received a service through specialised public hospital outpatient clinics, which provide allied health, obstetrics, oncology, dental, orthopaedic and other medical services. Additionally there were 23.5 million other non-admitted, non-emergency department occasions of service in public hospitals, including pathology (6.8 million), pharmacy (4.6 million), radiology and organ imaging (3.0 million) and community health (2.9 million).

In addition to the non-admitted services provided to individuals, around 385,000 services for groups of patients were delivered through public acute hospitals (around 1% of all non-admitted services).

Private hospitals also provide non-admitted patient services, with a different mix of services from public hospitals. In 2004–05, there were almost 1.1 million outpatient services provided in private hospitals and a further 39,000 other non-admitted, non-emergency department occasions of service.

Note that states and territories vary in how they collect data on non-admitted patient occasions of service, in the extent to which these types of services are provided in non-hospital settings (such as community health centres), and in admission practices for some services (such as chemotherapy). This variation may affect the comparability of data on this type of hospital activity (see Box 7.10).

## 7.4 Specialised health services

This section discusses services whose targets are particular health conditions such as mental illness. It also includes information on services provided by medical specialists in private practice.

### Medicare-subsidised specialist services

Medicare data provide an overview of the use of medical specialist services funded through Medicare (see Box 7.6 for information on Medicare and Medicare benefits). These services include those provided by specialists in private practice as well as medical services for private patients in public and private hospitals.

During 2006–07, an average of 6.5 specialist services per Australian were provided under Medicare. These services included 4.2 *Pathology* items per person (including administrative items associated with the collection of specimens), 1.0 *Specialist attendances* and 0.7 *Diagnostic imaging* items (Table 7.19).

**Table 7.19: Medicare items processed for specialist services, 2004–05 to 2006–07**

Broad type of service	Items per person			Average annual change (%)	Items in 2006–07		
	2004–05	2005–06	2006–07		Number ('000)	Proportion of total (%)	Benefits paid (\$ million)
Specialist attendances	1.02	1.04	1.03	0.5	21,689	15.8	1,320.4
Obstetrics	0.07	0.07	0.07	0.8	1,500	1.1	185.1
Anaesthetics	0.10	0.10	0.10	2.0	2,164	1.6	258.0
Pathology	3.82	4.03	4.17	4.5	87,542	63.9	1,741.6
Diagnostic imaging	0.69	0.73	0.75	3.6	15,655	11.4	1,714.0
Operations	0.34	0.35	0.34	0.9	7,245	5.3	1,022.4
Assistance at operations	0.02	0.02	0.02	2.5	354	0.3	45.5
Radiotherapy and therapeutic nuclear medicine	0.04	0.04	0.04	5.1	873	0.6	133.8
<b>Total specialist items<sup>(a)</sup></b>	<b>6.10</b>	<b>6.37</b>	<b>6.52</b>	<b>3.4</b>	<b>137,022</b>	<b>100.0</b>	<b>6,420.8</b>

(a) Excludes specialist dental services.

Source: Medicare Australia 2007.

### Benefits paid

In 2006–07, a total of \$6,421 million was paid in Medicare benefits for specialist services, accounting for 55% of total Medicare benefits paid. The largest share of Medicare benefits for specialist services was paid for 88 million *Pathology* items (\$1,742 million or 27%). A further \$1,714 million (27%) was paid for 16 million *Diagnostic imaging services*; \$1,320 million (21%) for 22 million *Specialist attendances*; and \$1,022 million (16%) for 7 million *Operations* (Table 7.19).

To avoid double-counting, the bulk-billing incentive items are not counted in the broad type of service statistics or in bulk-billing statistics. However, the benefits paid for *Diagnostic imaging* and *Pathology* bulk-billing incentive items are included in their respective broad

type of service categories (Table 7.19), and the bulk-billing incentives for other services (including attendances) are included in *All other services* (Table S37). This adds to the total for *All other services* that might otherwise be allocated to the service types for which the bulk-billing incentive was paid.

Medicare use increased in the three years from 2004–05 to 2006–07 across most types of specialist services. *Radiotherapy and therapeutic nuclear medicine* and *Pathology* Medicare services had the largest annual percentage increase (5% each), with *Pathology* showing the largest numeric increase per person of 0.35 services.

## Geographic variation

There is considerable variation in the use of specialist Medicare services between the states and territories. In 2006–07, the highest number of specialist services per person was recorded in New South Wales with 7.0 services, followed by Victoria (6.6) and Queensland (6.4). The Northern Territory recorded the lowest per person use of specialist medical services with 2.9 (Table S39).

## Specialised mental health services

Mental health is a matter of national importance. Previous studies have estimated that one in five Australians will experience mental illness at some stage in their lives and that over one million people have a disabling psychiatric condition.

There are a variety of public and private health service providers for mental health care. They include GPs and specialised mental health services such as private psychiatrists, community-based public mental health services, public and private psychiatric hospitals and specialised residential mental health services. Public specialised mental health services operate in each state and territory, providing services in community settings, residential care facilities, specialised psychiatric hospitals and specialised psychiatric units within public acute hospitals.

## Ambulatory mental health care

Ambulatory services are those that do not involve overnight admission to a hospital or residential mental health facility.

The BEACH survey of general practice activity estimates that, in 2006–07, there were 10.7 million GP encounters involving mental health-related problems. This equates to 10.4% of total GP encounters and is equivalent to 514 encounters per 1,000 population. Most (60.2%) were for females, with more than one in four encounters for patients aged 65 years and over. *Depression* (33.4% of encounters) was the mental health problem most commonly managed by GPs, followed by *Sleep disturbance* (14.3%) and *Anxiety* (11.5%) (AIHW 2008).

During 2006–07, 3.2 million Medicare-subsidised mental health services were provided, resulting in an average number of services per patient of 5.1. These services included encounters with psychiatrists, clinical psychologists, GPs and other allied health professionals. Females used the mental health services subsidised through Medicare more than males, making up over half (60.9%) of the patients and averaging 5.2 services per female (compared with 4.8 per male) (DoHA 2007a).

Under the Medicare Benefits Schedule, GP encounters will most often be recorded as surgery consultations (over 90% of all encounters for which an MBS item was recorded).

The MBS mental health items claimable by GPs introduced on 1 November 2006 (item numbers 2710, 2712 and 2713) represented only 2% of MBS items recorded for mental health-related encounters in the 2006–07 BEACH survey (AIHW 2008).

Based on data provided by state and territory health authorities for public hospitals, the AIHW estimated that a minimum of 199,547 occasions of service related to mental health conditions occurred in emergency departments (EDs) during 2005–06; this represents about 13.1% of all ED occasions of service. More than one in four ED mental health-related occasions of service were for *Neurotic, stress-related and somatoform disorders* (28.2%), and 22.1% were for *Mental and behavioural disorders due to psychoactive substance use* (AIHW 2008).

In 2005–06, there were 117,924 'ambulatory-equivalent' mental health-related hospital separations (essentially, day-only hospitalisations that did not involve procedures) in Australia. Of these, 20.7% were in public hospitals and 79.3% in private hospitals. More than three-quarters (79.0%) of these separations involved specialised psychiatric care. *Depressive episode* was the most common principal diagnosis, accounting for 19.5% in 2005–06 (AIHW 2008).

There were 5.7 million mental health service contacts provided in public community mental health services and hospital outpatient services in 2005–06. A greater percentage of services was for males (49.1%) than females (43.1%) (in 7.8% of contacts sex was not reported). The most common principal diagnosis reported was *Schizophrenia, schizotypal and delusional disorders* (36.4%) (Table 7.20).

