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A comparison of remote, regional and city health expenditure

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Symbols

n.a.	not available
..	not applicable
n.e.c.	not elsewhere classified
—	nil or rounded down to zero
%	per cent

Abbreviations

ABS	Australian Bureau of Statistics
ACCHO	Aboriginal Community Controlled Health Organisation
AIHW	Australian Institute of Health and Welfare
AR-DRGs	Australian Refined Diagnosis Related Groups
ASGC	Australian Standard Geographical Classification
DVA	Department of Veterans' Affairs
DoHA	Australian Government Department of Health and Ageing
HEA	Health Expenditure Australia
ERP	Estimated Resident Population
MBS	Medicare Benefits Schedule
NHMD	National Hospital Morbidity Database
NHS	National Health Survey
NRHA	National Rural Health Alliance
OATSIH	Office for Aboriginal and Torres Strait Islander Health
PBS	Pharmaceutical Benefits Scheme
RPBS	Repatriation Pharmaceutical Benefits Scheme

Summary

The report examines the way selected health services were delivered across Australia for the financial years 2001–02, 2004–05 and 2006–07. This analysis was performed using the Australian Standard Geographical Classification system to compare the expenditure and usage rates of the health services by residents of *Major cities*, *Inner regional*, *Outer regional*, *Remote* and *Very remote* areas of Australia.

For the majority of health services examined in this report, there is a clear difference in the pattern of engagement by residents of the different regional areas with the health system.

For hospital services there is a strong increase in the number of public hospital separations and expenditure with the remoteness of the patient's residence, especially in relation to overnight and acute hospital separations. Australians living in the most remote areas of the nation accounted for over twice the per person expenditure levels on these services compared with Australians living in *Major cities*.

For almost all Medicare services, such as for general practitioners and specialists, the opposite trend is present – with service usage levels being highest for residents in the more urban areas and lowest for those in regional and remote areas.

The lower expenditure levels were especially pronounced for other Allied health professional services, with *Inner regional* residents receiving 70% of the per person expenditure for residents of *Major cities*, while the per person expenditure levels for the most remote Australians was only 8% of that for city residents.

The analysis in the report covers 56% of all recurrent health spending within Australia, focusing on health expenditure where categorisation by remoteness was available or considered of good enough quality.

1 Detailed overview

This detailed overview is designed to provide readers with an introduction to the findings of the report. For readers seeking additional levels of detail, the other chapters of the report and the supporting appendices provide a more in depth analysis of health expenditure, including discussion on some areas of health expenditure not included in this chapter.

1.1 The aim of the report

The report presents estimates of expenditure, data on the numbers of consultations, episodes of admitted patient care and other services provided by the remoteness of the service recipient's residential address. The report aims to answer the following questions:

- Does per person spending vary depending upon geographical location?
- If variations exist, can they be explained by differences in demographic profiles?

To address these questions, the expenditure and usage information in this report has been split by Australian Standard Geographical Classification (ASGC) and, where possible, has been age-standardised (adjusted to take account of the age profiles of residents living in the different remoteness classifications).

1.2 Data inclusions, methodology and associated notes

This report focuses on a number of areas in which breakdowns for expenditure by ASGC remoteness categorisation were readily available. These areas can be broadly classified as expenditures related to admitted patients in hospitals, selected Medicare expenditure, expenditure relating to pharmaceuticals and grants to Aboriginal Community Controlled Health Organisations. Additionally, further analysis is provided on selected results from the National Health Survey which provide some useful insights into the operation of the health care system by ASGC remoteness categorisation.

Much of the report is based on 2006–07 recurrent health expenditure and corresponding information on health services, such as numbers of services or scripts, as appropriate, for:

- hospital services (admitted patients)
- medical services (Medicare) including:
 - general practitioner (GP) and other primary care
 - specialists
 - certain allied health professional services, such as imaging, pathology and optometrical services
 - obstetrics
 - operations
 - radiation and other services

- pharmaceuticals for which a script is required (Pharmaceutical Benefits Scheme (PBS) and Section 100 drugs).

Limited expenditure data is reported for:

- dentistry (Medicare)
- Aboriginal Community Controlled Health Organisations.

There are numerous other health programs for which expenditure amounts have not been included in the report. For some of these programs, information on the expenditure by ASGC may not exist or may be hard to determine with accuracy. The excluded areas of expenditure include patient assisted travel schemes, residential aged care facilities, patient transport, DoHA's rural health programs, non-admitted patient services, the Royal Flying Doctor Service, public health programs, pharmaceutical expenditure outside of the PBS and Section 100 expenditure, community health centres and patient aids and appliances.

ASGC Remoteness Areas classification

The ASGC Remoteness Areas classification, developed by the Australian Bureau of Statistics (ABS), has been used to define the different areas of remoteness which form the basis of the report. The classification system allocates one of five remoteness categories to areas depending on their distance from a range of five types of population centre. Areas are classified as *Major cities*, *Inner regional*, *Outer regional*, *Remote* or *Very remote*.

Most of Australia's capital cities fall into the *Major cities* classification along with other city areas, such as Newcastle in NSW and Logan City in Qld. The exceptions are Hobart and Darwin which are classified as *Inner regional* and *Outer regional* respectively. Examples of *Remote* areas are Katherine (NT) and Roxby Downs (SA) and *Very remote* areas are East Pilbara (WA) and Carpentaria (QLD). Not all areas fall into a single classification for example 96.2% of the Mount Isa (Qld) area is classified as *Remote* while the remainder is classified as *Very remote*.

For the purpose of this report, the ASGC analysis of remoteness is based on the residential address of the service recipient (for example, where an individual is admitted to a hospital, the associated coding will reflect the residential address of the individual, not the hospital). For the Section 100 pharmaceutical expenditure, this entire amount has been assigned to the combined *Remote* and *Very remote* category, reflecting the nature of this expenditure.

Population size

Expenditure levels, between regions or over time, are affected by differences in population size and composition. All other things being equal, an area with a larger population will have a higher level of total health expenditure than a region with a lower population. Such differences can be taken into account by expressing all expenditure in per person terms. To calculate this, expenditure (or other associated activities, such as hospital separations) in a region, for a particular period, is divided by the population of that region at that time. The resulting per person expenditure amounts may provide more useful insights in examining expenditure patterns than the unadjusted total levels of health expenditure.

The populations used in this report were the average of the estimated resident population (ERP) for the relevant regions at the beginning and end of the period of interest. These populations are detailed in Appendix E.

Age structure

The age structure of the population of a region is a substantial factor in total health expenditure because very young and older people often require greater health care than others – patterns of illness and death are often age-related.

In Australia, people living in *Remote* and *Very remote* regions are generally younger than the Australian average; there are proportionally more children and fewer older people in these regions. In *Inner* and *Outer regional* areas there is a higher than average proportion of people in their 50s, 60s and 70s, but fewer people in their 20s and 30s.

Differences between expenditure and health service use between remoteness areas may simply reflect the different age structures of populations, rather than any difference in the underlying use of services.

Aboriginal and Torres Strait Islander people

The analysis presented in this report does not contrast health expenditure or service use estimates for Indigenous and non-Indigenous Australians. This report and the findings it contains should be read in conjunction with the *Expenditure on health for Aboriginal and Torres Strait Islander people 2006–07* (AIHW 2010) which provides analysis based on both remoteness and Indigenous status. Section 1.10 of this report provides some further discussion of health expenditure for Aboriginal and Torres Strait Islander people in this context.

Casemix complexity

The report includes various tables which show the average level of cost for a particular service by the remoteness of the residential addresses of the service recipients. It is important to note that these results are calculated by dividing the total amount of expenditure on a service in a region by the associated number of services provided. The results do not take account of the differences in casemix complexity – that is, the results are not adjusted to take account of complexity and time taken to deliver each service. If the people in a region had a higher rate of more complex cases occurring, this would lead to an increase in the average costs presented in this report. As such, the results in this report do not explicitly provide information on the relative cost-effectiveness or efficiency of delivering identical services throughout Australia, but rather the average cost of providing similar services.

Interpreting data

While comparisons are made in this report between the levels of health expenditure for the various types of health services, health services can be delivered in a different manner in the more remote areas of Australia. As such, any direct comparisons between the remoteness categories analysed in the report must be done carefully. For example, in more remote areas practice nurses and community health centres may play a greater role in the delivery of health services than is the case in more densely populated areas. GPs in more remote areas may provide services that would be dealt with by medical specialists in the cities. Additionally, in more remote locations, a number of communities may share a certain health care facility, with residents from the outlying communities needing to travel greater

distances to access the relevant facility. It is possible that differences in the rates of health services expenditure and use across areas may reflect levels of need or demand.

The information provided shows some trends and differences in these areas of health expenditure, however, the results are not necessarily indicative of all types of health expenditure by governments in Australia. While government expenditure may cover a portion of an individual's health care expenses, there may still be varying levels of direct and indirect out-of-pocket expenses associated with a particular health service. Direct out-of-pocket expenses such as co-payment under MBS is included, however the report does not seek to quantify a number of other costs which individuals may need to cover when interacting with the health care system. These other costs may include, but are not limited to, travel and accommodation costs and lost wages/salaries associated with individuals (and their families or friends) being away from the workplace. Finally there are also wider economic costs associated with being ill or caring for somebody who is ill, such as reduced workforce participation levels (AIHW 2009).

Results

Tables 1.1 and 1.2 provide a summary of the expenditure analysed in this report by ASGC. In addition, Table 1.3 looks at the relative average age standardised per-person expenditure levels by ASGC for the main areas of health expenditure covered in the report.

Table 1.1: Health expenditure included in report, current prices, 2006–07 (\$ million)

Recurrent health expenditure	Major cities	Inner regional	Outer regional	Remote	Very remote	Remote and Very remote	Australia ^(a)
Admitted patient services in public and private hospitals	18,693	5,896	2,928	507	336	n/a ^(b)	28,582
Medicare services	10,768	2,725	1,141	143	55	n/a ^(b)	14,837
PBS (and section 100) ^(b)	4,466	1,428	629	n/a ^(b)	n/a ^(b)	117 ^(b)	6,644
Grants to ACCHOs	48	38	70	75	35	n/a ^(b)	267
Total	33,976	10,087	4,769	725	426	117	50,331

(a) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(b) PBS (and section 100) expenditure could not be disaggregated between *Remote* and *Very remote* area. The expenditure has been separately provided in a combined *Remote* and *Very remote* column.

Note: Not age-standardised.

Source: AIHW health expenditure database.

With the exception of grants to Aboriginal Community Controlled Health Organisations (ACCHOs), total health expenditure in 2006–07 declined with remoteness (Table 1.1), however the age standardised per person expenditure estimates reveal some different trends. Even though spending on admitted patient services increased with remoteness on a per person basis, both expenditure on Medicare services and on PBS (and section 100) pharmaceuticals declined with remoteness. Overall residents of the *Remote* and *Very remote* areas experienced the highest average levels of age standardised per person expenditure (\$2,838 and \$3,512 respectively), while residents of *Inner regional* areas experienced the lowest (\$2,323) (Table 1.2).

Table 1.2: Age standardised per person health expenditure included in report, current prices, 2006–07 (\$)

Age standardised health expenditure per person	Major cities	Inner regional	Outer regional	Remote	Very remote	Total
Admitted patient services in public and private hospitals	1,320.97	1,360.95	1,470.97	1,815.63	2,608.79	1,368.69
Medicare services	760.80	635.82	566.75	483.00	390.45	710.50
PBS (and section 100) ^(a)	320.67	316.75	305.58	301.88 ^(a)	301.88 ^(a)	318.17
Grants to ACCHOs ^(b)	3.38	9.34	35.49	237.63	210.77	12.80
Total	2,405.82	2,322.85	2,378.79	2,838.15	3,511.90	2,410.15

(a) The PBS (and section 100) estimates for the *Remote* and the *Very remote* categories are based upon the combined *Remote* and *Very remote* result. Data limitations prevent specific totals from being calculated for the respective geographical classifications.

(b) The results for ACCHOs are not age standardised due to data limitations.

Source: AIHW health expenditure database.

Table 1.3: Age standardised per person health expenditure included in report, indexed ^(a), 2006–07 (\$)

Indexed age standardised health expenditure per person	Major cities	Inner regional	Outer regional	Remote	Very remote	Total
Admitted patient services in public and private hospitals	1.00	1.03	1.11	1.37	1.97	1.03
Medicare services	1.00	0.84	0.74	0.63	0.51	0.93
PBS (and section 100) ^(b)	1.00	0.99	0.95	0.94 ^(b)	0.94 ^(b)	0.99
Grants to ACCHOs ^(c)	1.00	2.76	10.49	70.24	62.30	3.78
Total	1.00	0.97	0.99	1.18	1.46	1.00

(a) Expressed as a multiple of the *Major cities* value.

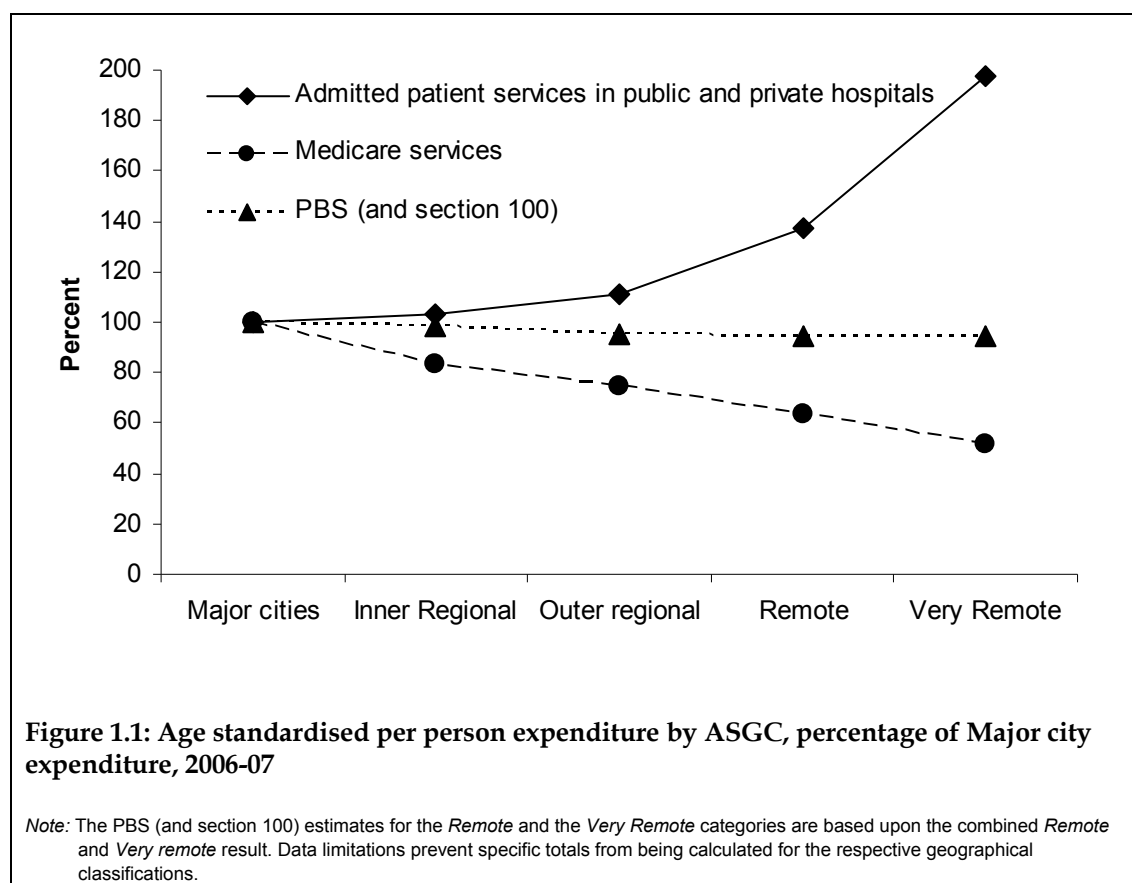
(b) The PBS (and section 100) estimates for the *Remote* and the *Very remote* categories are based upon the combined *Remote* and *Very remote* result. Data limitations prevent specific totals from being calculated for the respective geographical classifications.

(c) The results for ACCHOs are not age standardised due to data limitations.

Source: AIHW health expenditure database.

Figure 1.1 illustrates the relative levels of age standardised expenditure of the various regional classifications in comparison to residents of *Major cities*. While the levels of per person expenditure on PBS (and section 100) pharmaceuticals shows a slight decline with remoteness, the decrease in expenditure on Medicare services is more pronounced – with residents of *Outer regional* and *Very remote* areas receiving approximately three-quarters and half of the expenditure levels of *Major cities* residents respectively.

The results for expenditure on admitted patient services showed an opposing trend, with residents of *Major cities* being the subject the lowest level of age standardised expenditure. The expenditure levels were higher with increasing remoteness with *Inner regional* resident receiving 3% more expenditure than their *Major cities* counterparts while *Very remote* residents almost twice that of *Major city* residents.



1.3 Hospital expenditure

This section primarily provides analysis on admitted patient expenditure by ASGC classification. However, as the funding arrangements for hospitals in Australia is complex, and differs for public and private hospitals, additional analysis is provided on selected Medicare services provided in hospitals.

Hospital procedures can be surgical procedures, non-surgical investigative and therapeutic procedures, such as X-rays and chemotherapy, and non-surgical client support interventions, such as anaesthesia. Rates of surgical procedure are likely to be affected by issues such as need and access, both financial and physical. The remoteness of major hospitals and specialists from regional and remote populations may influence residents' access to procedures (AIHW 2008). In this report, these expenditure classes are referred to as admitted patient expenditure.

Hospitals also provide services to non-admitted patients through emergency departments, outpatient clinics and a range of other specialised services. Services for non-admitted patients have not been included in the analysis in this report, although a non-admitted patient may later become an admitted patient.

The hospital admitted patient data were derived from the National Hospital Establishment Database, the Private Health Establishment Collection and the National Hospital Morbidity Database (NHMD) and adjusted ABS estimated resident population data. The NHMD includes data relating to admitted patients in almost all public and private hospitals. It is a compilation of episode-level records for each separation, not for each patient, so patients

who separated more than once a year have more than one record in the database. Separation data for each selected procedure were analysed based on the ASGC remoteness area of usual residence of the patient and the separation rates presented give the number of hospital separations for the population living in each remoteness area.

Summary of results for hospital admitted patient services—2006–07

Box 1.1: Key findings for hospital admitted patient services

The results show a clear difference in the profile of hospital usage for those living in more remote areas compared to residents of more densely populated areas.

Overall, per person expenditure levels for hospital admitted patient services and associated separation rates were higher with increasing remoteness. For those outside Major cities, there were much higher rates of public hospital admission and expenditure, while for private hospitals the opposite was true. These trends were especially evident for residents of Remote and Very remote areas. Additionally, there was also higher per person expenditure levels for non-Major cities residents for both overnight and acute care separations.

Public and private hospitals (including in-hospital medical services)^(a)

Age-standardised per person expenditure on public admitted patients was substantially higher for the more remote areas, with expenditure in Very remote areas being over 2.5 times that for residents of Major cities. Conversely, standardised expenditure levels for private admitted patients showed a sharp reduction with remoteness.

Residents of Inner regional areas experienced the lowest overall separation rate.

Length of stay – same-day and overnight separations^(b)

The ratio of same-day expenditure to total expenditure per person was generally lower with remoteness (from 17.6% for Major cities to 12.6% for Very remote residents).

Acuteness of hospital admitted patient separations^(c)

Age-standardised acute expenditure per person was higher with remoteness, with levels in Very remote locations almost twice that of Major cities. Age-standardised non-acute expenditure was highest in Remote and Very remote areas and lowest for Inner regional residents.

(a) Some information on this item is provided below. For more details see Section 3.1.

(b) For details and analysis on this item, see Section 3.2.

(c) Some information on this item is provided below. For more details see Section 3.2.

Table 1.4: Expenditure on admitted patient services^(a) including in-hospital medical services^(b) by public/private hospital and remoteness, 2006–07

Measure	ASGC remoteness ^(c)					Australia ^(d)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Public hospitals	14,204.2	4,758.8	2,545.0	472.5	330.1	22,513.0
Private hospitals	7,176.7	1,873.0	675.6	72.5	24.7	9,858.0
<i>Total</i>	<i>21,380.9</i>	<i>6,631.8</i>	<i>3,220.6</i>	<i>545.1</i>	<i>354.8</i>	<i>32,371.0</i>
Expenditure per person (\$)						
Public hospitals	993.39	1,154.72	1,285.21	1,494.01	1,983.48	1,078.07
Private hospitals	501.91	454.49	341.16	229.36	148.55	472.06
<i>Total</i>	<i>1,495.30</i>	<i>1,609.21</i>	<i>1,626.38</i>	<i>1,723.37</i>	<i>2,132.03</i>	<i>1,550.13</i>
Expenditure per person, age-standardised ^(e) (\$)						
Public hospitals	1,002.70	1,102.05	1,281.09	1,682.77	2,513.19	1,078.07
Private hospitals	508.72	428.15	337.22	263.56	202.59	472.06
<i>Total</i>	<i>1,510.90</i>	<i>1,530.70</i>	<i>1,617.68</i>	<i>1,950.94</i>	<i>2,751.07</i>	<i>1,550.13</i>
Expenditure per person indexed, age-standardised ^(f)						
Public hospitals	1.00	1.10	1.28	1.68	2.51	1.08
Private hospitals	1.00	0.84	0.66	0.52	0.40	0.93
<i>Total</i>	<i>1.00</i>	<i>1.01</i>	<i>1.07</i>	<i>1.29</i>	<i>1.82</i>	<i>1.03</i>

(a) Data 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 table includes both admitted patient and certain MBS data and as such will not reconcile back to the figures provided in Tables 1.1 to 1.3. See Section 1.4 for details on in-hospital medical services.

(c) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(d) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(e) Indirectly age-standardised.

(f) Expressed as a multiple of the *Major cities* value.

Note: Public and private hospital expenditure are not comparable. See Box 3.1. Expenditure relates to admitted patient services regardless of source of fund. This includes government, health insurance and self funded payments.

Source: AIHW health expenditure database.

Table 1.5: Admitted patient separations^(a) by remoteness, 2006–07

	ASGC remoteness ^(b)					
Measure	Major cities	Inner regional	Outer regional	Remote	Very remote	Australia
Public hospitals						
Separations (millions)	2.9	1.0	0.5	0.1	0.1	4.7
Separations per 1,000	204.3	243.3	277.0	301.0	414.7	223.2
Separations per 1,000 age-standardised ^(c)	206.1	233.9	274.9	329.1	501.0	223.2
Separations per person indexed ^(d)	1.00	1.13	1.33	1.60	2.43	1.08
Private hospitals						
Separations (millions)	2.2	0.5	0.2	0.0	0.0	2.9
Separations per 1,000	153.7	124.8	96.0	69.6	42.5	140.9
Separations per 1,000 age-standardised ^(c)	155.9	118.3	94.2	77.0	54.4	140.9
Separations per person indexed ^(d)	1.00	0.76	0.60	0.49	0.35	0.90
All						
Separations (millions)	5.1	1.5	0.7	0.1	0.1	7.6
Separations per 1,000	358.0	368.0	373.0	370.5	457.2	364.1
Separations per 1,000 age-standardised ^(c)	361.9	351.9	368.6	407.1	564.6	364.1
Separations per person indexed ^(d)	1.00	0.97	1.02	1.12	1.56	1.01

(a) Data 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) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the Major cities value.

Source: AIHW health expenditure database.

Table 1.6: Expenditure on admitted patient services^(a) including in-hospital medical services per separation, by remoteness, 2006–07

Measure	ASGC remoteness ^(b)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Public hospitals (\$)	4,863.21	4,746.37	4,639.99	4,964.04	4,783.23	4,829.79
Age-standardised ^(c) (\$)	4,864.05	4,731.34	4,648.90	5,024.84	4,870.94	4,829.79
Indexed	1.00	0.97	0.96	1.03	1.00	0.99
Private hospitals (\$)	3,264.53	3,643.08	3,554.13	3,297.59	3,495.49	3,351.20
Age-standardised ^(c) (\$)	3,260.76	3,640.35	3,570.20	3,356.45	3,607.72	3,351.20
Indexed	1.00	1.12	1.09	1.03	1.11	1.03

(a) Data 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) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(c) Indirectly age-standardised.

Note: Public and private hospital costs are not comparable. See Box 3.1.

Source: AIHW health expenditure database.

Acuteness of separations

The report also includes some analysis based on the type of care received by admitted patients. Acute care is care in which the clinical intent or treatment goal is to cure an illness or to manage or provide definitive treatment of a condition or injury. For the purpose of this report, all conditions which are not classified as being acute have been grouped together as being not-acute. Most of the not-acute episodes of care in hospitals relate to rehabilitation but also include palliative care and newborn care. The acuteness status of separations is based upon the care type recorded in the National hospital morbidity database.

Most government expenditure on hospital admitted patients (90%) was devoted to acute care admitted patients (\$25,845 million). This expenditure was substantially higher than the \$2,737 million that was spent on not-acute care patients in 2006–07 (Table 1.7).

Table 1.7: Expenditure on admitted patient services^(a) by acute/not-acute status and remoteness, 2006–07

Measure	ASGC remoteness ^(b)					Australia ^(c)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Acute	16,825.3	5,379.7	2,680.5	466.0	312.8	25,844.7
Not-acute	1,867.8	516.6	248.0	41.2	23.7	2,737.3
Total	18,693.1	5,896.3	2,928.5	507.2	336.5	28,582.0
Expenditure per person (\$)						
Acute	1,176.70	1,305.40	1,353.66	1,473.46	1,879.19	1,237.61
Not-acute	130.63	125.35	125.22	130.38	142.57	131.08
Total	1,307.33	1,430.75	1,478.88	1,603.84	2,021.77	1,368.69
Expenditure per person, age-standardised ^(d) (\$)						
Acute	1,188.68	1,243.67	1,345.29	1,661.22	2,417.05	1,237.61
Not-acute	132.31	117.49	125.55	153.54	189.73	131.08
Total	1,320.97	1,360.95	1,470.97	1,815.63	2,608.79	1,368.69
Expenditure per person indexed, age-standardised ^(e)						
Acute	1.00	1.05	1.13	1.40	2.03	1.04
Not-acute	1.00	0.89	0.95	1.16	1.43	0.99
Total	1.00	1.03	1.11	1.37	1.97	1.04

(a) Data 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) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(c) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(d) Indirectly age-standardised.

(e) Expenditure per person expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

Table 1.8: Admitted patient separations^(a) by acute/not-acute status and remoteness, 2006–07

Measure	ASGC remoteness ^(b)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Acute						
Separations (millions)	4.9	1.5	0.7	0.1	0.1	7.3
Separations per 1,000	342.1	356.3	362.5	361.7	447.8	349.6
Separations per 1,000 age-standardised ^(c)	345.6	341.3	358.2	396.3	550.7	349.6
Separations per person indexed ^(d)	1.00	0.99	1.04	1.15	1.59	1.01
Not-acute						
Separations (millions)	0.2	—	—	—	—	0.3
Separations per 1,000	16.0	11.7	10.5	8.8	9.4	14.5
Separations per 1,000 age-standardised ^(c)	16.3	10.8	10.4	10.4	0.0	14.5
Separations per person indexed ^(d)	1.00	0.66	0.64	0.64	1.23	0.89
All						
Separations (millions)	5.1	1.5	0.7	0.1	0.1	7.6
Separations per 1,000	358.0	368.0	373.0	370.5	457.2	364.1
Separations per 1,000 age-standardised ^(c)	361.9	351.9	368.6	407.1	564.6	364.1
Separations per person indexed ^(d)	1.00	0.97	1.02	1.12	1.56	1.01

(a) Data 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) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

Table 1.9: Expenditure on admitted patient services^{(a)(b)} per separation in public hospitals by acute/not-acute status and remoteness, 2006–07

Measure	ASGC remoteness ^(c)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Acute	4,354.95	4,269.28	4,187.11	4,498.61	4,384.06	4,331.63
Age-standardised ^(d) (\$)	4,355.54	4,254.95	4,195.43	4,561.28	4,483.22	4,331.63
Acute indexed ^(e)	1.00	0.98	0.96	1.05	1.03	0.99
Not-acute	12,800.94	13,762.10	14,001.59	16,452.26	15,731.69	13,312.93
Age-standardised ^(d) (\$)	12,545.27	14,503.76	14,620.71	16,546.13	15,274.86	13,312.93
Not-acute indexed ^(e)	1.00	1.16	1.17	1.32	1.22	1.06

(a) Separations not adjusted for casemix complexity.

(b) Data 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.

(c) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(d) Indirectly age-standardised.

(e) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

1.4 In-hospital medical services

When someone chooses to be treated as a private patient, the medical fees which would otherwise be included as part of admitted patient expenditure are charged separately. These are generally subsidised by the MBS and are for health expenditure purposes are classed as “medical expenditure”. In this report, separate analysis is provided for these in-hospital MBS-funded medical services which totalled \$3,296.6 million in 2006-07. The more substantial expenditure on MBS-funded medical services occurs for services delivered out-of-hospital and are discussed in Section 1.6.

Box 1.2: Key findings for in-hospital MBS-funded services

GP and other primary care^(a)

Age-standardised expenditure per person was highest for residents of Remote areas at \$3 per person. This result for Remote areas is driven by the higher number of GP and other primary care separations for remote residents on a per person basis.

Pathology^(b)

Per person pathology expenditure and separations were both substantially lower with increasing levels of remoteness. Both of these trends remained after age-standardisation.

Imaging^(b)

While the level of per person imaging expenditure and separations were lower with increasing remoteness, imaging fees were higher for more remote residents, with Very remote residents being charged on average \$210 compared to the national average of \$184.

Specialist^(b)

Separation rates and per person expenditure levels per person for specialist services were higher in the more densely populated areas of Australia. While residents of Major cities paid on average the highest levels of fees (\$82), they also received the highest percentage of Medicare benefits towards their fees (57%).

Obstetrics^(b)

Obstetrics expenditure and separations, per person, was highest in Major cities and lowest in Very Remote areas, with Inner and Outer regional areas and remote areas experiencing similar results. The lowest level of obstetrics fees were charged to Outer regional residents, at \$837 per person compared to the national average of \$929.

Operations^(b)

Expenditure on Medicare funded, in-hospital operations declined with the remoteness of the patient's home address. For every operation separation for a resident of Major cities, Inner and Outer regional residents received 0.82 and 0.7, while 0.43 of a service was provided to a Very remote resident (age-standardised).

Radiation and other services^(b)

Age-standardised expenditure per person was highest for residents of Major cities (\$108) and lowest for those living in Very remote areas (\$50). A similar trend of lower rates with increased remoteness occurred for separations.

(a) Some information on this item is provided below. For more details see Section 3.3.

(b) For details and analysis on this item, see Section 3.3.

Note: Information on MBS dental services provided out-of-hospital are provided in Appendix B.

1.5 Hospital services expenditure from 2001–02 to 2006–07

Total expenditure on hospital admissions in Australia increased by 48% between 2001–02 and 2006–07 which represented a 15.3% real per person increase. The largest percentage increase in per person expenditure in real terms was for residents of *Major cities* (18.8%), with 11.1% and 9.0% for residents of *Inner* and *Outer regional* areas, with the smallest being for residents of *Very remote* areas (5.6%).

Over the period, there was also an increase in age-standardised per person expenditure. This means the increases in expenditure levels over the period exceeded the additional expenditure associated with population growth and other demographic changes during this time (refer to Section 3.4 for more details).

1.6 Medicare—medical services

Box 1.3: Key findings for Medicare medical services

Total Medicare expenditure in 2006–07 totalled \$14,837 million, with 258.3 million services provided, or 12,370 per 1,000 population.

Individually, each of the types of Medicare subsidised services analysed showed both lower expenditure levels and service rates with remoteness. The differences by ASGC were especially pronounced for specialist, dental and allied health services. The age-standardised per person expenditure levels for Very remote residents were around a quarter of that for Major cities residents for specialist and dental services and approximately 8% for allied health services.

For GP services, the most significant category in terms of total expenditure, standardised per person expenditure levels for Remote and Very remote residents were 72% and 57% of that for Major cities residents respectively.

General Practitioner services^(a)

Medicare expenditure on GP services was \$3,946 million in 2006–07. Per person expenditure on GP services was lower with increasing remoteness. The age-standardised expenditure level for Very remote residents was only 57% of that for Major cities residents. A similar pattern occurred with the number of GP services. The average levels of expenditure per GP service were similar for each remoteness category.

GP and other primary care^(a)

Total expenditure on GP and other primary care services in 2006–07 was \$4,455 million. Age-standardised expenditure per person was highest for residents of Major Cities (\$225) and was lower with increasing remoteness. Residents in the Very remote areas had age-standardised per person expenditure of \$135.

Pathology^(a)

A total of \$1,608 million was spent on pathology services in Australia in 2006–07. The levels of expenditure per person and the number of services per person were both lower with increasing remoteness. Age-standardised expenditure and service levels were approximately 10% higher in Major cities than the area with the next highest level of pathology activity, Inner regional areas. The equivalent expenditure and service levels in Remote and Very remote areas were over 20% below Major cities levels.

Imaging^(a)

In 2006–07, \$1,871 million was spent on Medicare imaging services in Australia – \$286.8 million (15%) of which relates to out-of-pocket fees. The percentage of expenditure that needed to be covered through out-of-pocket costs was highest for residents of Remote areas.

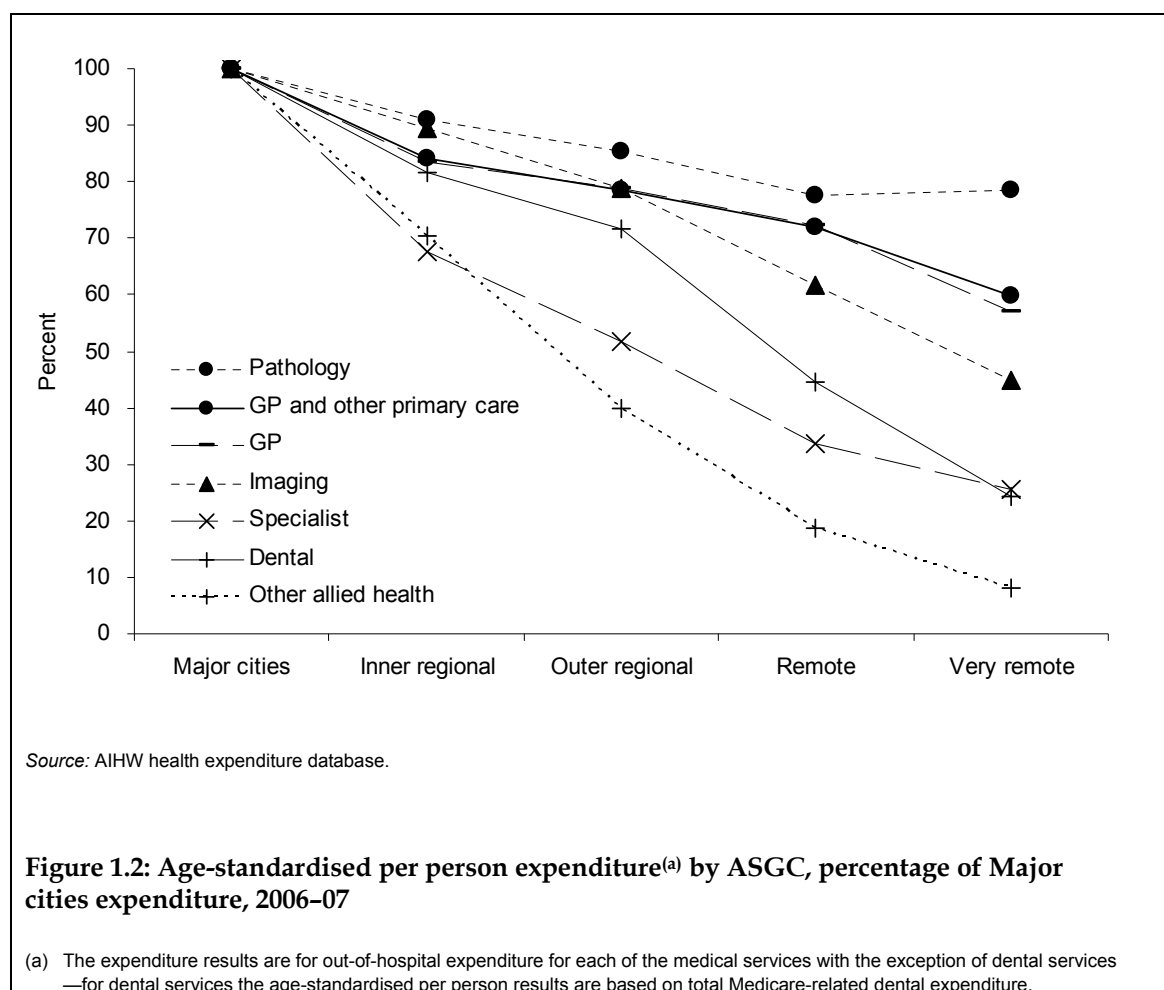
There was a clear reduction in the number of imaging services and in age-standardised per person expenditure with remoteness.

Specialists^(a)

Expenditure on specialist consultations totalled \$1,537 million in 2006–07. Age-standardised expenditure, per person, was highest in Major cities – over 30% higher than for Inner regional areas, the second most expensive region. Standardised expenditure per Very remote resident was just a quarter of that for Major cities residents, while age-standardised services for Very remote areas were less than a third of the Major cities amount.

(a) For details and analysis on these out-of-hospital items, see Chapter 4.

Figure 1.2 illustrates the per person age-standardised expenditure for the selected medical services analysed in this the report. For all services, standardised expenditure levels were highest for residents of *Major cities*, with expenditure levels typically lower with increasing remoteness. Of note, the relative level of expenditure on specialist, dental and other allied services for residents of *Major cities* was substantially higher than the expenditure levels for the other regions.



Total Medicare services

Total expenditure on Medicare-subsidised services in 2006–07 totalled \$14,837 million. Of this, \$11,764 million (79%) was related to government expenditure and the remaining \$3,073 million (21%) was for individuals' out-of-pocket fees (Table 1.11).