**Table 7.20: Service contacts in government-operated community mental health services<sup>(a)</sup>, 2005–06**

Principal diagnosis	Number of service contacts	Per cent of specified principal diagnoses
Organic, including symptomatic, mental disorders	115,074	2.0
Mental and behavioural disorders due to psychoactive substance use	136,834	2.4
Schizophrenia, schizotypal and delusional disorders	2,064,194	36.4
Mood (affective) disorders	1,038,802	18.3
Neurotic, stress-related and somatoform disorders	414,224	7.3
Behavioural syndromes associated with physiological disturbances and physical factors	47,119	0.8
Disorders of adult personality and behaviour	182,746	3.2
Mental retardation	19,608	0.3
Disorders of psychological development	34,666	0.6
Behavioural and emotional disorders with onset usually occurring in childhood and adolescence	126,649	2.2
Other <sup>(a)</sup>	872,083	15.4
No principal diagnosis reported, including Mental disorder not otherwise specified	613,409	10.8
<b>Total</b>	<b>5,665,408</b>	<b>100.0</b>

(a) Includes all reported diagnoses that are not in the 'Mental and behavioural disorders' chapter of ICD-10-AM (codes F00 to F99).

Source: AIHW 2008.

## Admitted patient mental health care

During 2005–06, there were 204,186 mental health-related separations for admitted patients from hospitals in Australia, excluding ambulatory equivalent mental health-related separations. Most (80.9%) were from public hospitals, with an overall average length of stay of 13.9 days. The majority of separations (58.1%) involved specialised psychiatric care. There was an average annual increase of 4.0% in specialised psychiatric care separations in private hospitals over the 2001–02 to 2005–06 period and a similar annual decline of 4.8% in private hospital separations without specialised psychiatric care. Overall, the total number of mental health-related separations increased by 2.2% per annum (Table 7.21).

**Table 7.21: Admitted patient mental health-related separations with and without specialised psychiatric care, 2001–02 to 2005–06**

	2001–02 <sup>(a)</sup>	2002–03	2003–04	2004–05	2005–06	Average annual change (%)
<b>Separations with specialised psychiatric care</b>						
Public acute hospitals	71,891	73,972	76,042	76,172	76,019	-1.4
Public psychiatric hospitals <sup>(b)</sup>	13,877	13,371	14,188	12,887	13,255	1.1
Private hospitals	25,201	25,702	26,495	27,793	29,459	4.0
<b>Total</b>	<b>110,969</b>	<b>113,045</b>	<b>116,725</b>	<b>116,852</b>	<b>118,733</b>	<b>1.7</b>
<b>Separations without specialised psychiatric care</b>						
Public acute hospitals	63,755	66,607	68,087	70,975	75,195	4.2
Public psychiatric hospitals <sup>(b)(c)</sup>	787	1,055	1,048	1,136	770	-0.5
Private hospitals	11,532	11,462	11,852	10,390	9,488	-4.8
<b>Total</b>	<b>76,074</b>	<b>79,124</b>	<b>80,987</b>	<b>82,501</b>	<b>85,453</b>	<b>2.9</b>
<b>Total mental health-related separations</b>						
Public acute hospitals	135,646	140,579	144,129	147,147	151,214	2.8
Public psychiatric hospitals <sup>(b)</sup>	14,664	14,426	15,236	14,023	14,025	-1.1
Private hospitals	36,733	37,164	38,347	38,183	38,947	1.5
<b>Total</b>	<b>187,043</b>	<b>192,169</b>	<b>197,712</b>	<b>199,353</b>	<b>204,186</b>	<b>2.2</b>

(a) Excludes separations for which care type was reported as *Newborn* with no qualified days and records for *Hospital boarders* and *Posthumous organ procurement*, and ambulatory equivalent mental health-related separations.

(b) In Tasmania, some long-stay patients in public psychiatric hospitals were integrated into community mental health-care services during 2001–02. Consequently the number of separations and length of stay for public psychiatric hospitals may be inflated for the year.

(c) Mental health-related separations without specialised psychiatric care reported by public psychiatric hospitals relate to the provision of alcohol and drug treatment in New South Wales public psychiatric hospitals.

Source: AIHW 2008.

During 2005–06, mental health-related separations without specialised psychiatric care were mainly provided by public acute hospitals (88% of 85,453) (Table 7.21), with the highest percentage of separations being for those aged 65 years and older. The principal diagnosis of *Mental and behavioural disorders due to use of alcohol* accounted for the largest number of separations (16,361 or 19.1%). It was the most commonly reported diagnosis for public acute and private hospitals (AIHW 2008).

In 2005–06, the principal diagnosis of *Schizophrenia* accounted for the largest number of separations involving specialist psychiatric care (21,842 or 18.4%). It was the most commonly reported diagnosis for public acute and psychiatric hospitals. *Depressive episode* was the second most common diagnosis overall, and the most commonly reported diagnosis for private hospitals (Table 7.22).

**Table 7.22: Admitted patient separations<sup>(a)</sup> with specialised psychiatric care, by principal diagnosis in ICD-10-AM groupings and hospital type, 2005–06**

Principal diagnosis	Public acute hospitals	Public psychiatric hospitals	Private hospitals	Total	Total (%)
Schizophrenia	17,402	3,231	1,209	21,842	18.4
Depressive episode	10,844	1,068	7,226	19,138	16.1
Bipolar affective disorders	7,331	1,157	3,072	11,560	9.7
Reaction to severe stress and adjustment disorders	7,232	1,402	2,742	11,376	9.6
Recurrent depressive disorders	3,761	251	5,977	9,989	8.4
Schizoaffective disorders	5,078	1,028	1,268	7,374	6.2
Mental and behavioural disorders due to other psychoactive substance use	3,464	878	1,038	5,380	4.5
Specific personality disorders	3,642	542	542	4,726	4.0
Mental and behavioural disorders due to use of alcohol	1,623	542	2,331	4,496	3.8
Other anxiety disorders	994	57	1,032	2,083	1.8
Other specified mental health-related principal diagnosis <sup>(b)</sup>	9,852	2,077	2,660	14,589	12.3
Other <sup>(c)</sup>	4,796	1,022	362	6,180	5.2
<b>Total</b>	<b>76,019</b>	<b>13,255</b>	<b>29,459</b>	<b>118,733</b>	<b>100</b>

(a) Excludes separations for which care type was reported as *Newborn* with no qualified days and records for *Hospital boarders* and *Posthumous organ procurement*, and ambulatory equivalent mental health-related separations.

(b) Includes separations for which the principal diagnosis was any other mental health-related principal diagnosis.

(c) Includes all other codes not included as a mental health principal diagnosis.

Source: AIHW 2008.

There were marked gender differences in the number of separations for the 10 most commonly reported diagnoses involving specialist psychiatric care. For the most commonly reported diagnosis of *Schizophrenia*, the number of male separations was more than twice that of female separations. *Mental and behavioural disorders due to alcohol and other psychoactive substances* also displayed a similar pattern with more male separations than female separations. Female separations were higher, however, for the principal diagnoses of *Recurrent depressive disorders* and *Specific personality disorders* (AIHW 2008).

## Residential mental health care

In 2005–06, there were 2,345 episodes of residential mental health care. This equated to 1.1 episodes per 10,000 population. Male patients accounted for a greater proportion (60.1%) of episodes of residential mental health care than females (37.7%). The most

common principal diagnosis was *Schizophrenia*, which was reported for more than half of the episodes (54.1%), followed by *Schizoaffective disorders* (9.4%), *Bipolar affective disorders* (5.7%) and *Depressive episode* (5.2%) (AIHW 2008).

## Mental health-related prescriptions

Overall, 182.5 million prescriptions for medications subsidised by the Pharmaceutical Benefits Scheme/Repatriation Pharmaceutical Benefits Scheme (PBS/RPBS) were provided by medical practitioners in 2006–07, of which 20.6 million (11.3%) were for mental health-related medications (Table 7.23). This was equivalent to 990 mental health-related prescriptions per 1,000 population. In interpreting this information, note that a person may have had several subsidised mental health-related prescriptions during the period covered.

Of these mental health-related prescriptions, 86.3% were provided by general practitioners, 9.5% by psychiatrists and 4.2% by non-psychiatrist specialists.

Most of the prescriptions were for antidepressant medication (58.3%, or 12.0 million), followed by anxiolytics (15.8%), hypnotics and sedatives (13.4%) and antipsychotics (9.7%). These proportions varied according to the speciality of the prescriber.

**Table 7.23: Mental health-related prescriptions, by type of medication prescribed<sup>(a)</sup> and prescribing medical practitioner<sup>(b)</sup>, 2006–07**

ATC group (code)	General practitioners	Non-psychiatrist specialists	Psychiatrists	Total	Total (%)
Antipsychotics (N05A) <sup>(c)</sup>	1,453,905	153,690	390,425	1,998,020	9.7
Anxiolytics (N05B)	3,037,662	85,216	141,540	3,264,418	15.8
Hypnotics and sedatives (N05C)	2,632,598	85,360	54,435	2,772,393	13.4
Antidepressants (N06A)	10,642,397	391,199	1,004,580	12,038,176	58.3
Psychostimulants and nootropics (N06B)	48,906	155,341	69,984	274,231	1.3
Other ATC groups <sup>(d)</sup>	..	..	290,251	290,251	1.4
<b>Total</b>	<b>17,815,468</b>	<b>870,806</b>	<b>1,951,215</b>	<b>20,637,489</b>	<b>100.0</b>
<i>Proportion of total (per cent)</i>	86.3	4.2	9.5	100.0	..

(a) Classified according to the Anatomical Therapeutic Chemical (ATC) Classification System (WHO 2008).

(b) Does not include 28,863 scripts where the prescriber's speciality was unknown and the ATC level 3 code was N05A, N05B, N05C, N06A or N06B.

(c) Includes clozapine dispensed through Section 100 arrangements by private hospitals.

(d) Includes other N codes as well as other ATC medication groups. Note that data for other ATC groups prescribed by general practitioners and non-psychiatrist specialist are not presented because they are not included in the definition of mental health-related medications.

Source: AIHW 2008.

Overall, mental health-related prescriptions increased from 19.8 million in 2002–03 to 20.6 million in 2006–07, at an average annual rate of 1.0%. The number of antipsychotics and antidepressants prescribed increased (on average by 7.3% and 1.7% per year, respectively), whereas prescriptions for hypnotics and sedatives and for anxiolytics decreased on average by 3.1% and 0.5% per year, respectively. During 2006–07, the Australian Government spent about \$670 million on PBS/RPBS benefits for mental health-related medications, accounting for 10.8% of total PBS/RPBS expenditure (AIHW 2008).

## Mental health labour force, hospitals and beds

The AIHW Medical Labour Force Survey estimated that 3,180 psychiatrists were employed in Australia in 2005, almost a quarter of whom (22.8%) were trainees. Taking into account hours worked, this translates to a full-time equivalent (FTE) workforce of 3,398, or 17 FTE psychiatrists per 100,000 population. Almost two-thirds of the psychiatrists (62.6%) were males and they were concentrated in Major Cities (AIHW 2008).

The AIHW Nursing and Midwifery Labour Force Survey estimated that out of a total of 244,360 nurses employed in Australia during 2005, 13,472 (5.5%) worked mainly in the area of mental health. Of these, 25.5% reported that they had completed a post-registration or post-enrolment course in mental health of more than 6 months duration. The average age of employed mental health nurses in 2005 was 46.4 years, which is slightly older than the 45.1 years for all employed nurses. In general, nursing is a very female-dominated profession, with 7.9% of nurses employed being male. However, male nurses made up almost a third (31.3%) of employed mental health nurses (AIHW 2008).

In 2004–05, 20 public psychiatric hospitals provided 2,487 beds at an estimated combined expenditure of \$527 million. In addition, there were 122 public acute hospitals with psychiatric wards or units providing 3,450 beds and 26 private hospitals providing a further 1,512 beds. The estimated expenditure for private hospitals totalled \$168 million. Between 2001–02 and 2004–05, annual real growth of expenditure for public and private psychiatric hospitals averaged 2.5% and 2.4% respectively (AIHW 2007a).

There were 234 government community and residential mental health facilities providing a further 1,226 beds, with a total recurrent expenditure of \$985 million. Annual real growth in this expenditure averaged 5.3% between 2001–02 and 2004–05 (AIHW 2007a).

## Sexual and reproductive health services

A range of clinical, community education and professional training services in sexual and reproductive health is provided by family planning organisations. Clinical services include contraceptive services, counselling and information services, early intervention and health promotion services, and the management of sexual and reproductive health.

### Assisted reproduction technology

Since 1979, assisted reproduction technology (ART) has been used in Australia to help couples to achieve pregnancy. Box 7.11 outlines the main ART procedures.

#### Box 7.11: Assisted reproduction technology (ART) procedures

The main ART procedures include:

- in-vitro fertilisation (IVF), where eggs and sperm are combined in the laboratory for fertilisation outside the body and the fertilised eggs are placed in the uterus
- intra-cytoplasmic sperm injection (ICSI), where a single sperm is injected into an egg for fertilisation outside the body and the fertilised egg is placed in the uterus
- gamete intra-fallopian transfer (GIFT), where eggs and sperm are placed in the uterus for fertilisation inside the body.



The total number of ART treatment cycles has been increasing, indicating escalating demand for fertility services in Australia.

Data from the Australian and New Zealand Assisted Reproduction Database show that 35,810 ART treatment cycles were started in 2005 in Australia in which embryos/oocytes were transferred. Of these cycles, 26.4% achieved a clinical pregnancy and 20.7% resulted in a delivery. Fresh cycles achieved a higher pregnancy rate compared with thawed cycles (30.1% and 21.2% respectively).

The average age of females giving birth after ART treatment in 2005 was 34.6 years. ART mothers tended to have a high incidence of caesarean section (50.1%). Of the 7,405 pregnancies resulting from ART treatment in 2005 in Australia, 85.5% were singleton, 14.1% were twin deliveries and 0.3% were triplet deliveries.

### Induced abortions

Induced abortion may be defined as the termination of pregnancy through medical or surgical intervention (FIGO 1999). There is no single comprehensive national data collection on induced abortion in Australia. Legislation relating to induced abortion varies among the states and territories (de Crespigny & Savulescu 2004; Petersen 2005). Notification of abortion is not required in New South Wales, Victoria, Queensland, Tasmania, the Northern Territory and the Australian Capital Territory.

The number of induced abortions in Australia has been estimated using data from the AIHW National Hospital Morbidity Database for admitted patients in all states and territories, and Medicare data for out-of-hospital services for those states and territories in which abortion services are provided in non-hospital facilities as well as in hospitals (AIHW NPSU: Grayson et al. 2005).

For 2004, the estimated number of induced abortions in Australia was 83,210 and the rate was 19.3 per 1,000 females aged 15–44 years. Females aged 20–24 years had the highest rate (31.3 per 1,000 females) and the lowest rate was for those aged 40–44 years (7.0 per 1,000) (Laws et al. 2006).

### Alcohol and other drug treatment services

Alcohol and other drug treatment services cover a wide variety of treatment interventions and are provided in both residential and non-residential settings. Services provided can include detoxification and rehabilitation programs, information and education courses, and pharmacotherapy and counselling treatments.

In 2005–06, 664 treatment agencies managed or contracted by state, territory and/or the Australian Government reported data for the Alcohol and Other Drug Treatment Services National Minimum Data Set (AODTS NMDS), with over half (57%) identified as non-government agencies (AIHW 2007c). The AODTS NMDS covers almost all government-funded treatment service agencies. Major exceptions are services that are specific for Aboriginal and Torres Strait Islander peoples and those for which the sole treatment provided is opioid pharmacotherapy maintenance (for example, methadone treatment).