Both total expenditure and out-of-pocket expenses per person were lower with remoteness. Expenditure per person, age-standardised, was \$761 in the *Major cities* compared with \$636 and \$567 in *Inner* and *Outer regional* areas respectively and \$391 in *Very remote* areas. Indexed per person expenditure was almost twice as high for residents of *Major cities* than for those living in *Very remote* locations - for every \$1.00 spent in 2006–07 on Medicare services for residents of *Major cities*, \$0.51 was spent on residents of *Very remote* areas.

Table 1.10: Medicare expenditure by remoteness, 2006–07

Amount	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Benefits paid	8,524.3	2,163.5	911.0	115.3	45.9	11,764.1
Out-of-pocket amount	2,244.2	561.0	229.9	27.5	8.9	3,073.1
<i>Fees charged</i>	<i>10,768.5</i>	<i>2,724.5</i>	<i>1,140.8</i>	<i>142.8</i>	<i>54.8</i>	<i>14,837.2</i>
Expenditure per person (\$)						
Benefits paid	596.2	525.0	460.0	364.6	275.7	563.3
Out-of-pocket amount	156.9	136.1	116.1	86.9	53.3	147.2
<i>Fees charged</i>	<i>753.1</i>	<i>661.1</i>	<i>576.1</i>	<i>451.5</i>	<i>329.1</i>	<i>710.5</i>
Expenditure per person, age-standardised ^(c) (\$)						
Benefits paid	602.5	504.1	452.6	391.2	328.1	563.3
Out-of-pocket amount	158.3	131.8	114.2	91.8	62.6	147.2
<i>Fees charged</i>	<i>760.8</i>	<i>635.8</i>	<i>566.8</i>	<i>483.0</i>	<i>390.5</i>	<i>710.5</i>
Expenditure per person indexed, age-standardised ^(d)						
Benefits paid	1.00	0.84	0.75	0.65	0.54	0.94
Out-of-pocket amount	1.00	0.83	0.72	0.58	0.40	0.93
<i>Fees charged</i>	<i>1.00</i>	<i>0.84</i>	<i>0.74</i>	<i>0.63</i>	<i>0.51</i>	<i>0.93</i>

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

In 2006–07, the number of Medicare services provided totalled 258.3 million, or 12,370 per 1,000 population. The number of services provided, per person, was highest for *Major cities* residents and lowest for residents of *Very remote* areas. After age-standardisation, for every consultation for a resident of *Major cities*, 0.86 and 0.79 consultations were provided for residents of *Inner* and *Outer regional* areas, while 0.69 and 0.59 consultations were provided for residents of *Remote* and *Very remote* areas respectively (Table 1.12).

Table 1.11: Medicare services by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Services (millions)	185.6	48.1	20.8	2.7	1.1	258.3
Services per 1,000	12,980.6	11,672.5	10,497.5	8,380.1	6,574.9	12,370.4
Services per 1,000 age-standardised ^(b) (number)	13,110.6	11,235.4	10,348.6	8,985.8	7,778.2	12,370.4
Services per person indexed ^(c)	1.00	0.86	0.79	0.69	0.59	0.94

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

1.7 Medicare services expenditure from 2001–02 to 2006–07

Box 1.4: Key findings for Medicare services expenditure from 2001–02 to 2006–07

General practitioner services^(a)

In constant dollars there was a 2.5% real increase in per person benefits paid for Medicare GP services from 2001–02 to 2006–07 (age-standardised). However, this increase was not uniform across the remoteness categories with Major cities and Very remote areas experiencing increases of 4.9% and 13.5% respectively, while Inner and Outer regional areas experienced declines of 4.1% and 3.8%.

Pathology^(a)

From 2001–02 to 2006–07 per person Medicare benefits paid for pathology services, in real terms, were relatively stable. Expenditure for Major cities and Very remote residents increased (the latter by 38.4%) while real expenditure levels declined for all other regional classification. Once age-standardised, per person expenditure on pathology increased by 0.1% over the period.

Imaging^(a)

Per person Medicare benefits paid for imaging services increased by 1.1% in real terms from 2001–02 to 2006–07. This was driven by increases for Major cities and Very remote areas, offset by decreases for all other regional areas (including an 11.5% decrease for Remote areas).

Specialist^(a)

While total Medicare benefits paid to specialists increased from \$1,038 million to \$1,322 million from 2001–02 to 2006–07, this was actually an 8.6% per person decrease in real terms. After age-standardisation, remote residents experienced the largest per person decrease of 20.6% over the period.

(a) For details and analysis on this item, see Section 4.7.

Medicare GP expenditure from 2001–02 to 2006–07

Total benefits paid by Medicare for GP services increased from \$2,505 million in 2001–02 to \$3,578 million in 2006–07. On a per person basis, expenditure over this period increased from \$167 to \$171, expressed in 2006–07 dollars. This was a real per person increase of 2.5%. For residents of *Major cities* the increase over this period was 4.5%, for residents of *Inner and Outer regional* areas per person expenditure decreased by 3.5% and 3.0%, while for residents of *Very remote* areas Medicare expenditure increased 14.1%.

1.8 Pharmaceuticals

Box 1.5: Key findings for pharmaceutical expenditure

PBS and Section 100 age-standardised expenditure per person in 2006–07 was similar for people living in Major cities and Inner regional areas and was 5% lower for those in Outer regional areas. For those living in Remote and Very remote areas the aged standardised expenditure per person was a further 1% lower.

In 2006–07, there was a total of \$6,644 million spent on pharmaceuticals purchased through the PBS. Of this, \$5,492 million was expenditure by the Australian government with \$1,152 million constituting patient out-of-pocket expenses (Table 1.13).

The Australian government spent \$5,465 million on the PBS and an additional \$26.4 million on Section 100 medicines for Aboriginal Health Services.

The average expenditure by the Australian government on PBS subsidies and Section 100 drugs was \$263 for each Australian in 2006–07. Total age-standardised expenditure per person (both government expenditure and out-of-pocket contributions) for both *Inner* and *Outer regional* residents (\$317 and \$306) were lower than that for *Major cities* (\$321).

Table 1.12: Pharmaceutical expenditure by source of funds and remoteness, 2006–07

Amount	ASGC remoteness ^(a)				Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote and very remote	
Expenditure (\$ million)					
Government expenditure	3,678.4	1,190.8	521.3	98.9	5,492.2
Out-of-pocket amount	787.6	236.8	108.2	18.5	1,152.0
<i>Total expenditure</i>	<i>4,466.0</i>	<i>1,427.6</i>	<i>629.5</i>	<i>117.4</i>	<i>6,644.2</i>
Expenditure per person					
Government expenditure	257.25	288.94	263.24	204.85	263.00
Out-of-pocket amount	55.08	57.47	54.66	38.32	55.17
<i>Total expenditure</i>	<i>312.33</i>	<i>346.41</i>	<i>317.89</i>	<i>243.17</i>	<i>318.17</i>
Expenditure per person, age-standardised ^(c) (\$)					
Government expenditure	264.32	263.35	252.96	257.13	263.00
Out-of-pocket amount	56.35	53.36	52.61	45.22	55.17
<i>Total expenditure</i>	<i>320.67</i>	<i>316.75</i>	<i>305.58</i>	<i>301.88</i>	<i>318.17</i>
Expenditure per person indexed ^(d)					
Government expenditure	1.00	1.00	0.96	0.97	0.99
Out-of-pocket amount	1.00	0.95	0.93	0.80	0.98
<i>Total expenditure</i>	<i>1.00</i>	<i>0.99</i>	<i>0.95</i>	<i>0.94</i>	<i>0.99</i>

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

Table 1.13: Number of PBS prescriptions^(a) by remoteness, 2006–07

Amount	ASGC remoteness ^(b)				Australia ^(c)
	Major cities	Inner regional	Outer regional	Remote and very remote	
General					
Scripts (millions)	16.4	4.4	2.1	0.4	23.3
Scripts per 1,000	1,149.3	1,058.6	1,044.6	865.0	1,115.9
Scripts per 1,000 age-standardised ^(d)	1,174.8	1,001.1	991.7	928.7	1,115.9
Scripts per person (indexed) ^(e)	1.00	0.85	0.84	0.79	0.95
Concessional					
Scripts (millions)	90.0	31.3	13.7	1.8	136.8
Scripts per 1,000	6,292.4	7,595.4	6,915.7	3,693.5	6,551.7
Scripts per 1,000 age-standardised ^(d)	6,481.9	6,824.1	6,669.4	4,929.1	6,551.7
Scripts per person (indexed) ^(e)	1.00	1.05	1.03	0.76	1.01
All					
Scripts (millions)	106.4	35.7	15.8	2.2	160.1
Scripts per 1,000	7,441.7	8,654.1	7,960.2	4,558.6	7,667.6
Scripts per 1,000 age-standardised ^(d)	7,657.1	7,832.1	7,659.1	5,875.7	7,667.6
Scripts per person (indexed) ^(e)	1.00	1.02	1.00	0.77	1.00

(a) Excludes Section 100 medicines.

(b) ABS ASGC remoteness categorisation.

(c) Total Australian scripts may not equal sum of components as it also includes numbers for which remoteness information was not available.

(d) Indirectly age-standardised.

(e) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

1.9 Grants to Aboriginal Community Controlled Health Organisations

Box 1.6: Key findings for grants to Aboriginal Community Controlled Health Organisations

Australian Government grants to Aboriginal community controlled health services totalled \$267 million in 2006–07. Per person expenditure was substantially higher for Remote and Very remote areas, at \$238 and \$211 respectively, compared to the national average of \$13. The high levels of expenditure for these areas are driven both the location of these services, by the much higher prevalence of Aboriginal and Torres Strait Islander peoples in remote areas and the higher average episode cost in Remote and Very remote areas, which were both above the Australian average of \$163 (at \$197 and \$181 respectively).

The grants examined in this chapter, provided by the Australian Government to ACCHOs, do not cover the medical services provided by these organisations – almost all of which are

billed to Medicare and are analysed in Chapter 4. Additionally, the grants do not represent all of the expenditure by ACCHOs, as many receive additional funding from the state and territory governments and some non-government sources. Those contributions are not included in this report.

The Office for Aboriginal and Torres Strait Islander Health (OATSIH) funded grants to ACCHOs in 2006–07 totalling \$267 million or \$13 per person nationally. However, the levels of per person expenditure varied substantially. Per person expenditure was lowest in *Major cities* and *Inner regional* area, at \$3.38 and \$9.34 respectively, while the corresponding figures for *Remote* and *Very remote* residents were \$238 and \$211 (Table 1.15).

Table 1.14: Expenditure on ACCHOs by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)	48.4	38.5	70.3	75.2	35.1	267.4
Expenditure per person (\$)	3.38	9.34	35.49	237.63	210.77	12.80
Expenditure per person indexed ^(c) (\$)	1.00	2.76	10.49	70.24	62.30	3.78

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Expressed as a multiple of the *Major cities* value and is based on the total population levels per region, not the population of Aboriginal and Torres Strait Islanders.

Source: AIHW health expenditure database.

As well as experiencing a higher level of per person expenditure, *Remote* and *Very remote* residents also had considerably higher rates of episodes in ACCHOs. In *Remote* areas, the rate of episodes per person was approximately 55 times more than the equivalent rate for residents of *Major cities* (Table 1.16).

Table 1.15: ACCHO episodes by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Episodes (millions)	0.3	0.3	0.5	0.4	0.2	1.6
Episodes per 1,000	22.08	72.50	229.10	1,206.99	1,165.22	78.72
Episodes per person indexed ^(b)	1.00	3.28	10.37	54.66	52.77	3.56

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

1.10 Aboriginal and Torres Strait Islander people

As noted in Section 1.2, this report and the findings it contains should be read in conjunction with the *Expenditure on health for Aboriginal and Torres Strait Islander people 2006–07* (AIHW 2010) which provides analysis based on both remoteness and Indigenous status.

Consideration of Aboriginal and Torres Strait Islander health expenditure in the context of this report is relevant firstly because it is one of a number of demographic factors that may drive expenditure differences between remoteness categories, and secondly because the impact of remoteness on health expenditure for Aboriginal and Torres Strait Islander people may be different to that for the non-Indigenous population.

It is estimated that per person expenditure on health services for Indigenous Australians in 2006-07 was 1.31 times that for the non-Indigenous population (AIHW 2009a). Although multiple factors are involved, and direction of causation is not always clear, it is apparent that results shown in this report may be influenced by differences in the proportions of the population that are comprised of Aboriginal and Torres Strait Islander people. This is most likely to have an influence with regard to *Remote* and *Very remote* areas.

While more than half (53.5%) of Australia's Aboriginal and Torres Strait Islander people lived in *Major cities* and *Inner regional* areas, a large proportion (24.5%) resided in *Remote* and *Very remote* areas. In comparison only 1.7% of non-Indigenous people reside in *Remote* and *Very remote* areas (Table 1.16).

Table 1.16: Aboriginal and Torres Strait Islander population by ASGC Remoteness Area and state and territory and non-Indigenous population by ASGC Remoteness Area, 31 December 2006

	ASGC Remoteness Areas					Total	Proportion of total population (%)
	Major cities ^{(a)(b)}	Inner regional ^(a)	Outer regional ^(b)	Remote	Very remote		
NSW	68,191	47,927	30,606	7,050	2,459	156,235	2.3
Vic	16,904	10,967	5,166	142	..	33,180	0.6
Qld	38,357	27,396	47,150	12,280	19,462	144,646	3.5
WA	25,565	6,377	10,781	12,444	19,053	74,222	3.6
SA	14,453	2,693	6,503	1,852	4,151	29,654	1.9
Tas	—	9,944	8,825	453	212	19,434	4.0
ACT	4,274	8	—	—	—	4,282	1.3
NT	—	—	12,061	10,681	37,355	60,098	28.3
Australia total Indigenous^(c)	167,997	111,547	115,133	47,873	79,987	522,537	2.5
Australia total non-Indigenous^(c)	14,130,741	4,009,579	1,865,075	268,397	86,447	20,360,241	97.5
Indigenous (%)	32.2	21.3	22.0	9.2	15.3	100.0	
Non-Indigenous (%)	69.4	19.7	9.2	1.3	0.4	100.0	

(a) Hobart is Inner regional.

(b) Darwin is Outer regional.

(c) Includes populations of Christmas and Cocos (Keeling) Islands and Jervis Bay.

Sources: AIHW derived from ABS 2009, 'Series B' Experimental Estimates and Projections, Aboriginal and Torres Strait Islander Australians.

Table 1.17 is an extract from the AIHW publication *Expenditure on health for Aboriginal and Torres Strait Islander people 2006-07* (AIHW 2010). For each of the selected areas of health expenditure, a ratio of Indigenous to non-Indigenous expenditure per person is provided. These ratios show that there are not only substantial variations in Indigenous to non-Indigenous expenditure within each of the selected areas of health expenditure, but also between each remoteness category. For example, in relation to per person PBS expenditure,

the ratio of Indigenous to non-Indigenous expenditure ranged from 0.44 for *Inner regional* areas to 1.12 for the combined *Remote* and *Very remote* category. For residents of *Major cities*, Indigenous per person expenditure was 79% higher than non-Indigenous expenditure for public hospitals, yet was only 15% of the average non-Indigenous level for private hospitals (Table 1.17).

Table 1.17: Health expenditure per person on selected health services^(a), Indigenous and non-Indigenous Australians, by remoteness areas, 2006–07 (\$)

Area of expenditure		Major cities	Inner regional	Outer regional	Remote/ very remote	All regions
Admitted patient services						
Public hospital	Indigenous	1,731.3	1,569.0	2,119.8	3,234.4	2,150.0
	Non-Indigenous	965.4	1,122.8	1,216.6	1,139.5	1,022.4
	Ratio	1.79	1.40	1.74	2.84	2.10
Private hospitals	Indigenous	55.6	51.4	109.6	35.7	61.7
	Non-Indigenous	369.0	338.5	258.7	190.8	349.8
	Ratio	0.15	0.15	0.42	0.19	0.18
OATSIH grants to						
ACCHO	Indigenous	268.8	321.9	569.7	804.7	477.6
	Non-Indigenous	0.6	1.7	6.6	54.0	2.3
	Ratio	451.4	192.9	86.9	14.9	209.1
MBS ^(b)	Indigenous	350.2	310.2	338.4	299.2	326.6
	Non-Indigenous	590.3	524.2	468.2	388.9	562.6
	Ratio	0.59	0.59	0.72	0.77	0.58
PBS ^(c)	Indigenous	158.6	141.8	178.3	223.2	175.2
	Non-Indigenous	285.1	319.3	284.2	200.1	290.2
	Ratio	0.56	0.44	0.63	1.12	0.60
Total selected health	Indigenous	2,564.4	2,394.3	3,315.8	4,597.2	3,191.0
	Non-Indigenous	2,210.4	2,306.4	2,234.2	1,973.3	2,227.4
	Ratio	1.16	1.04	1.48	2.33	1.43

(a) Excludes areas of health expenditure such as community health services, patient transport and public health services.

(b) Excludes other health services provided through Medicare such as optometry, dental and allied health services.

(c) Excludes RPBS, methadone, copayments and highly specialised drugs dispensed from public and private hospitals.

Note: The expenditure data in the above table has been compiled on a different basis to the data in the rest of this report. For example, a number of Medicare categories have been excluded from the above analysis as have certain out-of-pocket fees.

Source: AIHW Health Expenditure Database.

Analysing health expenditure data by Indigenous status as well as by remoteness can provide additional and useful insights compared to analysis performed on the basis of remoteness only. This is because, the higher per person expenditure in more remote areas is accounted for, in part, by the higher expenditure on Indigenous peoples, in combination with the relatively higher percentage of Indigenous residents in areas of Australia classified as being *Remote* or *Very remote*. In its turn it can be argued that the higher health expenditures on Indigenous Australians may be driven, in part, by the fact that a higher proportion of Aboriginal and Torres Strait Islander peoples live in *Remote* and *Very remote* areas of Australia.

Consider this specific example: while this report shows that overall age-standardised expenditure on the PBS declines slightly with remoteness (Table 1.3), for Indigenous Australians the highest levels of per person PBS expenditure occurred in the combined *Remote* and *Very remote* category (Table 1.17). Additional information and discussion may be found in *Expenditure on health for Aboriginal and Torres Strait Islander people 2006–07* (AIHW 2010).

2 Introduction

2.1 Background

This report, *Australian health expenditure by remoteness: a comparison of remote, regional and city health expenditure* is the most comprehensive report of its kind and was commissioned by the NRHA. The NRHA funded the AIHW to provide a report describing health expenditure for people living in regional and remote Australia, comparing it with health expenditure for those living in the *Major cities*. The basis for the report is the AIHW *Health expenditure Australia* series. The latest data presented are for the 2006–07 financial year.

Analysis of admitted patient care can also be found in *Australian hospital statistics, 2007–08*. This provides more recent data on the number of hospital separations by ASGC; however, no corresponding financial data are included in this series.

The approach taken in this report is to provide the reader with the available data to enable consideration of the regional differences in the use and provision of health services across Australia.

2.2 Overview

The report provides an overview of certain types of health expenditure in Australia by the remoteness of the service recipient's residential address.

It is important to note that the report does not analyse all health expenditure in Australia, but rather it examines a selected number of services for which the regional coding of the expenditure was relatively accessible. For example, total recurrent health expenditure in Australia in 2006–07 was \$89,499 million. This contrasts with the \$50,331 million of 2006–07 expenditure presented in this report by remoteness category. This represents 56% of total recurrent health expenditure and the trends and results presented in this report may not reflect trends or results for Australia's overall health expenditure (Tables 2.1 and 2.2).

Table 2.1: Health expenditure, current prices, by area of expenditure and source of funds, 2006–07 (\$ million)

Area of expenditure	Government			Non-government			
	Australian Government	State and local	Total government	Individuals	Other	Total non-government	Total
Hospitals	13,238	15,528	28,766	625	5,779	6,404	35,171
Public hospital services	10,741	15,279	26,020	246	1,751	1,996	28,016
Private hospitals	2,497	250	2,747	380	4,028	4,408	7,155
Patient transport services	189	1,190	1,379	233	176	409	1,788
Medical services	13,093	—	13,093	2,006	1,667	3,673	16,766
Dental services	482	532	1,014	3,860	875	4,735	5,749
State/territory provider	—	532	532	29	—	29	561
Private provider	482	—	482	3,831	875	4,706	5,188
Other health practitioners	826	—	826	1,725	722	2,447	3,273
Community health and other	474	3,786	4,260	221	55	276	4,536
Public health	996	685	1,681	28	102	130	1,811
Medications	6,518	—	6,518	5,979	114	6,093	12,611
Benefit-paid pharmaceuticals	6,228	—	6,228	1,277	—	1,277	7,505
All other medications	290	—	290	4,702	114	4,816	5,106
Aids and appliances	427	—	427	2,252	347	2,599	3,026
Administration	1,311	310	1,621	—	749	749	2,370
Research	1,835	326	2,160	—	189	189	2,349
Total recurrent funding	39,388	22,357	61,745	16,930	10,774	27,704	89,449
Capital expenditure	108	2,128	2,236	—	3,253	3,253	5,489
Total health funding	39,496	24,485	63,981	16,930	14,027	30,957	94,938
Non-specific tax expenditure	376	—	376	-376	—	-376	—
Total health funding	39,872	24,485	64,358	16,553	14,027	30,581	94,938

Source: AIHW health expenditure database.

Table 2.2: Health expenditure included in this report, current prices, 2006–07 (\$ million)

Recurrent health expenditure	Allocated by remoteness	Not allocated by remoteness	Total
Hospitals	28,582	6,589	35,171
Admitted patient hospital services in public hospitals	21,785	—	21,785
Admitted patient hospital services in private hospitals	6,797	—	6,797
Non-admitted patient expenditure	—	6,589	6,589
Total medical services	14,448	2,318	16,766
In-hospital medical services	3,286	503	3,789
General practitioner-type services	31	—	31
Specialist	379	—	379
Pathology	283	—	283
Imaging	206	—	206
Obstetrics	119	—	119
Operation-type services	2,102	—	2,102
Radiation and other services	165	—	165
n.e.c.	—	503	503
Out-of-hospital medical services	11,163	—	11,163
General practitioner-type services	4,455	—	4,455
Specialist	1,537	—	1,537
Pathology	1,608	—	1,608
Imaging	1,871	—	1,871
Obstetrics	207	—	207
Operation-type services	458	—	458
Radiation and other services	1,027	—	1,027
Other non-Medicare medical services (includes DVA)	—	1,815	1,815
Other health practitioners	369	2,904	3,273
Allied health services (Medicare)	128	31	159
Optometrical services (Medicare)	242	68	310
Non-Medicare other health practitioner	—	2,804	2,804
Medications	6,644	5,968	12,612
PBS pharmaceuticals	6,618	—	6,618
Section 100 ^(a)	26	—	26
RPBS	—	475	475
Other benefit paid pharmaceuticals	—	386	386
All other medications	—	5,106	5,106

(continued)

Table 2.2 (continued): Health expenditure included in this report, current prices, 2006–07 (\$ million)

Dental	20	5,729	5,749
State/territory provider	—	561	561
Medicare funded—private provider	20	—	20
Other—private provider	—	5,168	5,168
Community health	267	4,269	4,536
Aboriginal Community Controlled Health Organisations	267	—	267
Other community health	—	4,269	4,269
Other	—	11,344	11,344
Aids and appliances	—	3,026	3,026
Public health	—	1,811	1,811
Patient transport services	—	1,788	1,788
Administration	—	2,370	2,370
Research	—	2,349	2,349
Total	50,331	39,120	89,449

(a) See Chapter 6 for a description of Section 100 expenditure.

Note: Components may not add due to rounding.

Source: AIHW health expenditure database.

Tables 2.3 and 2.4 provide a summary of the expenditure analysed in this report, by ASGC. Typically the analysis in the report is performed on total expenditure (or episode) amounts, per person expenditure, age-standardised expenditure and expenditure per episode. Additional breakdowns are also provided in some chapters.

Table 2.3: Health expenditure included in report, current prices, 2006–07 (\$ million)

Recurrent health expenditure	Major cities	Inner regional	Outer regional	Remote	Very remote	Remote and Very remote	Australia^(a)
Admitted patient services in public and private hospitals	18,693	5,896	2,928	507	336	n/a ^(b)	28,582
Medicare services	10,768	2,725	1,141	143	55	n/a ^(b)	14,837
PBS (and section 100)	4,466	1,428	629	n/a ^(b)	n/a ^(b)	117 ^(b)	6,644
Grants to ACCHOs	48	38	70	75	35	n/a ^(b)	267
Total	33,976	10,087	4,769	725	426	117	50,331

(a) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(b) PBS (and section 100) expenditure could not be disaggregated between *Remote* and *Very remote* area. The expenditure has been separately provided in a combined *Remote* and *Very remote* column.

Note: Not age-standardised.

Source: AIHW health expenditure database.

Table 2.4: Age standardised per person health expenditure included in report, current prices, 2006–07 (\$)

Age standardised health expenditure per person	Major cities	Inner regional	Outer regional	Remote	Very remote	Total
Admitted patient services in public and private hospitals	1,320.97	1,360.95	1,470.97	1,815.63	2,608.79	1,368.69
Medicare services	760.80	635.82	566.75	483.00	390.45	710.50
PBS (and section 100) ^(a)	320.67	316.75	305.58	301.88 ^(a)	301.88 ^(a)	318.17
Grants to ACCHOs ^(b)	3.38	9.34	35.49	237.63	210.77	12.80
Total	2,405.82	2,322.85	2,378.79	2,838.15	3,511.90	2,410.15

(a) The PBS (and section 100) estimates for the *Remote* and the *Very Remote* categories are based upon the combined *Remote* and *Very remote* result. Data limitations prevent specific totals from being calculated for the respective geographical classifications.

(b) The results for ACCHOs are not age standardised due to data limitations.

Source: AIHW health expenditure database.

Additionally, while comparisons are made in this report between the levels of health expenditure for the various types of health services, health services can be delivered in a different manner in the more remote areas of Australia. As such, any direct comparisons between the remoteness categories analysed in the report must be done carefully. For example, in more remote areas practice nurses and community health centres may play a greater role in the delivery of health services than is the case in more densely populated areas. GPs in more remote areas may provide services that would be dealt with by medical specialists in the cities. Additionally, in more remote locations, a number of communities may share a certain health care facility, with residents from the outlying communities needing to travel greater distances to access the relevant facility.

Table 2.5 provides details on the areas of expenditure examined in this report, clarifying where particular health services have been reported. Table 2.6 summarises how and where Medicare data is reported within the report, as for many such services the in and out-of-hospital components of the expenditure (and the related counts of services) have been reported separately.

Table 2.5: Details of areas of health expenditure included in the report

Area of expenditure	Inclusion details
Hospitals	The admitted patient expenditure data in this report are from the AIHW Hospital Morbidity Cost Model. The data are derived from the Public Hospital Establishments database, the National Hospital Morbidity database, the Australian Bureau of Statistics' Private Health Establishments Collection and other estimates of admitted patient expenditure for public hospitals. While the 2006–07 specific expenditure levels match those reported in the AIHW series <i>Health expenditure Australia</i> (HEA), the tables with 2001–02 to 2006–07 data have been calculated on a different basis. For these years, the expenditure results extracted from the Hospital Morbidity Cost Model are based upon data from the Public Hospital Establishments Collection which does not include certain central costs that are applied in the HEA series. Admitted patient expenditure is displayed in total and with same-day/overnight, acute/not-acute and private/public hospital breakdowns.
Medicare—medical services	The medical services included in this report are GP, specialist, pathology, imaging services, GP and other primary care services, obstetrics, operations and radiation and other services.
Medicare—dental services	Medicare expenditure on dental services only covers a small percentage of total dental expenditure in Australia. The dental services under Medicare are only available to those with chronic conditions and complex care needs, upon referral from a GP.
Medicare—optometrical services	Optometrical services (that is, vision testing services) funded by Medicare are included in this section. The reported expenditure does not include optomological services, such as cataract extractions, or optical appliances, such as spectacles or contact lenses.
Medicare—allied health services	Other allied health providers include audiologists, chiropodists, chiropractors, diabetes educators, dieticians, exercise physiologists, mental health workers, occupational therapists, physiotherapists, podiatrists, psychologists, osteopaths, speech pathologists and Aboriginal health workers.
Community health and other	Community health services usually consist of multidisciplinary teams of salaried health professionals who aim to improve the health of particular communities. These services are delivered in a variety of settings, including specially built community health centres, local council buildings, schools and clients' homes. This report only provides detailed analysis on Aboriginal Community Controlled Health Organisations.
Medications	Medication expenditure includes payments under the PBS, the Repatriation Pharmaceutical Benefits Scheme, payments under Section 100 of the National Health Act and payments by individuals. PBS expenditure is displayed in total and with a general/concessional breakdown. This includes expenditure relating to Section 100 drugs but excludes RPBS expenditure.

Table 2.6: Medicare data analysed in this report by chapter and breakdown

Medicare Service	Chapter 3 Hospital expenditure	Chapter 4 Medicare - Medical services	Appendix B Additional information on medical services
GP only	N/A	Out-of-hospital	Total, in-hospital
GP and other primary care	In-hospital	Out-of-hospital	Total
Pathology	In-hospital	Out-of-hospital	Total
Imaging	In-hospital	Out-of-hospital	Total
Specialist	In-hospital	Out-of-hospital	Total
Obstetrics	In-hospital	N/A	Total, out-of-hospital
Operations	In-hospital	N/A	Total, out-of-hospital
Radiation and other	In-hospital	N/A	Total, out-of-hospital
Other Allied health	N/A	N/A	Total
Dental	N/A	N/A	Total, in-hospital, out-of-hospital

Note: Total = total data are presented in the chapter; In-hospital = in-hospital data are presented in the chapter; Out-of-hospital = out-of-hospital data are presented in this chapter.

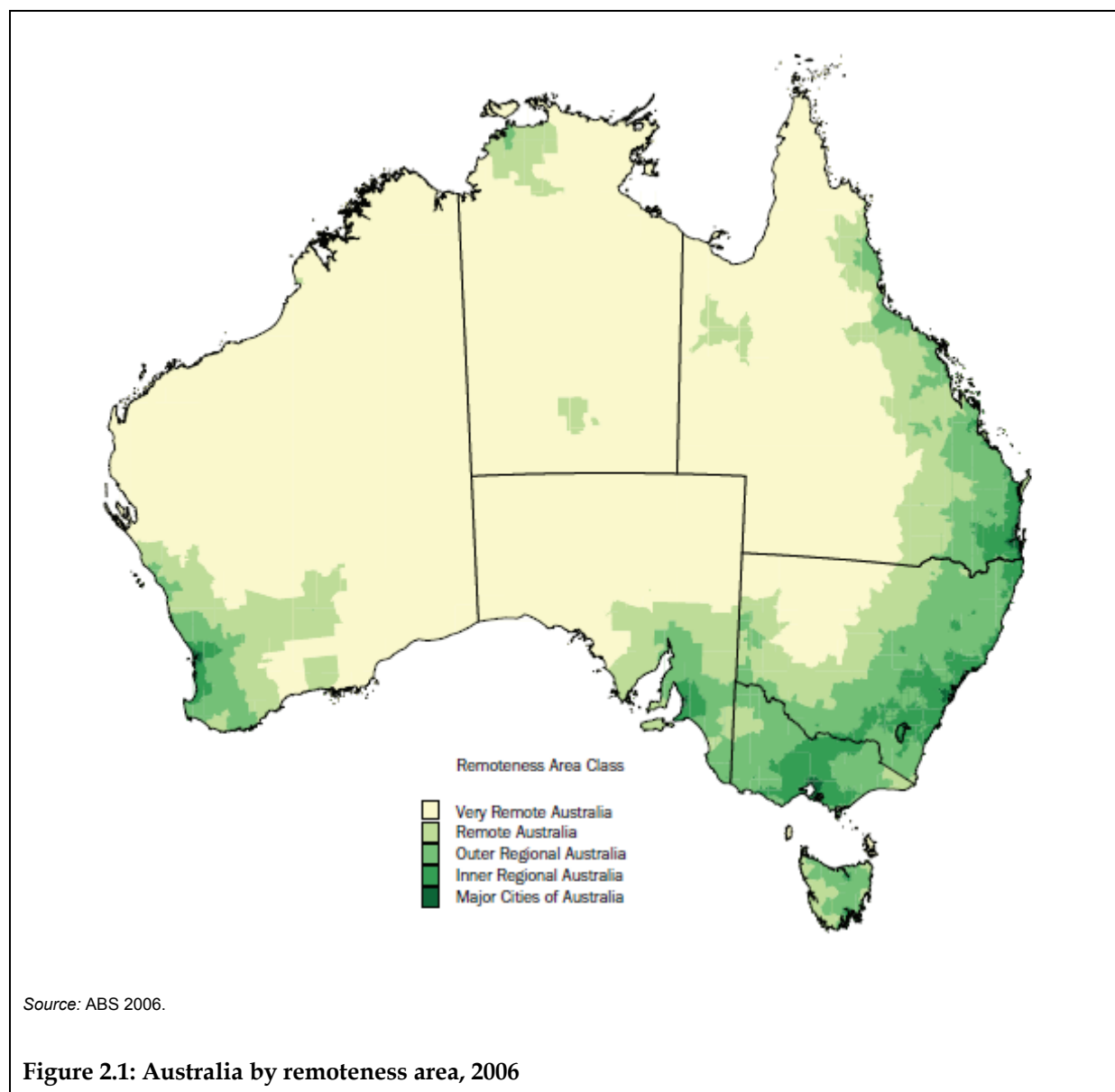
2.3 Data methodology

Levels of health expenditure are affected by many factors, such as population, levels of illness and disease, government policy and prices of health goods and services. Differences in such factors over time, between remoteness areas or otherwise, can obscure comparisons. The analysis in this report seeks to remove the effect of differences in population, age structure and inflation.

This section provides some additional detail on population sizes, age structures and the effect of age standardisation. A more detailed discussion including an example of age-standardisation is found in Appendix A.

The ASGC remoteness areas were selected as the geographic classification for this report in preference to the Accessibility/Remoteness Index of Australia, and the *Rural, Remote* and *Metropolitan* Areas classification. One major advantage of the ASGC remoteness areas classification is that it defines the least remote areas more tightly than the Accessibility/Remoteness Index of Australia classification. Regional and remote areas are all distant from major population centres but their nature is diverse – located not only in inland ‘outback’ Australia but also by the coast, and deriving their income from agriculture, forestry, fishing, mining, tourism or other industry sectors (Figure 2.1).

For more information on the various remoteness classifications, refer to *Rural, regional and remote health: a guide to remoteness classifications* (AIHW 2004).



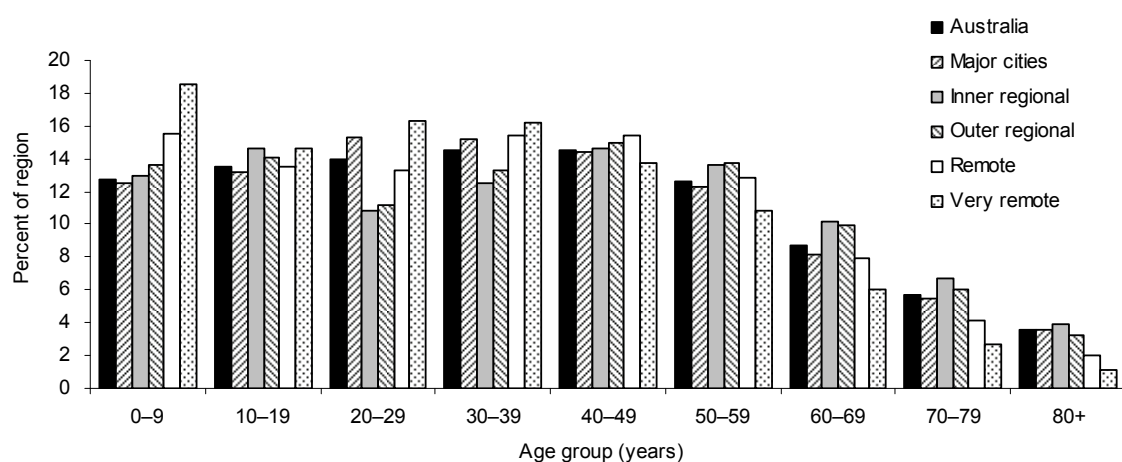
The distribution of the Australian population between the ASGC regions is not uniform, with almost 70% of the population being classed as living in a major city (Table 2.7). From 2001–02 to 2006–07, the relative population share for each of the remoteness areas only experienced minor changes. Furthermore, Figure 2.2 illustrates the different age profile of residents within the separate ASGC areas. While the percentage of the population aged 40 to 49 in each remoteness areas is similar, *Inner* and *Outer regional* areas generally have a higher than average proportion of people aged 50 and above compared to the national average while these areas have lower proportions of residents aged between 20 and 39.

Table 2.7: Populations (ERP) by ASGC, 2001–02, 2004–05 and 2006–07^(a)

	Remoteness area					Total
	Major cities	Inner regional	Outer regional	Remote	Very remote	
2001–02						
Population	13,324,714	3,828,455	1,893,625	314,928	168,068	19,529,790
Population distribution (per cent)	68.2	19.6	9.7	1.6	0.9	100.0
2004–05						
Population	13,863,647	3,986,144	1,929,662	314,103	165,109	20,258,664
Population distribution (per cent)	68.4	19.7	9.5	1.6	0.8	100.0
2006–07						
Population	14,298,739	4,121,127	1,980,209	316,271	166,434	20,882,779
Population distribution (per cent)	68.5	19.7	9.5	1.5	0.8	100.0

(a) Populations are based on the average of the populations as at 30 June immediately preceding the respective financial year and as at 30 June at the end of the financial year.

Source: AIHW National Population Database.