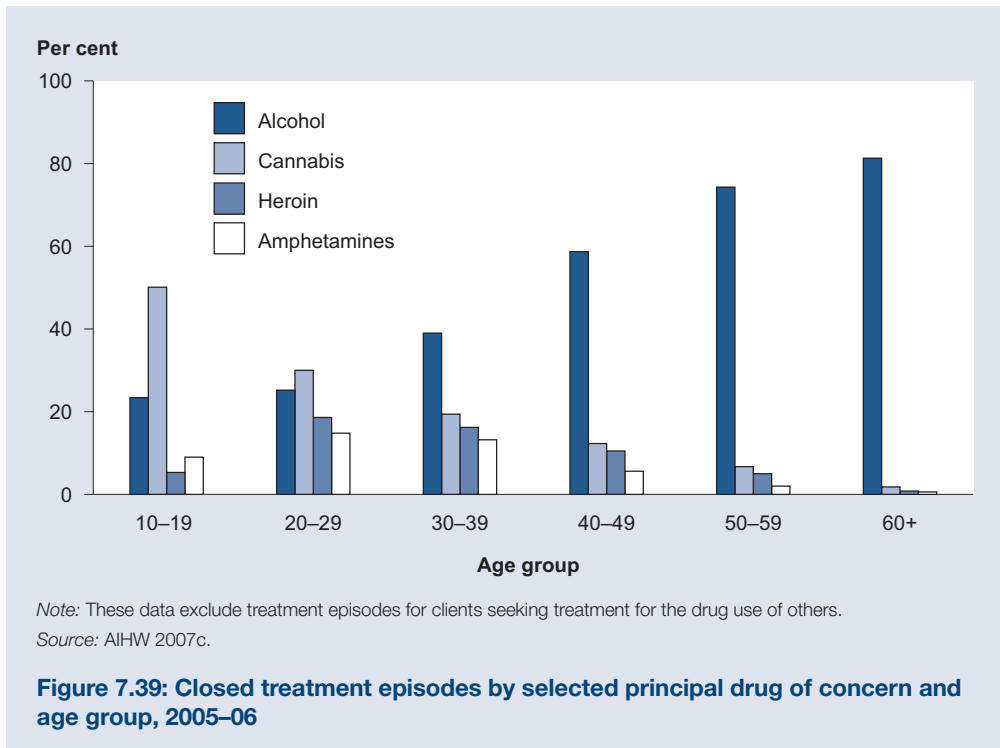
Since 2001–02, data on completed treatment episodes ('closed' treatment episodes) have been collected for the AODTS NMDS. A closed treatment episode refers to a period of contact (between a client and a treatment agency) with defined start and finish dates. A closed treatment episode may be for a single treatment (such as education and information only) or for a specific treatment (such as detoxification or counselling) that is part of a larger treatment plan.

During 2005–06, there were about 151,000 treatment episodes provided by the 664 reporting agencies. Male clients accounted for around two-thirds (66%) of these episodes and this proportion was unchanged since reporting began in 2001–02. The median age of persons receiving treatment for their own drug use was 31 years and for people using the service because of someone else's drug use the median age was 43 years.

### What drug problems do people seek treatment for?

In 2005–06, there were around 145,000 episodes where clients were seeking treatment for their own substance use and in turn nominated a principal drug of concern. Nationally, alcohol (39%) and cannabis (25%) were the most common principal drugs of concern for clients who completed treatment, followed by heroin (14%) and amphetamines (11%). The proportion of episodes where treatment was sought for these substances remained relatively stable since 2001–02. Benzodiazepines accounted for 2% of closed treatment episodes in 2005–06, and fewer than 1% of episodes were for the principal drugs ecstasy and cocaine (0.6% and 0.3% respectively).

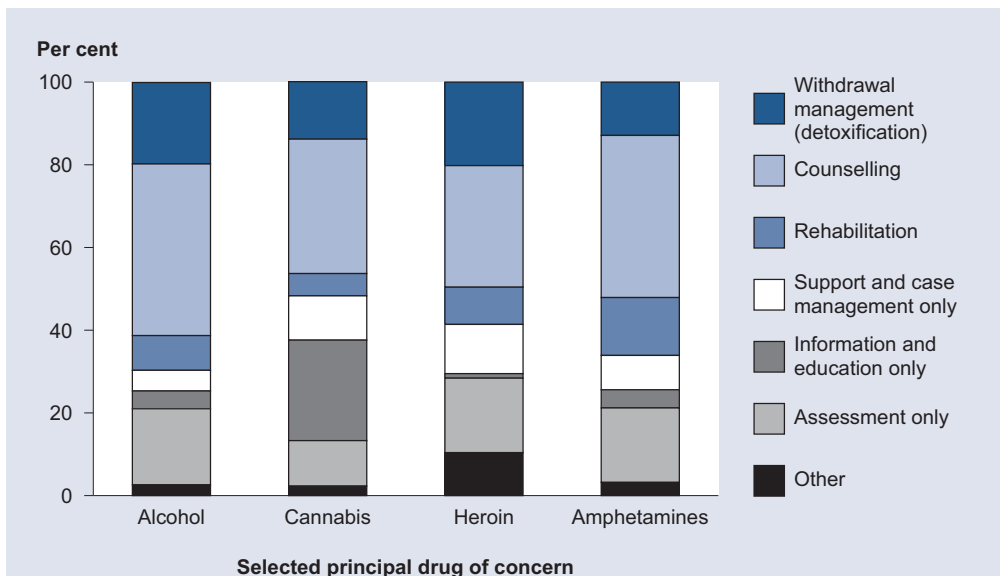
Cannabis was the drug of concern most commonly recorded for clients in the 10–19 years age group (50% of their episodes), whereas for those aged 30–39 years alcohol was the most common (39%) (Figure 7.39). Alcohol was the drug most likely to be the principal drug of concern overall, but it was especially so for older clients, nominated in 81% of episodes for those aged 60 years and over, and in 74% for those aged 50–59 years.



## What types of treatments are provided?

In 2005–06, counselling was the most common form of main treatment provided (38% of treatment episodes), followed by withdrawal management (detoxification) (17%), assessment only (15%), information and education only (10%), support and case management only (8%) and rehabilitation (8%). The type of main treatment provided varied, depending on the principal drug for which the client sought treatment (Figure 7.40).

Overall, counselling accounted for the highest proportion of closed treatment episodes for all drugs of concern except for benzodiazepines (for example, valium) and for 'other' opioids. Where alcohol was the principal drug, the next most common treatment type was withdrawal management (detoxification) (20% of treatment episodes), followed by assessment only (18%) and rehabilitation (8%). This treatment mix was similar for clients whose principal drug was heroin. Clients receiving treatment for amphetamines (14%) and cocaine (15%) were more likely to receive rehabilitation than those receiving treatment for other substances. For treatment episodes where cannabis was reported as the principal drug, counselling (33%) was the most common treatment, followed by information and education only (24%), detoxification (14%) and assessment only (11%).



### Notes

1. These data exclude treatment episodes for clients seeking treatment for the drug use of others.
2. *Other* includes 2,970 closed treatment episodes where the main treatment was reported as pharmacotherapy. This represents a small proportion of pharmacotherapy treatment in Australia because agencies whose sole activity is to prescribe and/or supply doses for methadone or other opioid pharmacotherapies are currently excluded from the AODTS NMDS.

Source: AIHW 2007c.

**Figure 7.40: Closed treatment episodes by selected main treatment type and selected principal drug of concern, 2005–06**

## Other services for alcohol and drug treatment

There were 78,620 hospital separations reported in 2005–06 with a substance use disorder as the principal diagnosis, representing 1.1% of all hospital separations in Australia in that year (AIHW 2007c).

In 2005–06, an estimated 71,000 episodes of care were provided to clients of Australian Government-funded services that were specifically for Aboriginal and Torres Strait Islander substance use. All of these services reported providing treatment or assistance for client alcohol use. Other common substances/drugs for which these services provided treatment or assistance included cannabis (95% of the services), amphetamines and tobacco/nicotine (62% each). In 2005–06, almost three-quarters (73%) of clients reported multiple drug use (that is, using two or more substances).

Nationally, an estimated 38,659 clients were receiving pharmacotherapy treatment for opioid use on a 'snapshot/specified' day in June 2006—71% of these clients were receiving methadone, 23% buprenorphine, and 6% buprenorphine/naloxone.

## National Diabetes Services Scheme

The National Diabetes Services Scheme (NDSS) subsidises the supply of insulin syringes, insulin infusion pump consumables and diagnostic reagents (blood and urine testing strips) to registered persons with diabetes (DoHA 2007). It is funded by the Australian Government and administered through Diabetes Australia Ltd, which coordinates the supply of products in all states and territories.

There were 844,062 persons with diabetes registered with the scheme as at 30 June 2007, an increase of about 6% over the previous financial year (Diabetes Australia 2007). At that time there were around 6,314 new registrants to the NDSS each month. Of those persons registered at 30 June 2007, the majority (69.3%) did not use insulin.

In 2006–07, subsidies were provided for over 3 million supplies of diagnostic reagents, 0.7 million needle and syringe supplies and 35,000 new insulin pump consumables, at a total cost of \$113.7 million (DoHA 2007c and Diabetes Australia 2007). This represents an increase of 21% from the \$94.1 million spent on the scheme in 2004–05.

## Hearing services

Most hearing services in Australia are carried out by private practitioners. However, under a scheme administered by the Australian Government's Office of Hearing Services, some Australians are provided with free or subsidised hearing services (Box 7.12).

### Box 7.12: The Office of Hearing Services

The Office of Hearing Services issues vouchers to eligible clients—those aged 21 years or over who are Pensioner Concession Card holders or their dependants; Department of Veterans Affairs (DVA) card holders in certain categories or their dependants; sickness allowance recipients or their dependants; clients referred from CRS Australia (formerly the Commonwealth Rehabilitation Service); and members of the Australian Defence Force. Clients obtain services such as hearing assessment; audiological rehabilitation and maintenance; prescription, selection and fitting of hearing devices; and subsidised battery supply and device repair.

In 2006–07, the Office of Hearing Services issued more than 213,000 clients with a voucher and there were about 706,000 voucher hearing services provided (Table 7.24). Most of these were maintenance services (53%), assessment services (26%) and fittings (19%). Between 2001–02 and 2006–07, the overall number of services increased by 34%, mainly due to increases in maintenance and assessment services. Although the numbers of most service types increased, the number of new single ear hearing aid fittings decreased by 34%, from around 17,000 to under 11,000.

**Table 7.24: Hearing services provided through the voucher system, 2001–02 to 2006–07**

Type of service	2001–02	2002–03	2003–04	2004–05	2005–06	2006–07
<b>Assessments</b>						
New assessments	63,400	69,500	78,700	82,500	74,991	74,761
Return assessments	61,100	68,900	81,600	94,100	107,702	109,797
<i>Total assessments</i>	<i>124,500</i>	<i>138,500</i>	<i>160,300</i>	<i>176,500</i>	<i>182,693</i>	<i>184,558</i>
<b>Hearing devices fitted</b>						
New monaural	16,500	15,900	14,500	13,600	12,531	10,938
New binaural	34,000	39,400	44,900	50,500	47,415	48,399
Subsequent binaural	10,700	11,000	11,000	11,300	11,076	9,815
Return monaural	16,000	17,100	19,000	18,600	18,644	17,618
Return binaural	18,800	22,300	29,800	33,500	36,098	37,887
<i>Total hearing aids fitted</i>	<i>96,000</i>	<i>105,600</i>	<i>119,100</i>	<i>127,500</i>	<i>125,764</i>	<i>124,657</i>
Replacements	16,300	17,600	16,900	18,000	19,000	20,388
Maintenance	288,300	303,400	322,600	336,900	358,095	376,452
<b>Total</b>	<b>525,100</b>	<b>565,100</b>	<b>618,900</b>	<b>658,900</b>	<b>685,552</b>	<b>706,055</b>

Note: Totals may not be the sum of the rows because of rounding.

Source: Office of Hearing Services unpublished data.

The Australian Government also provides free hearing services directly to anyone under 21 years of age through its agency Australian Hearing. In addition, under its Community Services Obligation program, Australian Hearing also provide services to Aboriginal and Torres Strait Islander peoples aged 50 years and over, participants in Community Development Employment Projects and adults with special needs—for example, people with complex hearing rehabilitation needs and those living in remote locations.

In 2006–07, services were provided to more than 26,000 Australians under the age of 21 years and to almost 10,000 adults with special needs (Office of Hearing Services, unpublished data). Of the 38,000 persons provided with services, over 6,000 (12.8%) identified as Aboriginal or Torres Strait Islander and 3,000 (6.4%) as persons living in a remote area.

## Palliative care services

Palliative care is the specialised care of people who are terminally ill. The care adopts a holistic approach that emphasises quality of life and the relief of suffering. Care may be provided by specialist and non-specialist providers. Palliative care services may be provided in a number of settings, including to admitted patients in acute hospitals, in non-admitted hospital settings, in designated palliative care units (including hospices), and in the community. Using a multidisciplinary approach, palliative care specialists provide direct

care to patients and their carers, and consultative services to non-specialist palliative care providers. Non-specialist palliative care services do not work substantially in the area of palliative care, but have a 'first contact' relationship with people with terminal illnesses and adopt a palliative approach. Providers of non-specialist palliative care may include general practitioners, community nursing agencies and residential aged care facilities.

In 2006, states and territories identified 326 government-funded agencies that provide palliative care in Australia. These included specialist palliative care agencies and non-specialist agencies that received specific funding to provide palliative care. A survey of these agencies found that, of the 242 that provided information on their level of specialisation, 68% (165 agencies) considered themselves specialist palliative care agencies and 32% (77 agencies) considered themselves non-specialist. Sixty-three per cent of agencies mostly delivered care in community settings (most commonly private residences), 23% mostly delivered care in admitted patient settings, and 14% delivered a similar amount of care in both settings (AIHW 2007b).

In 2005–06, there were 25,741 palliative care separations from Australian hospitals for admitted patients who received care in a specific hospice or palliative care unit within a hospital, according to a palliative care program, or where the principal clinical intent was deemed to be palliative. The average length of stay for these separations was 12.4 days and 79% were from public hospitals. Fifty-five per cent of all palliative care separations were for males and 71% were for patients aged 65 years and over. Seventy-three per cent of palliative care separations had a principal diagnosis of cancer.

Currently, no national data are available about the number of palliative care services that are delivered in non-admitted settings, such as through community health services.

## Health services in the Australian Defence Force

Australian Defence Force (ADF) personnel are provided with a comprehensive range of health services, including emergency, acute and ongoing clinical care, rehabilitation, health screening, occupational fitness assessment and preventive health activities. Primary health care is provided mainly in-house by uniformed and contracted health-care providers. Uniformed health providers make up 4.7% of the full-time ADF and include medical, dental and nursing officers, allied health personnel and medical assistants. ADF health facilities can provide a range of outpatient services, low-level admitted patient care and limited surgical capability. Many ADF health facilities also have dental, pharmacy and rehabilitation services. However, many of the health services provided to ADF personnel are purchased from the civilian sector, using a mix of contracted, sessional and fee-for-service arrangements.

### Health promotion

Within the range of health services provided, the ADF Health Promotion Program aims at identifying and managing health risk factors, lifestyle issues and early disease among ADF members (ADF 2001). Every member undergoes an annual health assessment, which is replaced by a comprehensive preventive health examination every fifth year. These examinations include a health questionnaire and physical examination that focus on height, weight and body mass index, blood pressure, vision and hearing; and lifestyle factors including smoking, alcohol consumption, mental health issues, sun protection, dental health and sexual health. Vaccination status is also checked and members are offered appropriate routine screening such as Pap smears, mammography or faecal occult blood tests. Routine dental assessments also occur annually.

## Injury prevention

The Defence Injury Prevention Program (DIPP), established in 2000, helps ADF members prevent injuries by using local knowledge and expertise. The DIPP collects injury information that highlights the number and type of injuries and the circumstances that led to the injury. This information is analysed and interpreted in order to find ways to prevent injury in the future.

## Use of Australian hospital services

When the ADF pays for treatment in Australian hospitals, it is more likely that treatment will take place in a private hospital. In 2005–06, private hospital separations made up 87% of total recorded ADF-funded Australian hospital admissions. Private hospital separations had a shorter average length of stay than public hospital separations—1.6 days for private hospitals compared with 2.6 days for public hospitals.

**Table 7.25: Use of hospital services in Australia by the Australian Defence Force, 2005–06**

	Public hospitals	Private hospitals	Total
Number of separations	906	6,225	7,131
Patient days	2,390	9,982	12,372
Average length of stay	2.64	1.60	1.73

*Note:* Separations for which the care type was reported as *Newborn* with no qualified days, and records for *Hospital boarders* and *Posthumous organ procurement* have been excluded.