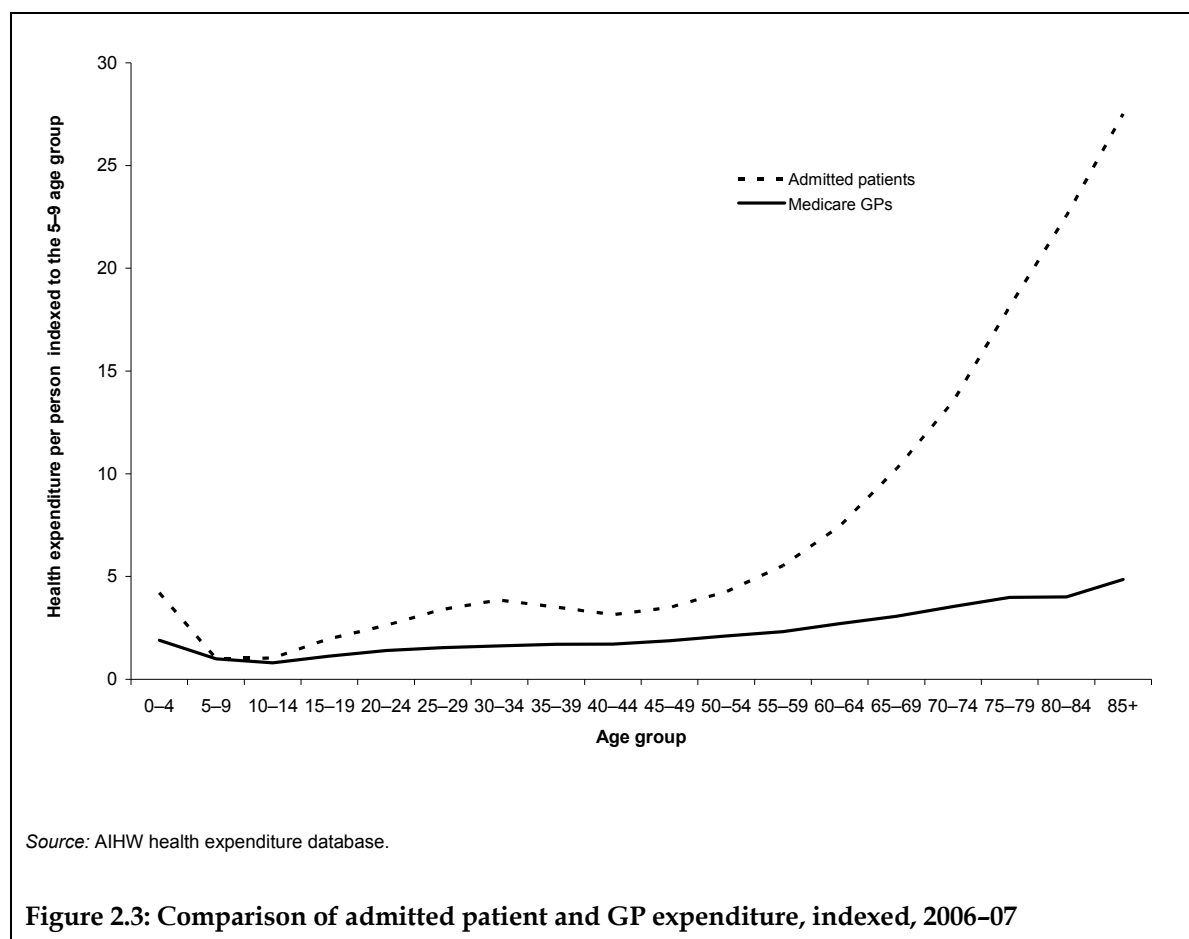
Source: AIHW National Population Database.

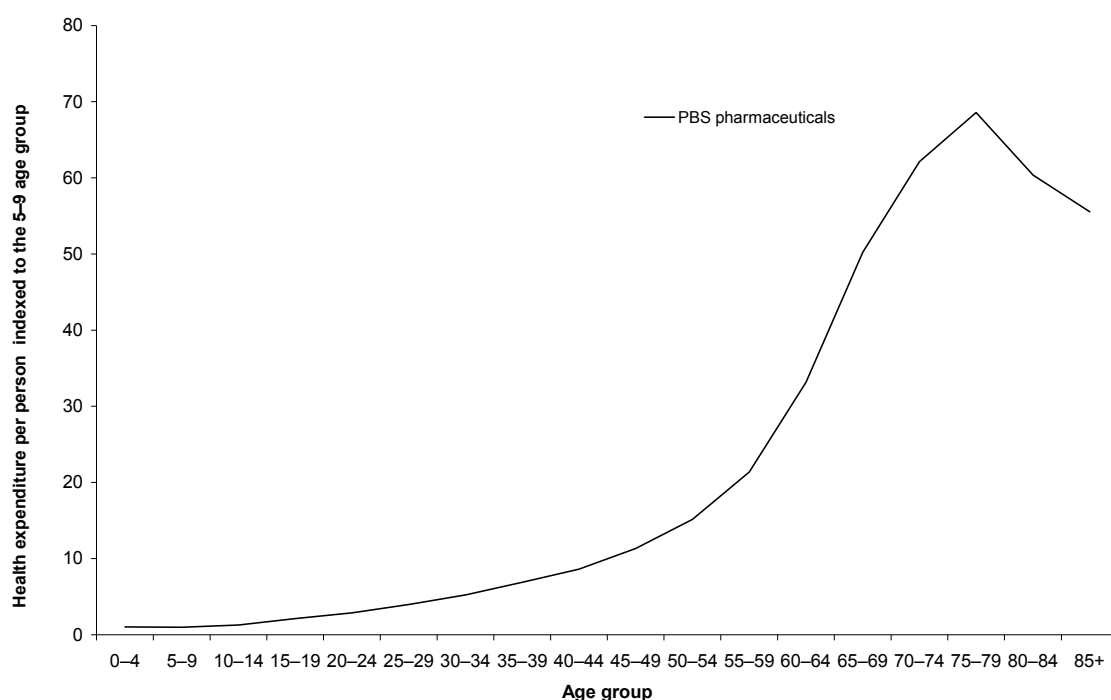
Figure 2.2: Age distribution by remoteness area, 2006–07

Age-standardisation was in this report to adjust for differences in health service usage that may simply reflect the different age structures of populations, rather than any difference in the underlying use of services.

The degree to which data in each chapter has been affected by age-standardisation varies. Figure 2.3 illustrates the relative age profiles of the admitted patient expenditure with the total level of GP fees charged under Medicare, while Figure 2.4 shows the pattern of PBS pharmaceutical expenditure by age. Admitted patient expenditure per person increases much more sharply with age than does the Medicare fees charged for GP services per person

(Figure 2.3). However, the scale used for Figure 2.4 is higher than that for Figure 2.3, demonstrating an even greater rate of increasing expenditure with age for PBS expenditure – for those aged 75–79 years this expenditure is almost 70 times that of expenditure for those aged 5–9 years. Therefore, age-standardisation affects the ‘raw’ expenditure for the various areas of health expenditure differently, with a much greater effect when applied to the per person PBS pharmaceutical expenditure than it does for GP fees.





Source: AIHW health expenditure database.

Figure 2.4: PBS pharmaceutical expenditure, indexed, 2006-07

For this report, *indirect* age-standardisation was used, because age-specific data, required for direct standardisation, were not available for all years. For a particular measure (such as private admitted patients in 2001-02), the population was divided into 18 age groups with each age group's standardised expenditure per person then being multiplied by the corresponding population of the age group for each region. The amounts calculated were summed for each region and divided by the total population of the region to allow the calculation of an overall, age-standardised, rate for the region. For more details see Appendix A.

3 Hospital expenditure

Statistics on admitted patients are compiled when an admitted patient (a patient who undergoes a hospital's formal admission process) completes an episode of admitted patient care and 'separates' from the hospital. Hospitals also provide services to non-admitted patients through emergency departments, outpatient clinics and a range of other specialised services. Services for non-admitted patients have not been included in the analysis in this report, although a non-admitted patient may later become an admitted patient.

'Separation' is the term used to refer to the episode of admitted patient care which can be a total hospital stay or a portion of a hospital stay beginning or ending in a change of type of care (for example, from acute to rehabilitation) (AIHW 2009b).

Patients can access public hospitals through emergency departments, where they may present on their own initiative, via the ambulance services, or after referral from a medical practitioner. Public hospital emergency and outpatient services are provided free of charge. Patients admitted to a public hospital can choose to be treated as public or private patients. Public patients receive treatment from doctors and specialists nominated by the hospital, but are not charged for their care and treatment.

Patients treated in a private hospital – or as a private patient in a public hospital – can select their treating specialist, but charges then apply for all of the hospital's services (such as accommodation and surgical supplies). Medicare subsidises the fees charged by doctors, and private health insurance funds contribute towards medical fees and the hospital costs for insured patients (AIHW 2006).

This chapter includes four sections. The first, shorter section provides information on admitted patient expenditure, including in-hospital medical services. The inclusion of the in-hospital medical services data with the admitted patient data is very important, especially when comparing expenditure between public and private hospitals. When patients choose to be treated privately (in a public or, more commonly, in a private hospital), the medical fees, which would normally be included as part of admitted patient expenditure, are charged separately and are classed as medical expenditure. In order, to increase the validity of comparisons between public and private hospital expenditure, both admitted patient expenditure and in-hospital medical expenditure need to be examined. However, it is important to note that, despite this adjustment for public and private expenditure, the results are still not entirely consistent. Some costs, such as pharmaceutical expenditure, are included in the public admitted hospital expenditure but not in the equivalent private figures. Additional information on the funding sources for public and private hospitals is contained in the AIHW's *Funding sources for admitted patients in Australian hospitals* (AIHW 2009c) and the Productivity Commission's *Public and private hospitals* report (PC 2009). These complex funding arrangements are discussed in more detail in Box 3.1.

Box 3.1: Differences between private and public hospital expenditure data

The Australian health care system is very complex, particularly in the way different types of services are funded. The funding arrangements for public and private hospitals are particularly complicated, especially the way private patients are funded in comparison to public patients.

The cost of care provided to private admitted patients in public hospitals is not usually fully covered by private health insurance benefits. Therefore some of the care for privately insured admitted patients in public hospitals is funded by state and territory governments and the Australian Government through the Australian Health Care Agreements (AHCAs). Under the AHCAs (and now the National Healthcare Agreements), state and territory governments are also able to determine higher charges which may need to be met by private patients as out-of-pocket costs.

The medical component of the admitted private patient episode of care is funded by the Medicare Benefits Scheme (MBS) (75% of the scheduled fee plus safety net payments), private health insurance benefits, the Australian Government private health insurance rebate and out-of-pocket payments by individuals. As such, only a portion of the cost of a private patient's separation will be reflected in the analysis in this chapter.

Finally, while most of the Australian Government's funding is directed to public patients, funding is not quarantined within public hospitals, and bed day charges for privately insured patients are, on average, lower than actual costs, so there is subsidisation of privately insured patients in public hospitals. Hence, the Australian Government provides funding for privately insured patients through three streams: the private health insurance rebate, MBS benefits and, for public hospital patients only, AHCA funding (AIHW 2009c). Due to these differences in funding arrangements, care needs to be taken in comparing the private and public hospital admitted patient expenditure data presented in this chapter.

The second section in this chapter includes admitted patient data only – that is, the data is not adjusted for in-hospital medical expenses. This section includes analysis derived on a public and private hospital basis, but also by the length of stay and acuteness of admitted patient separations.

In relation to the analysis by the length of stay for separations, when a patient is both admitted and separated on the same date, the patient is classed as having a same-day separation. The term overnight separation has been used for all other separations and includes separations which have multiple-day durations.

Similarly, analysis has been conducted on the acuteness of the admitted patients' separations. Acute care is care in which the clinical intent or treatment goal is to cure an illness or to manage or provide definitive treatment of a condition or injury. The term distinguishes this type of care from other types, such as rehabilitation or palliative care. This report uses the term 'not-acute' for all separations which are not classified as 'acute'.

For the analysis on the cost per separation by the length of stay or acuteness of separations, only separations from public hospitals were used. Due to the different manner in which public and private hospitals receive their funding, expenditure amounts on similar separations by the two types of hospitals may not be comparable. Therefore, by only examining the cost per separation by length of stay or acuteness for separations from one hospital type, in this case public hospitals, the results will be more meaningful than if similar analysis was completed upon all hospital separations.

The final two sections of this chapter include analysis on the in-hospital medical services and a time series for admitted patient data.

3.1 Hospital admitted patient services—including in-hospital medical services

This chapter provides information on admitted patient expenditure including in-hospital medical services. As discussed on page 39, the inclusion of the in-hospital medical services data with the admitted patient data is important when comparing expenditure between public and private hospitals.

In 2006–07, a total of \$32,371 million was spent on admitted patient and in-hospital medical services. The majority of this expenditure, \$22,513 million (70%), related to patients in public hospitals (both public and private patients) (Table 3.1).

On a per person basis the total admitted patient expenditure results were markedly higher with increasing remoteness, while for private hospital admitted patients only, the per person expenditure showed opposing results. The age-standardised expenditure per person for public hospital admissions increased with remoteness from \$1,003 for residents of *Major cities*, \$1,102 for *Inner regional* residents, \$1,281 for *Outer regional* residents, \$1,683 for *Remote* residents and was highest for *Very remote* residents with \$2,513 spent per person. For private hospital admissions the results were opposite, with standardised per person expenditure being highest for residents of *Major cities* (\$509) while the level of expenditure for *Very remote* area residents was only 40% of this amount (\$203).

While the total per person standardised expenditure levels were similar for residents of *Major cities* and *Inner regional* areas, there was a higher ratio of public to private hospital expenditure for the *Inner regional* residents. This ratio of public to private hospital spending was also higher with each remoteness category.

Table 3.1: Expenditure on admitted patient services^(a) including in-hospital medical services by public/private hospital and remoteness, 2006–07

Measure	ASGC remoteness ^(b)					Australia ^(c)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Public hospitals	14,204.2	4,758.8	2,545.0	472.5	330.1	22,513.0
Private hospitals	7,176.7	1,873.0	675.6	72.5	24.7	9,858.0
<i>Total</i>	<i>21,380.9</i>	<i>6,631.8</i>	<i>3,220.6</i>	<i>545.1</i>	<i>354.8</i>	<i>32,371.0</i>
Expenditure per person (\$)						
Public hospitals	993.39	1,154.72	1,285.21	1,494.01	1,983.48	1,078.07
Private hospitals	501.91	454.49	341.16	229.36	148.55	472.06
<i>Total</i>	<i>1,495.30</i>	<i>1,609.21</i>	<i>1,626.38</i>	<i>1,723.37</i>	<i>2,132.03</i>	<i>1,550.13</i>
Expenditure per person, age-standardised ^(d) (\$)						
Public hospitals	1,002.70	1,102.05	1,281.09	1,682.77	2,513.19	1,078.07
Private hospitals	508.72	428.15	337.22	263.56	202.59	472.06
<i>Total</i>	<i>1,510.90</i>	<i>1,530.70</i>	<i>1,617.68</i>	<i>1,950.94</i>	<i>2,751.07</i>	<i>1,550.13</i>
Expenditure per person indexed, age-standardised ^(e)						
Public hospitals	1.00	1.10	1.28	1.68	2.51	1.08
Private hospitals	1.00	0.84	0.66	0.52	0.40	0.93
<i>Total</i>	<i>1.00</i>	<i>1.01</i>	<i>1.07</i>	<i>1.29</i>	<i>1.82</i>	<i>1.03</i>

(a) Data 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) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(c) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(d) Indirectly age-standardised.

(e) Expressed as a multiple of the *Major cities* value.

Note: Public and private hospital expenditure are not comparable. See Box 2.1. Expenditure relates to admitted patient services regardless of source of fund. This includes government, health insurance and self funded payments.

Source: AIHW health expenditure database.

Overall, the hospital separation rate was higher for residents outside *Major cities* and *Inner* and *Outer regional* areas. After the results were age-standardised, for every separation for residents of *Major cities*, there were 1.56 separations for residents of *Very remote* areas (Table 3.2). The separation rates for residents of *Inner* and *Outer regional* areas were similar to that of residents of *Major cities*.

The standardised public hospital separation rate was 206 per 1,000 population for residents of *Major cities*, compared to 501 separations per 1,000 residents of *Very remote* areas. In contrast, the results for private hospital separations showed a lower rate of separation in the remoter areas.

In 2006–07 there were 156 age-standardised private hospital separations per 1,000 residents of *Major cities*, 118 and 94 per 1,000 *Inner* and *Outer regional* residents compared with 54 per 1,000 residents for those in *Very remote* locations.

Table 3.2: Admitted patient separations^(a) by remoteness, 2006–07

Measure	ASGC remoteness ^(b)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Public hospitals						
Separations (millions)	2.9	1.0	0.5	0.1	0.1	4.7
Separations per 1,000	204.3	243.3	277.0	301.0	414.7	223.2
Separations per 1,000 age-standardised ^(c)	206.1	233.9	274.9	329.1	501.0	223.2
Separations per person indexed ^(d)	1.00	1.13	1.33	1.60	2.43	1.08
Private hospitals						
Separations (millions)	2.2	0.5	0.2	—	—	2.9
Separations per 1,000	153.7	124.8	96.0	69.6	42.5	140.9
Separations per 1,000 age-standardised ^(c)	155.9	118.3	94.2	77.0	54.4	140.9
Separations per person indexed ^(d)	1.00	0.76	0.60	0.49	0.35	0.90
All						
Separations (millions)	5.1	1.5	0.7	0.1	0.1	7.6
Separations per 1,000	358.0	368.0	373.0	370.5	457.2	364.1
Separations per 1,000 age-standardised ^(c)	361.9	351.9	368.6	407.1	564.6	364.1
Separations per person indexed ^(d)	1.00	0.97	1.02	1.12	1.56	1.01

(a) Data 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) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the Major cities value.

Source: AIHW health expenditure database.

As noted in Section 3.1, while the expenditure data has been adjusted for in-hospital medical services, the expenditure data presented for public and private hospitals below is not comparable. However, the regional comparisons within each of the hospital types are comparable.

Compared with residents of *Major cities*, expenditure per public hospital separation, while slightly lower for residents of *Inner* and *Outer regional* areas, was similar or slightly higher for those in remote areas. In contrast, expenditure per separation for private hospitals, tended to be higher outside *Major cities* with the expenditure for residents of *Inner regional* and *Very remote* areas being 12% and 11% higher respectively than for those in *Major cities* (Table 3.3).

Table 3.3: Expenditure on admitted patient services^(a) including in-hospital medical services per separation, by remoteness, 2006–07

Measure	ASGC remoteness ^(b)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Public hospitals (\$)	4,863.21	4,746.37	4,639.99	4,964.04	4,783.23	4,829.79
Age-standardised ^(c) (\$)	4,864.05	4,731.34	4,648.90	5,024.84	4,870.94	4,829.79
Indexed	1.00	0.97	0.96	1.03	1.00	0.99
Private hospitals (\$)	3,264.53	3,643.08	3,554.13	3,297.59	3,495.49	3,351.20
Age-standardised ^(c) (\$)	3,260.76	3,640.35	3,570.20	3,356.45	3,607.72	3,351.20
Indexed	1.00	1.12	1.09	1.03	1.11	1.03

(a) Data 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) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(c) Indirectly age-standardised.

Note: Public and private hospital costs are not comparable. See Box 3.1.

Source: AIHW health expenditure database.

3.2 Hospital admitted patient services—excluding in-hospital medical services

Private and public hospitals

In 2006–07, expenditure on admitted patients in Australia totalled \$28,582 million. Over 75% of this expenditure (\$21,785 million) was spent on patients admitted to the public hospital system, with \$6,797 million spent on the private hospital patients (Table 3.4).

As with the expenditure adjusted for in-hospital medical costs in Section 3.1, the per person expenditure results for public hospitals were higher with increasing remoteness, while per person expenditure on private hospital admitted patients was lower.

The age-standardised expenditure levels per person for public hospital admissions increased with remoteness from \$970 for residents of *Major cities* to \$1,066 and \$1,240 for residents of *Inner* and *Outer regional* areas with the highest result being \$2,432 for *Very remote* residents. For private hospital admissions, the expenditure for these regions was \$351, \$295, \$233 and \$140 respectively.

Table 3.4: Expenditure on admitted patient services^(a) by public/private hospital and remoteness, 2006–07

Measure	ASGC remoteness ^(b)					Australia ^(c)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Public hospitals	13,744.8	4,604.9	2,462.7	457.2	319.4	21,785.0
Private hospitals	4,948.3	1,291.4	465.8	50.0	17.0	6,797.0
<i>Total</i>	<i>18,693.1</i>	<i>5,896.3</i>	<i>2,928.5</i>	<i>507.2</i>	<i>336.5</i>	<i>28,582.0</i>
Expenditure per person (\$)						
Public hospitals	961.26	1,117.38	1,243.65	1,445.70	1,919.34	1,043.20
Private hospitals	346.07	313.36	235.23	158.14	102.42	325.48
<i>Total</i>	<i>1,307.33</i>	<i>1,430.75</i>	<i>1,478.88</i>	<i>1,603.84</i>	<i>2,021.77</i>	<i>1,368.69</i>
Expenditure per person, age-standardised ^(d) (\$)						
<i>Public hospitals</i>	970.27	1,066.41	1,239.66	1,628.36	2,431.92	1,043.20
<i>Private hospitals</i>	350.76	295.20	232.51	181.72	139.69	325.48
<i>Total</i>	<i>1,320.97</i>	<i>1,360.95</i>	<i>1,470.97</i>	<i>1,815.63</i>	<i>2,608.79</i>	<i>1,368.69</i>
Expenditure per person indexed, age-standardised ^(e)						
Public hospitals	1.00	1.10	1.28	1.68	2.51	1.08
Private hospitals	1.00	0.84	0.66	0.52	0.40	0.93
<i>Total</i>	<i>1.00</i>	<i>1.03</i>	<i>1.11</i>	<i>1.37</i>	<i>1.97</i>	<i>1.04</i>

(a) Data 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) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(c) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(d) Indirectly age-standardised.

(e) Expressed as a multiple of the *Major cities* value.

Note: Public and private hospital costs are not comparable. See Box 3.1.

Source: AIHW health expenditure database.

The results for admitted patient separations have been reported in Table 3.2.

Expenditure per public hospital separation tended to be slightly lower in regional areas and similar or slightly higher in remote areas (\$4,706 for residents of *Major cities*, \$4,490 for *Outer regional* residents and \$4,804 for residents of *Remote* areas). After age-standardisation to take account of demographic differences, expenditure per public hospital separation was 3%-4% lower for residents of regional areas, and similar or slightly higher for residents of remote areas (Table 3.5).

Government expenditure per admitted patient separation in public hospitals appears higher than that for private hospitals for all regional classifications and averaged \$4,674 (compared to \$2,311 for private hospitals). However, as noted in Box 3.1, these figures are not comparable due to the different manner in which each hospital type is funded.

The unadjusted expenditures per private hospital separation were higher for residents of regional and remote areas compared with that for residents of *Major cities* (for example, the highest expenditure occurred for residents of *Inner regional* areas (\$2,512) and the lowest for residents of *Major cities* (\$2,251). After age-standardisation, expenditures per private hospital separation were up to approximately 10% higher for residents of *Inner* and *Outer regional* and *Very remote* areas compared with residents of *Major cities* (for example, age-standardised expenditure per private hospital separation for residents of *Inner regional* areas was \$2,510 compared with \$2,248 for residents of *Major cities*).

Table 3.5: Expenditure on admitted patient services^{(a)(b)} per separation, by remoteness, 2006–07

Measure	ASGC remoteness ^(c)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Public hospitals (\$)	4,705.95	4,592.89	4,489.94	4,803.52	4,628.55	4,673.61
Age-standardised ^(d) (\$)	4,706.76	4,578.34	4,498.57	4,862.35	4,713.43	4,673.61
Indexed	1.00	0.97	0.96	1.03	1.00	0.99
Private hospitals (\$)	2,250.87	2,511.87	2,450.54	2,273.66	2,410.11	2,310.62
Age-standardised ^(d) (\$)	2,248.26	2,509.99	2,461.62	2,314.24	2,487.49	2,310.62
Indexed	1.00	1.12	1.09	1.03	1.11	1.03

(a) Separations not adjusted for casemix complexity.

(b) Expenditure on separations without an external cause and those for which the care type was reported as *Newborn* with no qualified days and records for *Hospital borders* and *Posthumous organ procurement* have been excluded.

(c) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(d) Indirectly age-standardised.

Note: Public and private hospital costs are not comparable. See Box 3.1.

Source: AIHW health expenditure database.

Length of stay of hospital separations

The majority of expenditure on admitted patients in 2006–07 (83%) was for patients who stayed in hospital overnight rather than same-day patients, with expenditure totalling \$23,706 million for overnight admitted patients (Table 3.6).

Overall, per person expenditure was higher for the more remote areas and ranged from \$1,307 for *Major cities* to \$2,022 for *Very remote* residents. After age-standardisation, the average per person expenditure for overnight hospital admissions was \$1,088 for residents of *Major cities* compared to \$2,316 for residents of *Very remote* areas. The indexed expenditure shows that expenditure on overnight hospital admissions for residents of *Very remote* areas was more than double the expenditure for residents of *Major cities*.

For same-day patients the ratio of same-day expenditure per person to total expenditure per person was generally lower for the more remote ASGC areas, ranging from 18% for residents of *Major cities* to 13% for *Very remote* residents. Once age-standardised, per person expenditure was 1%–3% lower (\$227–\$231) for residents of *Inner* and *Outer regional* areas, than for residents of *Major cities* (\$233), but 31% higher (\$305) for *Very remote* area residents.

Table 3.6: Expenditure on admitted patient services^(a) by length of stay and remoteness, 2006–07

Measure	ASGC remoteness ^(b)					Australia ^(c)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Overnight	15,397.1	4,917.6	2,461.8	435.2	294.2	23,706.1
Same-day	3,296.1	978.7	466.7	72.0	42.3	4,875.9
Total	18,693.1	5,896.3	2,928.5	507.2	336.5	28,582.0
Expenditure per person (\$)						
Overnight	1,076.81	1,193.26	1,243.21	1,376.07	1,767.41	1,135.20
Same-day	230.52	237.48	235.67	227.77	254.36	233.49
Total	1,307.33	1,430.75	1,478.88	1,603.84	2,021.77	1,368.69
Expenditure per person, age-standardised ^(d) (\$)						
Overnight	1,087.62	1,133.76	1,239.99	1,574.36	2,316.36	1,135.20
Same-day	233.36	227.15	231.30	245.29	305.28	233.49
Total	1,320.97	1,360.95	1,470.97	1,815.63	2,608.79	1,368.69
Expenditure per person indexed, age-standardised ^(e)						
Overnight	1.00	1.04	1.14	1.45	2.13	1.04
Same-day	1.00	0.97	0.99	1.05	1.31	1.00
Total	1.00	1.03	1.11	1.37	1.97	1.03

(a) Data 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) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(c) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(d) Indirectly age-standardised.

(e) Expenditure per person expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

Overall, the total rate of hospital separations gradually became higher with remoteness, with the separation rate for *Very remote* residents higher than that for all other remoteness areas (457 separations per 1,000 population compared to the national average of 364). The main driver for the considerably higher overall separation rates for *Very remote* residents was the number of overnight separations – once age-standardised, for every such separation for a *Major cities* resident there were 1.86 separations for *Very remote* residents (Table 3.7).

Same-day separation rates were also higher for *Very remote* residents with 226 separations per 1,000 population compared with *Inner* and *Outer regional* residents experiencing around 190 per 1,000 residents. The standardised same-day separation rates for *Major cities* (211) and *Remote* (194) residents were close to the national average of 203 same-day hospital separations per 1,000 residents in 2006–07.

Table 3.7: Admitted patient separations^(a) by length of stay and remoteness, 2006–07

Measure	ASGC remoteness ^(b)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Overnight						
Separations (millions)	2.2	0.7	0.4	0.1	—	3.4
Separations per 1,000	150.5	176.5	183.6	192.5	231.2	161.0
Separations per 1,000 age-standardised ^(c)	151.3	170.8	184.2	213.2	281.6	161.0
Separations per person indexed ^(d)	1.00	1.13	1.22	1.41	1.86	1.06
Same-day						
Separations (millions)	3.0	0.8	0.4	0.1	—	4.2
Separations per 1,000	207.5	191.6	189.4	178.0	226.0	203.1
Separations per 1,000 age-standardised ^(c)	210.7	181.5	184.9	194.4	282.2	203.1
Separations per person indexed ^(d)	1.00	0.86	0.88	0.92	1.34	0.96
All						
Separations (millions)	5.1	1.5	0.7	0.1	0.1	7.6
Separations per 1,000	358.0	368.0	373.0	370.5	457.2	364.1
Separations per 1,000 age-standardised ^(c)	361.9	351.9	368.6	407.1	564.6	364.1
Separations per person indexed ^(d)	1.00	0.97	1.02	1.12	1.56	1.01

(a) Data 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) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

For each patient admitted to public hospitals for overnight or longer, there was on average \$8,043 of government expenditure (Table 3.8). Per person expenditure was highest for those in *Major cities* (\$8,365 per separation) and lowest for *Outer regional* residents (\$7,316). The age-standardised expenditure figures provide a similar result, with *Outer regional* residents having the lowest adjusted expenditure for overnight separations (\$7,253 per separation) and *Major cities* residents having the highest (\$8,405).

For same-day separations, standardised expenditure per separation was highest in *Remote* areas (\$1,405) and lowest for residents of *Very remote* areas (\$1,109).

Table 3.8: Expenditure on admitted patient services^{(a)(b)} per separation in public hospitals by length of stay and remoteness, 2006–07

Measure	ASGC remoteness ^(c)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Overnight (\$)	8,365.0	7,548.8	7,316.2	7,487.9	7,849.0	8,042.6
Age-standardised ^(d) (\$)	8,404.7	7,432.2	7,253.0	7,629.3	8,273.0	8,042.6
Indexed ^(e)	1.00	0.88	0.86	0.91	0.98	0.96
Same-day (\$)	1,284.5	1,378.6	1,336.4	1,425.2	1,149.5	1,310.9
Age-standardised ^(d) (\$)	1,284.3	1,382.8	1,336.4	1,405.1	1,108.6	1,310.9
Indexed ^(e)	1.00	1.08	1.04	1.09	0.86	1.02

(a) Separations not adjusted for casemix complexity.

(b) Data 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.

(c) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(d) Indirectly age-standardised.

(e) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

Acuteness of separations

Government expenditure on acute care admitted patients (\$25,845) comprised 90% of the total expenditure on admitted patients (\$28,582). The level of expenditure on not-acute care patients in 2006–07 was \$2,737 million (Table 3.9).

The percentage of admitted patient expenditure on not-acute care admitted patients in Australia in 2006–07 was 9.6% (calculated from Table 3.9). However, this rate became lower with remoteness, from 10.0% in *Major cities* to 7.1% for *Very remote* areas. Despite this, the overall per person not-acute care expenditure rose with remoteness, with the lowest levels of standardised expenditure experienced by *Inner* and *Outer regional* residents.

While both acute care and not-acute care expenditure were generally higher with remoteness, acute care expenditure experienced even greater movements across the ASGC categories. After age-standardisation, *Very remote* areas experienced the highest level of average per person expenditure in both acute care (\$2,417) and not-acute care (\$190). *Major cities* residents had the lowest expenditure per person for acute care (\$1,189) while *Inner regional* residents had the lowest levels of not-acute care expenditure (\$117).

Table 3.9: Expenditure on admitted patient services^(a) by acute/not-acute status and remoteness, 2006–07

Measure	ASGC remoteness ^(b)					Australia ^(c)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Acute	16,825.3	5,379.7	2,680.5	466.0	312.8	25,844.7
Not-acute	1,867.8	516.6	248.0	41.2	23.7	2,737.3
Total	18,693.1	5,896.3	2,928.5	507.2	336.5	28,582.0
Expenditure per person (\$)						
Acute	1,176.70	1,305.40	1,353.66	1,473.46	1,879.19	1,237.61
Not-acute	130.63	125.35	125.22	130.38	142.57	131.08
Total	1,307.33	1,430.75	1,478.88	1,603.84	2,021.77	1,368.69
Expenditure per person, age-standardised ^(d) (\$)						
Acute	1,188.68	1,243.67	1,345.29	1,661.22	2,417.05	1,237.61
Not-acute	132.31	117.49	125.55	153.54	189.73	131.08
Total	1,320.97	1,360.95	1,470.97	1,815.63	2,608.79	1,368.69
Expenditure per person indexed, age-standardised ^(e)						
Acute	1.00	1.05	1.13	1.40	2.03	1.04
Not-acute	1.00	0.89	0.95	1.16	1.43	0.99
Total	1.00	1.03	1.11	1.37	1.97	1.04

(a) Data 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) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(c) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(d) Indirectly age-standardised.

(e) Expenditure per person expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

In relation to the number of acute care and not-acute care services, the majority of services (7.3 million) related to acute care patients, with a relatively small number (0.3 million) of not-acute care services (Table 3.10).

All ASGC remoteness categories, except *Very remote*, experienced levels of acute care separation per person similar to the national average of 350 per 1,000 population. Residents in the *Very remote* areas experienced the highest separation rate of 448 separations per 1,000 population. After age-standardisation, the overall acute care separation rates for residents of the *Remote* and *Very remote* categories were notably above the national average. For every acute care separation for a resident of *Major cities*, there were 1.59 separations for residents of *Very remote* areas.

For not-acute care services the standardised, indexed separation rate was highest for *Very remote* areas (1.23) and lowest for *Inner* and *Outer regional* residents (0.66 and 0.64 respectively).

Table 3.10: Admitted patient separations^(a) by acute/not-acute status and remoteness, 2006–07

Measure	ASGC remoteness ^(b)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Acute						
Separations (millions)	4.9	1.5	0.7	0.1	0.1	7.3
Separations per 1,000	342.1	356.3	362.5	361.7	447.8	349.6
Separations per 1,000 age-standardised ^(c)	345.6	341.3	358.2	396.3	550.7	349.6
Separations per person indexed ^(d)	1.00	0.99	1.04	1.15	1.59	1.01
Not-acute						
Separations (millions)	0.2	—	—	—	—	0.3
Separations per 1,000	16.0	11.7	10.5	8.8	9.4	14.5
Separations per 1,000 age-standardised ^(c)	16.3	10.8	10.4	10.4	0.0	14.5
Separations per person indexed ^(d)	1.00	0.66	0.64	0.64	1.23	0.89
All						
Separations (millions)	5.1	1.5	0.7	0.1	0.1	7.6
Separations per 1,000	358.0	368.0	373.0	370.5	457.2	364.1
Separations per 1,000 age-standardised ^(c)	361.9	351.9	368.6	407.1	564.6	364.1
Separations per person indexed ^(d)	1.00	0.97	1.02	1.12	1.56	1.01

(a) Data 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) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The average level of expenditure in 2006–07 on acute separations for public hospitals in Australia was \$4,332 – about a third of the equivalent figure for not-acute care services (\$13,313) (Table 3.11).

In relation to standardised expenditure levels for the ASGC remoteness categories, acute care separation costs were similar for each remoteness category. However, for not-acute care standardised expenditure rates, separations were generally more expensive with higher levels of remoteness – from \$12,545 per *Major cities* separation to \$15,275 for separations for *Very remote* residents. The not-acute care expenditure rates for *Inner* and *Outer regional* residents were similar and were both around 10% higher than the national average.

Table 3.11: Expenditure on admitted patient services^{(a)(b)} per separation in public hospitals by acute/not-acute status and remoteness, 2006–07

Measure	ASGC remoteness ^(c)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Acute	4,354.95	4,269.28	4,187.11	4,498.61	4,384.06	4,331.63
Age-standardised ^(d) (\$)	4,355.54	4,254.95	4,195.43	4,561.28	4,483.22	4,331.63
Acute indexed ^(e)	1.00	0.98	0.96	1.05	1.03	0.99
Not-acute	12,800.94	13,762.10	14,001.59	16,452.26	15,731.69	13,312.93
Age-standardised ^(d) (\$)	12,545.27	14,503.76	14,620.71	16,546.13	15,274.86	13,312.93
Not-acute indexed ^(e)	1.00	1.16	1.17	1.32	1.22	1.06

(a) Separations not adjusted for casemix complexity.

(b) Data 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.

(c) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(d) Indirectly age-standardised.

(e) Expressed as a multiple of the *Major cities* value

Source: AIHW health expenditure database.

3.3 In-hospital medical services

This section provides some additional details on the medical services provided within hospitals. The following service groupings have been used:

- GP and other primary care
- pathology
- imaging
- specialist
- obstetrics
- operations and
- radiation and other services.

GP and other primary care in-hospital expenditure

In 2006–07, \$31.3 million was spent on the in-hospital services of GPs and other primary care services (Table 3.12). The age-standardised expenditure per person was the highest on average for *Remote* area residents (\$3.34) and the lowest on average for residents of *Major cities* (\$1.04). *Outer regional* area residents had the next highest per person expenditure of \$2.83. Out-of-pocket costs were 2.5 times higher for residents of *Remote* areas than for residents of *Major cities* (\$0.41 annually).

Table 3.12: Medicare, GP and other primary care expenditure – in-hospital by remoteness, 2006–07

Amount	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Benefits paid	8.8	6.6	3.8	0.6	0.1	20.0
Out-of-pocket amount	5.8	3.4	1.8	0.3	0.1	11.4
<i>Fees charged</i>	<i>14.6</i>	<i>10.1</i>	<i>5.6</i>	<i>0.8</i>	<i>0.2</i>	<i>31.3</i>
Expenditure per person (\$)						
Benefits paid	0.62	1.61	1.91	1.79	0.65	0.96
Out-of-pocket amount	0.40	0.83	0.92	0.85	0.35	0.54
<i>Fees charged</i>	<i>1.02</i>	<i>2.44</i>	<i>2.83</i>	<i>2.65</i>	<i>1.00</i>	<i>1.50</i>
Expenditure per person, age-standardised ^(c) (\$)						
Benefits paid	0.63	1.48	1.92	2.28	1.05	0.96
Out-of-pocket amount	0.41	0.77	0.92	1.06	0.55	0.54
<i>Fees charged</i>	<i>1.04</i>	<i>2.25</i>	<i>2.83</i>	<i>3.34</i>	<i>1.60</i>	<i>1.50</i>
Expenditure per person indexed ^(d)						
Benefits paid	1.00	2.36	3.05	3.64	1.68	1.52
Out-of-pocket amount	1.00	1.88	2.24	2.59	1.34	1.33
<i>Fees charged</i>	<i>1.00</i>	<i>2.17</i>	<i>2.73</i>	<i>3.22</i>	<i>1.54</i>	<i>1.45</i>

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The level of services used was also higher for the seven million people living outside *Major cities*. Once age-standardised, the rate at which in-hospital services of GPs and other primary care services were used by residents of *Remote* areas was 3.69 times that for residents of *Major cities* (Table 3.13).

Table 3.13: Medicare, GP and other primary care services – in-hospital by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Services (millions)	0.2	0.2	0.1	—	—	0.5
Services per 1,000	15.1	41.3	48.5	43.7	15.5	23.9
Services per 1,000 age-standardised ^(b)	15.3	37.9	48.6	56.5	26.3	23.9
Services per person indexed ^(c)	1.00	2.47	3.17	3.69	1.72	1.56

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

Fees charged and out-of-pocket expenses per service were lower, while Medicare benefits paid were higher, outside *Major cities* (Table 3.14).

The percentage of benefits paid as a proportion of the fee charged, post-standardisation, was lowest for residents of *Major cities* (60.5%) and highest for *Remote* area residents (67.9%).

Table 3.14: Medicare benefits paid as a proportion of fees charged per in-hospital GP and other primary care services by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Benefits paid as a proportion of fees charged (%)	60.5	66.0	67.6	67.8	64.7	63.7
Age-standardised ^(b)	60.5	65.8	67.5	67.9	65.0	63.7
Out-of-pocket amounts paid as a proportion of fees charged (%)	39.5	34.0	32.4	32.2	35.3	36.3
Age-standardised ^(b)	39.5	34.2	32.5	32.1	35.0	36.3
Fees charged per service (\$)	67.76	59.05	58.29	60.62	64.41	62.78
Age-standardised ^(b)	67.61	59.60	58.46	59.69	62.29	62.78

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

Source: AIHW health expenditure database.

Pathology in-hospital expenditure

Pathology services are the laboratory findings of a disease, as distinguished from clinical signs and symptoms.

A total of \$282.6 million was spent on in-hospital pathology services under Medicare in 2006–07. Of this, \$97.2 million (34%) was paid by patients through out-of-pocket expenditure (Table 3.15).

Expenditure per person on in-hospital pathology services in 2006–07 was substantially lower for each more remote ASGC category. After age-standardisation this trend remained,

meaning that the differences in per person expenditure are not solely due to the different age profiles or the size of the population in each of the ASGC areas.

Medicare expenditures for in-hospital pathology services on behalf of residents from *Inner* and *Outer regional* and *Very remote* areas were 0.73, 0.59 and 0.36 times those of residents of *Major cities*. Out-of-pocket expenditure was also lower with increasing remoteness of the patient's home address.

Table 3.15: Medicare, pathology expenditure – in-hospital by remoteness, 2006–07

Amount	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Benefits paid	139.0	32.5	12.1	1.4	0.4	185.5
Out-of-pocket amount	73.2	16.6	6.4	0.8	0.2	97.2
<i>Fees charged</i>	<i>212.2</i>	<i>49.1</i>	<i>18.4</i>	<i>2.1</i>	<i>0.6</i>	<i>282.6</i>
Expenditure per person (\$)						
Benefits paid	9.72	7.88	6.10	4.34	2.48	8.88
Out-of-pocket amount	5.12	4.02	3.22	2.42	1.39	4.65
<i>Fees charged</i>	<i>14.84</i>	<i>11.91</i>	<i>9.32</i>	<i>6.76</i>	<i>3.87</i>	<i>13.53</i>
Expenditure per person, age-standardised ^(c) (\$)						
Benefits paid	9.94	7.28	5.91	4.97	3.47	8.88
Out-of-pocket amount	5.23	3.72	3.11	2.76	1.93	4.65
<i>Fees charged</i>	<i>15.17</i>	<i>11.01</i>	<i>9.03</i>	<i>7.73</i>	<i>5.40</i>	<i>13.53</i>
Expenditure per person indexed ^(d)						
Benefits paid	1.00	0.73	0.59	0.50	0.35	0.89
Out-of-pocket amount	1.00	0.71	0.59	0.53	0.37	0.89
<i>Fees charged</i>	<i>1.00</i>	<i>0.73</i>	<i>0.59</i>	<i>0.51</i>	<i>0.36</i>	<i>0.89</i>

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The numbers of in-hospital pathology services provided per person were also lower with remoteness (Table 3.16). Per 1,000 population, there were 413 pathology services on average for *Major cities* residents, 334 for *Inner regional* residents and 100 for *Very remote* residents.

Table 3.16: Medicare, pathology services – in-hospital by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Services (millions)	5.9	1.4	0.5	0.1	—	7.9
Services per 1,000	413.2	334.3	252.0	178.8	100.4	376.5
Services per 1,000 age-standardised ^(b)	422.9	306.6	245.2	211.2	147.9	376.5
Services per person indexed ^(c)	1.00	0.73	0.58	0.50	0.35	0.89

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

Age-standardised fees charged per service were \$2.43 above the national average of \$35.95 for residents of *Very remote* areas (Table 3.17).

The proportion of the fees paid by Medicare was lower for *Very remote* area residents (63.9%) than for *Inner regional* residents (66.2%).

Table 3.17: Medicare benefits paid as a proportion of fees charged per in-hospital pathology service by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Benefits paid as a proportion of fees charged (%)	65.5	66.2	65.5	64.2	64.1	65.6
Age-standardised ^(b)	65.5	66.2	65.5	64.1	63.9	65.6
Out-of-pocket amounts paid as a proportion of fees charged (%)	34.5	33.8	34.5	35.8	35.9	34.4
Age-standardised ^(b)	34.5	33.8	34.5	35.9	36.1	34.4
Fees charged per service (\$)	35.91	35.62	36.97	37.81	38.54	35.95
Age-standardised ^(b)	35.83	35.88	37.09	37.62	38.38	35.95

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

Source: AIHW health expenditure database.

Imaging in-hospital expenditure

Imaging (in radiography) is the production of images of organs or tissues by a range of techniques. These images are used by physicians in diagnosis and in monitoring the effects of treatment and include radiology tests (such as X-rays and mammograms), ultrasounds, CT scans, nuclear medicine imaging and magnetic resonance imaging tests.

Expenditure for imaging services for patients in hospitals in 2006–07 was \$206 million. The average per person expenditure levels were lower with remoteness – from \$10 in the *Major cities* to \$3 in *Very remote* regions. After age-standardisation, this trend remained with the highest level of per person expenditure for residents of *Major cities* (\$11) and the lowest

for those in *Very remote* areas (\$5). The per person expenditure rate for *Very remote* residents was 45% of the same figure for residents of *Major cities* (Table 3.18).

Table 3.18: Medicare, imaging expenditure – in-hospital by remoteness, 2006–07

Amount	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Benefits paid	94.6	24.9	9.2	1.1	0.3	130.1
Out-of-pocket amount	55.2	14.3	5.6	0.7	0.2	76.1
<i>Fees charged</i>	<i>149.8</i>	<i>39.2</i>	<i>14.9</i>	<i>1.8</i>	<i>0.5</i>	<i>206.3</i>
Expenditure per person (\$)						
Benefits paid	6.61	6.04	4.66	3.40	1.90	6.23
Out-of-pocket amount	3.86	3.47	2.85	2.24	1.29	3.65
<i>Fees charged</i>	<i>10.48</i>	<i>9.51</i>	<i>7.51</i>	<i>5.64</i>	<i>3.19</i>	<i>9.88</i>
Expenditure per person, age-standardised ^(c) (\$)						
Benefits paid	6.80	5.47	4.49	4.06	2.92	6.23
Out-of-pocket amount	3.97	3.15	2.74	2.63	1.93	3.65
<i>Fees charged</i>	<i>10.78</i>	<i>8.62</i>	<i>7.23</i>	<i>6.70</i>	<i>4.86</i>	<i>9.88</i>
Expenditure per person indexed ^(d)						
Benefits paid	1.00	0.80	0.66	0.60	0.43	0.92
Out-of-pocket amount	1.00	0.79	0.69	0.66	0.49	0.92
<i>Fees charged</i>	<i>1.00</i>	<i>0.80</i>	<i>0.67</i>	<i>0.62</i>	<i>0.45</i>	<i>0.92</i>

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The number of imaging services provided in-hospital was also lower with remoteness. After age-standardisation, for every service provided to residents of *Major cities* in 2006–07, 0.82 and 0.66 services were provided for *Inner* and *Outer regional* residents, while 0.59 and 0.41 of a service were provided to residents of *Remote* and *Very remote* areas respectively (Table 3.19).

Table 3.19: Medicare, imaging services – in-hospital by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Services (millions)	0.8	0.2	0.1	—	—	1.1
Services per 1,000	56.6	52.7	40.0	28.8	15.7	53.6
Services per 1,000 age-standardised ^(b)	58.2	47.9	38.7	34.4	23.7	53.6
Services per person indexed ^(c)	1.00	0.82	0.66	0.59	0.41	0.92

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

While a higher number of services per person were provided to residents of *Major cities*, the level of fees charged per service was generally higher for those in more remote areas, with *Inner regional* residents experiencing the lowest levels of per person standardised fee levels (\$180) and *Very remote* residents the highest (\$210) (Table 3.20).

The percentage of benefits paid as a proportion of the fee charged, post-standardisation, was generally slightly lower with remoteness.

Table 3.20: Medicare benefits paid as a proportion of fees charged per in-hospital imaging service by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Benefits paid as a proportion of fees charged (%)	63.1	63.5	62.0	60.4	59.6	63.1
Age-standardised ^(b)	63.2	63.4	61.9	60.3	59.4	63.1
Out-of-pocket amounts paid as a proportion of fees charged (%)	36.9	36.5	38.0	39.6	40.4	36.9
Age-standardised ^(b)	36.8	36.6	38.1	39.7	40.6	36.9
Fees charged per service (\$)	184.94	180.43	187.79	195.89	203.75	184.40
Age-standardised ^(b)	184.90	180.24	187.73	197.68	210.21	184.40

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

Source: AIHW health expenditure database.

Specialist in-hospital expenditure

A specialist is a medical practitioner who limits his practice to a particular class of patients, type of disease or technique.

Total expenditure on specialist in-hospital services in 2006–07 was \$379 million, which includes \$216 million of Medicare expenditure. Per person, expenditure on specialist services was lower with remoteness. For every \$1.00 spent on specialist consultations on residents of *Major cities*, \$0.32 was spent on residents of *Very remote* areas (age-standardised). Per person

expenditure rates for *Outer regional* and *Remote* residents were about half of that for residents of *Major cities* (Table 3.21).

Table 3.21: Medicare, specialist expenditure – in-hospital by remoteness, 2006–07

Amount	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Benefits paid	163.9	37.8	12.6	1.5	0.4	216.3
Out-of-pocket amount	123.1	28.3	9.9	1.2	0.4	162.9
<i>Fees charged</i>	<i>287.0</i>	<i>66.1</i>	<i>22.5</i>	<i>2.6</i>	<i>0.8</i>	<i>379.2</i>
Expenditure per person (\$)						
Benefits paid	11.46	9.17	6.39	4.59	2.64	10.36
Out-of-pocket amount	8.61	6.86	4.98	3.68	2.15	7.80
<i>Fees charged</i>	<i>20.07</i>	<i>16.03</i>	<i>11.37</i>	<i>8.28</i>	<i>4.79</i>	<i>18.16</i>
Expenditure per person, age-standardised ^(c) (\$)						
Benefits paid	11.68	8.51	6.25	5.33	3.68	10.36
Out-of-pocket amount	8.77	6.40	4.88	4.21	2.93	7.80
<i>Fees charged</i>	<i>20.45</i>	<i>14.90</i>	<i>11.13</i>	<i>9.55</i>	<i>6.61</i>	<i>18.16</i>
Expenditure per person indexed ^(d)						
Benefits paid	1.00	0.73	0.54	0.46	0.32	0.89
Out-of-pocket amount	1.00	0.73	0.56	0.48	0.33	0.89
<i>Fees charged</i>	<i>1.00</i>	<i>0.73</i>	<i>0.54</i>	<i>0.47</i>	<i>0.32</i>	<i>0.89</i>

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The relative levels of age-standardised services per person are similar to the relative expenditure levels discussed above – with the rates for *Major cities* residents being the highest and those for *Very remote* areas the lowest. For every service provided to *Major cities* residents, 0.34 of a service is provided to residents of *Very remote* areas (Table 3.22).

Table 3.22: Medicare, specialist services – in-hospital by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Services (millions)	3.5	0.8	0.3	—	—	4.7
Services per 1,000	245.3	203.7	148.1	105.5	61.5	224.4
Services per 1,000 age-standardised ^(b)	250.0	189.4	144.8	121.3	84.6	224.4
Services per person indexed ^(c)	1.00	0.76	0.58	0.49	0.34	0.90

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

Fees charged per service were highest in the *Major cities* (\$82) and lowest in *Outer regional* areas (\$77). Once standardised, the benefits paid as a proportion of fees charged were highest for *Major cities* and *Inner regional* residents (57%) and lowest for *Very remote* residents (55%) (Table 3.23).

Table 3.23: Medicare benefits paid as a proportion of fees charged per in-hospital specialist service by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Benefits paid as a proportion of fees charged (%)	57.1	57.2	56.2	55.5	55.0	57.1
Age-standardised ^(b)	57.1	57.1	56.1	55.6	55.3	57.1
Out-of-pocket amounts paid as a proportion of fees charged (%)	42.9	42.8	43.8	44.5	45.0	42.9
Age-standardised ^(b)	42.9	42.9	43.9	44.4	44.7	42.9
Fees charged per service (\$)	81.83	78.69	76.76	78.47	77.89	80.92
Age-standardised ^(b)	81.79	78.78	76.86	78.57	78.03	80.92

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

Source: AIHW health expenditure database.

Obstetrics

Obstetric services are those dealing with childbirth and care of the mother during and after the pregnancy. These services include antenatal attendances, the planning and management of the pregnancy and delivery services.

Total expenditure in hospitals on obstetric care was \$119 million in 2006–07 (Table 3.24). Age-standardised, per person expenditure was highest at \$6.18 for residents of *Major cities* and lowest on average for residents of *Very remote* areas (\$2.92). Indexed per person expenditure for *Very remote* area residents was \$0.47 for every \$1.00 spent on residents of

Major cities. Out-of-pocket expenditure was also lower with increasing remoteness being \$3.74 for residents of *Major cities* and \$1.92 for residents of *Very remote* areas.

Table 3.24: Medicare, obstetrics expenditure – in-hospital by remoteness, 2006–07

Amount	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Benefits paid	36.9	6.0	3.0	0.5	0.2	46.5
Out-of-pocket amount	56.5	10.1	4.9	1.0	0.4	72.8
<i>Fees charged</i>	93.4	16.0	7.9	1.4	0.5	119.4
Expenditure per person (\$)						
Benefits paid	2.58	1.45	1.51	1.54	1.12	2.23
Out-of-pocket amount	3.95	2.44	2.46	3.03	2.16	3.49
<i>Fees charged</i>	6.53	3.89	3.97	4.56	3.28	5.72
Expenditure per person, age-standardised ^(c) (\$)						
Benefits paid	2.44	1.72	1.68	1.47	1.00	2.23
Out-of-pocket amount	3.74	2.90	2.75	2.89	1.92	3.49
<i>Fees charged</i>	6.18	4.62	4.43	4.36	2.92	5.72
Expenditure per person indexed ^(d)						
Benefits paid	1.00	0.70	0.69	0.60	0.41	0.91
Out-of-pocket amount	1.00	0.78	0.74	0.77	0.51	0.93
<i>Fees charged</i>	1.00	0.75	0.72	0.71	0.47	0.93

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

Obstetric services were provided to residents of *Very remote* areas at less than half the rate when compared to those living in *Major cities* (Table 3.25). For every service provided to residents of *Major cities*, 0.8 and 0.84 of a service was provided to residents of *Inner* and *Outer regional* areas, and only 0.44 of a service provided to residents of *Very remote* areas.

Table 3.25: Medicare, obstetrics services – in-hospital by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Services (millions)	0.1	—	—	—	—	0.1
Services per 1,000	6.9	4.4	4.9	4.9	3.2	6.2
Services per 1,000 age-standardised ^(b)	6.5	5.2	5.5	4.7	2.9	6.2
Services per person indexed ^(c)	1.00	0.80	0.84	0.72	0.44	0.94

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The benefits paid as a proportion of fees charged, age-standardised, were lower for residents of *Remote* areas (33.1%) compared to the national average of 39% (Table 3.26).

Age-standardised fees charged per service were highest for the residents of *Very remote* areas (\$988), \$59 above the average cost per service. *Outer regional* residents had the lowest cost of \$837 per service.

Table 3.26: Medicare benefits paid as a proportion of fees charged per in-hospital obstetrics service by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Benefits paid as a proportion of fees charged (%)	39.5	37.2	37.9	33.7	34.3	39.0
Age-standardised ^(b)	38.9	38.8	38.9	33.1	33.2	39.0
Out-of-pocket paid, as a proportion of fees charged (%)	60.5	62.8	62.1	66.3	65.7	61.0
Age-standardised ^(b)	59.5	65.8	64.1	65.3	63.4	61.0
Fees charged per service (\$)	947.90	889.29	805.47	928.82	1,018.19	928.97
Age-standardised ^(b)	928.83	940.98	837.41	919.02	988.45	928.97

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

Source: AIHW health expenditure database.

Operations

In this report the term operations refers to operations, assistance at operations and anaesthetic services provided under Medicare.

An anaesthetist is a specialist who administers an anaesthetic to a patient before or while they are being treated. Also, items covering operations that are eligible for benefits for surgical assistance have been identified by the inclusion of the word 'assist' in the Medicare item description.

In 2006–07, \$2,102 million was spent in hospitals on operations under Medicare. The amount covered through government expenditure on Medicare payments was \$953 million, with the balance of \$1,150 million being met by patient out-of-pocket contributions (Table 3.27).

The age-standardised expenditure per person was highest for residents of *Major cities* (\$108) and lowest for those living in *Very remote* areas (\$50). Indexed expenditure shows that for every \$1.00 of out-of-pocket fees paid made by residents of *Major cities*, \$0.44 was paid by residents of *Very remote* areas.

Table 3.27: Medicare, operations expenditure – in-hospital by remoteness, 2006–07

Amount	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Benefits paid	684.3	182.5	73.6	8.7	3.0	952.5
Out-of-pocket amount	836.0	211.3	87.8	10.6	3.5	1,149.9
<i>Fees charged</i>	<i>1,520.3</i>	<i>393.8</i>	<i>161.5</i>	<i>19.4</i>	<i>6.5</i>	<i>2,102.4</i>
Expenditure per person (\$)						
Benefits paid	47.86	44.27	37.17	27.64	17.89	45.61
Out-of-pocket amount	58.47	51.28	44.36	33.59	20.89	55.06
<i>Fees charged</i>	<i>106.32</i>	<i>95.56</i>	<i>81.53</i>	<i>61.24</i>	<i>38.79</i>	<i>100.68</i>
Expenditure per person, age-standardised ^(c) (\$)						
Benefits paid	48.86	41.35	35.91	30.52	23.35	45.61
Out-of-pocket amount	59.55	48.27	42.97	36.60	26.46	55.06
<i>Fees charged</i>	<i>108.41</i>	<i>89.62</i>	<i>78.88</i>	<i>67.12</i>	<i>49.78</i>	<i>100.68</i>
Expenditure per person indexed ^(d)						
Benefits paid	1.00	0.85	0.73	0.62	0.48	0.93
Out-of-pocket amount	1.00	0.81	0.72	0.61	0.44	0.92
<i>Fees charged</i>	<i>1.00</i>	<i>0.83</i>	<i>0.73</i>	<i>0.62</i>	<i>0.46</i>	<i>0.93</i>

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The rates at which Medicare funded, in-hospital operations were delivered in hospitals also declined with the remoteness of the patients' home address (Table 3.28). After age-standardisation, for every operation performed on a resident of *Major cities*, 0.82 and 0.7 were performed on a resident of *Inner* and *Outer regional* areas, while there was 0.43 of a service performed on residents of *Very remote* areas.

Table 3.28: Medicare, operations services – in-hospital by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Services (millions)	3.6	0.9	0.4	—	—	4.9
Services per 1,000	250.0	221.3	183.7	135.0	87.9	235.2
Services per 1,000 age-standardised ^(b)	254.3	209.2	178.3	146.1	109.6	235.2
Services per person indexed ^(c)	1.00	0.82	0.70	0.57	0.43	0.92

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

Fees charged per service, age-standardised, were lowest for *Major cities* residents (\$426) and highest for residents of *Remote* areas (\$459) (Table 3.29).

The benefits paid as a proportion of fees charged were similar across all remoteness categories at around the national average of 45%.

Table 3.29: Medicare benefits paid as a proportion of fees charged per in-hospital operations by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Benefits paid as a proportion of fees charged (%)	45.0	46.3	45.6	45.1	46.1	45.3
Age-standardised ^(b)	45.1	46.2	45.5	45.3	46.6	45.3
Out-of-pocket amounts paid as a proportion of fees charged (%)	55.0	53.7	54.4	54.9	53.9	54.7
Age-standardised ^(b)	54.9	53.8	54.5	54.7	53.4	54.7
Fees charged per service (\$)	425.23	431.81	443.79	453.76	441.08	428.13
Age-standardised ^(b)	425.82	429.22	442.98	459.37	453.77	428.13

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

Source: AIHW health expenditure database.

Radiation and other medical services not classified elsewhere

Radiation therapy is the treatment of disease by means of X-rays or radioactive substances.

The amount spent on radiation and other treatments n.e.c. (hereafter radiation services) within hospitals in 2006–07 was \$165 million. The government spent \$104 million via Medicare payments which was about 63% of total expenditure for this category (Table 3.30).

Expenditure per person, age-standardised, was lower in the more remote areas. For every \$1.00 spent by Medicare for *Major cities* residents on radiation services, \$0.75 and \$0.67 were

spent on residents of *Inner* and *Outer regional* areas, compared with \$0.42 on residents of *Very remote* areas. Out-of-pocket costs were also lower in the remoter areas.

Table 3.30: Medicare, radiation and other expenditure – in-hospital by remoteness, 2006–07

Amount	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Benefits paid	76.6	18.4	7.7	0.8	0.3	103.9
Out-of-pocket amount	45.2	10.5	4.4	0.5	0.2	60.8
<i>Fees charged</i>	<i>121.8</i>	<i>29.0</i>	<i>12.0</i>	<i>1.3</i>	<i>0.5</i>	<i>164.7</i>
Expenditure per person (\$)						
Benefits paid	5.36	4.47	3.87	2.63	1.77	4.97
Out-of-pocket amount	3.16	2.56	2.20	1.53	1.01	2.91
<i>Fees charged</i>	<i>8.52</i>	<i>7.03</i>	<i>6.07</i>	<i>4.16</i>	<i>2.78</i>	<i>7.88</i>
Expenditure per person, age-standardised ^(c) (\$)						
Benefits paid	5.49	4.15	3.72	2.91	2.33	4.97
Out-of-pocket amount	3.23	2.39	2.12	1.70	1.32	2.91
<i>Fees charged</i>	<i>8.71</i>	<i>6.54</i>	<i>5.84</i>	<i>4.60</i>	<i>3.66</i>	<i>7.88</i>
Expenditure per person indexed ^(d)						
Benefits paid	1.00	0.76	0.68	0.53	0.43	0.91
Out-of-pocket amount	1.00	0.74	0.66	0.53	0.41	0.90
<i>Fees charged</i>	<i>1.00</i>	<i>0.75</i>	<i>0.67</i>	<i>0.53</i>	<i>0.42</i>	<i>0.90</i>

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The rate at which radiation services were used by residents was lower with remoteness, similar to the pattern described for expenditure on radiation services discussed above. For every service provided to residents of *Major cities*, 0.43 were provided to residents of *Very remote* areas (Table 3.31).

Table 3.31: Medicare, radiation and other services – in-hospital by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Services (millions)	0.9	0.2	0.1	—	—	1.3
Services per 1,000	66.0	55.0	45.6	31.5	20.3	61.0
Services per 1,000 age-standardised ^(b)	68.0	50.0	43.6	36.1	29.0	61.0
Services per person indexed ^(c)	1.00	0.74	0.64	0.53	0.43	0.90

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The fees charged per service were higher for residents of regional and remote areas. For example, fees were lowest for residents of *Major cities* (\$128) and highest for residents of *Outer regional* areas (\$135). Benefits paid as a proportion of fees charged, post standardisation, were highest for *Outer regional* and *Very remote* area residents with 64% compared to 63% for *Major cities* (Table 3.32).

Table 3.32: Medicare benefits paid as a proportion of fees charged per in-hospital radiation and other service by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Benefits paid as a proportion of fees charged (%)	62.9	63.6	63.8	63.1	63.7	63.1
Age-standardised ^(b)	63.0	63.4	63.6	63.1	63.6	63.1
Out-of-pocket amounts paid as a proportion of fees charged (%)	37.1	36.4	36.2	36.9	36.3	36.9
Age-standardised ^(b)	37.0	36.6	36.4	36.9	36.4	36.9
Fees charged per service (\$)	129.02	127.96	133.02	132.30	137.33	129.16
Age-standardised ^(b)	127.75	131.92	135.27	129.61	131.41	129.16

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

Source: AIHW health expenditure database.

3.4 Hospital services expenditure from 2001–02 to 2006–07

Total expenditure on hospital admissions in Australia increased by 48% between 2001–02 and 2006–07 which resulted in a 15.3% real per person increase. The largest percentage increase in per person expenditure in real terms was for residents of *Major cities* (18.8%), with 11.1% and 9.0% for residents of *Inner* and *Outer regional* areas, with the smallest being for residents of *Very remote* areas (5.6%) (Table 3.33).

Over the period, there was also an increase in age-standardised per person expenditure. This means the increases in expenditure levels exceeded the additional expenditure associated with population growth and other demographic changes during this time.

The difference between the age-standardised per person expenditure levels for each of the five remoteness areas has decreased. For example, in 2001–02, the indexed expenditure for *Inner regional* residents was 12% higher than that for *Major cities* residents, but by 2006–07 the difference had declined to 3%.

Table 3.33: Expenditure on admitted patient services^(a) by remoteness, 2001–02, 2004–05 and 2006–07

Financial year	ASGC remoteness ^(b)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
2001–02	10,563.9	3,535.1	1,832.5	326.8	227.3	16,658.5
2004–05	13,433.4	4,382.2	2,247.5	358.9	255.6	20,882.4
2006–07	16,203.5	5,089.7	2,514.0	433.0	286.0	24,714.4
Expenditure per person, current prices (\$)						
2001–02	792.81	923.38	967.69	1,037.60	1,352.35	852.98
2004–05	968.97	1,099.36	1,164.72	1,142.52	1,548.17	1,030.79
2006–07	1,133.21	1,235.01	1,269.54	1,369.14	1,718.23	1,183.48
Expenditure per person, 2006–07 prices ^(c) (\$)						
2001–02	954.16	1,111.31	1,164.63	1,248.76	1,627.57	1,026.57
2004–05	1,050.03	1,191.33	1,262.16	1,238.10	1,677.68	1,117.02
2006–07	1,133.21	1,235.01	1,269.54	1,369.14	1,718.23	1,183.48
Change from 2001–02 to 2006–07 (%)	18.8	11.1	9.0	9.6	5.6	15.3
Expenditure per person, 2006–07 prices, age-standardised ^(d) (\$)						
2001–02	957.83	1,070.35	1,174.99	1,432.60	2,107.95	1,026.57
2004–05	1,057.52	1,138.60	1,267.89	1,414.42	2,187.18	1,117.02
2006–07	1,145.04	1,174.76	1,262.76	1,549.93	2,217.12	1,183.48
Change from 2001–02 to 2006–07 (%)	19.5	9.8	7.5	8.2	5.2	15.3
Expenditure per person, 2006–07 prices, age-standardised, indexed ^(e)						
2001–02	1.00	1.12	1.23	1.50	2.20	1.07
2004–05	1.00	1.08	1.20	1.34	2.07	1.06
2006–07	1.00	1.03	1.10	1.35	1.94	1.03
Change from 2001–02 to 2006–07 (%)	—	–8.2	–10.1	–9.5	–12.0	–3.6

(a) Data 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) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(c) Scaled to 2006–07 prices using the deflator for government final consumption expenditure on hospitals and nursing homes.

(d) Indirectly age-standardised.

(e) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

4 Medicare—medical services

This chapter provides analysis for medical services provided under Medicare. Detailed out-of-hospital expenditure and associated service data for 2006–07 is provided for the selected medical services groupings in addition to time series data. The medical services analysed in this report are based on broad service categories. Details of the Medicare items and group numbers for each of the categories are listed in Appendix D.

Additional data, covering the total Medicare expenditure for the selected medical service grouping in this chapter (that is, the combined in and out-of-hospital data) and the in and out-of-hospital breakdowns not presented elsewhere in the main body of the report are at Appendix B.

While data on total Medicare services are presented in this chapter, the below selected Medicare services are also analysed individually:

- GP type services – GPs are often an individual's first point of contact with the health care system. GPs are consulted for diagnostic services which may include pathology testing, analysis of test results and prescribing medications. They also provide preventive health care, an example of which is the administering of vaccinations, as well as providing referral and counselling information and advice on medical and health issues. Additional detail on Medicare GP services may be found online (Medicare 2009).
- GP and other primary care – This category includes both the GP services discussed above, but also includes a broader range of primary care services such as enhanced primary care, practice nurse and other GP-type services.
- Pathology – involves testing blood, tissue samples and body secretions to establish the causes, progression and severity of diseases.
- Imaging – includes such services as X-rays, ultrasounds, computed tomography tests (CT scans) and Magnetic Resonance Imaging (MRI).
- Specialist – including attendances by dermatologists, neurologists, endocrinologists, gynaecologists, psychiatrists and paediatricians.
- Dental – dental services under Medicare are available for people with chronic conditions and complex care needs, on referral from a GP.

In July 2004, the Allied Health and Dental Health Care Initiative (AHDHI) was introduced, providing limited Medicare benefits for patients whose chronic conditions were exacerbated by dental problems. The AHDHI allowed patients, on referral from GPs, to access dental treatments with an initial maximum rebate of \$220 per year. From 2007–08, the eligibility and maximum rebate for dental services under Medicare have been expanded and, since 1 November 2007, eligible patients are able to receive up to \$4,250 in Medicare benefits for dental services over two consecutive calendar years. The dental services include oral and maxillofacial surgery and cleft lip and palate services. These service items have consistently been covered under the Medicare schedule. Due to the relatively small amount of dental expenditure, only summary information is presented in this chapter, with more comprehensive analysis provided in Appendix B.

Expenditure on medical services provided through ACCHOs is funded by Medicare and is included in this chapter as part of the above categories. However, other non-medical health

services provided by ACCHOs are funded by organisations such as OATSIH and the related expenditure is not reported in this chapter; rather, grants from OATSIH to ACCHOs are analysed in Chapter 7.

Expenditure on medical and dental services provided to eligible veterans and funded by the Department of Veterans' Affairs is not included in this chapter. Also not included are medical and dental services funded by third party insurance and workers compensation organisations.

4.1 Total Medicare services

Total Medicare expenditure 2006–07 totalled \$14,837 million. Of this, \$11,764 million (79%) was related to government expenditure and the remaining \$3,073 million (21%) was for individuals' out-of-pocket fees (Table 4.1).

Both total expenditure and out-of-pocket expenses per person were lower with remoteness. Expenditure per person, age-standardised, was \$761 in the *Major cities* compared with \$636 and \$567 in *Inner* and *Outer regional* areas respectively and \$391 in *Very remote* areas. Indexed per person expenditure was almost twice as high for residents of *Major cities* than for those living in *Very remote* locations - for every \$1.00 spent in 2006–07 on Medicare services for residents of *Major cities*, \$0.51 was spent on residents of *Very remote* areas.

Table 4.1: Medicare expenditure by remoteness, 2006–07

Amount	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Benefits paid	8,524.3	2,163.5	911.0	115.3	45.9	11,764.1
Out-of-pocket amount	2,244.2	561.0	229.9	27.5	8.9	3,073.1
<i>Fees charged</i>	<i>10,768.5</i>	<i>2,724.5</i>	<i>1,140.8</i>	<i>142.8</i>	<i>54.8</i>	<i>14,837.2</i>
Expenditure per person (\$)						
Benefits paid	596.2	525.0	460.0	364.6	275.7	563.3
Out-of-pocket amount	156.9	136.1	116.1	86.9	53.3	147.2
<i>Fees charged</i>	<i>753.1</i>	<i>661.1</i>	<i>576.1</i>	<i>451.5</i>	<i>329.1</i>	<i>710.5</i>
Expenditure per person, age-standardised ^(c) (\$)						
Benefits paid	602.5	504.1	452.6	391.2	328.1	563.3
Out-of-pocket amount	158.3	131.8	114.2	91.8	62.6	147.2
<i>Fees charged</i>	<i>760.8</i>	<i>635.8</i>	<i>566.8</i>	<i>483.0</i>	<i>390.5</i>	<i>710.5</i>
Expenditure per person indexed, age-standardised ^(d)						
Benefits paid	1.00	0.84	0.75	0.65	0.54	0.94
Out-of-pocket amount	1.00	0.83	0.72	0.58	0.40	0.93
<i>Fees charged</i>	<i>1.00</i>	<i>0.84</i>	<i>0.74</i>	<i>0.63</i>	<i>0.51</i>	<i>0.93</i>

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

In 2006–07, the number of Medicare services provided totalled 258.3 million, or 12,370 per 1,000 population. The number of services provided, per person, was highest for *Major cities* residents and lowest for residents of *Very remote* areas. After age-standardisation, for every consultation for a resident of *Major cities*, 0.86 and 0.79 consultations were provided for residents of *Inner* and *Outer regional* areas, while 0.69 and 0.59 consultations were provided for residents of *Remote* and *Very remote* areas respectively (Table 4.2).

Table 4.2: Medicare services by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Services (millions)	185.6	48.1	20.8	2.7	1.1	258.3
Services per 1,000	12,980.6	11,672.5	10,497.5	8,380.1	6,574.9	12,370.4
Services per 1,000 age-standardised ^(b) (number)	13,110.6	11,235.4	10,348.6	8,985.8	7,778.2	12,370.4
Services per person indexed ^(c)	1.00	0.86	0.79	0.69	0.59	0.94

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

Nationally, the proportion of benefits paid to fees charged was 79.3% on average. Residents of *Outer regional*, *Remote* and *Very remote* areas all received a higher level of their age-standardised Medicare benefits paid than the national average. Those in *Major cities* and *Inner regional* areas paid on average 20.8% and 20.7%, respectively, of their Medicare benefits through out-of-pocket contributions (Table 4.3).

The age-standardised fees charged per Medicare service was lower with increasing remoteness, averaging \$58 for residents of *Major cities*, compared with \$57 for residents of *Inner regional* areas and \$51 for residents of *Very remote* areas.

It is important to note that the number and type of Medicare services provided differ between each of the regional classifications and this will affect the overall average expenditure results. A number of Medicare services types are analysed separately later in this chapter.

Table 4.3: Medicare benefits paid as a proportion of fees charged by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Benefits paid as a proportion of fees charged (%)	79.2	79.4	79.9	80.8	83.8	79.3
Age-standardised ^(b)	79.2	79.3	79.8	80.7	83.5	79.3
Out-of-pocket amounts paid as a proportion of fees charged (%)	20.8	20.6	20.1	19.2	16.2	20.7
Age-standardised ^(b)	20.8	20.7	20.2	19.3	16.4	20.7
Fees charged per service (\$)	58.02	56.64	54.88	53.88	50.05	57.44
Age-standardised ^(b)	58.00	56.68	54.85	53.91	50.54	57.44

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

Source: AIHW health expenditure database.

4.2 General practitioner services

This section presents information on GP services by looking firstly at doctors in general practice as a discrete group and then by looking at the broader range of general practitioner type services (GPs and other primary care).

In this second group the other primary care services grouped with GP services are enhanced primary care, practice nurses and other medical practitioner services. The GP component accounted for a large proportion of the expenditure and services in this combined group and similar patterns across the remoteness categories emerged.

GPs

Most people's first contact with the health system is through a general medical practitioner. Patients can choose their own GP and are reimbursed for all or part of the GP's fee by Medicare.

Most GPs work in small private practices (nearly 65%). They may be self-employed or contracted to a practice. Approximately 25% of GPs work in hospitals. Rural GPs tend to work in both private practice and in public and private hospital settings (DoHA 2007).

In Australia, GPs based in rural areas may be required to provide services that would normally be dealt with by medical specialists because of the workforce shortage in those regions. For example, they may need to provide obstetrics care, anaesthesia services, minor surgery and, for serious accidents, management of severe trauma.

This section only includes the GP-type Medicare expenditure (and related number of services) that took place outside of hospitals (that is, that were not provided to admitted patients in hospitals). Out-of-hospital GP consultations constituted 99% of the total expenditure on GP consultations. Additional data on in-hospital GP services and the total level of GP services is at Appendix B.

The data analysed here is only that portion of GP work which is defined as GP attendance by the MBS (Broad Type of Service A). When rural GPs provide obstetric care, anaesthetic and minor surgery services, these services are counted in the other parts of the schedule and will not be reflected in the results below.

In 2006-07, expenditure for GP-type services provided outside of hospitals was \$3,946 million. Of this, \$3,562 million was covered by government expenditure on Medicare, with the difference of \$384 million being made up through out-of-pocket contributions (Table 4.4).

The level of expenditure on GP-type consultations was lower with remoteness, with age-standardised per person expenditure of \$201 for residents of *Major cities* compared to \$168 and \$158 for residents of *Inner* and *Outer regional* areas, and \$115 for those living in *Very remote* areas.

Age-standardised out-of-pocket expenses for *Very remote* areas was \$9.30 per person, compared with \$17.92 for residents of *Major cities*, and \$20.46 and \$18.88 for residents of *Inner* and *Outer regional* areas.