*Source:* National Hospital Morbidity Database unpublished data.

## Rehabilitation

Defence has always provided rehabilitation as an integral part of health care. The ADF has formalised the rehabilitation program (ADF 2006) with the introduction of the Military Rehabilitation and Compensation Act in 2004. The demand for rehabilitation services has increased, because of broader referral and formal identification of rehabilitation assessment plans and case management (ADF 2004). In 2006–07, there were 4,710 rehabilitation assessments (with 2,383 cases open as at 30 June) compared with 1,849 in 2005–06. The two most common conditions for which rehabilitation was undertaken were musculoskeletal injuries and conditions (68.5%) and mental health disorders (7.2%).

## Mental health

The mental health of ADF personnel is a high priority. Mental health disorders make up 7% of referrals for rehabilitation and were the fourth most common reason for time off work.

The ADF mental health strategy (ADF 2003) was launched in 2002, and recognises that mental health is not just related to diagnosable mental disorders but encompasses a broad range of lifestyle, mental wellbeing and job performance factors. The strategy continues to be refined and to focus on prevention and evidence-based treatment to maximise retention and enhance the quality of life for ADF personnel. The strategy consists of six key initiatives:

- integration and enhancement of ADF mental health services
- ADF mental health research and surveillance
- enhanced resilience and wellbeing

- critical incident mental health support
- suicide prevention program
- alcohol, tobacco and other drugs service.

### Psychological support

Mental health services are provided by uniformed medical officers, psychologists, nursing officers and chaplains, and a range of civilian specialists and social workers. These activities include post-deployment psychological screening and support, administrative referrals for psychological reasons, medical referrals, self-referrals for psychological support, and critical incident stress management interventions. Services are delivered by the Psychology Support Group and by psychology staff, who perform the majority of post-deployment psychological screening and support.

Training of ADF personnel as well as health-care providers is a key element of the mental health strategy. Mental health training covers issues such as mental health during military operations, traumatic stress, suicide prevention, critical incident support and psychological resilience training.

### Pharmaceutical use

During 2006–07, 600,978 items were dispensed through ADF pharmacies. The top five most commonly prescribed therapeutic classes are presented in Table 7.26.

**Table 7.26: Top five prescribed therapeutic classes, ADF, 2006–07**

Therapeutic class	Cost (\$)	Number of packs dispensed
Antibiotic	417,670	61,013
Simple analgesia	71,646	21,994
Antihypertensive	827,736	16,705
Hormonal contraceptive	343,748	11,574
Proton pump inhibitor (alone and combination) <sup>(a)</sup>	405,967	11,113

(a) Lowers stomach acid.

Source: ADF unpublished data.

## 7.5 Use of medicines

According to the 2004–05 National Health Survey, the use of medications is a common health-related action taken by Australians. Whether it be conventional prescription medication (237 million prescriptions filled in 2006) or over-the-counter medications such as analgesics (pain-killers), cough medicines, vitamins and complementary medications, this is an important component of the health system, accounting for over 14% (\$3.0 billion) of recurrent health expenditure in 2005–06.

Prescription medications are provided largely through community pharmacies and hospitals, whereas non-prescription medicines and complementary and alternative medicines are available from pharmacies and other retail outlets. At 30 June 2007, there were 4,992 approved community pharmacies and friendly societies in Australia (DoHA 2007b).



## Prescribed medicines

Information on the supply of prescription medicines in the community is compiled by Medicare Australia. This information is derived from prescriptions submitted for subsidy payment under the Pharmaceutical Benefits Scheme or the Repatriation Pharmaceutical Benefits Scheme (PBS and RPBS, see Box 7.13). Estimates of the use of non-subsidised prescription medicines are sourced from the Pharmacy Guild of Australia's ongoing survey of community-based pharmacies. Data are not available on the use of prescribed medicines in public hospitals and most private hospitals.

### **Box 7.13: The Pharmaceutical Benefits Scheme and the Repatriation Pharmaceutical Benefit Scheme**

The Pharmaceutical Benefits Scheme (PBS) subsidises the cost of a wide range of prescription medications, providing Australians with access to necessary and cost-effective medicines at an affordable price. As of December 2007, the scheme covered 819 drug substances (generic drugs), available in 2,749 forms and strengths (items) and marketed as 3,481 products (brands).

The Repatriation Pharmaceutical Benefits Scheme (RPBS) provides assistance to eligible war veterans and dependants. It is generally similar to the PBS for concessional beneficiaries (see below), but covers a somewhat broader range of pharmaceuticals.

Before a medicine can be subsidised by the PBS, it is assessed by the Pharmaceutical Benefits Advisory Committee, which includes medical practitioners, other health professionals and a consumer representative. The committee takes into account the medical conditions for which the medicine has been approved for use in Australia by the Therapeutic Goods Administration, its clinical effectiveness, its safety and its cost-effectiveness compared with other treatments. Once the committee has recommended a medicine, it is considered by the Pharmaceutical Benefits Pricing Authority. The price is negotiated between the manufacturer and the Australian Government Department of Health and Ageing, and the Australian Government then considers the listing.

Australian residents and visitors from countries with Reciprocal Health Care Agreements are eligible for PBS benefits.

Patients are grouped into two classes: general and concessional. As at 1 January 2008, general patients paid the first \$31.30 for each PBS prescription item. For concessional patients (people with low incomes and sickness beneficiaries who hold a health care card), the payment was \$5.00 per prescription item. These co-payments are increased on 1 January each year, generally in line with Consumer Price Index increases.

Individuals and families are protected from large overall expenses for PBS-listed medicines by safety nets. For the calendar year to 2007, once a general patient and/or immediate family had spent \$1,141.80, the patient co-payment per item decreased to the concessional rate of \$4.90. For concessional patients, the \$5.00 co-payment was not required once their expenditure on PBS items exceeded \$290.00.

Patients may pay more than the standard co-payment where a PBS item is priced above the benchmark price for different brands of the same drug or the benchmark price for a particular therapeutic group of drugs. These additional payments do not count towards safety nets.

During 2006, there were 168 million community PBS prescriptions—26 million for general patients and 142 million for concessional patients (Medicare Australia 2007). Although this was at similar levels to 2005, in the 10 years since 1997 there was a 31% increase in the number of community PBS prescriptions. Additionally, there were 15 million RPBS prescriptions in 2006 and 0.5 million PBS doctor's bag prescriptions (that is, emergency drugs that the doctor can provide to patients free of charge).

In 2006, there were about 54 million prescriptions which did not attract a subsidy under the PBS or the RPBS (35 million below the co-payment threshold and about 19 million private prescriptions). The impact of co-payments on demand for prescriptions is hard to assess. In the 10 years since 1997 the increase in the number of community PBS prescriptions (31%) was considerably larger than the growth in the Australian population (11%) and the growth in the population of Australians aged 65 years and over (18%).

### Trends in prescribed medicines

There has been a steady increase in the total number of community prescriptions, from 166 million in 1994 to 237 million in 2006 (Table 7.27), representing an average annual growth of 3% or a total growth over the period of 43%. The growth in the number of PBS/RPBS prescriptions is less regular than the growth in overall prescriptions because of variations in the co-payment schemes over the years. The PBS/RPBS prescriptions increased from 72% of total community prescriptions in 1994 to 77% in 2006, whereas prescriptions which cost below the co-payment threshold decreased from 20% of the total in 1994 to 15% in 2006. PBS/RPBS prescriptions increased by 52% over the period, compared with an increase of 3% for prescriptions below the co-payment level. There was a 62% increase in private prescriptions between 1994 and 1996.