Table 4.4: Medicare, GP expenditure – out-of-hospital by remoteness, 2006–07

	ASGC remoteness ^(a)					
Amount	Major cities	Inner regional	Outer regional	Remote	Very remote	Australia ^(b)
Expenditure (\$ million)						
Benefits paid	2,601.9	625.2	278.2	39.4	15.6	3,561.5
Out-of-pocket amount	256.1	84.4	37.6	4.4	1.5	384.3
<i>Fees charged</i>	<i>2,858.1</i>	<i>709.6</i>	<i>315.8</i>	<i>43.9</i>	<i>17.1</i>	<i>3,945.7</i>
Expenditure per person (\$)						
Benefits paid	181.97	151.70	140.51	124.65	93.99	170.55
Out-of-pocket amount	17.91	20.49	18.98	14.04	8.86	18.40
<i>Fees charged</i>	<i>199.88</i>	<i>172.19</i>	<i>159.50</i>	<i>138.69</i>	<i>102.85</i>	<i>188.95</i>
Expenditure per person, age-standardised ^(c) (\$)						
Benefits paid	183.19	147.67	139.35	131.20	105.46	170.55
Out-of-pocket amount	17.92	20.46	18.88	14.12	9.30	18.40
<i>Fees charged</i>	<i>201.10</i>	<i>168.03</i>	<i>158.22</i>	<i>145.31</i>	<i>114.62</i>	<i>188.95</i>
Expenditure per person indexed, age-standardised ^(d)						
Benefits paid	1.00	0.81	0.76	0.72	0.58	0.93
Out-of-pocket amount	1.00	1.14	1.05	0.79	0.52	1.03
<i>Fees charged</i>	<i>1.00</i>	<i>0.84</i>	<i>0.79</i>	<i>0.72</i>	<i>0.57</i>	<i>0.94</i>

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

Similar to the pattern for expenditure, the age-standardised rate at which out-of-hospital GP services were provided to residents was lower in the more remote areas. For every consultation made for residents of *Major cities*, there was an equivalent of 0.83 and 0.78 consultations for residents of *Inner* and *Outer regional* areas, and 0.54 of a consultation for residents of *Very remote* areas (Table 4.5).

Table 4.5: Medicare, GP services – out-of-hospital by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Services (millions)	69.1	17.0	7.6	1.0	0.4	95.1
Services per 1,000	4,831.0	4,121.9	3,852.7	3,274.3	2,363.2	4,556.4
Services per 1,000 age-standardised ^(b) (number)	4,864.5	4,013.7	3,816.8	3,431.5	2,629.4	4,556.4
Services per person indexed ^(c)	1.00	0.83	0.78	0.71	0.54	0.94

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

Age-standardised fees charged per service were slightly higher for residents outside *Major cities* (for example, \$41.33 for residents of *Major cities*, compared with \$41.87 for residents of *Inner regional* areas, and \$43.70 for residents of *Very remote* areas (Table 4.6)).

The benefits paid as a proportion of fees charged, age-standardised, were higher for residents of *Very remote* areas (91.5%), and lower for residents of *Inner* and *Outer regional* areas (about 88%) compared with residents of *Major cities* (91.1%).

Table 4.6: Medicare benefits paid as a proportion of fees charged per out-of-hospital GP service by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Benefits paid as a proportion of fees charged (%)	91.0	88.1	88.1	89.9	91.4	90.3
Age-standardised ^(b)	91.1	87.9	88.0	90.0	91.5	90.3
Out-of-pocket amounts paid as a proportion of fees charged (%)	9.0	11.9	11.9	10.1	8.6	9.7
Age-standardised ^(b)	8.9	12.1	12.0	10.0	8.5	9.7
Fees charged per service (\$)	41.37	41.77	41.40	42.36	43.52	41.47
Age-standardised ^(b)	41.33	41.87	41.47	42.40	43.70	41.47

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

Source: AIHW health expenditure database.

GP and other primary care

This category provides analysis on a broader range of what may be considered GP-type services. In addition to the GP data from the preceding section, data for enhanced primary care, practise nurse and other GP-type services by other medical practitioners have been combined for analysis.

Activities performed under enhanced primary care include health assessments for older Australians, disease management for those with chronic or terminal conditions and case conferences, whereby the health goals of an individual are discussed with a number of health providers simultaneously. The amount spent on the combined out-of-hospital services of GPs and other primary care services in 2006–07 was \$4,455 million (Table 4.7).

Expenditure per person, age-standardised, was lower with remoteness being \$227 for each resident of *Major cities*, \$191 and \$178 for each resident of *Inner* and *Outer regional* areas, and \$135 for each resident of *Very remote* areas. For every \$1.00 spent on residents of *Major cities*, \$0.60 was spent on these combined services for residents of *Very remote* areas.

Table 4.7: Medicare, GP and other primary care expenditure – out-of-hospital by remoteness, 2006–07

Amount	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Benefits paid	2,941.9	718.7	315.7	44.4	18.4	4,040.3
Out-of-pocket amount	280.4	89.0	39.2	4.6	1.6	415.0
<i>Fees charged</i>	3,222.3	807.7	355.0	49.0	20.0	4,455.4
Expenditure per person (\$)						
Benefits paid	205.75	174.39	159.44	140.29	110.71	193.48
Out-of-pocket amount	19.61	21.60	19.81	14.59	9.32	19.88
<i>Fees charged</i>	225.36	195.98	179.25	154.89	120.03	213.35
Expenditure per person, age-standardised ^(c) (\$)						
Benefits paid	207.20	169.38	158.15	148.62	125.84	193.48
Out-of-pocket amount	19.62	21.57	19.72	14.68	9.78	19.88
<i>Fees charged</i>	226.81	190.84	177.86	163.28	135.38	213.35
Expenditure per person indexed ^(d)						
Benefits paid	1.00	0.82	0.76	0.72	0.61	0.93
Out-of-pocket amount	1.00	1.10	1.01	0.75	0.50	1.01
<i>Fees charged</i>	1.00	0.84	0.78	0.72	0.60	0.94

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The level of services used was also lower across the remoteness categories. Once age-standardised, there were 5,406 services per 1,000 *Major cities* residents compared to 3,046 per 1,000 residents in the *Very remote* areas (Table 4.8).

Table 4.8: Medicare GP and other primary care services – out-of-hospital by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Services (millions)	76.8	19.2	8.6	1.1	0.5	106.2
Services per 1,000	5,367.9	4,667.7	4,342.8	3,613.7	2,727.4	5,086.4
Services per 1,000 age-standardised ^(b)	5,406.4	4,540.5	4,301.8	3,795.0	3,046.1	5,086.4
Services per person indexed ^(c)	1.00	0.84	0.80	0.70	0.56	0.94

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The age-standardised fees charged per service was higher with increasing remoteness, averaging \$42.26 for residents of *Major cities*, compared with \$42.41 for residents of *Inner regional* areas and \$44.44 for residents of *Very remote* areas. Fees per service were lowest for residents of *Outer regional* areas (\$41.76) (Table 4.9).

Residents of *Very remote* areas experienced the highest proportion of age-standardised benefits paid to fees charged (93%). The second highest result was for residents of *Major cities* (92%) and *Remote* areas (91%) while the lowest results were for residents of *Inner* and *Outer regional* areas (both 89%).

Table 4.9: Medicare benefits paid as a proportion of fees charged per out-of-hospital GP and other primary services by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Benefits paid as a proportion of fees charged (%)	91.7	89.2	89.1	90.7	92.3	91.0
Age-standardised ^(b)	91.7	89.0	89.0	90.9	92.5	91.0
Out-of-pocket amounts paid as a proportion of fees charged (%)	8.3	10.8	10.9	9.3	7.7	9.0
Age-standardised ^(b)	8.3	11.0	11.0	9.1	7.5	9.0
Fees charged per service (\$)	42.30	42.32	41.68	42.96	44.06	42.27
Age-standardised ^(b)	42.26	42.41	41.76	43.10	44.44	42.27

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

Source: AIHW health expenditure database.

4.3 Pathology

Pathology is the branch of biological science which deals with the nature of disease, through study of its causes, processes and its effects.

Pathology tests are used to screen for, confirm, exclude and monitor disease (AIHW 2003). Classes of pathology tests include haematology, chemical pathology, microbiology, immunology, histopathology, cytopathology and cytogenetics.

This section only examines the expenditure on, and the number of pathology services that took place outside hospitals. Out-of-hospital Medicare pathology services comprise 85% of the total expenditure on pathology services in Australia. Additional data on private in-hospital pathology services and the total level of Medicare funded pathology services is at Appendix B.

Total Medicare-related expenditure on out-of-hospital pathology services in 2006–07 totalled \$1,608 million. Of this, \$1,566 million (97%) was related to government expenditure and the remaining \$42 million (3%) was for individuals' out-of-pocket fees (Table 4.10).

Both total expenditure and out-of-pocket expenses per person were lower with remoteness. Expenditure per person, age-standardised, was \$80 in the *Major cities* compared with \$73 and \$68 in *Inner* and *Outer regional* areas respectively and \$63 in *Very remote* areas. Indexed per person expenditure shows that, for every \$1.00 spent in 2006–07 on pathology services for residents of *Major cities*, \$0.78 was spent on residents of *Remote* areas.

Table 4.10: Medicare, pathology expenditure – out-of-hospital by remoteness, 2006–07

Amount	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Benefits paid	1,104.3	301.2	133.2	18.0	8.6	1,565.9
Out-of-pocket amount	30.4	8.0	3.1	0.2	0.1	41.9
<i>Fees charged</i>	<i>1,134.7</i>	<i>309.2</i>	<i>136.3</i>	<i>18.3</i>	<i>8.7</i>	<i>1,607.7</i>
Expenditure per person (\$)						
Benefits paid	77.23	73.08	67.25	57.05	51.84	74.98
Out-of-pocket amount	2.12	1.95	1.56	0.75	0.66	2.00
<i>Fees charged</i>	<i>79.35</i>	<i>75.03</i>	<i>68.81</i>	<i>57.80</i>	<i>52.50</i>	<i>76.99</i>
Expenditure per person, age-standardised ^(c) (\$)						
Benefits paid	77.78	70.83	66.61	61.39	62.20	74.98
Out-of-pocket amount	2.12	1.96	1.56	0.76	0.71	2.00
<i>Fees charged</i>	<i>79.89</i>	<i>72.79</i>	<i>68.17</i>	<i>62.09</i>	<i>62.79</i>	<i>76.99</i>
Expenditure per person indexed, age-standardised ^(d)						
Benefits paid	1.00	0.91	0.86	0.79	0.80	0.96
Out-of-pocket amount	1.00	0.93	0.74	0.36	0.33	0.95
<i>Fees charged</i>	<i>1.00</i>	<i>0.91</i>	<i>0.85</i>	<i>0.78</i>	<i>0.79</i>	<i>0.96</i>

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The age-standardised figures show that the number of pathology services provided was lower with remoteness. For every service provided to residents of *Major cities* in 2006–07, 0.9 and 0.85 were provided to residents of *Inner* and *Outer regional* areas respectively, while 0.77 was provided to residents of *Remote* areas (Table 4.11).

Table 4.11: Medicare, pathology services – out-of-hospital by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Services (millions)	56.7	15.5	6.8	0.9	0.4	80.3
Services per 1,000	3964.1	3759.2	3441.8	2852.0	2589.5	3847.6
Services per 1,000 age-standardised ^(b)	4001.5	3615.0	3397.6	3100.9	3180.6	3847.6
Services per person indexed ^(c)	1.00	0.90	0.85	0.77	0.79	0.96

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

Fees charged were almost identical in each remoteness area. Almost all pathology services are bulk-billed, therefore the total fees charged are almost the same as the benefits met though government expenditure. The out-of-pocket proportion is low, it is over twice as high in the *Major cities* (2.7% of fees charged) compared to the *Remote* (1.3%) and *Very remote* (1.2%) areas, noting that the types of pathology items underlying this expense may vary (Table 4.12).

Table 4.12: Medicare benefits paid as a proportion of fees charged per out-of-hospital pathology service by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Benefits paid as a proportion of fees charged (%)	97.3	97.4	97.7	98.7	98.7	97.4
Age-standardised ^(b)	97.3	97.3	97.7	98.8	98.9	97.4
Out-of-pocket amounts paid as a proportion of fees charged (%)	2.7	2.6	2.3	1.3	1.3	2.6
Age-standardised ^(b)	2.7	2.7	2.3	1.3	1.2	2.6
Fees charged per service (\$)	20.02	19.96	19.99	20.27	20.28	20.01
Age-standardised ^(b)	19.98	20.09	20.06	20.13	19.98	20.01

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

Source: AIHW health expenditure database.

4.4 Imaging

Diagnostic imaging plays a critical role in medical practice by confirming diagnosis, excluding the presence of disease, determining the severity or extent of known disease, establishing whether disease progression has occurred and monitoring response to treatment (AIHW 2001). Diagnostic imaging includes radiology tests (such as X-rays and mammograms), ultrasounds, CT scans, nuclear medicine imaging and magnetic resonance imaging tests.

This section only examines the expenditure on, and the number of Medicare imaging services that took place, for non-admitted patients. Most imaging services (90%) are provided outside hospitals, so for convenience these non-admitted patient services are referred to as out-of-hospital services. Additional data on imaging services conducted for hospitals and the total level of Medicare imaging services is at Appendix B.

In 2006–07, \$1,871 million was spent out of hospitals on Medicare imaging services. Patients covered \$287 million (15%) of the total expense, with the remaining \$1,584 million (85%) being covered through Medicare payments (Table 4.13).

Per person expenditure on out-of-hospital imaging services was lower with increasing levels of remoteness. The age-standardised expenditure was \$94 for each resident of *Major cities* compared with \$84 and \$74 for each resident of *Inner* and *Outer regional* areas, and \$42 for each resident of *Very remote* areas. For every \$1.00 spent in 2006–07 on imaging services for residents of *Major cities*, \$0.62 and \$0.45 was spent for residents of *Remote* and *Very remote* areas respectively.

Out-of-pocket expenses per person, were lower for residents of *Remote* and *Very remote* areas (\$9.97 and \$5.83) than for residents of *Major cities* (\$13.96) and *Inner* and *Outer regional* areas (\$14.27 and \$12.18).

Table 4.13: Medicare, imaging expenditure – out-of-hospital by remoteness, 2006–07

Amount	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Benefits paid	1,133.8	303.9	126.5	14.2	5.0	1,583.8
Out-of-pocket amount	199.3	59.0	24.3	3.1	0.9	286.8
<i>Fees charged</i>	<i>1,333.1</i>	<i>362.9</i>	<i>150.8</i>	<i>17.3</i>	<i>5.9</i>	<i>1,870.7</i>
Expenditure per person (\$)						
Benefits paid	79.29	73.74	63.86	44.96	29.90	75.84
Out-of-pocket amount	13.94	14.31	12.28	9.88	5.40	13.74
<i>Fees charged</i>	<i>93.23</i>	<i>88.05</i>	<i>76.14</i>	<i>54.84</i>	<i>35.30</i>	<i>89.58</i>
Expenditure per person, age-standardised ^(c) (\$)						
Benefits paid	80.46	70.21	62.22	48.31	36.59	75.84
Out-of-pocket amount	13.96	14.27	12.18	9.97	5.83	13.74
<i>Fees charged</i>	<i>94.41</i>	<i>84.42</i>	<i>74.38</i>	<i>58.35</i>	<i>42.33</i>	<i>89.58</i>
Expenditure per person indexed, age-standardised ^(d)						
Benefits paid	1.00	0.87	0.77	0.60	0.45	0.94
Out-of-pocket amount	1.00	1.02	0.87	0.71	0.42	0.98
<i>Fees charged</i>	<i>1.00</i>	<i>0.89</i>	<i>0.79</i>	<i>0.62</i>	<i>0.45</i>	<i>0.95</i>

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The number of diagnostic out-of-hospital imaging services provided was also lower with remoteness. After age-standardisation, for every service provided to residents of *Major cities* in 2006–07, 0.89 and 0.82 services were provided to residents of *Inner* and *Outer regional* areas, while 0.65 services were provided to residents of *Remote* areas and 0.47 to residents of *Very remote* areas (Table 4.14).

Table 4.14: Medicare, imaging services – out-of-hospital by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Services (millions)	10.4	2.8	1.2	0.1	—	14.5
Services per 1,000	725.4	672.4	608.1	447.8	299.0	696.4
Services per 1,000 age-standardised ^(b)	732.5	649.6	597.8	473.4	347.8	696.4
Services per person indexed ^(c)	1.00	0.89	0.82	0.65	0.47	0.95

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

Fees charged per service, age-standardised, were lowest for residents of *Very remote* areas (\$123). The level of fees charged for the other regional areas, in ascending order were *Remote* (\$123), *Outer regional* (\$125), *Major cities* (\$129) and *Inner regional* (\$130) areas (Table 4.15).

The level of the total Medicare benefits paid through government expenditure as a proportion of the Medicare fee charged was lower in *Inner* and *Outer regional* areas (83% and 84% respectively) and *Remote* areas (82%) compared to *Major cities* and *Very remote* areas (85% and 86%).

Table 4.15: Medicare benefits paid as a proportion of fees charged per out-of-hospital imaging service by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Benefits paid as a proportion of fees charged (%)	85.0	83.7	83.9	82.0	84.7	84.7
Age-standardised ^(b)	85.2	83.3	83.6	82.4	85.5	84.7
Out-of-pocket amounts paid as a proportion of fees charged (%)	15.0	16.3	16.1	18.0	15.3	15.3
Age-standardised ^(b)	14.8	16.7	16.4	17.6	14.6	15.3
Fees charged per service (\$)	128.53	130.96	125.21	122.47	118.06	128.63
Age-standardised ^(b)	128.64	130.42	124.89	123.92	123.02	128.63

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

Source: AIHW health expenditure database.

4.5 Specialists

Medical practitioners who are recognised as specialists under the *Health Insurance Act 1973* are able to be paid Medicare benefits at higher specialist rates. In addition to higher rebates, there are also some items on the Medicare Benefits Schedule that are limited to medical practitioners who are recognised as specialists or consultant physicians under the Act.

Examples of specialists include dermatologists, neurologists, endocrinologists, gynaecologists, psychiatrists and paediatricians.

This section only examines the expenditure on and the number of specialist services that took place outside hospitals. Out-of-hospital Medicare specialist-type services made up 80% of total Medicare expenditure on specialist services. Additional data on in-hospital specialist services and the total level of specialist services is at Appendix B.

Total Medicare-related expenditure on out-of-hospital specialist consultations in 2006–07 was \$1,537 million. Of this, \$1,106 million (72%) was met through government expenditure while \$431 million was paid for by individuals through out-of-pocket fees (28%). Expenditure on specialist-type consultations was lower with remoteness, with the age-standardised expenditure being highest for residents of *Major cities* at \$84 per person with \$57 and \$44 for residents of *Inner* and *Outer regional* areas. The rate for *Very remote* residents was around \$22 per person (Table 4.16).

Table 4.16: Medicare, specialist expenditure – out-of-hospital by remoteness, 2006–07

Amount	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Benefits paid	858.2	175.2	63.5	6.2	2.4	1,105.9
Out-of-pocket amount	333.9	69.2	24.7	2.4	0.7	431.1
<i>Fees charged</i>	<i>1,192.1</i>	<i>244.4</i>	<i>88.2</i>	<i>8.6</i>	<i>3.1</i>	<i>1,537.0</i>
Expenditure per person (\$)						
Benefits paid	60.02	42.51	32.08	19.51	14.45	52.96
Out-of-pocket amount	23.35	16.80	12.48	7.56	4.19	20.64
<i>Fees charged</i>	<i>83.37</i>	<i>59.30</i>	<i>44.56</i>	<i>27.06</i>	<i>18.64</i>	<i>73.60</i>
Expenditure per person, age-standardised ^(c) (\$)						
Benefits paid	60.79	40.77	31.34	20.57	16.79	52.96
Out-of-pocket amount	23.61	16.24	12.21	7.86	4.75	20.64
<i>Fees charged</i>	<i>84.40</i>	<i>57.01</i>	<i>43.55</i>	<i>28.43</i>	<i>21.52</i>	<i>73.60</i>
Expenditure per person indexed ^(d)						
Benefits paid	1.00	0.67	0.52	0.34	0.28	0.87
Out-of-pocket amount	1.00	0.69	0.52	0.33	0.20	0.87
<i>Fees charged</i>	<i>1.00</i>	<i>0.68</i>	<i>0.52</i>	<i>0.34</i>	<i>0.25</i>	<i>0.87</i>

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The number of visits per person, to specialists was highest for *Major cities* residents and lowest for residents of *Very remote* areas. After age-standardisation, for every consultation for a resident of *Major cities*, 0.74 and 0.59 consultations were provided for residents of *Inner* and

Outer regional areas, while 0.38 and 0.30 consultations were provided for residents of *Remote* and *Very remote* areas respectively (Table 4.17).

Table 4.17: Medicare, specialist services – out-of-hospital by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Services (millions)	12.8	2.9	1.1	0.1	—	17.0
Services per 1,000	898.1	706.6	549.1	322.6	225.4	813.4
Services per 1,000 age-standardised ^(b)	912.2	671.3	534.8	346.0	271.6	813.4
Services per person indexed ^(c)	1.00	0.74	0.59	0.38	0.30	0.89

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The age-standardised fees charged per service were highest for residents of *Major cities* (\$93), compared with levels of between \$81 and \$85 for residents of the other areas of Australia (Table 4.18).

The benefits paid by the government, as a proportion of Medicare specialist fees charged, were similar for all regions (72%) except for residents of *Very remote* areas (78%). Correspondingly, out-of-pocket expenses as a proportion of fees charged were lower for residents of *Very remote* areas (23%), compared with all other areas (about 28%).

Table 4.18: Medicare benefits paid as a proportion of fees charged per out-of-hospital specialist service by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Benefits paid as a proportion of fees charged (%)	72.0	71.7	72.0	72.1	77.5	72.0
Age-standardised ^(b)	72.0	71.5	71.9	72.2	77.7	72.0
Out-of-pocket amounts paid as a proportion of fees charged (%)	28.0	28.3	28.0	27.9	22.5	28.0
Age-standardised ^(b)	28.0	28.5	28.1	27.8	22.3	28.0
Fees charged per service (\$)	92.83	83.93	81.15	83.89	82.67	90.48
Age-standardised ^(b)	92.57	84.70	81.51	83.09	81.00	90.48

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

Source: AIHW health expenditure database.

4.6 Other Medicare medical services

Dental

Only a small proportion of dental services are subsidised through Medicare. Qualifying services are limited to patients with chronic medical conditions and complex care needs where their oral health is impacting on, or is likely to impact on, their general health.

The total expenditure on Medicare dental services in 2006–07 was \$20 million, of which \$11 million was funded by Medicare, and \$9 million was funded by out-of-pocket contributions by patients. In total, 100,000 dental services were subsidised. Expenditure per person was much lower in the remoter areas, for every \$1.00 spent on dental services in the *Major cities*, 0.82 and 0.72 were spent on residents of *Inner* and *Outer regional* areas, while \$0.24 was spent on residents of *Very remote* areas. Out-of-pocket expenditure was also lower with increasing remoteness.

For more details on the above figures and additional data see page 127 in Appendix B.

Obstetrics

Obstetric services are those dealing with the care of the mother during and after the pregnancy and with childbirth. These services include antenatal attendances, the planning and management of the pregnancy and delivery services.

In 2006–07, total expenditure on obstetrics services through Medicare was \$327 million, of which \$140 million was out-of-pocket contributions. Age-standardised per person expenditure ranged from \$17.52 for residents of *Major cities* to \$5.98 for those in *Very remote* areas. The respective figures for *Inner regional* and *Outer regional* residents were \$11.27 and \$10.23.

For more details on the above figures and additional data see page 132 of Appendix B.

Operations

In this report the term operations refers to operations, assistance at operations and anaesthetic services provided under Medicare.

The \$2,560 million of expenditure on operation services provided 9.8 million services. Almost 50% of the expenditure related to patient contributions while per person expenditure (age-standardised) ranged from \$63 for *Very remote* residents to \$130 for residents of *Major cities*.

For more details on the above figures and additional data see page 136 of Appendix B.

Radiation and other medical services not elsewhere classified

Radiation therapy is the treatment of disease by means of X-rays or radioactive substances.

There were 7.6 million radiation and other medical services not elsewhere classified carried out during 2006–07 at a cost of \$1,192 million. Expenditure per person was lower in the more

remote areas with age-standardised per person expenditure in *Major cities* of \$60, *Outer regional* of \$47 and \$39 and \$31 for *Remote* and *Very remote* residents respectively.

For more details on the above figures and additional data see page 140 of Appendix B.

Other allied health

Other allied health providers include audiologists, chiropodists, chiropractors, diabetes educators, dieticians, exercise physiologists, mental health workers, occupational therapists, physiotherapists, podiatrists, psychologists, osteopaths, speech pathologists and Aboriginal health workers.

The total expenditure on other allied health in 2006–07 was \$127.5 million with \$106.5 million of this expenditure being met by Medicare payments. Expenditure per person was lower in the remoter areas with \$7.05 spent per person in the *Major cities* compared to \$0.58 for residents of *Very remote* areas (age-standardised).

For more details on the above figures and additional data see page 144 of Appendix B.

4.7 Medicare services expenditure from 2001–02 to 2006–07

Medicare GP expenditure from 2001–02 to 2006–07

Total benefits paid by Medicare for GP services increased from \$2,505 million in 2001–02 to \$3,578 million in 2006–07. On a per person basis, expenditure over this period increased from \$167 to \$171, expressed in 2006–07 dollars. This was a real per person increase of 2.5%. For residents of *Major cities* the increase over this period was 4.5%, for residents of *Inner* and *Outer regional* areas expenditure decreased by 3.5% and 3.0%, while for residents of *Very remote* areas per person Medicare expenditure increased 14.1% (Table 4.19).

After the expenditure values were age-standardised to adjust for the different age profiles between the ASGC areas, the rate of increase across the regions followed a similar pattern to the unadjusted expenditure figures. Nationally, while the percentage increase from 2001–02 to 2006–07 was 2.5%, there were increases of 4.9% for *Major cities* and 13.5% for *Very remote* areas, and a decrease of 4% in *Inner* and *Outer regional* areas.

Indexed expenditure per person, age-standardised shows that expenditure was higher for residents of *Major cities* compared with residents of *Remote* areas. In 2006–07, for every \$1.00 spent on residents of *Major cities*, \$0.58 was spent on residents of *Very remote* areas. However, despite the relatively low expenditure levels, *Very remote* regions experienced a relative increase to *Major cities* in standardised per person expenditure from 2001–02 to 2006–07. Indexed standardised expenditure declined from \$0.89 to \$0.81 per person for *Inner regional* residents per \$1.00 spent on *Major cities* residents, \$0.84 to \$0.77 for *Outer regional* residents and \$0.76 to \$0.72 for *Remote* residents. In other words, relative to residents of *Major cities*, in the 5 years 2001–02 to 2006–07, per person expenditure declined by 8.6% for *Inner regional* residents, 8.3% for *Outer regional* residents, and by 5.0% for residents of *Remote* areas, while expenditure for residents of *Very remote* areas increased (relative to *Major cities* residents) by 8.3%.

Table 4.19: Medicare benefits paid, GP services, in and out-of-hospital, by remoteness, 2001–02, 2004–05 and 2006–07

Financial year	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
2001–02	1,784.9	466.0	213.3	30.4	10.7	2,505.3
2004–05	2,149.3	580.0	262.8	38.0	14.0	3,044.2
2006–07	2,608.1	631.1	281.8	40.0	15.7	3,577.8
Expenditure per person, current prices (\$)						
2001–02	133.95	121.73	112.62	96.46	63.61	128.28
2004–05	155.03	145.51	136.19	120.86	84.61	150.27
2006–07	182.40	153.15	142.31	126.35	94.58	171.33
Expenditure per person, 2006–07 prices ^(b) (\$)						
2001–02	174.56	158.62	146.75	125.69	82.89	167.16
2004–05	168.88	158.51	148.35	131.66	92.16	163.69
2006–07	182.40	153.15	142.31	126.35	94.58	171.33
Change from 2001–02 to 2006–07 (%)	4.5	–3.5	–3.0	0.5	14.1	2.5
Expenditure per person, 2006–07 prices, age-standardised ^(c) (\$)						
2001–02	175.08	155.48	146.77	133.51	93.61	167.16
2004–05	169.73	154.68	147.85	139.33	104.04	163.69
2006–07	183.63	149.03	141.14	133.10	106.29	171.33
Change from 2001–02 to 2006–07 (%)	4.9	–4.1	–3.8	–0.3	13.5	2.5
Expenditure per person, 2006–07 prices, age-standardised, indexed ^(d)						
2001–02	1.00	0.89	0.84	0.76	0.53	0.95
2004–05	1.00	0.91	0.87	0.82	0.61	0.96
2006–07	1.00	0.81	0.77	0.72	0.58	0.93
Change from 2001–02 to 2006–07 (%)	—	–8.6	–8.3	–5.0	8.3	–2.3

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Scaled to 2006–07 prices using the deflator for Medicare medical services fees charged.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The results for the total fees charged for GP-type Medicare services are similar to those for Medicare benefits paid by the government, with real age-standardised fees per person increasing from \$185 in 2001–02 to \$190 in 2006–07 – an increase of 2.7%. Again the *Very remote* category had the highest increase across the period of 14.4% (from \$101 to \$116) while there was a 6.1% increase for *Major cities*. The level of real, age-standardised, fees charged per person decreased across the other ASGC areas with expenditure in the *Outer regional* areas 6.3% lower (Table 4.20).

Expenditure on fees per person, once age-standardised and indexed, shows that compared to *Major cities*, expenditure was lower in the *Remote* and *Very remote* areas. For every \$1.00 spent

in *Major cities*; 0.84 and 0.80 was spent on residents of *Inner* and *Outer regional* areas, while \$0.73 and \$0.57 was spent on residents of *Remote* and *Very remote* areas. *Inner regional*, *Outer regional* and *Remote* areas experienced a relative decline in relation to *Major cities* age-standardised expenditure from 2001–02 to 2006–07.

Table 4.20: Medicare fees charged, GP services, in and out-of-hospital, by remoteness, 2001–02 and 2006–07

Financial year	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
2001–02	1,939.9	537.5	249.5	35.1	11.6	2,773.8
2006–07	2,867.7	718.5	321.1	44.6	17.3	3,970.6
Expenditure per person, current prices (\$)						
2001–02	145.59	140.41	131.76	111.50	69.24	142.03
2006–07	200.56	174.36	162.14	141.18	103.76	190.14
Expenditure per person, 2006–07 prices ^(b) (\$)						
2001–02	189.72	182.97	171.70	145.30	90.23	185.08
2006–07	200.56	174.36	162.14	141.18	103.76	190.14
Change from 2001–02 to 2006–07 (%)	5.7	–4.7	–5.6	–2.8	15.0	2.7
Expenditure per person, 2006–07 prices, age-standardised ^(c) (\$)						
2001–02	190.19	179.72	171.72	153.69	101.32	185.08
2006–07	201.79	170.07	160.85	148.10	115.89	190.14
Change from 2001–02 to 2006–07 (%)	6.1	–5.4	–6.3	–3.6	14.4	2.7
Expenditure per person, 2006–07 prices, age-standardised, indexed ^(d)						
2001–02	1.00	0.94	0.90	0.81	0.53	0.97
2006–07	1.00	0.84	0.80	0.73	0.57	0.94
Change from 2001–02 to 2006–07 (%)	—	–10.8	–11.7	–9.2	7.8	–3.2

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Scaled to 2006–07 prices using the deflator for Medicare medical services fees charged.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Note: Data for 2004–05 was not readily available for the above table.

Source: AIHW health expenditure database.

Medicare pathology expenditure from 2001–02 to 2006–07

In constant dollars, benefits paid per person remained relatively constant from 2001–02 (\$83.68) to 2006–07 (\$83.86). For residents of *Major cities* there was an increase in expenditure on benefits paid per person from \$85.15 in 2001–02 to \$86.95 in 2006–07, a real increase of 2.1%. For residents of *Inner* and *Outer regional* areas, benefits paid per person decreased from \$85.41 to \$80.96 (5.2%) and from \$77.42 to \$73.35 (5.3%). For residents of *Very remote* areas,

the increase from \$38.09 to \$54.32 for the same period represented a real increase of 42.6% (Table 4.21).

The age-standardised results follow a similar pattern, with an increase of 2.8% for *Major cities* and 40.4% for *Very remote* areas. Expenditure decreased by 6.3% in the *Inner* and 6.7% in the *Outer regional* areas and 2.8% in *Remote* areas.

Indexed expenditure per person, age-standardised, declined with remoteness. When indexed against *Major cities* expenditure levels, expenditure was lowest in the *Very remote* areas (0.75) with the *Inner* and *Outer regional* areas also experiencing relatively low expenditure levels (with index values of 0.89 and 0.83 respectively).

Table 4.21: Medicare benefits paid, pathology services, in and out-of-hospital, by remoteness, 2001–02, 2004–05 and 2006–07

Financial year	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
2001–02	870.7	250.9	112.5	15.0	4.9	1,254.1
2004–05	1,045.8	311.3	138.7	18.6	7.5	1,521.9
2006–07	1,243.3	333.7	145.2	19.4	9.0	1,751.3
Expenditure per person, current prices (\$)						
2001–02	65.35	65.54	59.41	47.55	29.23	64.21
2004–05	75.44	78.09	71.86	59.18	45.25	75.12
2006–07	86.95	80.96	73.35	61.39	54.32	83.86
Expenditure per person, 2006–07 prices ^(b) (\$)						
2001–02	85.15	85.41	77.42	61.96	38.09	83.68
2004–05	82.18	85.07	78.28	64.46	49.29	81.83
2006–07	86.95	80.96	73.35	61.39	54.32	83.86
Change from 2001–02 to 2006–07 (%)	2.1	–5.2	–5.3	–0.9	42.6	0.2
Expenditure per person, 2006–07 prices, age-standardised ^(c) (\$)						
2001–02	85.32	83.33	77.73	68.43	47.14	83.68
2004–05	82.64	82.40	78.03	70.51	60.80	81.83
2006–07	87.71	78.06	72.48	66.49	66.18	83.86
Change from 2001–02 to 2006–07 (%)	2.8	–6.3	–6.7	–2.8	40.4	0.2
Expenditure per person, 2006–07 prices, age-standardised, indexed ^(d)						
2001–02	1.00	0.98	0.91	0.80	0.55	0.98
2004–05	1.00	1.00	0.94	0.85	0.74	0.99
2006–07	1.00	0.89	0.83	0.76	0.75	0.96
Change from 2001–02 to 2006–07 (%)	—	–8.9	–9.3	–5.5	36.6	–2.5

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Scaled to 2006–07 prices using the deflator for Medicare medical services fees charged.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

At the national level, age-standardised Medicare fees charged for pathology services, in constant prices, showed little movement from 2001–02 to 2006–07. Nationally, per person expenditure on fees in constant dollars, increased from \$90.40 in 2001–02 to \$90.52 in 2006–07. This represented a real increase of only 0.1%. However, for *Very remote* residents, the age-standardised increase from \$49.78 to \$68.89 for the same period represented a real increase of 38.4%. Expenditure movements for the other ASGC areas ranged from a 2.6% increase for *Major cities* residents to a 6.6% decrease in *Outer regional* areas (Table 4.22).

Table 4.22: Medicare fees charged, pathology services, in and out-of-hospital, by remoteness, 2001–02, 2004–05 and 2006–07

Financial year	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
2001–02	944.7	269.5	119.6	15.8	5.2	1,354.8
2004–05	N/A	N/A	N/A	N/A	N/A	N/A
2006–07	1,346.9	358.3	154.7	20.4	9.4	1,890.4
Expenditure per person, current prices (\$)						
2001–02	70.90	70.39	63.17	50.14	30.76	69.37
2004–05	N/A	N/A	N/A	N/A	N/A	N/A
2006–07	94.19	86.94	78.13	64.56	56.38	90.52
Expenditure per person, 2006–07 prices ^(b) (\$)						
2001–02	92.39	91.73	82.32	65.34	40.08	90.40
2004–05	N/A	N/A	N/A	N/A	N/A	N/A
2006–07	94.19	86.94	78.13	64.56	56.38	90.52
Change from 2001–02 to 2006–07 (%)	2.0	–5.2	–5.1	–1.2	40.6	0.1
Expenditure per person, 2006–07 prices, age-standardised ^(c) (\$)						
2001–02	92.60	89.41	82.60	72.24	49.78	90.40
2004–05	N/A	N/A	N/A	N/A	N/A	N/A
2006–07	95.05	83.72	77.14	69.99	68.89	90.52
Change from 2001–02 to 2006–07 (%)	2.6	–6.4	–6.6	–3.1	38.4	0.1
Expenditure per person, 2006–07 prices, age-standardised, indexed ^(d)						
2001–02	1.00	0.97	0.89	0.78	0.54	0.98
2004–05	N/A	N/A	N/A	N/A	N/A	N/A
2006–07	1.00	0.88	0.81	0.74	0.72	0.95
Change from 2001–02 to 2006–07 (%)	—	–8.8	–9.0	–5.6	34.8	–2.4

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Scaled to 2006–07 prices using the deflator for Medicare medical services fees charged.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

Medicare imaging expenditure from 2001–02 to 2006–07

In 2006–07 dollars, benefits paid per person increased by 1.1% nationally from 2001–02 to 2006–07 (from \$81 to \$82). For residents of *Major cities*, expenditure on benefits paid increased from \$83 in 2001–02 to \$86 in 2006–07 in constant terms; this represented a real increase of 3.3%. For residents of *Very remote* areas, the increase from \$31 to \$32 for the same period represented a real increase of 3.0%. Expenditure decreased across the other ASGC areas – from a 4.3% decrease in *Outer regional* areas to a 9.1% decrease in *Remote* areas (Table 4.23).

After age-standardisation (see Section 1.5), the rate of increase was 4.1% for residents of *Major cities* and 0.7% for residents of *Very remote* areas.

Expenditure levels were lower for more remote areas. For every \$1 spent in *Major cities*; \$0.87 and \$0.76 was spent for residents of *Inner* and *Outer regional areas*, while \$0.45 was spent for residents of *Very remote* areas. All remoteness categories experienced a relative decline in their age-standardised expenditure per person when compared to residents of *Major cities* from 2001–02 to 2006–07.

Table 4.23: Medicare benefits paid, imaging services, in and out-of-hospital, by remoteness, 2001–02, 2004–05 and 2006–07

Financial year	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
2001–02	850.7	245.3	104.0	12.9	4.0	1,216.9
2004–05	1,031.0	305.2	127.5	14.8	4.5	1,483.0
2006–07	1,228.3	328.8	135.7	15.3	5.3	1,714.0
Expenditure per person, current prices (\$)						
2001–02	63.84	64.07	54.93	40.82	23.71	62.31
2004–05	74.37	76.57	66.10	46.98	27.28	73.21
2006–07	85.91	79.78	68.52	48.36	31.81	82.08
Expenditure per person, 2006–07 prices ^(b) (\$)						
2001–02	83.20	83.49	71.57	53.20	30.89	81.20
2004–05	81.01	83.41	72.00	51.17	29.72	79.74
2006–07	85.91	79.78	68.52	48.36	31.81	82.08
Change from 2001–02 to 2006–07 (%)	3.3	−4.4	−4.3	−9.1	3.0	1.1
Expenditure per person, 2006–07 prices, age-standardised ^(c) (\$)						
2001–02	83.81	80.30	71.10	59.15	39.27	81.20
2004–05	81.98	79.54	70.80	56.10	37.51	79.74
2006–07	87.26	75.66	66.70	52.36	39.52	82.08
Change from 2001–02 to 2006–07 (%)	4.1	−5.8	−6.2	−11.5	0.7	1.1
Expenditure per person, 2006–07 prices, age-standardised, indexed ^(d)						
2001–02	1.00	0.96	0.85	0.71	0.47	0.97
2004–05	1.00	0.97	0.86	0.68	0.46	0.97
2006–07	1.00	0.87	0.76	0.60	0.45	0.94
Change from 2001–02 to 2006–07 (%)	—	−9.5	−9.9	−15.0	−3.3	−2.9

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Scaled to 2006–07 prices using the deflator for Medicare medical services fees charged.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The total per person Medicare fees charged on imaging services increased by 4.1% from 2001–02 to 2006–07 nationally in real terms. For inhabitants of *Major cities*, expenditure on imaging fees increased from \$98 in 2001–02 to \$104 in 2006–07 expressed in 2006–07 dollars, an increase of 6.1%. For the *Very remote* category, the increase from \$36 to \$39 per person for the same period represented a real increase of 5.7%. Expenditure decreased across the other ASGC areas, including a 4.6% decrease for *Remote* residents (Table 4.24).

When the expenditure results are age-standardised, the increase in expenditure per person from 2001–02 to 2006–07 was 6.9% for residents of *Major cities* and 3.5% for residents of *Very remote* areas. However per person expenditure decreased by 2.2% for *Inner regional*

residents, 3.3% for *Outer regional* residents and by 6.9% for residents of *Remote* areas. Indexed expenditure per person, age-standardised, decreased with remoteness. In 2006–07, for every \$1.00 spent by residents of *Major cities*, \$0.88 and \$0.78 was spent by residents of *Inner* and *Outer regional* areas, while \$0.45 was spent by *Very remote* area residents.

As with the results for benefits paid for imaging services, from 2001–02 to 2006–07 all the ASGC areas experienced a relative decline in per person expenditure compared with the *Major cities*.

Table 4.24: Medicare fees charged, imaging services, in and out-of-hospital, by remoteness, 2001–02, 2004–05 and 2006–07

Financial year	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
2001–02	999.4	289.2	123.4	15.3	4.7	1,432.0
2006–07	1,482.9	402.1	165.7	19.1	6.4	2,076.9
Expenditure per person, current prices (\$)						
2001–02	75.00	75.53	65.16	48.65	27.95	73.32
2006–07	103.71	97.57	83.65	60.48	38.50	99.46
Expenditure per person, 2006–07 prices ^(b) (\$)						
2001–02	97.73	98.43	84.91	63.39	36.42	95.55
2006–07	103.71	97.57	83.65	60.48	38.50	99.46
Change from 2001–02 to 2006–07 (%)	6.1	–0.9	–1.5	–4.6	5.7	4.1
Expenditure per person, 2006–07 prices, age-standardised ^(c) (\$)						
2001–02	98.35	95.08	84.41	69.86	45.57	95.55
2006–07	105.18	93.00	81.59	65.02	47.15	99.46
Change from 2001–02 to 2006–07 (%)	6.9	–2.2	–3.3	–6.9	3.5	4.1
Expenditure per person, 2006–07 prices, age-standardised, indexed ^(d)						
2001–02	1.00	0.97	0.86	0.71	0.46	0.97
2006–07	1.00	0.88	0.78	0.62	0.45	0.95
Change from 2001–02 to 2006–07 (%)	—	–8.5	–9.6	–13.0	–3.3	–2.7

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Scaled to 2006–07 prices using the deflator for Medicare medical services fees charged.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Note: Data for 2004–05 was not readily available for the above table.

Source: AIHW health expenditure database.

Medicare specialist expenditure from 2001–02 to 2006–07

Expenditure on Medicare specialist services totalled \$1,038 million in 2001–02 and rose to \$1,322 million in 2006–07 (Table 4.25). Benefits paid per person decreased nationally from \$69

to \$63 across the same period (expressed in 2006–07 dollars). This was an 8.6% decrease in real terms.

For residents of *Major cities*, the expenditure on benefits paid decreased from \$77 in 2001–02 to \$71 in 2006–07, expressed in 2006–07 dollars. This represented a real decrease of 7%. For residents of *Very remote* areas, the decrease in per person expenditure from \$18.57 to \$17.09 for the same period represented a real decrease of 8%. Residents of *Outer regional* and *Remote* areas experienced the largest percentage decreases of 16% and 19% respectively.

After age-standardisation, there were also decreases across all regions with the largest percentage decrease for residents of *Remote* areas (21%) and the smallest decrease for residents of *Major cities* (7%)

Indexed expenditure per person shows that, compared to residents of *Major cities*, expenditure was lower for residents of all other ASGC areas. For every \$1 spent on residents of *Major cities* in 2006–07, \$0.29 was spent for residents of *Very remote* areas. *Inner regional*, *Outer regional* and *Remote* area residents all experienced relative declines in age-standardised expenditure when compared with residents of *Major cities* from 2001–02 to 2006–07.

Table 4.25: Medicare benefits paid, specialist services, in and out-of-hospital, by remoteness, 2001–02, 2004–05 and 2006–07

Financial year	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
2001–02	788.1	174.2	66.5	7.2	2.4	1,038.4
2004–05	916.8	207.9	76.5	8.0	2.7	1,211.9
2006–07	1,022.1	213.0	76.2	7.6	2.8	1,322.2
Expenditure per person, current prices (\$)						
2001–02	59.15	45.50	35.11	22.84	14.25	53.17
2004–05	66.13	52.15	39.62	25.50	16.37	59.82
2006–07	71.48	51.68	38.46	24.10	17.09	63.31
Expenditure per person, 2006–07 prices ^(b) (\$)						
2001–02	77.07	59.29	45.76	29.77	18.57	69.29
2004–05	72.03	56.81	43.16	27.78	17.83	65.16
2006–07	71.48	51.68	38.46	24.10	17.09	63.31
Change from 2001–02 to 2006–07 (%)	–7.3	–12.8	–15.9	–19.0	–8.0	–8.6
Expenditure per person, 2006–07 prices, age-standardised ^(c) (\$)						
2001–02	77.71	57.03	45.36	32.69	22.86	69.29
2004–05	72.90	54.24	42.47	30.20	21.88	65.16
2006–07	72.57	49.09	37.52	25.96	20.73	63.31
Change from 2001–02 to 2006–07 (%)	–6.6	–13.9	–17.3	–20.6	–9.3	–8.6
Expenditure per person, 2006–07 prices, age-standardised, indexed ^(d)						
2001–02	1.00	0.73	0.58	0.42	0.29	0.89
2004–05	1.00	0.74	0.58	0.41	0.30	0.89
2006–07	1.00	0.68	0.52	0.36	0.29	0.87
Change from 2001–02 to 2006–07 (%)	—	–7.8	–11.4	–15.0	–2.9	–2.1

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Scaled to 2006–07 prices using the deflator for Medicare medical services fees charged.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

While total fees charged for specialist services increased from \$1,382 million to \$1,916 million from 2001–02 to 2006–07, this was actually a 0.5% decrease on a constant expenditure per person basis. For residents of *Major cities*, real per person expenditure on fees increased slightly from \$102.62 in 2001–02 to \$103.44 in 2006–07; however, expenditure decreased for all other ASGC areas. The largest percentage decrease was experienced by *Remote* areas (12%) (Table 4.26).

After age-standardisation, the only area to show an increase in expenditure on Medicare fees was *Major cities* (1.5%). Residents of all other areas experienced a decrease in expenditure, with the largest decrease being 13.6% for residents of *Remote* areas. Indexed expenditure per

person, age-standardised, shows that for every \$1 spent on residents of *Major cities* in 2006–07, \$0.69 and \$0.52 were spent on behalf of residents of *Inner* and *Outer regional* areas, while \$0.27 was spent on behalf of residents of *Very remote* areas.

Table 4.26: Medicare fees charged, specialist services, in and out-of-hospital, by remoteness, 2001–02, 2004–05 and 2006–07

Financial year	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
2001–02	1,049.3	230.7	88.6	9.7	3.1	1,381.5
2004–05	N/A	N/A	N/A	N/A	N/A	N/A
2006–07	1,479.1	310.5	110.7	11.2	3.9	1,916.2
Expenditure per person, current prices (\$)						
2001–02	78.75	60.25	46.80	30.81	18.70	70.74
2004–05	N/A	N/A	N/A	N/A	N/A	N/A
2006–07	103.44	75.33	55.93	35.34	23.43	91.76
Expenditure per person, 2006–07 prices ^(b) (\$)						
2001–02	102.62	78.52	60.99	40.15	24.37	92.18
2004–05	N/A	N/A	N/A	N/A	N/A	N/A
2006–07	103.44	75.33	55.93	35.34	23.43	91.76
Change from 2001–02 to 2006–07 (%)	0.8	–4.1	–8.3	–12.0	–3.9	–0.5
Expenditure per person, 2006–07 prices, age-standardised ^(c) (\$)						
2001–02	103.35	75.83	60.55	43.73	29.53	92.18
2004–05	N/A	N/A	N/A	N/A	N/A	N/A
2006–07	104.85	71.93	54.68	37.79	27.95	91.76
Change from 2001–02 to 2006–07 (%)	1.5	–5.1	–9.7	–13.6	–5.3	–0.5
Expenditure per person, 2006–07 prices, age-standardised, indexed ^(d)						
2001–02	1.00	0.73	0.59	0.42	0.29	0.89
2004–05	N/A	N/A	N/A	N/A	N/A	N/A
2006–07	1.00	0.69	0.52	0.36	0.27	0.88
Change from 2001–02 to 2006–07 (%)	—	–6.5	–11.0	–14.8	–6.7	–1.9

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Scaled to 2006–07 prices using the deflator for Medicare medical services fees charged.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

5 Optometrical services

This chapter examines the expenditure on Medicare optometrical services and the related number of Medicare services provided in 2006–07. Optometrical services subsidised through Medicare include eye tests but do not include laser vision correction or other refractive eye surgery, glasses or contact lenses.

In 2006–07, \$242 million was spent on optometrical services under Medicare. The majority of Medicare expenditure on optometry services (\$240 million) was government expenditure, with the remaining \$2 million relating to out-of-pocket fees paid by individuals (Table 5.1).

Total expenditure per person, age-standardised, was lowest for residents of *Very remote* areas. On average, for every \$1.00 spent on residents of *Major cities*, \$0.99 and \$0.94 was spent on residents of *Inner* and *Outer regional* areas, while \$0.68 was spent on residents of *Very remote* areas.

Table 5.1: Medicare, optometrical service expenditure – out-of-hospital by remoteness, 2006–07

Amount	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Benefits paid	164.3	49.4	22.1	2.8	1.2	239.8
Out-of-pocket amount	1.1	0.4	0.2	—	—	1.9
<i>Fees charged</i>	<i>165.4</i>	<i>49.8</i>	<i>22.4</i>	<i>2.9</i>	<i>1.2</i>	<i>241.7</i>
Expenditure per person (\$)						
Benefits paid	11.49	11.98	11.17	8.91	6.92	11.48
Out-of-pocket amount	0.08	0.11	0.12	0.11	0.04	0.09
<i>Fees charged</i>	<i>11.57</i>	<i>12.08</i>	<i>11.29</i>	<i>9.02</i>	<i>6.96</i>	<i>11.57</i>
Expenditure per person, age-standardised ^(c) (\$)						
Benefits paid	11.64	11.51	10.89	9.28	7.88	11.48
Out-of-pocket amount	0.08	0.10	0.12	0.11	0.04	0.09
<i>Fees charged</i>	<i>11.72</i>	<i>11.61</i>	<i>11.01</i>	<i>9.40</i>	<i>7.92</i>	<i>11.57</i>
Expenditure per person indexed ^(d)						
Benefits paid	1.00	0.99	0.94	0.80	0.68	0.99
Out-of-pocket amount	1.00	1.28	1.43	1.35	0.48	1.10
<i>Fees charged</i>	<i>1.00</i>	<i>0.99</i>	<i>0.94</i>	<i>0.80</i>	<i>0.68</i>	<i>0.99</i>

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

There were 5.5 million Medicare-related optometrical services in Australia in 2006–07. The age-standardised rate at which such services were provided was highest for those living in

Major cities, slightly lower for residents of *Inner* and *Outer regional* areas and lowest for residents of *Very remote* locations. For every service provided to residents of *Major cities*, 0.98 and 0.93 were provided to residents of *Inner* and *Outer regional* areas, while 0.67 services were provided to residents of *Very remote* areas (Table 5.2).

Table 5.2: Medicare, optometrical services – out-of-hospital by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Services (millions)	3.8	1.1	0.5	0.1	—	5.5
Services per 1,000	262.5	272.4	253.9	200.7	155.8	261.9
Services per 1,000 age-standardised ^(b)	266.1	261.2	247.4	209.8	178.2	261.9
Services per person indexed ^(c)	1.00	0.98	0.93	0.79	0.67	0.98

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

Fees charged per service were slightly higher outside *Major cities*. The levels of benefit paid as a proportion of fees charged were relatively consistent across all areas (Table 5.3).

Table 5.3: Medicare benefits paid as a proportion of fees charged and expenditure^(a) per out-of-hospital optometrical service by remoteness, 2006–07

Measure	ASGC remoteness ^(b)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Benefits paid as a proportion of fees charged (%)	99.3	99.1	98.9	98.8	99.5	99.2
Age-standardised ^(c)	99.3	99.1	98.9	98.8	99.5	99.2
Out-of-pocket amounts paid as a proportion of fees charged (%)	0.7	0.9	1.1	1.2	0.5	0.8
Age-standardised ^(c)	0.7	0.9	1.1	1.2	0.5	0.8
Fees charged per service (\$)	44.08	44.35	44.48	44.92	44.69	44.18
Age-standardised ^(c)	44.04	44.47	44.54	44.85	44.56	44.18

(a) Medicare fees charged.

(b) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(c) Indirectly age-standardised.

Source: AIHW health expenditure database.

6 Pharmaceuticals

This chapter examines the expenditure on pharmaceuticals provided under the PBS and expenses associated with medicines dispensed through remote Aboriginal and Torres Strait Islander Health Services, under Section 100 of the National Health Act in Australia.

Box 6.1: PBS and Section 100 pharmaceuticals

Under the PBS, the Australian Government subsidises pharmaceutical drugs that have sufficient clinical and cost-effective benefits. There are two categories of PBS access – general and concessional. These are based broadly on individuals' ability to pay (determined by Centrelink) and benefit entitlements. Each category has its own patient copayment amount per prescription and corresponding safety net amount.

When the cost of a pharmaceutical is above the copayment threshold (\$33.30 for general and \$5.40 for concessional patients from 1 January 2010) (DoHA 2010), the government contributes the difference in price paid by the patient and the dispensing cost. The data presented here include only medications that were above the copayment threshold in the respective years, as medicines with a dispensing cost below the general copayment threshold are not in scope of the PBS. In recent years the copayment threshold has increased each 1 January and in the periods covered by this report (2001–2007) it ranged from \$21.90 to \$30.70 (DoHA 2009).

After reaching a defined Safety Net threshold, general patients pay for further PBS prescriptions at the concessional copayment rate and concession card holders are dispensed PBS prescriptions at no further charge for the remainder of that calendar year. The same general or concessional Safety Net threshold is applied to a family unit, regardless of whether the unit consists of an individual, a couple or a family with dependent children. On 1 January 2010, the Safety Net thresholds changed from \$318.00 to \$324.00 (for concession card holders) and from \$1,264.90 to \$1,281.30 (for all other patients).

Medicines dispensed under Section 100 of the *National Health Act 1953* are intended to improve the access of Aboriginal and Torres Strait Islander Australians to PBS medicines. Section 100 arrangements allow patients attending an approved remote area Aboriginal or Torres Strait Islander Health Service centre to receive PBS medicines without the need for a prescription and at no cost. Section 100 medicines are an important source of medicines for Australians living in remote areas, especially Aboriginal and Torres Strait Islander Australians. Section 100 costs have been assigned to the combined Remote and Very Remote category in this report. There are no copayments for Section 100 pharmaceuticals.

The rates of prescription should be considered in the context of the general health status of patients living in different areas. Additionally, prescription rates may vary across regions for reasons including access to pharmacists to dispense medicines, access to health professionals to prescribe medicines, and differences in health-seeking behaviour (AIHW 2008a).

6.1 PBS and Section 100 expenditure

In 2006–07, there was a total of \$6,644 million spent on pharmaceuticals. Of this, \$5,492 million was expenditure by the Australian government with \$1,152 million constituting patient out-of-pocket expenses (Table 6.1).

The Australian government spent \$5,465 million on the PBS and an additional \$26.4 million on Section 100 medicines for Aboriginal Health Services.

The average expenditure by the Australian government on PBS subsidies and Section 100 drugs was \$263 for each Australian in 2006–07. Total age-standardised expenditure per person (both government expenditure and out-of-pocket contributions) for both *Inner* and *Outer regional* residents (\$317 and \$306) were lower than that for *Major cities* (\$321).

Table 6.1: Pharmaceutical expenditure by source of funds and remoteness, 2006–07

Amount	ASGC remoteness ^(a)				Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote and very remote	
Expenditure (\$ million)					
Government expenditure	3,678.4	1,190.8	521.3	98.9	5,492.2
Out-of-pocket amount	787.6	236.8	108.2	18.5	1,152.0
<i>Total expenditure</i>	<i>4,466.0</i>	<i>1,427.6</i>	<i>629.5</i>	<i>117.4</i>	<i>6,644.2</i>
Expenditure per person					
Government expenditure	257.25	288.94	263.24	204.85	263.00
Out-of-pocket amount	55.08	57.47	54.66	38.32	55.17
<i>Total expenditure</i>	<i>312.33</i>	<i>346.41</i>	<i>317.89</i>	<i>243.17</i>	<i>318.17</i>
Expenditure per person, age-standardised ^(c) (\$)					
Government expenditure	264.32	263.35	252.96	257.13	263.00
Out-of-pocket amount	56.35	53.36	52.61	45.22	55.17
<i>Total expenditure</i>	<i>320.67</i>	<i>316.75</i>	<i>305.58</i>	<i>301.88</i>	<i>318.17</i>
Expenditure per person indexed ^(d)					
Government expenditure	1.00	1.00	0.96	0.97	0.99
Out-of-pocket amount	1.00	0.95	0.93	0.80	0.98
<i>Total expenditure</i>	<i>1.00</i>	<i>0.99</i>	<i>0.95</i>	<i>0.94</i>	<i>0.99</i>

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The majority of total spending (\$4,934 million or 74%) related to concessional prescriptions.

General PBS expenditure per person was \$85 for residents of *Major cities* and \$58 for residents of *Remote* and *Very remote* areas. Once age-standardised, for every \$1.00 of general PBS expenditure for *Major cities* residents, about \$0.80 was spent for regional residents, and \$0.71 was spent for *Remote* and *Very remote* residents. For concessional PBS expenditure there was \$0.73 spent by *Very remote* area residents to every \$1.00 spent by residents of *Major cities* (Table 6.2).

In considering the results presented in this section, it is worthwhile noting that 30% of residents of *Major cities* had a government health concession card, compared with 45% of residents of *Inner regional* areas and 44% of residents in what was essentially *Outer regional*

areas. In other words, concession card holders are about 50% more prevalent in regional areas than in *Major cities* (see Table 8.4 on page 110). All other things being equal, it would be expected that there would be a higher rate of concessional PBS prescriptions per head of population outside *Major cities* than inside *Major cities* simply because of the greater prevalence of concession card holders in these areas. Similarly, all other things being equal, a lower rate of general PBS prescriptions outside *Major cities* would be expected. Of interest then, compared with residents of *Major cities*, age-standardised concessional expenditure is only 5% higher for residents of *Inner regional* areas and 1% higher for residents of *Outer regional* areas.

Table 6.2: Pharmaceutical expenditure by concessional status^(a) and remoteness, 2006–07

Amount	ASGC remoteness ^(b)				Australia ^(c)
	Major cities	Inner regional	Outer regional	Remote and very remote	
Expenditure (\$ million)					
General	1,209.6	302.2	142.3	28.0	1,683.4
Concession	3,256.4	1,125.4	487.2	63.0	4,934.4
Section 100	..	..	..	26.4	26.4
<i>Total</i>	<i>4,466.0</i>	<i>1,427.6</i>	<i>629.5</i>	<i>117.4</i>	<i>6,644.2</i>
Expenditure per person (\$)					
General	84.59	73.33	71.87	57.91	80.61
Concession	227.74	273.08	246.02	130.51	236.29
Section 100	..	..	..	54.74	1.27
<i>Total</i>	<i>312.33</i>	<i>346.41</i>	<i>317.89</i>	<i>243.17</i>	<i>318.17</i>
Expenditure per person, age-standardised ^(d) (\$)					
General	86.08	70.18	68.77	61.33	80.61
Concession	234.56	246.05	236.68	171.46	236.29
Section 100	..	..	..	71.92	1.27
<i>Total</i>	<i>320.70</i>	<i>316.83</i>	<i>305.40</i>	<i>301.08</i>	<i>318.17</i>
Expenditure per person indexed ^(e)					
General	1.00	0.82	0.80	0.71	0.94
Concession	1.00	1.05	1.01	0.73	1.01
Section 100	..	..	..	N/A	N/A
<i>Total^(f)</i>	<i>1.00</i>	<i>0.99</i>	<i>0.95</i>	<i>0.94</i>	<i>0.99</i>

(a) The categories used for this table are general PBS, concessional PBS and pharmaceuticals provided free of charge under Section 100 of the *National Health Act 1953*.

(b) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(c) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(d) Indirectly age-standardised.

(e) Expressed as a multiple of the *Major cities* value.

(f) Includes Section 100 expenditure for Aboriginal health services.

Source: AIHW health expenditure database.

A total of 160 million PBS prescriptions were issued in 2006–07, with 85% (137 million) being issued on a concessional basis. The level of concessional scripts as a percentage of total scripts was the highest for *Inner regional* areas (88%) and lowest for *Remote* and *Very remote* residents (82%). The lower proportion for *Remote* and *Very remote* residents is partially due to Section 100 scripts not having been included (Table 6.3).

In a similar trend to PBS expenditure, the number of scripts per 1,000 population was highest in *Inner* and *Outer regional* areas with the number of scripts in *Remote* and *Very remote* areas being considerably below average. After age-standardisation to take account of demographic differences between the regional areas, the number of scripts issued per resident of *Remote* and *Very remote* areas was 77% of that for *Major cities* residents. The script numbers have not been adjusted to take account of the types and relative costs of the scripts which were provided in each of the ASGC regions and, as such, care should be taken in comparing script numbers from one region with another.

Although concession card holders are about 50% more prevalent in regional areas than in *Major cities* (see Table 8.4), the number of concessional scripts per person in regional areas was only slightly higher than for those in *Major cities* (age-standardised).

Table 6.3: Number of PBS prescriptions^(a) by remoteness, 2006–07

	ASGC remoteness ^(b)				
Amount	Major cities	Inner regional	Outer regional	Remote and very remote	Australia ^(c)
General					
Scripts (millions)	16.4	4.4	2.1	0.4	23.3
Scripts per 1,000	1,149.3	1,058.6	1,044.6	865.0	1,115.9
Scripts per 1,000 age-standardised ^(d)	1,174.8	1,001.1	991.7	928.7	1,115.9
Scripts per person (indexed) ^(e)	1.00	0.85	0.84	0.79	0.95
Concessional					
Scripts (millions)	90.0	31.3	13.7	1.8	136.8
Scripts per 1,000	6,292.4	7,595.4	6,915.7	3,693.5	6,551.7
Scripts per 1,000 age-standardised ^(d)	6,481.9	6,824.1	6,669.4	4,929.1	6,551.7
Scripts per person (indexed) ^(e)	1.00	1.05	1.03	0.76	1.01
All					
Scripts (millions)	106.4	35.7	15.8	2.2	160.1
Scripts per 1,000	7,441.7	8,654.1	7,960.2	4,558.6	7,667.6
Scripts per 1,000 age-standardised ^(d)	7,657.1	7,832.1	7,659.1	5,875.7	7,667.6
Scripts per person (indexed) ^(e)	1.00	1.02	1.00	0.77	1.00

(a) Excludes Section 100 medicines.

(b) ABS ASGC remoteness categorisation.

(c) Total Australian scripts may not equal sum of components as it also includes numbers for which remoteness information was not available.

(d) Indirectly age-standardised.

(e) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The average level of expenditure per PBS script was \$41, with only low levels of variation between each of the regional areas (expenditure levels being highest in the *Major cities* at \$42 and lowest in *Outer regional* areas with \$40) (Table 6.4).

Table 6.4: Concessional PBS expenditure paid as a proportion of total PBS expenditure and expenditure^{(a)(b)} per PBS script by remoteness, 2006–07

Measure	ASGC remoteness ^(c)				Australia
	Major cities	Inner regional	Outer regional	Remote and very remote	
Concessional as a proportion of total expenditure	0.7	0.8	0.8	0.7	0.7
Age-standardised ^(d)	0.7	0.8	0.8	0.7	0.7
Total expenditure per script (\$)	41.97	40.03	39.94	41.34	41.33
Age-standardised ^(d)	41.70	40.71	40.40	41.47	41.33

(a) Fees charged.

(b) Excludes Section 100 medicines.

(c) ABS ASGC remoteness categorisation.

(d) Indirectly age-standardised.

Source: AIHW health expenditure database.

While there was a substantial increase in age-standardised pharmaceutical expenditure per person from 2001–02 to 2004–05 (\$216 to \$264 respectively), there was little change from 2004–05 to 2006–07 (Table 6.5).

Table 6.5: Government pharmaceutical expenditure^(a) by remoteness, 2001–02, 2004–05 and 2006–07

Financial year	ASGC remoteness ^(b)				Australia
	Major cities	Inner regional	Outer regional	Remote and very remote	
Benefits paid (\$ million)					
2001–02	2766.1	933.5	418.2	67.5	4194.8
2004–05	3385.4	1208.5	531.9	95.9	5317.9
2006–07	3678.4	1190.8	521.3	98.9	5492.2
Benefits paid per person, current prices (\$)					
2001–02	207.59	243.82	220.83	139.70	214.79
2004–05	244.19	303.18	275.63	200.15	262.50
2006–07	257.25	288.94	263.24	204.85	263.00
Benefits paid per person, 2006–07 prices ^(c) (\$)					
2001–02	209.18	245.69	222.52	140.77	216.44
2004–05	245.25	304.49	276.82	201.01	263.63
2006–07	257.25	288.94	263.24	204.85	263.00
Change from 2001–02 to 2006–07 (%)	23.0	17.6	18.3	45.5	21.5
Benefits paid per person, 2006–07 prices, age-standardised ^(d) (\$)					
2001–02	212.25	228.57	220.34	183.66	216.44
2004–05	250.51	279.91	270.31	257.47	263.63
2006–07	264.28	263.56	252.95	256.37	263.00
Change from 2001–02 to 2006–07 (%)	24.5	15.3	14.8	39.6	21.5
Benefits paid per person, age-standardised, indexed ^(e)					
2001–02	1.00	1.08	1.04	0.87	1.02
2004–05	1.00	1.12	1.08	1.03	1.05
2006–07	1.00	1.00	0.96	0.97	1.00

(a) Includes government expenditure on the PBS and Section 100 drugs.

(b) ABS ASGC remoteness categorisation.

(c) Scaled to 2006–07 prices using the deflator for Medicare medical services fees charged.

(d) Indirectly age-standardised.

(e) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

7 Grants to Aboriginal Community Controlled Health Organisations

This chapter examines the grants provided by OATSIH to ACCHOs. OATSIH provides direct grants for health, substance use, social and emotional wellbeing and mental health service delivery to around 245 organisations, of which around 80% are Aboriginal and Torres Strait Islander community controlled or managed. These organisations provide one or more of these services: clinical care and health education, promotion, screening, immunisation and counselling, as well as specific programs, such as hearing health, sexual health, substance use and mental health (DoHA 2007a).

Due to age specific data constraints, only the results in Table 7.4, rather than the 2006–07 specific tables, have been subject to age-standardisation. Results for the 2006–07 specific tables (Tables 7.1, 7.2 and 7.3) need to be interpreted with care as the demographic profiles of each regional class have influenced the results. Section 1.5 of this report provides additional discussion on age-standardisation and the demographic differences between the regions.

OATSIH-funded grants to ACCHOs in 2006–07 totalled \$267 million or \$13 per person nationally. However, the levels of per person expenditure varied substantially. Per person expenditure was lowest in *Major cities* and *Inner regional* area, at \$3.38 and \$9.34 respectively, while the corresponding figures for *Remote* and *Very remote* residents were \$238 and \$211 (Table 7.1).

Table 7.1: Expenditure on ACCHOs by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)	48.4	38.5	70.3	75.2	35.1	267.4
Expenditure per person (\$)	3.38	9.34	35.49	237.63	210.77	12.80
Expenditure per person indexed ^(c) (\$)	1.00	2.76	10.49	70.24	62.30	3.78

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Expressed as a multiple of the *Major cities* value and is based on the total population levels per region, not the population of Aboriginal and Torres Strait Islanders.

Source: AIHW health expenditure database.

As well as experiencing a higher level of per person expenditure, *Remote* and *Very remote* residents also had considerably higher rates of episodes in ACCHOs. In *Remote* areas, the rate of episodes per person was approximately 55 times more than the equivalent rate for residents of *Major cities* (Table 7.2).

Table 7.2: ACCHO episodes by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Episodes (millions)	0.3	0.3	0.5	0.4	0.2	1.6
Episodes per 1,000	22.08	72.50	229.10	1,206.99	1,165.22	78.72
Episodes per person indexed ^(b)	1.00	3.28	10.37	54.66	52.77	3.56

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The expenditure levels per episode were highest for residents of *Remote* and *Very remote* areas, at \$197 and \$181 respectively. The rates for residents of *Major cities* and *Outer regional* were similar at \$153 and \$155 per episode, while expenditure per episode was lowest for residents of *Inner regional* areas at \$129 per episode (Table 7.3).

Table 7.3: ACCHO expenditure^(a) per episode by remoteness, 2006–07

Measure	ASGC remoteness ^(b)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure per episode (\$)	153	129	155	197	181	163

(a) Only includes OATSIH grant funding.

(b) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

Source: AIHW health expenditure database.

From 2001–02 to 2006–07 the level of OATSIH grants to ACCHOs increased from \$158 million to \$267 million (a 69% increase). Once the expenditure data is age-standardised and presented in constant price terms to provide a more useful expenditure comparison over time, the increase in per person expenditure levels over the period was 32%. In each of the periods analysed, there was a strong trend for the standardised per person expenditure to increase with remoteness – in 2006–07 expenditure levels in *Very remote* areas were almost 70 times that for *Major cities* (Table 7.4).

While age-standardised expenditure for people in *Major cities* increased 47% between 2001–02 and 2006–07, over the same period there were increases of 29%, 55% and 65% for residents of *Inner* and *Outer regional* and *Remote* areas, but a decrease of 19% for residents of *Very remote* areas.

Table 7.4: ACCHO expenditure by remoteness, 2001–02, 2004–05 and 2006–07

Financial year	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
2001–02	25.6	22.9	35.8	37.6	36.2	158.1
2004–05	40.1	34.1	60.3	51.7	48.8	235.1
2006–07	48.4	38.5	70.3	75.2	35.1	267.4
Expenditure per person, current prices (\$)						
2001–02	1.92	5.99	18.91	119.23	215.27	8.10
2004–05	2.89	8.56	31.26	164.70	295.67	11.60
2006–07	3.38	9.34	35.49	237.63	210.77	12.80
Expenditure per person, 2006–07 prices ^(b) (\$)						
2001–02	2.31	7.18	22.67	142.95	258.09	9.71
2004–05	3.11	9.20	33.59	176.98	317.72	12.47
2006–07	3.38	9.34	35.49	237.63	210.77	12.80
Change from 2001–02 to 2006–07 (%)	46.7	30.0	56.5	66.2	–18.3	31.9
Expenditure per person, 2006–07 prices, age-standardised ^(c) (\$)						
2001–02	2.31	7.05	22.67	151.21	289.81	9.71
2004–05	3.12	9.00	33.47	186.49	356.44	12.47
2006–07	3.40	9.11	35.20	249.29	235.42	12.80
Change from 2001–02 to 2006–07 (%)	47.2	29.1	55.3	64.9	–18.8	31.9
Expenditure per person, 2006–07 prices, age-standardised, indexed ^(d)						
2001–02	1.00	3.05	9.81	65.41	125.36	4.20
2004–05	1.00	2.88	10.72	59.74	114.18	3.99
2006–07	1.00	2.68	10.34	73.24	69.16	3.76
Change from 2001–02 to 2006–07 (%)	0.0	–12.3	5.5	12.0	–44.8	–10.4

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Scaled to 2006–07 prices using the deflator for total health price index.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

8 National Health Survey results

Unlike the other chapters earlier in the report, this chapter does not examine expenditure or services levels associated with government expenditure. Rather, the findings in this chapter are based on selected results from the 2007–08 National Health Survey (NHS). The 2007–08 NHS was conducted by the ABS during the 11 month period August 2007 to July 2008. It was the fifth in a series of regular population surveys designed to obtain national benchmark information on a range of health-related issues and to enable the monitoring of trends in health over time. While the NHS does not provide expenditure information, the selected NHS data provided below contains useful contextual information about the manner in which Australians from different ASGC categories engage with the health care system.

The 2007–08 NHS collected 20,788 responses from 15,792 private dwellings selected throughout Australia. The sample design ensured that within each state or territory, each person had an equal chance of selection. Where possible, information was obtained about one adult and one child aged 0–17 years in each selected household.

The survey focused on the health status of Australians and health-related aspects of their lifestyle. Information was collected about respondents' long-term medical conditions, consultations with health professionals, and other actions recently taken in regard to their health (for example, days taken off work due to health reasons, medications used and so forth). Information was also collected on lifestyle factors which may affect health, such as smoking, alcohol consumption, diet and exercise. Medical records were not required, and no medical tests were taken as part of the survey (ABS 2009a).

Unlike the other chapters in this report, the ASGC categories have been grouped into three groups due to the level of data available from the NHS. These groups are *Major cities*, *Inner regional* areas and all *Other* areas.

As part of the NHS, the survey participants were asked whether, in general, if they would say that their health was excellent, very good, good, fair or poor. The results of this health self-assessment are summarised in Table 8.1. It is important to note that the results are a self-assessment only and may not reflect the actual overall health levels of the individuals.

Both *Major cities* and *Inner regional* areas had similar levels of respondents assessing their health as excellent or very good at 55% and 54 % respectively. The result for *Other* areas was slightly lower at 50%. Response rates for fair to poor health were similar for *Inner regional* and the more remote areas, around 20%, with a slightly lower result for *Major cities* residents (15%). Overall the self-assessed health levels for residents of *Major cities* were the highest, with all *Other* remoteness areas having lower rates of excellent or very good responses and higher levels of fair or poor health.

Table 8.1: Self-assessed health status^(a) by remoteness, 2007–08 (percent)

Measure	ASGC remoteness ^(b)			Australia
	Major cities	Inner regional	Other	
Excellent/very good	55	54	50	54
Good	30	27	30	29
Fair/poor	15	19	20	17
Total	100	100	100	100

(a) Excludes data for which a 'not applicable' response was provided.

(b) ABS ASGC remoteness categorisation is according to the location of the survey respondents' household.

Source: 2007–08 NHS.

The ABS survey also sought information on the types of health professionals that individuals had seen in the last 12 months. Over a quarter of survey respondents stated that they had seen a GP in the last 12 months. However, a similar level of individuals indicated that they had not seen any health professionals in the last 12 months. Other substantial levels of contact were recorded for specialist doctors (averaging 22%), optician/optometrist (13%) and chemists (11%). It is important to note that when an individual has indicated that they have seen a certain type of health professional in the last 12 months, that health professional of that type may have been seen on one or multiple occasions.

When the responses are analysed by the remoteness of the survey recipients' households, some of the usage levels do show sizeable variations between the remoteness classifications used. For example, the *Other* regional classification utilised nurses at a 32% higher rate than residents of *Major cities*. The *Other* classification also had higher levels of utilisation of occupational therapists and social workers/welfare workers. Residents of *Major cities* utilised a number of services at higher rates than residents of *Other* areas, most notably osteopaths (220% higher), acupuncturists, physiotherapists/hydrotherapists (each 60% higher) and chiropodists/podiatrists (30% higher). Residents of *Inner regional* areas were the most likely to have consulted at least one health professional (Table 8.2).