**Table 7.27: Number of community prescriptions, 1994 to 2006**

Type	Calendar year							Change 1994 to 2006	Average annual change 1994 to 2006
	1994	1996	1998	2000	2002	2004	2006		
	(Million)							(%)	(%)
PBS concession	97.0	105.8	107.3	120.5	132.3	141.4	141.9	46	3.2
PBS general	17.2	18.5	18.8	21.8	25.2	29.5	25.8	50	3.4
RPBS	5.4	8.7	10.2	12.5	15.0	15.7	14.7	170	8.6
<i>PBS/RPBS total</i>	<i>119.6</i>	<i>133.0</i>	<i>136.4</i>	<i>154.8</i>	<i>172.5</i>	<i>186.6</i>	<i>182.3</i>	52	3.6
Private	11.9	11.7	15.1	14.3	16.0	18.1	19.3	62	4.1
Under co- payment	33.6	34.1	35.4	30.7	27.6	28.2	34.6	3	0.2
Other <sup>(a)</sup>	0.8	0.8	0.8	0.5	0.5	0.5	0.5	-35	-3.6
<b>Total</b>	<b>165.9</b>	<b>179.6</b>	<b>187.6</b>	<b>200.3</b>	<b>216.6</b>	<b>233.4</b>	<b>236.8</b>	<b>43</b>	<b>3.0</b>

(a) 'Other' refers to doctor's bag.

Source: Drug Utilisation Sub Committee drug utilisation database, DoHA unpublished.

### Which drugs are prescribed the most?

Apparent use of prescription medicine can be described using the defined daily dose per 1,000 population per day (DDD/1,000/day) as the unit of measurement. The DDD is based on the assumed average dose per day of the drug used for its main indication (reason for use) by adults. It provides an estimate of how many people per 1,000 population are

taking the standard dose of the drug each day, on average, and allows for comparisons independent of differences in quantities of drugs per prescription. These estimates assume, however, that the amount of medicines supplied is the same as the amount used, and that will not always be the case.

In 2005–06, atorvastatin (used for lowering blood cholesterol) was the most commonly used generic drug measured by DDD/1,000/day (Table 7.28), followed by simvastatin (also for lowering blood cholesterol) and ramipril (for treating high blood pressure and heart failure). The top four generic medications by prescription volume in 2005–06 were atorvastatin and simvastatin (9.1 million and 6.4 million prescriptions respectively), followed by amoxicillin (an antibiotic, 5.0 million prescriptions) and paracetamol (a pain-killer, 4.4 million prescriptions). For most of these high-volume prescriptions, the vast majority were provided through the PBS or RPBS; however, amoxicillin was provided as a non-PBS/RPBS prescription half the time (2.5 million prescriptions).

**Table 7.28: Top 15 generic medications, 2005–06**

Generic name	Action	Defined daily dose per 1,000 population			Prescriptions ('000)		
		PBS/RPBS <sup>(a)</sup>	Other <sup>(b)</sup>	Total	PBS/RPBS <sup>(a)</sup>	Other <sup>(b)</sup>	Total
Atorvastatin	Lowers blood cholesterol	115.6	0.2	115.8	9,048	20	9,068
Simvastatin	Lowers blood cholesterol	58.4	0.1	58.5	6,357	14	6,371
Amoxicillin	Antibiotic	2.7	2.7	5.3	2,424	2,546	4,970
Paracetamol	Pain-killer	14.1	0.5	14.6	4,207	152	4,360
Omeprazole	Lowers stomach acid	19.4	0.1	19.5	4,183	21	4,204
Atenolol	Lowers blood pressure	9.9	2.8	12.7	3,260	918	4,179
Salbutamol	Opens airways	18.0	7.4	25.4	2,944	1,132	4,076
Codeine with paracetamol	Pain-killer	n.a.	n.a.	n.a.	2,607	1,420	4,027
Perindopril	Lowers blood pressure	14.8	2.7	17.5	3,125	755	3,881
Irbesartan	Lowers blood pressure	17.9	4.5	22.3	3,026	840	3,866
Cefalexin	Antibiotic	1.4	1.0	2.4	2,202	1,620	3,822
Esomeprazole	Lowers stomach acid	14.2	0.0	14.2	3,717	7	3,724
Ramipril	Lowers blood pressure	35.7	3.2	38.9	3,025	437	3,462
Metformin hydrochloride	Lowers blood glucose	11.8	3.0	14.8	2,727	673	3,400
Irbesartan with hydrochlorothiazide	Lowers blood pressure	n.a.	n.a.	n.a.	2,963	228	3,190

(a) PBS—Pharmaceutical Benefits Scheme; RPBS—Repatriation Pharmaceutical Benefits Scheme.

(b) Prescriptions not subsidised by the PBS or RPBS, because they were private prescriptions or the cost to the patient was not more than the co-payment.

Source: Drug Utilisation Sub Committee drug utilisation database (DoHA unpublished).

The use of some prescription medicines has changed markedly in recent years. For example, between 2000–01 and 2005–06 there was a 159% increase in the DDD/1,000/day for atorvastatin (for lowering blood cholesterol) and a 79% increase for a similar drug, simvastatin (Table S36).

Atorvastatin, simvastatin and esomeprazole were the highest cost drugs for the PBS in 2005–06, with PBS expenditure on them totalling \$581.5 million, \$360.9 million and \$192.5 million respectively. The next most costly were fluticasone (a drug that reduces airway inflammation, \$190.0 million) and omeprazole (which lowers stomach acid, \$170.2 million) (DoHA 2007b).

## GP prescribing patterns

The BEACH survey of general practice activity collects information on drugs prescribed by GPs (Britt et al. 2007). In 2005–06, medications were prescribed at a rate of 83 per 100 GP encounters. Medications for the nervous system, including analgesics (pain-killers) and antidepressants, were the most commonly prescribed group, accounting for 21.7% of all prescriptions. The next most common were antibiotics (20.4%), cardiovascular medications (19%), alimentary tract and metabolism medications (9.5%) and respiratory medications (6.2%).

Four of the 10 most frequently prescribed medications were from the antibiotic group (Table 7.29). Simple analgesics were also frequently prescribed, reflecting their prescription for health care card holders, for whom they are a cheaper option than over-the-counter purchase.

**Table 7.29: Medications most frequently prescribed by GPs, 2005–06**

Generic name	Action	Proportion of prescriptions (%)	Prescriptions per 100 encounters
Amoxicillin	Antibiotic	4.2	3.6
Paracetamol	Pain-killer	3.5	3.0
Cephalexin	Antibiotic	2.9	2.5
Paracetamol/codeine	Pain-killer	2.3	2.0
Amoxicillin/potassium clavulanate	Antibiotic	1.9	1.7
Atorvastatin	Lowers blood cholesterol	1.9	1.6
Salbutamol	Opens airways	1.7	1.5
Roxithromycin	Antibiotic	1.7	1.5
Metformin	Lowers blood glucose	1.4	1.2
Simvastatin	Lowers blood cholesterol	1.4	1.2

*Note:* These data refer to prescriptions written by GPs. Actual prescriptions filled per 100 encounters may be higher than the numbers in this table, because many prescriptions have 'repeats'—drugs for chronic disorders frequently have five repeats.

*Source:* Britt et al. 2007.

## Non-prescribed medicines

The only information available on the use of non-prescribed medicines is from the BEACH survey which collects and reports information on drugs that GPs advise patients to purchase over the counter, and those that the GPs supply directly.

In 2005–06, 9.3% of medications prescribed, advised or provided by GPs in the BEACH survey were advised for over-the-counter purchase, and 8.5% were supplied by the GP. Over a quarter of drugs (25.9%) advised for over-the-counter purchase were for paracetamol and 5.8% for ibuprofen (an anti-inflammatory drug). The most common medications supplied directly by GPs were vaccines.

## 7.6 Medical indemnity claims

In some cases, the recipient of a health-care service may decide to pursue a medical indemnity claim against a health professional or organisation based on the allegation that the patient has suffered some kind of harm as a result of the care received.

The Medical Indemnity National Collection (MINC) was established in 2002 as a result of concerns about health-care litigation, the associated costs, and the financial viability of both medical indemnity insurers and medical personnel. The MINC collates information on the nature, method of settlement and costs of medical indemnity claims (Box 7.14). Establishment of the MINC data collection was coordinated with the development of several other federal, state and territory government initiatives to better manage medical indemnity issues in Australia.

The MINC covers public and private sector medical indemnity claims arising in health-care facilities and other clinical service contexts. Public sector claims include claims against health-care professionals employed by all public sector health facilities and services. Private sector claims include claims made against doctors holding individual policies with a medical indemnity insurer. Claims against private hospitals are not currently included in the MINC.