Table 8.2: Type of health professional consulted in last 12 months^{(a)(b)} by remoteness, 2007–08 (percent)

Type of health professional	ASGC remoteness ^(c)			Australia
	Major cities	Inner regional	Other	
GP	26.7	27.1	27.7	26.9
Specialist doctor	22.3	22.4	18.8	21.9
Accredited counsellor	1.7	2.0	1.5	1.8
Acupuncturist	2.4	1.7	1.5	2.1
Chemist (for advice only)	10.5	10.7	10.7	10.6
Chiropodist/podiatrist	4.7	5.1	3.7	4.7
Chiropractor	6.9	6.9	7.6	7.0
Dietician / nutritionist	3.4	3.3	3.5	3.4
Naturopath	2.9	3.0	2.7	2.9
Nurse	2.8	3.9	3.7	3.1
Occupational therapist	0.8	0.7	0.9	0.8
Optician/optometrist	12.4	12.9	12.8	12.6
Osteopath	1.6	1.7	0.5	1.5
Physiotherapist / hydrotherapist	8.5	7.7	5.4	8.0
Psychologist	3.2	2.9	2.6	3.0
Social worker/welfare worker	1.4	1.7	1.6	1.5
Other	2.7	2.8	3.0	2.8
Did not consult health professional in last 12 months	26.3	25.4	26.8	26.2
Not known	0.1	—	0.1	0.1

(a) Excludes data for which a 'not applicable' response was provided.

(b) As multiple health professionals may have been seen in the last 12 months for some respondents, the columns will not total 100%.

(c) ABS ASGC remoteness categorisation is according to the location of the survey respondents' household.

Source: 2007–08 NHS.

A further difference in the pattern of interaction with the health system is the degree to which people either have private health insurance or hold a government health concession card (such as health care, pensioner concession, Commonwealth senior's health cards or a concession card provided by the DVA). Tables 8.3 and 8.4 show that, while the percentage of people with private health insurance is lower with each remoteness category, the percentage of people with a government-provided health concession card is higher. The level of private health insurance for those in *Major cities* was 57%, while for those in the *Inner regional* and *Other* areas it was 48% and 41% respectively. For the prevalence of government concessional cards, the equivalent figures were 30% and 44% for *Major cities* and *Other* areas respectively. However, it is important to note that a sizeable number of respondents did not know if they had a government concessional health card, so the results need to be treated with caution.

Table 8.3: Self-reported^(a) private health insurance membership by remoteness, 2007–08 (percent)

Measure	ASGC remoteness ^(b)			Australia
	Major cities	Inner regional	Other	
With private health insurance	56.6	47.5	40.9	52.6
Without private health insurance	43.0	52.1	58.8	46.9
Not known	0.5	0.5	0.3	0.4
Total	100.0	100.0	100.0	100.0

(a) Excludes data for which a 'not applicable' response was provided.

(b) ABS ASGC remoteness categorisation is according to the location of the survey respondents' household.

Source: 2007–08 NHS.

Table 8.4: Self-reported^(a) government concessional health card status by remoteness, 2007–08 (percent)

Measure	ASGC remoteness ^(b)			Australia
	Major cities	Inner regional	Other	
Has a government health concession card (incl. DVA)	30.4	44.6	43.9	35.2
Does not have a government health concession card	60.0	47.5	49.6	56.0
Not known	9.6	7.9	6.5	8.8
Total	100.0	100.0	100.0	100.0

(a) Excludes data for which a 'not applicable' response was provided.

(b) ABS ASGC remoteness categorisation is according to the location of the survey respondents' household.

Source: 2007–08 NHS.

Appendix A: Calculations

Section 2.3 briefly describes the use of per person rates and age-standardisation. These tools are used to remove the effects of differences in populations over time and between the ASGC regional classifications, to highlight the differences caused by non-population factors.

A.1 Analytical steps

The general approach used in this report was to calculate and present the following data:

- total expenditure (or separations or other measure) for each regional area
- expenditure per person
- constant prices expenditure per person (adjusting amounts to 2006–07 price levels)
- constant price standardised expenditure per person
- an index of age-standardised per person expenditure, expressed as a multiple of the comparable *Major cities* amount.

Not all of these steps were required in all tables. For example, in the tables that present 2006–07 data only, additional ‘constant price’ calculations were not required.

A.2 Age-standardisation

Age-standardisation is a technique used to reduce the effect of differences in population age structures when comparing rates for different periods of time, and/or different geographic areas and/or different population groups. There are two methods of age-standardisation: direct and indirect. For this report, the indirect method of standardisation has been used because age-specific rates (of expenditure, separations and so on), needed for direct standardisation, were not available for some of the data. Indirect age-standardised results are useful for comparison with other age structures (for other regions and periods) but the results do not represent actual expenditure amounts.

An example of indirect age-standardisation is given below.

Indirect age-standardisation example

Admitted patients expenditure, Major Cities (MC), 2001–02						
1.	2.	3.	4.	5.	6.	7.
	2001–02, MC		Population 2001–02	2006–07, Australian standardised		
	Expenditure			Expenditure		
	(\$ million)	Per capita (\$)		Per capita (\$)	(\$ million)	Per capita (\$)
Age group						
0–4			851,997	972.67	828.7	
5–9			877,513	231.17	202.9	
10–14			878,700	240.40	211.2	
15–19			924,019	456.36	421.7	
20–24			973,820	605.23	589.4	
25–29			1,023,420	787.94	806.4	
30–34			1,064,098	892.10	949.3	
35–39			1,031,245	811.88	837.2	
40–44			1,013,123	727.75	737.3	
45–49			925,411	808.21	747.9	
50–54			879,986	983.41	865.4	
55–59			697,290	1,276.62	890.2	
60–64			542,200	1,721.06	933.2	
65–69			449,501	2,367.88	1,064.4	
70–74			420,250	3,126.20	1,313.8	
75–79			354,512	4,191.91	1,486.1	
80–84			232,202	5,218.02	1,211.6	
85+			185,430	6,360.06	1,179.3	
All	10,563.9	792.81	13,324,714		15,276.0	1,146.44

= shown in published table

Figure A1: Indirect age-standardisation example

Figure A1: Indirect age-standardisation example

Standardisation is a multistep calculation and the steps involved roughly equate with the columns in the examples (Figures A1 and A2). The circled numbers are represented in Table 3.33. The columns in Figure A1 are:

1. Arbitrarily chosen age groups, constrained by those available for the data required.
2. Total expenditure for admitted patients for the regional area (MC) (\$10,563.9 million).
3. The per person expenditure for the age groups in column 1 (\$792.81 = \$10,563.9 million ÷ 13,324,714 from Column 4).
4. Age-specific populations from 2001–02 for Major cities. The values used are the average of the 30 June 2001 and 30 June 2002 values, giving an average estimate of the population in the 2001–02 financial year.
5. Per person admitted patient expenditure by age group for all of Australia in 2006–07. This data is used in the following step.
6. This column provides the expenditure that the region would have had, if its per person expenditure pattern were equal to the national average. For example, the figure for the 0–4 age group of \$828.7 million is calculated by multiplying column 5 (\$972.67 per person) by column 4 (851,997 people).

7. The crude standardised expenditure rate per person. The value of \$1,146.44 for residents of Major cities was calculated in the example by dividing the column 6 total (\$15,276 million) by the population of the regional area in question (13.3 million, the column 4 total)

The result of \$792.81 (column 3) represents the expenditure that would have arisen in 2001–02 for *Major cities*, if it had experienced the 2006–07 expenditure, with its own age structure. The additional steps required for indirect age-standardisation require no age specific data, so Figure A2 shows regions instead.

Admitted patients per capita expenditure, 2001–02 (\$ per capita)				
	3.	7.	8.	9.
Region	Actual	Standardised	Constant Price	Adjusted
MC	792.81	1,146.44	954.16	957.83
Australia		1,150.85		

 = shown in published table

Figure A2: Excel workbook snapshot, indirect age-standardisation example

Columns 3 and 7 are directly related to Columns 3 and 7 of Figure A1.

1. \$954.16 is the 'constant price' expenditure – \$792.81 from Column 3 adjusted for health-specific inflation from 'current prices' to '2006–07 prices'.
2. The final calculation is for the age-standardised expenditure amount for the region. The per person expenditure amount of \$957.83 is calculated by adjusting the constant price expenditure amount (column 8) by a factor to adjust for the difference in the region's population structure compared to the national average (Column 8 × 1,150.85 ÷ 1,146.44 from Column 7). Note that these are standardised based on the 2001–02 population distribution. This figure reflects what the expenditure level would have been if the region had the 'standard' demographic profile with its existing expenditure profile. This figure can then be compared against the figures for the other regions as they are all based upon the same demographic profile.

Appendix B: Additional information on medical services

This appendix includes additional analysis on the medical service expenditure and usage levels. While earlier chapters provided information upon certain expenditure breakdowns, such as in-hospital expenditure, this chapter provides the total expenditure (both in and out of hospital) of the various medical services analysed in the report. In or out-of-hospital expenditure breakdowns are provided for the services for which such information was not provided earlier in the report (see Table 2.6 on page 34).

1. GP expenditure

Total GP expenditure

Total Medicare expenditure on GP-type services totalled \$3,971 million in 2006–07. This was composed of \$3,578 million in government expenditure and \$393 million in out-of-pocket expenses. Overall, the per person expenditure on GP consultations was lower with remoteness, with expenditure on fees of \$201 for residents of *Major cities* compared to \$104 for those living in *Very remote* areas. After age-standardisation, only the per person expenditure levels for residents of *Major cities* (\$202) were above the national average of \$190. Per person expenditure levels for *Very remote* residents were 57% of the equivalent *Major cities* expenditure (Table B1).

Table B1: Medicare, GP expenditure, in and out-of-hospital, by remoteness, 2006–07

Amount	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Benefits paid	2,608.1	631.1	281.8	40.0	15.7	3,577.8
Out-of-pocket amount	259.6	87.4	39.3	4.7	1.5	392.8
<i>Fees charged</i>	<i>2,867.7</i>	<i>718.5</i>	<i>321.1</i>	<i>44.6</i>	<i>17.3</i>	<i>3,970.6</i>
Expenditure per person (\$)						
Benefits paid	182.40	153.15	142.31	126.35	94.58	171.33
Out-of-pocket amount	18.16	21.21	19.83	14.83	9.18	18.81
<i>Fees charged</i>	<i>200.56</i>	<i>174.36</i>	<i>162.14</i>	<i>141.18</i>	<i>103.76</i>	<i>190.14</i>
Expenditure per person, age-standardised ^(c) (\$)						
Benefits paid	183.63	149.03	141.14	133.10	106.29	171.33
Out-of-pocket amount	18.17	21.14	19.73	14.99	9.71	18.81
<i>Fees charged</i>	<i>201.79</i>	<i>170.07</i>	<i>160.85</i>	<i>148.10</i>	<i>115.89</i>	<i>190.14</i>
Expenditure per person indexed ^(d)						
Benefits paid	1.00	0.81	0.77	0.72	0.58	0.93
Out-of-pocket amount	1.00	1.16	1.09	0.82	0.53	1.03
<i>Fees charged</i>	<i>1.00</i>	<i>0.84</i>	<i>0.80</i>	<i>0.73</i>	<i>0.57</i>	<i>0.94</i>

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The lower level of per person expenditure in remote areas was due to the lower number of GP consultations in these areas. The number of visits per 1,000 population for residents of *Major cities* was 4,842 per year on average, compared to 2,378 for those living in *Very remote* areas – this means that residents of *Major cities* visited a GP more than twice as often as residents of *Very remote* areas. The age-standardised results, which adjust for differences in the age profiles of the areas, were only slightly closer, with 4,875 GP services per 1,000 residents per year for *Major cities* residents compared with 2,650 for *Very remote* residents, showing that, even when demographic differences were taken into account, there were still lower levels of GP consultations in more remote locations. *Inner regional*, *Outer regional* and *Remote* residents also had GP service rates below the national average (Table B2).

Table B2: Medicare, GP services, in and out-of-hospital, by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Services (millions)	69.2	17.1	7.7	1.0	0.4	95.6
Services per 1,000	4,841.5	4,159.6	3,899.0	3,316.4	2,377.6	4,576.2
Services per 1,000 age-standardised ^(b)	4,875.3	4,049.1	3,862.8	3,478.8	2,649.8	4,576.2
Services per person indexed ^(c)	1.00	0.83	0.79	0.71	0.54	0.94

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The benefits paid, age-standardised, as a proportion of fees charged were higher for residents of *Very remote* areas (91.3%) than for *Major cities* inhabitants (91.0%) and were lowest in the *Inner* and *Outer regional* areas (88%). While these differences do not appear immediately relevant, it means that *Inner* and *Outer regional* residents pay a relatively higher amount of their GP costs through out-of-pocket fees (12%) than do residents of *Very remote* areas (9%) (Table B3).

The fee charged per GP service was generally higher with remoteness, being \$41 for *Major cities* and \$44 for *Very remote* area residents. After age-standardisation, there was no clear trend between the ASGC categories.

Table B3: Medicare benefits paid as a proportion of fees charged per GP service by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Benefits paid as a proportion of fees charged (%)	90.9	87.8	87.8	89.5	91.2	90.1
Age-standardised ^(b)	91.0	87.7	87.7	89.6	91.3	90.1
Out-of-pocket amounts paid as a proportion of fees charged (%)	9.1	12.2	12.2	10.5	8.8	9.9
Age-standardised ^(b)	9.0	12.4	12.3	10.4	8.8	9.9
Fee charged per service (\$)	41.42	41.92	41.58	42.57	43.64	41.55
Age-standardised ^(b)	41.38	42.01	41.66	42.62	43.84	41.55

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

Source: AIHW health expenditure database.

GP in-hospital expenditure

The level of expenditure on GP services in hospitals (\$25 million) is far less than that for out-of-hospital services (Table B4).

Expenditure on in-hospital GP-type consultations in 2006–07 was highest for residents of *Outer regional* and *Remote* areas. Expenditure per person for in-hospital GP visits was \$2.64 and \$2.49 for *Outer regional* and *Remote* area residents respectively, compared to \$0.68 and \$0.91 for *Major cities* and *Very remote* residents. After age-standardisation, expenditure levels for *Remote* residents were the highest at \$3.25 per person on average.

Table B4: Medicare, GP expenditure – in-hospital by remoteness, 2006–07

Amount	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Benefits paid	6.2	6.0	3.6	0.5	0.1	16.3
Out-of-pocket amount	3.5	3.0	1.7	0.3	0.1	8.5
<i>Fees charged</i>	9.7	8.9	5.2	0.8	0.2	24.8
Expenditure per person (\$)						
Benefits paid	0.43	1.45	1.80	1.70	0.59	0.78
Out-of-pocket amount	0.24	0.72	0.85	0.79	0.32	0.41
<i>Fees charged</i>	0.68	2.17	2.64	2.49	0.91	1.19
Expenditure per person, age-standardised ^(c) (\$)						
Benefits paid	0.44	1.32	1.80	2.23	1.03	0.78
Out-of-pocket amount	0.25	0.66	0.85	1.03	0.54	0.41
<i>Fees charged</i>	0.69	1.98	2.65	3.25	1.58	1.19
Expenditure per person indexed ^(d)						
Benefits paid	1.00	3.01	4.11	5.09	2.36	1.78
Out-of-pocket amount	1.00	2.65	3.40	4.12	2.18	1.63
<i>Fees charged</i>	1.00	2.88	3.85	4.73	2.29	1.73

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The higher level of per person expenditure for *Inner regional*, *Outer regional*, and *Remote* area residents is largely due to a higher number of in-hospital GP consultations. After age-standardisation, there were 5.2 in-hospital GP services for residents of *Remote* areas and 4.3 for *Outer regional* residents for every consultation for residents of *Major cities* (Table B5).

Table B5: Medicare, GP services – in-hospital by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Services (millions)	0.2	0.2	0.1	—	—	0.4
Services per 1,000	10.5	37.6	46.3	42.1	14.4	19.8
Services per 1,000 age-standardised ^(b)	10.7	34.2	46.5	56.0	25.8	19.8
Services per person indexed ^(c)	1.00	3.20	4.34	5.23	2.41	1.85

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The benefits paid by the government as a proportion of fees charged, age-standardised, were highest for *Remote* (68.2%) and *Outer regional* (67.9%) residents. The level of fees charge per service was highest for *Major cities* (\$64) and lowest for *Inner* and *Outer regional* residents (\$57). Once age-standardised, both the rates of fees charges and the proportion of the fees paid by the government for all ASGC areas were generally comparable (Table B6).

Table B6: Medicare benefits paid as a proportion of fees charged per in-hospital GP service by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Benefits paid as a proportion of fees charged (%)	63.7	66.6	68.0	68.2	64.9	65.8
Age-standardised ^(b)	63.8	66.5	67.9	68.2	65.1	65.8
Out-of-pocket amounts paid as a proportion of fees charged (%)	36.3	33.4	32.0	31.8	35.1	34.2
Age-standardised ^(b)	36.2	33.4	32.1	31.8	34.9	34.2
Fees charged per service (\$)	64.19	57.67	57.10	59.10	63.16	60.02
Age-standardised ^(b)	64.11	57.91	57.20	58.85	62.61	60.02

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

Source: AIHW health expenditure database.

2. GP and other primary care expenditure

GP and other primary care includes the services of GPs and those provided by enhanced primary care, practice nurses and other medical practitioners.

Expenditure on combined GP and other primary care services totalled \$4,487 million in 2006–07. Per person expenditure, age-standardised, was lower with remoteness, being \$228 for residents of *Major cities* and \$137 for those living in *Very remote* areas. For every \$1.00 spent on these primary care services in *Major cities*, \$0.60 was spent by residents of *Very remote* areas (Table B7).

Table B7: Medicare, GP and other primary care expenditure, in and out-of-hospital, by remoteness, 2006–07

Amount	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Benefits paid	2,950.8	725.3	319.5	44.9	18.5	4,060.3
Out-of-pocket amount	286.2	92.4	41.1	4.9	1.6	426.4
<i>Fees charged</i>	<i>3,237.0</i>	<i>817.7</i>	<i>360.6</i>	<i>49.8</i>	<i>20.1</i>	<i>4,486.7</i>
Expenditure per person (\$)						
Benefits paid	206.37	176.00	161.35	142.09	111.36	194.43
Out-of-pocket amount	20.01	22.43	20.73	15.44	9.67	20.42
<i>Fees charged</i>	<i>226.38</i>	<i>198.42</i>	<i>182.08</i>	<i>157.53</i>	<i>121.03</i>	<i>214.85</i>
Expenditure per person, age-standardised ^(c) (\$)						
Benefits paid	207.83	170.90	160.06	150.65	126.76	194.43
Out-of-pocket amount	20.03	22.35	20.63	15.62	10.24	20.42
<i>Fees charged</i>	<i>227.85</i>	<i>193.15</i>	<i>180.68</i>	<i>166.26</i>	<i>136.79</i>	<i>214.85</i>
Expenditure per person indexed ^(d)						
Benefits paid	1.00	0.82	0.77	0.72	0.61	0.94
Out-of-pocket amount	1.00	1.12	1.03	0.78	0.51	1.02
<i>Fees charged</i>	<i>1.00</i>	<i>0.85</i>	<i>0.79</i>	<i>0.73</i>	<i>0.60</i>	<i>0.94</i>

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The lower level of per person expenditure is also reflected in the lower number of services provided to remote area residents. The number of primary care services provided to residents of *Major cities* was 5,383 per 1,000 population compared to 2,743 for residents of *Very remote* areas. This means that *Very remote* area residents received GP and primary care services at just over half the rate compared to *Major cities* residents in 2006–07 (Table B8).

Table B8: Medicare, GP and other primary care services, in and out-of-hospital, by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Services (millions)	77.0	19.4	8.7	1.2	0.5	106.7
Services per 1,000	5383.0	4709.0	4391.3	3657.3	2742.9	5110.3
Services per 1,000 age-standardised ^(b)	5421.8	4579.4	4350.1	3844.3	3068.3	5110.3
Services per person indexed ^(c)	1.00	0.84	0.80	0.71	0.57	0.94

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The benefits paid as a proportion of fees charged were similar across the remoteness categories. Age-standardised fee levels per service was lowest for *Outer regional* residents (\$42) and highest for *Very remote* area residents (\$45) (Table B9).

Table B9: Medicare benefits paid as a proportion of fees charged per GP and other primary care services by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Benefits paid as a proportion of fees charged (%)	91.2	88.7	88.6	90.2	92.0	90.5
Age-standardised ^(b)	91.2	88.5	88.5	90.3	92.2	90.5
Out-of-pocket amounts paid as a proportion of fees charged (%)	8.8	11.3	11.4	9.8	8.0	9.5
Age-standardised ^(b)	8.8	11.5	11.5	9.7	7.9	9.5
Fee charged per service (\$)	42.05	42.14	41.46	43.07	44.13	42.04
Age-standardised ^(b)	42.01	42.21	41.54	43.23	44.55	42.04

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

Source: AIHW health expenditure database.

3. Pathology expenditure

Pathology expenditure totalled \$1,890 million in 2006–07, with expenditure levels per person lower for the remoter areas. Expenditure per person was \$94 in the *Major cities* compared to \$56 in *Very remote* regions. After age-standardisation, per person expenditure levels were highest in *Major cities* (\$95) and lowest for *Very remote* residents, with an average expenditure of \$69 per person (Table B10).

Table B10: Medicare, pathology expenditure, in and out-of-hospital, by remoteness, 2006–07

Amount	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Benefits paid	1,243.3	333.7	145.2	19.4	9.0	1,751.3
Out-of-pocket amount	103.5	24.6	9.5	1.0	0.3	139.0
<i>Fees charged</i>	<i>1,346.9</i>	<i>358.3</i>	<i>154.7</i>	<i>20.4</i>	<i>9.4</i>	<i>1,890.4</i>
Expenditure per person (\$)						
Benefits paid	86.95	80.96	73.35	61.39	54.32	83.86
Out-of-pocket amount	7.24	5.97	4.78	3.18	2.05	6.66
<i>Fees charged</i>	<i>94.19</i>	<i>86.94</i>	<i>78.13</i>	<i>64.56</i>	<i>56.38</i>	<i>90.52</i>
Expenditure per person, age-standardised ^(c) (\$)						
Benefits paid	87.71	78.06	72.48	66.49	66.18	83.86
Out-of-pocket amount	7.35	5.67	4.67	3.48	2.61	6.66
<i>Fees charged</i>	<i>95.05</i>	<i>83.72</i>	<i>77.14</i>	<i>69.98</i>	<i>68.89</i>	<i>90.52</i>
Expenditure per person indexed ^(d)						
Benefits paid	1.00	0.89	0.83	0.76	0.75	0.96
Out-of-pocket amount	1.00	0.77	0.64	0.47	0.36	0.91
<i>Fees charged</i>	<i>1.00</i>	<i>0.88</i>	<i>0.81</i>	<i>0.74</i>	<i>0.72</i>	<i>0.95</i>

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The number of pathology services provided was also lower with remoteness. The lowest per person service rates for pathology in 2006–07 were for residents of *Remote* areas, at 3,319 per 1,000 population, 75% of the rate for *Major cities* residents (4,424) (Table B11).

Table B11: Medicare, pathology services, in and out-of-hospital, by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Services (millions)	62.59	16.87	7.31	0.96	0.45	88.21
Services per 1,000	4377.3	4093.6	3693.8	3030.8	2690.0	4224.1
Services per 1,000 age-standardised ^(b)	4424.0	3919.5	3641.6	3318.9	3353.6	4224.1
Services per person indexed ^(c)	1.00	0.89	0.82	0.75	0.76	0.95

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

As with both the out-of-hospital and the in-hospital pathology expenditure figures, the total pathology fees charged per service was relatively similar across the remoteness classifications. *Major cities* residents paid the highest percentage of out-of-pocket fees, constituting 7.7% of the total Medicare fee, compared with the national average of 7.4% (Table B12).

Table B12: Medicare benefits paid as a proportion of fees charged per pathology service by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Benefits paid as a proportion of fees charged (%)	92.3	93.1	93.9	95.1	96.4	92.6
Age-standardised ^(b)	92.3	93.2	94.0	95.1	96.2	92.6
Out-of-pocket amounts paid as a proportion of fees charged (%)	7.7	6.9	6.1	4.9	3.6	7.4
Age-standardised ^(b)	7.7	6.8	6.1	4.9	3.7	7.4
Fees charged per service (\$)	21.52	21.24	21.15	21.30	20.96	21.43
Age-standardised ^(b)	21.49	21.33	21.19	21.19	20.76	21.43

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

Source: AIHW health expenditure database.

4. Imaging expenditure

Expenditure on imaging services in Australia in 2006–07 totalled \$2,077 million. This amount comprised \$1,714 million (83%) in government-funded benefits and \$363 million in out-of-pocket fees (17%) (Table B13).

Expenditure per person averaged \$99 and was lower with each remoteness category, from \$104 per person in *Major cities* to \$39 in *Very remote* locations.

Age-standardised, for every \$1.00 spent in per person in 2006–07 on imaging services on residents of *Major cities*, \$0.62 and \$0.45 was spent on residents of *Remote* and *Very remote* areas respectively.

Table B13: Medicare, imaging expenditure, in and out-of-hospital, by remoteness, 2006–07

Amount	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Benefits paid	1,228.3	328.8	135.7	15.3	5.3	1,714.0
Out-of-pocket amount	254.6	73.3	30.0	3.8	1.1	363.0
<i>Fees charged</i>	<i>1,482.9</i>	<i>402.1</i>	<i>165.7</i>	<i>19.1</i>	<i>6.4</i>	<i>2,076.9</i>
Expenditure per person (\$)						
Benefits paid	85.91	79.78	68.52	48.36	31.81	82.08
Out-of-pocket amount	17.80	17.79	15.13	12.11	6.69	17.38
<i>Fees charged</i>	<i>103.71</i>	<i>97.57</i>	<i>83.65</i>	<i>60.48</i>	<i>38.50</i>	<i>99.46</i>
Expenditure per person, age-standardised ^(c) (\$)						
Benefits paid	87.26	75.66	66.70	52.36	39.52	82.08
Out-of-pocket amount	17.92	17.37	14.90	12.61	7.68	17.38
<i>Fees charged</i>	<i>105.18</i>	<i>93.00</i>	<i>81.59</i>	<i>65.02</i>	<i>47.15</i>	<i>99.46</i>
Expenditure per person indexed ^(d)						
Benefits paid	1.00	0.87	0.76	0.60	0.45	0.94
Out-of-pocket amount	1.00	0.97	0.83	0.70	0.43	0.97
<i>Fees charged</i>	<i>1.00</i>	<i>0.88</i>	<i>0.78</i>	<i>0.62</i>	<i>0.45</i>	<i>0.95</i>

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

Over 15 million imaging services were provided in 2006–07 – an average of 750 services per 1,000 population. The number of services, adjusted for the age profiles of the ASGC areas, was lower with remoteness, similar to the relative expenditure rates. On average, for every service provided to residents of *Major cities*, 0.64 and 0.47 of a service was provided to residents of *Remote* and *Very remote* areas respectively (Table B14).

Table B14: Medicare, imaging services, in and out-of-hospital, by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Services (millions)	11.2	3.0	1.3	0.2	0.1	15.7
Services per 1,000	782.0	725.1	648.1	476.5	314.7	750.0
Services per 1,000 age-standardised ^(b)	790.6	697.3	636.4	507.9	372.2	750.0
Services per person indexed ^(c)	1.00	0.88	0.80	0.64	0.47	0.95

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The benefits paid by the government as a proportion of the total fees charged was lowest for residents of *Remote* regions, with these residents paying on average 20% of their imaging costs through out-of-pocket fees. However the results did not show a clear trend with remoteness (Table B15).

The fees charged per service for *Very remote* area residents was \$10.30 below the fees for *Major cities* residents (\$122 compared to \$133). After age-standardisation, residents of *Remote* and *Very remote* areas still received lower levels of fees than the national average (\$129 and \$128 compared with \$133).

Table B15: Medicare benefits paid as a proportion of fees charged per imaging service by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Benefits paid as a proportion of fees charged (%)	82.8	81.8	81.9	80.0	82.6	82.5
Age-standardised ^(b)	83.0	81.4	81.7	80.2	83.1	82.5
Out-of-pocket amounts paid as a proportion of fees charged (%)	17.2	18.2	18.1	20.0	17.4	17.5
Age-standardised ^(b)	17.1	18.6	18.3	19.8	17.0	17.5
Fees per service (\$)	132.62	134.55	129.07	126.91	122.32	132.61
Age-standardised ^(b)	132.77	133.85	128.67	128.60	127.87	132.61

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

Source: AIHW health expenditure database.

5. Specialist expenditure

Expenditure on specialist consultations in 2006–07 totalled \$1,916 million. Per person expenditure for specialist consultations, age-standardised, was lower with remoteness, being \$105 for residents of *Major cities* and \$28 for those living in *Very remote* areas. For every \$1.00

spent on specialist consultations on residents of *Major cities*, \$0.27 was spent on residents of *Very remote* areas (Table B16).

Table B16: Medicare, specialist expenditure, in and out-of-hospital, by remoteness, 2006–07

Amount	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Benefits paid	1,022.1	213.0	76.2	7.6	2.8	1,322.2
Out-of-pocket amount	457.0	97.5	34.6	3.6	1.1	594.0
<i>Fees charged</i>	<i>1,479.1</i>	<i>310.5</i>	<i>110.7</i>	<i>11.2</i>	<i>3.9</i>	<i>1,916.2</i>
Expenditure per person (\$)						
Benefits paid	71.48	51.68	38.46	24.10	17.09	63.31
Out-of-pocket amount	31.96	23.66	17.46	11.24	6.34	28.44
<i>Fees charged</i>	<i>103.44</i>	<i>75.33</i>	<i>55.93</i>	<i>35.34</i>	<i>23.43</i>	<i>91.76</i>
Expenditure per person, age-standardised ^(c) (\$)						
Benefits paid	72.48	49.29	37.59	25.80	20.42	63.31
Out-of-pocket amount	32.37	22.64	17.09	11.99	7.54	28.44
<i>Fees charged</i>	<i>104.85</i>	<i>71.93</i>	<i>54.68</i>	<i>37.79</i>	<i>27.95</i>	<i>91.76</i>
Expenditure per person indexed ^(d)						
Benefits paid	1.00	0.68	0.52	0.36	0.28	0.87
Out-of-pocket amount	1.00	0.70	0.53	0.37	0.23	0.88
<i>Fees charged</i>	<i>1.00</i>	<i>0.69</i>	<i>0.52</i>	<i>0.36</i>	<i>0.27</i>	<i>0.88</i>

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The lower level of per person expenditure in remote areas is reflected in the lower number of specialist consultations. The number of specialist visits per person for residents of *Major cities* in 2006–07 was 1,143 per 1,000 population compared to 287 for those living in *Very remote* areas. This means that residents of *Major cities*, on average, visited a specialist at almost four times the rate of residents of *Very remote* areas. After age-standardisation, visits to specialists by residents of *Major cities* were still three times higher than for residents of *Very remote* areas (Table B17).

Table B17: Medicare, specialist services, in and out-of-hospital, by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Services (millions)	16.3	3.8	1.4	0.1	—	21.7
Services per 1,000	1143.4	910.3	697.2	428.1	286.9	1037.8
Services per 1,000 age-standardised ^(b)	1162.2	860.7	679.6	465.9	355.2	1037.8
Services per person indexed ^(c)	1.00	0.74	0.58	0.40	0.31	0.89

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The benefits paid as a proportion of fees charged were highest for residents of *Very remote* areas (73%) and were lowest in the *Remote* areas (68%). This means that those from *Very remote* areas paid the lowest percentage of out-of-pocket fees while those from *Remote* areas paid the highest. Residents from *Inner* and *Outer regional* areas had similar percentages of their fees covered by Medicare at 68.5% and 68.7% respectively (Table B18).

The level of fees charged per service, age-standardised, was highest in *Major cities* (\$90), with fee levels for all other areas being below the national average (\$88). The lowest level of fees charges per service was \$80 for residents of *Very remote* areas.

Table B18: Medicare benefits paid as a proportion of fees charged per specialist service by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Benefits paid as a proportion of fees charged (%)	69.1	68.6	68.8	68.2	72.9	69.0
Age-standardised ^(b)	69.1	68.5	68.7	68.1	72.9	69.0
Out-of-pocket amounts paid as a proportion of fees charged (%)	30.9	31.4	31.2	31.8	27.1	31.0
Age-standardised ^(b)	30.9	31.5	31.3	31.9	27.1	31.0
Fees charged per service (\$)	90.47	82.75	80.22	82.55	81.65	88.41
Age-standardised ^(b)	90.25	83.41	80.54	81.93	80.28	88.41

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

Source: AIHW health expenditure database.

6. Dental expenditure

Total dental expenditure

Total expenditure on Medicare dental services in 2006–07 was \$20 million. Of this, \$9 million (45%) was due to out-of-pocket fees paid by individuals, with the remainder (\$11 million or 55%) related to benefits paid by the government through Medicare (Table B19).

Expenditure per person, age-standardised, was lower with remoteness. For every \$1.00 spent on residents of *Major cities*, \$0.24 was spent on residents of *Very remote* locations.

Table B19: Medicare, dental expenditure, in and out-of-hospital, by remoteness, 2006–07

Amount	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Benefits paid	7.9	2.1	0.8	0.1	—	10.8
Out-of-pocket amount	6.6	1.3	0.6	0.1	—	8.7
<i>Fees charged</i>	<i>14.5</i>	<i>3.4</i>	<i>1.4</i>	<i>0.1</i>	—	<i>19.5</i>
Expenditure per person (\$)						
Benefits paid	0.55	0.51	0.39	0.23	0.14	0.52
Out-of-pocket amount	0.46	0.32	0.33	0.20	0.10	0.42
<i>Fees charged</i>	<i>1.02</i>	<i>0.83</i>	<i>0.71</i>	<i>0.43</i>	<i>0.24</i>	<i>0.93</i>
Expenditure per person, age-standardised ^(c) (\$)						
Benefits paid	0.55	0.50	0.39	0.24	0.15	0.52
Out-of-pocket amount	0.46	0.33	0.33	0.21	0.10	0.42
<i>Fees charged</i>	<i>1.01</i>	<i>0.83</i>	<i>0.72</i>	<i>0.45</i>	<i>0.25</i>	<i>0.93</i>
Expenditure per person indexed ^(d)						
Benefits paid	1.00	0.90	0.71	0.44	0.27	0.94
Out-of-pocket amount	1.00	0.71	0.72	0.46	0.22	0.90
<i>Fees charged</i>	<i>1.00</i>	<i>0.82</i>	<i>0.72</i>	<i>0.45</i>	<i>0.24</i>	<i>0.92</i>

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

Approximately 100,000 dental services were carried out under Medicare in 2006–07. Residents of *Inner regional* areas experienced service rates similar to the national average while more remote areas had much lower rates. For every service provided to residents of *Major cities*, 0.26 were provided for residents of *Very remote* areas (Table B20).

Table B20: Medicare, dental services, in and out-of-hospital, by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Services (millions)	0.1	—	—	—	—	0.1
Services per 1,000	4.5	4.5	3.1	1.7	1.1	4.3
Services per 1,000 age-standardised ^(b)	4.6	4.4	3.1	1.8	1.2	4.3
Services per person indexed ^(c)	1.00	0.96	0.67	0.39	0.26	0.95

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

In 2006–07, the average Medicare dental service cost \$217 with over 55% of this cost being met by government expenditure. The level of fees charged per service, age-standardised, was lowest for *Inner regional* residents (\$188) and highest for residents of *Remote* areas (\$254) (Table B21).

Table B21: Medicare benefits paid as a proportion of fees charged per dental service by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Benefits paid as a proportion of fees charged (%)	54.3	61.0	54.4	53.5	58.7	55.5
Age-standardised ^(b)	54.5	60.4	53.9	53.1	58.1	55.5
Out-of-pocket amounts paid as a proportion of fees charged (%)	45.7	39.0	45.6	46.5	41.3	44.5
Age-standardised ^(b)	45.4	39.6	46.2	47.0	41.9	44.5
Fees charged per service per service (\$)	223.59	185.41	232.74	251.58	219.87	216.57
Age-standardised ^(b)	222.04	188.38	236.65	253.91	219.23	216.57

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

Source: AIHW health expenditure database.

Dental out-of-hospital expenditure

Total expenditure on Medicare-related out-of-hospital dental services in 2006–07 was \$8.8 million. Over a quarter (26% or \$2.3 million) of this expenditure was paid for by individuals' out-of-pocket fees (Table B22).

Out-of-hospital dental expenditure per person expenditure (age-standardised) was lowest in *Very remote* areas. For every \$1.00 spent in 2006–07 on Medicare-covered dental services for residents of *Major cities*, \$0.36 and \$0.24 was spent for residents of *Remote* and *Very remote* areas respectively.

Table B22: Medicare, dental expenditure – out-of-hospital by remoteness, 2006–07

Amount	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Benefits paid	4.6	1.3	0.5	—	—	6.5
Out-of-pocket amount	1.7	0.4	0.1	—	—	2.3
<i>Fees charged</i>	6.4	1.8	0.6	—	—	8.8
Expenditure per person (\$)						
Benefits paid	0.32	0.33	0.23	0.12	0.08	0.31
Out-of-pocket amount	0.12	0.10	0.07	0.04	0.02	0.11
<i>Fees charged</i>	0.45	0.43	0.30	0.15	0.10	0.42
Expenditure per person, age-standardised ^(c) (\$)						
Benefits paid	0.33	0.32	0.23	0.12	0.08	0.31
Out-of-pocket amount	0.12	0.10	0.07	0.04	0.03	0.11
<i>Fees charged</i>	0.45	0.42	0.30	0.16	0.11	0.42
Expenditure per person indexed ^(d)						
Benefits paid	1.00	0.97	0.69	0.37	0.25	0.95
Out-of-pocket amount	1.00	0.83	0.58	0.31	0.22	0.91
<i>Fees charged</i>	1.00	0.93	0.66	0.36	0.24	0.94

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The number of Medicare-covered dental services provided was also lower with remoteness in 2006–07. For every service provided to residents of *Major cities*, 0.34 and 0.24 of a service was provided to residents of *Remote* and *Very remote* areas respectively (Table B23).