### Box 7.14: Medical indemnity definitions

Medical indemnity insurance—a form of professional indemnity insurance. In the public sector, this insurance is mostly provided by state and territory health authorities.

Medical indemnity claim—a claim for compensation for harm or other loss as a result of a health-care incident.

New claim—a claim opened during the reporting period.

Current claim—a claim that remains open at the end of the reporting period, including a new claim.

Closed claim—a claim that has been closed during the reporting period, including new claims closed in the reporting period.

All claims—the total set of claims that were open at any time during the reporting period (the sum of current and closed claims).

Procedure—includes failure to perform a procedure, wrong procedure performed, wrong body site, post-operative complications, failure of procedure, and other procedure-related issues.

Diagnosis—includes missed, delayed or incorrect diagnosis.

Treatment—includes delayed treatment, treatment not provided, complications of treatment, failure of treatment, and other treatment-related issues.

General duty of care issues—includes falls, administrative errors and patient monitoring and follow-up issues.

Consent—includes failure to warn.

Medication-related—includes type, dosage and method of administration issues.

## Public sector medical indemnity claims in 2005–06

In the period 1 July 2005 to 30 June 2006, almost 2,000 new medical indemnity claims were made in the public sector and 1,628 claims were closed. There were 5,294 current claims in the reporting period (Table 7.30).

The number of all claims appeared to rise over the 3 years of the public sector MINC collection, from 4,956 in 2003–04 to 6,922 in 2005–06 (Table 7.30). This may not reflect an actual rise in the number of claims being made over this period because this number may be affected by an improvement in reporting capability. Reporting improved overall from 80% of claims in scope in 2003–04 to 89% in 2005–06.

Public sector claims information includes the specialty of the clinician or clinicians (as many as four) who were involved in the alleged harm giving rise to the claim. In 2005–06, the most commonly recorded specialties were general surgery (816 claims), obstetrics only (813 claims) and emergency medicine (791 claims), but if the specialities of obstetrics and gynaecology were combined they would account for 1,428 claims (AIHW 2007d).

The service context is the area of clinical practice or hospital department in which the patient was receiving the health service which led to an allegation of harm. The context most frequently recorded for all claims in 2005–06 was obstetrics (17.8%) followed by general surgery (14.1%), and accident and emergency (13.6%). Throughout 2003–04 to 2005–06, obstetrics was the most frequently reported clinical service context, and the proportion of claims citing general surgery increased. Over the same period, the proportion of claims citing other specialties such as gynaecology, orthopaedics and psychiatry remained stable or declined (AIHW 2007d).

The primary incident/allegation type describes what is alleged to have 'gone wrong'; that is, the area of the possible error, negligence or problem that gave rise to a claim. The most common primary incident or allegation types for all claims in the public sector in 2005–06 were procedure-related problems (such as invasive clinical intervention or investigation), which made up 34.1% of all claims, followed by diagnosis (19.8%) and treatment (13.7%). Procedure was cited as the primary incident or allegation type in over half the claims where gynaecology, obstetrics, general surgery or orthopaedics was reported as the clinical context, and diagnosis accounted for over half of the claims in an accident and emergency clinical context.

Data are also collected on the primary body function or structure alleged to have been affected by the incident giving rise to the claim. In 2005–06, the most commonly affected primary body function/structure (as reported) was neuromusculo-skeletal and movement-related functions and structures (21.0% of all claims), followed by mental functions/structures of the nervous system (14.0%), and genitourinary and reproductive functions and structures (11.5%). From 2003–04 there was little change in the proportion of claims relating to the various primary body function/structure categories, apart from a decline in genitourinary and reproductive functions and structures, and a slight increase in functions and structures of the digestive, metabolic and endocrine systems.

In 2005–06, 4.0% of closed claims were settled by a court decision and 51.5% were discontinued. In 3% of closed claims the mode of finalisation was not reported. The balance of closed cases (41.7%) were settled via other methods including state/territory-based complaints processes, court-based alternative dispute resolution processes and statutorily mandated compulsory conference processes.

More than half the claims closed during 2005–06 had a total claim size of less than \$10,000 (60.5%) and 3.8% of closed claims were settled for \$500,000 or more (AIHW 2007d).

**Table 7.30: Public sector medical indemnity claims 2003–04 to 2005–06**

	2003–04	2004–05	2005–06
	<b>Number</b>		
<i>New claims<sup>(a)</sup></i>	1,641	1,641	1,943
Current claims	4,096	4,773	5,294
Closed claims	860	1,680	1,628
<b>All claims<sup>(b)</sup></b>	<b>4,956</b>	<b>6,453</b>	<b>6,922</b>
<i>Percentage of claims in scope<sup>(c)</sup></i>	80.0	85.0	89.0
	<b>Per cent<sup>(d)</sup></b>		
<i>New claims<sup>(a)</sup></i>	33.1	25.4	28.1
Current claims	82.6	74.0	76.5
Closed claims	17.4	26.0	23.5
<b>All claims</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

(a) New claims, which are those that were opened during the reporting period, are also classified as either current or closed. For this reason, new claims would be double-counted if they were added to current and closed claims in calculating the number of all claims.

(b) All claims is the total set of claims, including those open at the start of the period, in the MINC during the reporting periods.

(c) Percentage of claims in scope reflects the percentage of all relevant claims data held by jurisdictions that was reported to the MINC.

(d) New, current and closed claims as a percentage of all claims.

Source: AIHW 2007d.

## Combined public and private sector claims information

Recently the AIHW began to receive claims data from the private medical indemnity insurance sector, allowing private sector claims data to be combined with public sector claims data for the first time, for the year 2004–05 (AIHW 2007e). However, there are limits on the data that can be reported in the combined report owing to differences in how claims information is captured in the public and private sectors.

In the public and private sectors in 2004–05, over half the current claims were related to procedure (29.1%) and diagnosis (23.6%). More than half of claims allegedly involving specialists from general surgery, gynaecology, obstetrics and gynaecology and orthopaedic surgery cited procedure as the primary incident/allegation type. Diagnosis was the primary incident/allegation type most often cited in claims allegedly involving an emergency medicine specialist (Table 7.31).

The most common primary body function or structure allegedly harmed as a result of health care for new claims in 2004–05 was neuromusculoskeletal and movement-related (21.3%). This was followed by mental functions and structures of the nervous system (12.2%) and genitourinary and reproductive structures and functions (11.0%). These proportions are similar to those reported in 2004–05 for the public sector medical indemnity data.

Over half (53.4%) of the claims closed were settled for less than \$10,000 and no payment was made in 12.7% of claims. A small proportion of claims (1.7%) were settled for more than \$500,000 (AIHW 2007e).

**Table 7.31: Public and private sector current claims: specialty of clinician, by primary incident/allegation type, 30 June 2005**

Specialty of clinician(s)	Primary incident/allegation type (%)							
	Pro- cedure	Diag- nosis	Treat- ment	General duty of care issues	Consent	Medica- tion- related	Other	Not reported
Emergency medicine	53.8	11.0	9.7	4.8	8.6	0.8	10.5	1.0
General surgery	58.5	9.9	14.6	4.9	4.2	0.7	7.0	0.3
Gynaecology	20.6	24.4	14.0	10.7	4.0	5.3	20.2	0.7
Obstetrics	57.2	15.7	6.3	5.3	5.9	1.0	8.3	0.4
Obstetrics & gynaecology	5.0	56.3	20.6	3.4	1.3	4.4	8.4	0.6
Orthopaedic surgery	65.3	7.7	3.4	3.7	9.4	1.0	8.4	1.0
Other hospital-based medical practitioner	55.6	15.1	15.8	4.3	1.1	1.4	3.9	2.9
Psychiatry	1.4	18.4	7.5	23.1	2.7	9.5	36.7	0.7
Not yet known	12.1	11.2	7.5	4.2	2.8	0.9	18.2	43.0
All other specialties	19.4	25.6	9.4	10.0	6.5	6.0	22.6	0.6
<b>Total</b>	27.7	22.5	10.3	8.9	5.8	4.6	18.6	1.7

Source: AIHW 2007e.

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