Table B23: Medicare, dental services – out-of-hospital by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Services (millions)	0.1	—	—	—	—	0.1
Services per 1,000	3.7	3.7	2.4	1.2	0.8	3.5
Services per 1,000 age-standardised ^(b)	3.7	3.6	2.4	1.3	0.9	3.5
Services per person indexed ^(c)	1.00	0.97	0.64	0.34	0.24	0.95

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Age-standardised services per person expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The proportion of benefits paid to fees charged was lowest for *Major cities* (73%) and highest for *Outer regional* areas (76%). The fees charged per service (age-standardised) was lowest for *Inner regional* areas (\$116) and highest for *Remote* area residents (\$127) (Table B24).

Table B24: Medicare benefits paid as a proportion of fees charged per out-of-hospital dental service by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Benefits paid as a proportion of fees charged (%)	72.8	75.8	76.2	76.1	75.7	73.6
Age-standardised ^(b)	72.8	75.7	76.1	75.9	75.0	73.6
Out-of-pocket amounts paid as a proportion of fees charged (%)	27.2	24.2	23.8	23.9	24.3	26.4
Age-standardised ^(b)	27.2	24.3	23.9	24.1	25.0	26.4
Fees charged per service (\$)	119.83	115.66	124.56	126.64	125.02	119.32
Age-standardised ^(b)	120.23	114.64	123.79	126.87	126.03	119.32

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

Source: AIHW health expenditure database.

Dental in-hospital expenditure

Expenditure on in-hospital dental services in 2006–07 was \$11 million. This was composed of \$4 million in benefits paid through Medicare and \$6 million in fees for individuals (Table B25).

Per person expenditure levels were lower with increasing levels of remoteness. For each \$1.00 spent in 2006–07 on Medicare-covered dental services on residents of *Major cities*, \$0.24 was spent on residents of *Very remote* areas.

Table B25: Medicare, dental expenditure – in-hospital by remoteness, 2006–07

Amount	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Benefits paid	3.2	0.7	0.3	—	—	4.3
Out-of-pocket amount	4.9	0.9	0.5	0.1	—	6.4
<i>Fees charged</i>	<i>8.1</i>	<i>1.6</i>	<i>0.8</i>	<i>0.1</i>	—	<i>10.7</i>
Expenditure per person (\$)						
Benefits paid	0.23	0.18	0.16	0.11	0.06	0.21
Out-of-pocket amount	0.34	0.22	0.25	0.16	0.07	0.30
<i>Fees charged</i>	<i>0.57</i>	<i>0.40</i>	<i>0.41</i>	<i>0.28</i>	<i>0.14</i>	<i>0.51</i>
Expenditure per person, age-standardised ^(c) (\$)						
Benefits paid	0.22	0.18	0.17	0.12	0.06	0.21
Out-of-pocket amount	0.34	0.22	0.26	0.17	0.07	0.30
<i>Fees charged</i>	<i>0.56</i>	<i>0.41</i>	<i>0.43</i>	<i>0.29</i>	<i>0.14</i>	<i>0.51</i>
Expenditure per person indexed ^(d)						
Benefits paid	1.00	0.81	0.74	0.53	0.28	0.93
Out-of-pocket amount	1.00	0.66	0.78	0.51	0.22	0.90
<i>Fees charged</i>	<i>1.00</i>	<i>0.72</i>	<i>0.76</i>	<i>0.52</i>	<i>0.24</i>	<i>0.91</i>

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The number of in-hospital dental services (age-standardised) was lower with remoteness. For every service provided to residents of *Major cities*, 0.34 of a service was provided to residents of *Very remote* areas (Table B26).

Table B26: Medicare, dental services – in-hospital by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Services (millions)	—	—	—	—	—	—
Services per 1,000	0.8	0.7	0.7	0.5	0.3	0.8
Services per 1,000 age-standardised ^(b)	0.8	0.7	0.7	0.5	0.3	0.8
Services per person indexed ^(c)	1.00	0.91	0.82	0.64	0.34	0.95

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The benefit paid by the government as a proportion of the total Medicare fee charged, after age-standardisation, was highest for residents of *Very remote* areas (46%) and lowest for residents of *Outer regional* areas (39%).

Fees charged per service, age-standardised, was highest in the *Major cities* and lowest in the *Very remote* areas, \$687 and \$505 respectively (Table B27).

Table B27: Medicare benefits paid as a proportion of fees charged per in-hospital dental service by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Benefits paid as a proportion of fees charged (%)	39.8	45.0	38.7	40.9	46.0	40.6
Age-standardised ^(b)	39.9	44.8	38.5	40.8	46.0	40.6
Out-of-pocket amounts paid as a proportion of fees charged (%)	60.2	55.0	61.3	59.1	54.0	59.4
Age-standardised ^(b)	60.1	55.2	61.5	59.2	54.0	59.4
Fee charged per service (\$)	695.93	533.69	625.42	553.54	509.26	657.75
Age-standardised ^(b)	687.41	549.38	643.78	561.42	505.21	657.75

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

Source: AIHW health expenditure database.

7. Obstetrics expenditure

Total obstetrics expenditure

Total expenditure on obstetric care in 2006–07 was \$327 million. More than half of this expenditure (\$186 million) was met by government payments through Medicare (Table B28). Per person expenditure, age-standardised, was highest for residents of *Major cities* (\$17.52) and lowest for residents of *Very remote* areas (\$5.98).

Table B28: Medicare, obstetrics expenditure, in and out-of-hospital, by remoteness, 2006–07

Amount	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Benefits paid	152.7	21.6	10.0	1.5	0.6	186.4
Out-of-pocket amount	112.5	17.5	8.1	1.5	0.5	140.2
<i>Fees charged</i>	265.2	39.0	18.1	2.9	1.1	326.6
Expenditure per person (\$)						
Benefits paid	10.68	5.23	5.04	4.68	3.43	8.93
Out-of-pocket amount	7.87	4.24	4.10	4.61	3.30	6.71
<i>Fees charged</i>	18.55	9.47	9.14	9.29	6.72	15.64
Expenditure per person, age-standardised ^(c) (\$)						
Benefits paid	10.09	6.22	5.64	4.49	3.05	8.93
Out-of-pocket amount	7.43	5.05	4.59	4.41	2.93	6.71
<i>Fees charged</i>	17.52	11.27	10.23	8.90	5.98	15.64
Expenditure per person indexed ^(d)						
Benefits paid	1.00	0.62	0.56	0.44	0.30	0.88
Out-of-pocket amount	1.00	0.68	0.62	0.59	0.39	0.90
<i>Fees charged</i>	1.00	0.64	0.58	0.51	0.34	0.89

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

Almost one and a half million obstetrics services were provided in 2006–07. For every service provided to residents of *Major cities*, 1.31 services were provided to residents of *Outer regional* areas and 0.67 of a service was provided to residents of *Very remote* areas (Table B29).

Table B29: Medicare, obstetrics services, in and out-of-hospital, by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Services (millions)	1.0	0.3	0.2	—	—	1.5
Services per 1,000	71.8	67.0	78.0	69.9	51.1	71.3
Services per 1,000 age-standardised ^(b)	67.6	80.4	88.3	67.7	45.2	71.3
Services per person indexed ^(c)	1.00	1.19	1.31	1.00	0.67	1.05

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

Benefits paid as a proportion of fees charged were highest for *Major cities* residents and lowest for *Very remote* area residents. Age-standardised, these were 58% and 48% respectively (Table B30).

The average fee charged per service was lowest for *Very remote* residents at \$115 compared to \$256 for *Major cities* residents, age-standardised.

Table B30: Medicare benefits paid as a proportion of fees charged per obstetrics service by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Benefits paid as a proportion of fees charged (%)	57.6	55.3	55.2	50.4	51.0	57.1
Age-standardised ^(b)	57.7	55.4	54.8	48.9	48.1	57.1
Out-of-pocket amounts paid as a proportion of fees charged (%)	42.4	44.7	44.8	49.6	49.0	42.9
Age-standardised ^(b)	41.8	47.0	46.0	48.0	46.3	42.9
Fee charged per service (\$)	258.21	141.21	117.16	132.91	131.59	219.29
Age-standardised ^(b)	256.06	146.97	117.73	122.38	114.91	219.29

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

Source: AIHW health expenditure database.

Obstetrics out-of-hospital expenditure

Total expenditure on obstetric out-of-hospital services in 2006–07 was \$207 million, which includes \$140 million of Medicare expenditure. Per person, expenditure on obstetric services was lower with remoteness. For every \$1.00 spent on obstetric consultations for residents of *Major cities*, \$0.27 was spent on residents of *Very remote* areas (age-standardised). Per person expenditure rates for *Outer regional* residents were about half of that for residents of *Major cities* (Table B31).

Table B31: Medicare, obstetrics expenditure – out-of-hospital by remoteness, 2006–07

Amount	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Benefits paid	115.8	15.6	7.0	1.0	0.4	139.9
Out-of-pocket amount	56.0	7.4	3.2	0.5	0.2	67.3
<i>Fees charged</i>	<i>171.8</i>	<i>23.0</i>	<i>10.2</i>	<i>1.5</i>	<i>0.6</i>	<i>207.2</i>
Expenditure per person (\$)						
Benefits paid	8.10	3.79	3.54	3.14	2.30	6.70
Out-of-pocket amount	3.91	1.80	1.63	1.58	1.14	3.22
<i>Fees charged</i>	<i>12.01</i>	<i>5.58</i>	<i>5.17</i>	<i>4.72</i>	<i>3.44</i>	<i>9.92</i>
Expenditure per person, age-standardised ^(c) (\$)						
Benefits paid	7.65	4.50	3.96	3.01	2.05	6.70
Out-of-pocket amount	3.69	2.15	1.83	1.52	1.01	3.22
<i>Fees charged</i>	<i>11.35</i>	<i>6.65</i>	<i>5.79</i>	<i>4.53</i>	<i>3.06</i>	<i>9.92</i>
Expenditure per person indexed ^(d)						
Benefits paid	1.00	0.59	0.52	0.39	0.27	0.88
Out-of-pocket amount	1.00	0.58	0.50	0.41	0.27	0.87
<i>Fees charged</i>	<i>1.00</i>	<i>0.59</i>	<i>0.51</i>	<i>0.40</i>	<i>0.27</i>	<i>0.87</i>

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

There were 1.4 million out-of-hospital obstetric services in Australian in 2006–07. Residents of *Outer regional* areas had the highest level of per person service rates with 82.9 services per 1,000 population (age-standardised). *Inner regional* and *Remote* residents were the next highest users of these services (75.2 and 63.1 services per 1,000 population) while the number of services for *Major cities* and *Very remote* residents were below the Australian average of 65.2 (with 61.1 and 42.4 services per 1,000 population) (Table B32).

Table B32: Medicare, obstetrics services – out-of-hospital by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Services (millions)	0.9	0.3	0.1	—	—	1.4
Services per 1,000	64.9	62.7	73.1	65.0	47.9	65.2
Services per 1,000 age-standardised ^(b)	61.1	75.2	82.9	63.1	42.4	65.2
Services per person indexed ^(c)	1.00	1.23	1.36	1.03	0.69	1.07

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The level of benefits paid as a proportion of fees charged for out-of-hospital obstetric services where similar for *Major cities*, *Inner regional* and *Outer regional* residents, with levels between 67.5% and 68%, age-standardised. The proportions for *Remote* and *Very Remote* residents were both below the Australian average with rates of 64.5% and 63.4% respectively. The average level of fees charged for obstetric services for residents of *Major cities* (\$183) was almost twice that for residents of *Inner regional* areas (\$93) and over three times that for *Very Remote* residents (\$61) (Table B33).

Table B33: Medicare benefits paid as a proportion of fees charged per obstetrics service by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Benefits paid as a proportion of fees charged (%)	67.4	67.8	68.4	66.5	66.9	67.5
Age-standardised ^(b)	67.5	68.0	67.9	64.5	63.4	67.5
Out-of-pocket amounts paid as a proportion of fees charged (%)	32.6	32.2	31.6	33.5	33.1	32.5
Age-standardised ^(b)	31.8	34.6	33.0	32.4	30.7	32.5
Fee charged per service (\$)	185.00	89.07	70.75	72.72	71.94	152.28
Age-standardised ^(b)	183.49	92.94	71.10	66.02	60.51	152.28

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

Source: AIHW health expenditure database.

8. Operations expenditure

Total operations expenditure

For the purpose of this section the term operations refers to Medicare expenditure on operations, assistance at operations and anaesthetic services.

Total expenditure on operations was \$2,560 million in 2006–07 (Table B34). Just under half of this expenditure was covered by patient contributions. Per person expenditure was lower in the more remote areas. After age-standardisation, the per person expenditure was \$130 for residents of *Major cities* and \$63 for *Very remote* area residents.

Table B34: Medicare, operations expenditure, in and out-of-hospital, by remoteness, 2006–07

Amount	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Benefits paid	938.7	266.5	111.0	13.1	4.5	1,334.4
Out-of-pocket amount	890.3	225.3	94.4	11.3	3.7	1,225.7
<i>Fees charged</i>	<i>1,829.0</i>	<i>491.8</i>	<i>205.4</i>	<i>24.4</i>	<i>8.2</i>	<i>2,560.1</i>
Expenditure per person (\$)						
Benefits paid	65.65	64.66	56.05	41.41	27.14	63.90
Out-of-pocket amount	62.27	54.66	47.66	35.88	22.32	58.69
<i>Fees charged</i>	<i>127.91</i>	<i>119.33</i>	<i>103.71</i>	<i>77.30</i>	<i>49.46</i>	<i>122.59</i>
Expenditure per person, age-standardised ^(c) (\$)						
Benefits paid	66.98	60.45	54.24	45.82	35.44	63.90
Out-of-pocket amount	63.07	52.32	46.64	38.28	26.53	58.69
<i>Fees charged</i>	<i>130.36</i>	<i>112.01</i>	<i>100.45</i>	<i>84.79</i>	<i>63.47</i>	<i>122.59</i>
Expenditure per person indexed ^(d)						
Benefits paid	1.00	0.90	0.81	0.68	0.53	0.95
Out-of-pocket amount	1.00	0.83	0.74	0.61	0.42	0.93
<i>Fees charged</i>	<i>1.00</i>	<i>0.86</i>	<i>0.77</i>	<i>0.65</i>	<i>0.49</i>	<i>0.94</i>

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The numbers of operation-related services were also lower with remoteness. After age-standardisation, for every service provided to a resident of a *Major cities* there was 0.53 of a service provided to a resident of a *Very remote* region (Table B35).

Table B35: Medicare, operations services, in and out-of-hospital, by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Services (millions)	6.8	2.0	0.8	0.1	—	9.8
Services per 1,000	478.9	478.7	419.8	309.0	203.3	468.7
Services per 1,000 age-standardised ^(b)	487.4	451.3	407.6	337.4	257.1	468.7
Services per person indexed ^(c)	1.00	0.93	0.84	0.69	0.53	0.96

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The benefits paid as a proportion of fees charged, age-standardised, were lowest for *Major cities* residents (51%) and highest for *Very remote* area residents (55%). Fees charged per service provided was also highest for *Major cities* residents at \$267 per service, and lowest for *Very remote* area residents at \$243 per service (Table B36).

Table B36: Medicare benefits paid as a proportion of fees charged operation service by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Benefits paid as a proportion of fees charged (%)	51.3	54.2	54.0	53.6	54.9	52.1
Age-standardised ^(b)	51.4	54.0	53.9	53.8	55.4	52.1
Out-of-pocket amounts paid as a proportion of fees charged (%)	48.7	45.8	46.0	46.4	45.1	47.9
Age-standardised ^(b)	48.7	46.2	45.8	44.6	41.3	47.9
Fee charged per service (\$)	267.09	249.26	247.07	250.11	243.21	261.56
Age-standardised ^(b)	267.20	248.69	246.93	251.82	247.53	261.56

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

Source: AIHW health expenditure database.

Operations out-of-hospital expenditure

The amount of Medicare operations expenditure, out-of-hospitals, in 2006–07 was \$457.7 million. Expenditure per person, age-standardised, was the highest on average for *Inner regional* area residents (\$22.40) followed by residents of *Major cities* (\$21.96). *Outer regional* area residents had the third highest per person expenditure of \$21.59 (Table B37).

Table B37: Medicare, operations expenditure – out-of-hospital by remoteness, 2006–07

Amount	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Benefits paid	254.4	84.0	37.4	4.4	1.5	381.9
Out-of-pocket amount	54.3	13.9	6.5	0.7	0.2	75.8
<i>Fees charged</i>	308.8	98.0	43.9	5.1	1.8	457.7
Expenditure per person (\$)						
Benefits paid	17.79	20.39	18.88	13.77	9.25	18.29
Out-of-pocket amount	3.80	3.38	3.30	2.29	1.42	3.63
<i>Fees charged</i>	21.59	23.77	22.18	16.06	10.67	21.92
Expenditure per person, age-standardised ^(c) (\$)						
Benefits paid	18.12	19.12	18.36	15.31	12.10	18.29
Out-of-pocket amount	3.84	3.27	3.24	2.40	1.66	3.63
<i>Fees charged</i>	21.96	22.40	21.59	17.68	13.69	21.92
Expenditure per person indexed ^(d)						
Benefits paid	1.00	1.05	1.01	0.84	0.67	1.01
Out-of-pocket amount	1.00	0.85	0.84	0.63	0.43	0.95
<i>Fees charged</i>	1.00	1.02	0.98	0.80	0.62	1.00

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

As with the expenditure on operations, residents of *Inner Regional* areas received the most operation services per person in 2006–07 (242 per 1,000 population age-standardised). The residents of *Major cities* received the second highest (233) followed by *Outer regional* (229), *Remote* (192) and *Very remote* residents (148) (Table B38).

Table B38: Medicare, operations services – out-of-hospital by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Services (millions)	3.3	1.1	0.5	0.1	—	4.9
Services per 1,000	228.9	257.4	236.0	174.1	115.4	233.6
Services per 1,000 age-standardised ^(b)	233.0	242.1	229.4	191.6	148.1	233.6
Services per person indexed ^(c)	1.00	1.04	0.98	0.82	0.64	1.00

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The percentage of out-of-pocket amounts for operation services averaged 16.6% in Australia. Residents of *Major cities* paid the highest percentage (17.5%), with *Outer regional*, *Inner regional* and *Remote* residents paying 15.0%, 14.6% and 13.9% respectively. Residents of *Very remote* areas on average paid the lowest rates of out-of-pocket contributions (12.7%) of the total fee charged (Table B39).

Table B39: Medicare benefits paid as a proportion of fees charged operation service by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Benefits paid as a proportion of fees charged (%)	82.4	85.8	85.1	85.7	86.7	83.4
Age-standardised ^(b)	82.5	85.3	84.9	86.3	87.7	83.4
Out-of-pocket amounts paid as a proportion of fees charged (%)	17.6	14.2	14.9	14.3	13.3	16.6
Age-standardised ^(b)	17.5	14.6	15.0	13.9	12.7	16.6
Fee charged per service (\$)	94.34	92.34	93.96	92.23	92.45	93.84
Age-standardised ^(b)	94.20	92.69	94.22	92.24	92.61	93.84

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

Source: AIHW health expenditure database.

9. Radiation and other expenditure

Total radiation and other expenditure

The total expenditure on radiation and other Medicare expenditure not elsewhere classified was \$1,192 million in 2006–07. The largest proportion of this expenditure (\$1,038 million) was met by government payments via Medicare (Table B40). Expenditure per person was

lower in the remoter areas. After age-standardisation, there was \$60 spent per person in the *Major cities* compared to \$31 for residents of *Very remote* areas.

Table B40: Medicare, radiation and other expenditure, in and out-of-hospital, by remoteness, 2006–07

Amount	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Benefits paid	732.9	205.4	85.6	10.2	3.8	1,038.3
Out-of-pocket amount	114.9	25.9	10.7	1.3	0.5	153.3
<i>Fees charged</i>	<i>847.7</i>	<i>231.3</i>	<i>96.3</i>	<i>11.5</i>	<i>4.3</i>	<i>1,191.6</i>
Expenditure per person (\$)						
Benefits paid	51.25	49.84	43.25	32.29	23.07	49.72
Out-of-pocket amount	8.03	6.29	5.40	4.00	2.76	7.34
<i>Fees charged</i>	<i>59.29</i>	<i>56.14</i>	<i>48.64</i>	<i>36.29</i>	<i>25.83</i>	<i>57.06</i>
Expenditure per person, age-standardised ^(c) (\$)						
Benefits paid	52.08	47.23	42.12	34.86	28.17	49.72
Out-of-pocket amount	8.14	6.02	5.28	4.27	3.28	7.34
<i>Fees charged</i>	<i>60.20</i>	<i>53.33</i>	<i>47.43</i>	<i>39.09</i>	<i>31.47</i>	<i>57.06</i>
Expenditure per person indexed ^(d)						
Benefits paid	1.00	0.91	0.81	0.67	0.54	0.95
Out-of-pocket amount	1.00	0.74	0.65	0.52	0.40	0.90
<i>Fees charged</i>	<i>1.00</i>	<i>0.89</i>	<i>0.79</i>	<i>0.65</i>	<i>0.52</i>	<i>0.95</i>

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The numbers of services were also lower across the remoteness categories. For every service provided to residents of *Major cities*, there was 0.4 of a service provided to residents of *Very remote* areas (Table B41).

Table B41: Medicare, radiation and other services, in and out-of-hospital, by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Services (millions)	5.5	1.4	0.5	0.1	—	7.6
Services per 1,000	387.1	341.1	271.1	185.7	121.9	362.0
Services per 1,000 age-standardised ^(b)	396.3	316.5	260.4	204.7	159.4	362.0
Services per person indexed ^(c)	1.00	0.80	0.66	0.52	0.40	0.91

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The benefits paid as a proportion of fees charged, age-standardised, were lowest for *Major cities* residents (86%) compared to 89% for residents of *Very remote* areas. The fees charged per service was higher in the remoter areas. After age-standardisation, the average level of fees charged per service was \$152 for *Major cities* residents and \$200 for residents in *Very remote* regions (Table B42).

Table B42: Medicare benefits paid as a proportion of fees charged per radiation and other services by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Benefits paid as a proportion of fees charged (%)	86.4	88.8	88.9	89.0	89.3	87.1
Age-standardised ^(b)	86.5	88.5	88.8	88.9	89.0	87.1
Out-of-pocket amounts paid as a proportion of fees charged (%)	13.6	11.2	11.1	11.0	10.7	12.9
Age-standardised ^(b)	13.5	11.3	11.3	11.1	10.6	12.9
Fees charged per service (\$)	153.2	164.6	179.4	195.4	211.8	157.6
Age-standardised ^(b)	152.3	167.9	181.2	190.7	200.4	157.6

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

Source: AIHW health expenditure database.

Radiation and other services out-of-hospital expenditure

In 2006–07, the total out-of-hospital expenditure on radiation and other Medicare expenditure not elsewhere classified was \$1,026.9 million. The age-standardised expenditure per person was highest in *Major cities*, with expenditure levels declining with each of the more remote regional classifications. For every dollar spent on residents of *Major cities*, \$0.81 was spent on *Outer regional* residents and 0.54 on *Very Remote* residents (Table B43).

Table B43: Medicare, radiation and other expenditure – out-of-hospital by remoteness, 2006–07

Amount	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Benefits paid	656.3	187.0	78.0	9.4	3.5	934.4
Out-of-pocket amount	69.7	15.4	6.3	0.8	0.3	92.5
<i>Fees charged</i>	<i>726.0</i>	<i>202.4</i>	<i>84.3</i>	<i>10.2</i>	<i>3.8</i>	<i>1,026.9</i>
Expenditure per person (\$)						
Benefits paid	45.90	45.37	39.38	29.66	21.30	44.75
Out-of-pocket amount	4.87	3.73	3.20	2.46	1.75	4.43
<i>Fees charged</i>	<i>50.77</i>	<i>49.10</i>	<i>42.58</i>	<i>32.13</i>	<i>23.04</i>	<i>49.18</i>
Expenditure per person, age-standardised ^(c) (\$)						
Benefits paid	46.60	43.09	38.41	31.93	25.80	44.75
Out-of-pocket amount	4.88	3.70	3.18	2.55	1.99	4.43
<i>Fees charged</i>	<i>51.49</i>	<i>46.81</i>	<i>41.60</i>	<i>34.46</i>	<i>27.75</i>	<i>49.18</i>
Expenditure per person indexed ^(d)						
Benefits paid	1.00	0.92	0.82	0.69	0.55	0.96
Out-of-pocket amount	1.00	0.76	0.65	0.52	0.41	0.91
<i>Fees charged</i>	<i>1.00</i>	<i>0.91</i>	<i>0.81</i>	<i>0.67</i>	<i>0.54</i>	<i>0.96</i>

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The number of the radiation and other Medicare services not elsewhere classified totalled 6.3 million in 2006–07. Age-standardised and per 1,000 population, residents of *Major cities* had the highest level of services (328) with *Inner regional* and *Outer regional* residents receiving 267 and 217 respectively (Table B44).

Table B44: Medicare, radiation and other services – out-of-hospital by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Services (millions)	4.6	1.2	0.4	—	—	6.3
Services per 1,000	321.0	286.2	225.5	154.2	101.7	300.9
Services per 1,000 age-standardised ^(b)	328.3	266.6	216.9	168.7	130.7	300.9
Services per person indexed ^(c)	1.00	0.81	0.66	0.51	0.40	0.92

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The benefits paid as a proportion of radiation and other service were highest for residents of *Remote* areas at 92.4% compared with the Australian average of 91.0%, age-standardised. The only regional classification to receive a benefits paid ratio lower than the Australian average was *Major cities* (90.5%). (Table B45).

While the national average for fees charged per service was \$163, the results for the different remoteness classifications ranged from \$157 for residents of *Major cities* to \$214 for *Very remote* residents.

Table B45: Medicare benefits paid as a proportion of fees charged per radiation and other services by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Benefits paid as a proportion of fees charged (%)	90.4	92.4	92.5	92.3	92.4	91.0
Age-standardised ^(b)	90.5	92.1	92.3	92.4	92.3	91.0
Out-of-pocket amounts paid as a proportion of fees charged (%)	9.6	7.6	7.5	7.7	7.6	9.0
Age-standardised ^(b)	9.5	7.9	7.7	7.6	7.7	9.0
Fees charged per service (\$)	158.15	171.59	188.78	208.30	226.63	163.42
Age-standardised ^(b)	157.28	174.92	190.51	203.12	213.88	163.42

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

Source: AIHW health expenditure database.

10. Other allied health expenditure

All allied health expenditure and the related services were classified as being out-of-hospital. As such only total allied health data is presented in this section.

The total expenditure on other allied health in 2006–07 was \$128 million. The largest proportion of this expenditure (\$107 million) was met by government payments via

Medicare (Table B46). Expenditure per person was lower in the remoter areas. After age-standardisation, there was \$7.05 spent per person in the *Major cities* compared to \$0.58 for residents of *Very remote* areas.

Table B46: Medicare, other allied health expenditure by remoteness, 2006–07

Amount	ASGC remoteness ^(a)					Australia ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Expenditure (\$ million)						
Benefits paid	83.4	17.8	4.9	0.4	0.1	106.5
Out-of-pocket amount	17.4	2.8	0.7	—	—	21.0
<i>Fees charged</i>	<i>100.8</i>	<i>20.6</i>	<i>5.6</i>	<i>0.4</i>	<i>0.1</i>	<i>127.5</i>
Expenditure per person (\$)						
Benefits paid	5.83	4.33	2.45	1.15	0.45	5.10
Out-of-pocket amount	1.22	0.67	0.37	0.12	0.08	1.01
<i>Fees charged</i>	<i>7.05</i>	<i>5.00</i>	<i>2.82</i>	<i>1.28</i>	<i>0.53</i>	<i>6.11</i>
Expenditure per person, age-standardised ^(c) (\$)						
Benefits paid	5.85	4.26	2.44	1.21	0.51	5.10
Out-of-pocket amount	1.21	0.70	0.37	0.12	0.08	1.01
<i>Fees charged</i>	<i>7.05</i>	<i>4.96</i>	<i>2.82</i>	<i>1.33</i>	<i>0.58</i>	<i>6.11</i>
Expenditure per person indexed ^(d)						
Benefits paid	1.00	0.73	0.42	0.21	0.09	0.87
Out-of-pocket amount	1.00	0.58	0.31	0.10	0.06	0.83
<i>Fees charged</i>	<i>1.00</i>	<i>0.70</i>	<i>0.40</i>	<i>0.19</i>	<i>0.08</i>	<i>0.87</i>

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Total Australian expenditure may not equal sum of components as it also includes expenditure for which remoteness information was not available.

(c) Indirectly age-standardised.

(d) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The numbers of services were also lower across the remoteness categories. For every service provided to a *Major cities* resident, there was 0.09 of a service provided to residents of *Very remote* areas (Table B47).

Table B47: Medicare, other allied health services by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Services (millions)	1.3	0.3	0.1	—	—	1.7
Services per 1,000	90.1	70.6	41.2	20.2	7.1	79.9
Services per 1,000 age-standardised ^(b)	90.9	68.1	40.7	21.8	8.6	79.9
Services per person indexed ^(c)	1.00	0.75	0.45	0.24	0.09	0.88

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the *Major cities* value.

Source: AIHW health expenditure database.

The age-standardised benefits paid as a proportion of fees charged were lowest for *Major cities* residents (83%) compared to 91% for residents of *Remote* areas. The average level of fees charged per service was also lower in the *Remote* regions. After age-standardisation, the fees charged per service was \$78 for *Major cities* residents and \$62 for residents in the *Remote* regions (Table B48).

Table B48: Medicare benefits paid as a proportion of fees charged per other allied health service by remoteness, 2006–07

Measure	ASGC remoteness ^(a)					Australia
	Major Cities	Inner Regional	Outer Regional	Remote	Very Remote	
Benefits paid as a proportion of fees charged (%)	82.7	86.5	86.9	90.4	85.5	83.5
Age-standardised ^(b)	82.8	86.0	86.7	91.2	87.3	83.5
Out-of-pocket amounts paid as a proportion of fees charged (%)	17.3	13.5	13.1	9.6	14.5	16.5
Age-standardised ^(b)	17.2	13.8	13.2	9.3	13.3	16.5
Fees charged per service (\$)	78.24	70.86	68.46	63.06	73.81	76.42
Age-standardised ^(b)	77.77	72.19	69.25	62.13	70.80	76.42

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

Source: AIHW health expenditure database.

Appendix C: Summary of results

Table C1: Hospital, indexed expenditure and services, age standardised

Type of services	Expenditure (\$)/Service (number)	Major Cities	Index ^{(a)(b)(c)}				Table (d)
			Inner Regional	Outer Regional	Remote	Very Remote	
Admitted patient services (including in-hospital medical services)							
Public hospitals—expenditure	\$ per person	1,002.70	1.10	1.28	1.68	2.51	3.1
Private hospitals—expenditure	\$ per person	508.72	0.84	0.66	0.52	0.40	3.1
Public hospitals—separations	per 1,000 population	206.1	1.13	1.33	1.60	2.43	3.2
Private hospitals—separations	per 1,000 population	155.9	0.76	0.60	0.49	0.35	3.2
Public hospitals—expenditure	\$ per separation	4,864.05	0.97	0.96	1.03	1.00	3.3
Private hospitals—expenditure	\$ per separation	3,260.76	1.12	1.09	1.03	1.11	3.3
Admitted patient services (excluding in-hospital medical services)							
Public hospitals—expenditure	\$ per person	970.27	1.10	1.28	1.68	2.51	3.4
Private hospitals—expenditure	\$ per person	350.76	0.84	0.66	0.52	0.40	3.4
Public hospitals—expenditure	\$ per separation	4,706.76	0.97	0.96	1.03	1.00	3.5
Private hospitals—expenditure	\$ per separation	2,248.26	1.12	1.09	1.03	1.11	3.5
Public & private—overnight stay	\$ per person	1,087.62	1.04	1.14	1.45	2.13	3.6
Public & private—same day stay	\$ per person	233.36	0.97	0.99	1.05	1.31	3.6
Public & private—overnight stay	per 1,000 population	151.3	1.13	1.22	1.41	1.86	3.7
Public & private—same day stay	per 1,000 population	210.7	0.86	0.88	0.92	1.34	3.7
Public hospitals—overnight	\$ per separation	8,404.7	0.88	0.86	0.91	0.98	3.8
Public hospitals—same day	\$ per separation	1,284.3	1.08	1.04	1.09	0.86	3.8
Public & private—acute	\$ per person	1,188.68	1.05	1.13	1.40	2.03	3.9
Public & private—not-acute	\$ per person	132.31	0.89	0.95	1.16	1.43	3.9
Public & private—acute	per 1,000 population	345.6	0.99	1.04	1.15	1.59	3.10
Public & private— not-acute	per 1,000 population	16.3	0.66	0.64	0.64	1.23	3.10
Public hospitals—not-acute	\$ per separation	4,355.54	0.98	0.96	1.05	1.03	3.11

(continued)

Table C1 (continued): Hospital, indexed expenditure and services, age standardised

Type of services	Expenditure (\$)/Service (number)	Major Cities	Index ^{(a)(b)(c)}				Table (d)
			Inner Regional	Outer Regional	Remote	Very Remote	
Public hospitals—not-acute	\$ per separation	12,545.27	1.16	1.17	1.32	1.22	3.11
In-hospital medical services							
<i>GP and other primary care—expenditure</i>							
Benefits paid	\$ per person	0.63	2.36	3.05	3.64	1.68	3.12
Out-of-pocket	\$ per person	0.41	1.88	2.24	2.59	1.34	3.12
Fees charged	\$ per person	1.04	2.17	2.73	3.22	1.54	3.12
<i>GP and other primary care— services</i>	per 1,000 population	15.3	2.47	3.17	3.69	1.72	3.13
<i>Medicare-pathology expenditure</i>							
Benefits paid	\$ per person	9.94	0.73	0.59	0.50	0.35	3.15
Out-of-pocket	\$ per person	5.23	0.71	0.59	0.53	0.37	3.15
Fees charged	\$ per person	15.17	0.73	0.59	0.51	0.36	3.15
<i>Medicare-pathology services</i>	per 1,000 population	422.9	0.73	0.58	0.50	0.35	3.16
<i>Medicare-imaging expenditure</i>							
Benefits paid	\$ per person	6.80	0.80	0.66	0.60	0.43	3.18
Out-of-pocket	\$ per person	3.97	0.79	0.69	0.66	0.49	3.18
Fees charged	\$ per person	10.78	0.80	0.67	0.62	0.45	3.18
<i>Medicare-imaging services</i>	per 1,000 population	58.2	0.82	0.66	0.59	0.41	3.19
<i>Medicare-specialist expenditure</i>							
Benefits paid	\$ per person	11.68	0.73	0.54	0.46	0.32	3.21
Out-of-pocket	\$ per person	8.77	0.73	0.56	0.48	0.33	3.21
Fees charged	\$ per person	20.45	0.73	0.54	0.47	0.32	3.21
<i>Medicare-specialist services</i>	per 1,000 population	250.0	0.76	0.58	0.49	0.34	3.22
<i>Medicare-obstetrics expenditure</i>							
Benefits paid	\$ per person	2.44	0.70	0.69	0.60	0.41	3.24
Out-of-pocket	\$ per person	3.74	0.78	0.74	0.77	0.51	3.24
Fees charged	\$ per person	6.18	0.75	0.72	0.71	0.47	3.24
<i>Medicare-obstetrics services</i>	per 1,000 population	6.5	0.80	0.84	0.72	0.44	3.25

(continued)

Table C1 (continued): Hospital, indexed expenditure and services, age standardised

Type of services	Expenditure (\$)/Service (number)	Major Cities	Index ^{(a)(b)(c)}				Table ^(d)
			Inner Regional	Outer Regional	Remote	Very Remote	
<i>Medicare-operation expenditure</i>							
Benefits paid	\$ per person	48.86	0.85	0.73	0.62	0.48	3.20
Out-of-pocket	\$ per person	59.55	0.81	0.72	0.61	0.44	3.20
Fees charged	\$ per person	108.41	0.83	0.73	0.62	0.46	3.20
<i>Medicare-operation services</i>	per 1,000 population	254.3	0.82	0.70	0.57	0.43	3.28
<i>Medicare-radiation and other expenditure</i>							
Benefits paid	\$ per person	5.49	0.76	0.68	0.53	0.43	3.30
Out-of-pocket	\$ per person	3.23	0.74	0.66	0.53	0.41	3.30
Fees charged	\$ per person	8.71	0.75	0.67	0.53	0.42	3.30
<i>Medicare-radiation etc. services</i>	per 1,000 population	68.0	0.74	0.64	0.53	0.43	3.31

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the Major cities value.

(d) The table reference for a particular row refers to the table from which that data is sourced.

Source: AIHW health expenditure database.

Table C2: Medicare medical services, indexed expenditure and services, age standardised

Type of services	Expenditure(\$)/ Service (number)	Major Cities	Index ^{(a)(b)(c)}				Table (d)
			Inner Regional	Outer Regional	Remote	Very Remote	
Total Medicare							
Benefits paid	\$ per person	602.5	0.84	0.75	0.65	0.54	4.1
Out-of-pocket	\$ per person	158.3	0.83	0.72	0.58	0.40	4.1
Fees charged	\$ per person	760.8	0.84	0.74	0.63	0.51	4.1
Services	per 1,000 population	13,110.6	0.86	0.79	0.69	0.59	4.2
General practice expenditure							
Benefits paid	\$ per person	183.19	0.81	0.76	0.72	0.58	4.4
Out-of-pocket	\$ per person	17.92	1.14	1.05	0.79	0.52	4.4
Fees charged	\$ per person	201.10	0.84	0.79	0.72	0.57	4.4
Services	per 1,000 population	4,864.5	0.83	0.78	0.71	0.54	4.5
GP & other primary care							
Benefits paid	\$ per person	207.20	0.82	0.76	0.72	0.61	4.7
Out-of-pocket	\$ per person	19.62	1.10	1.01	0.75	0.50	4.7
Fees charged	\$ per person	226.81	0.84	0.78	0.72	0.60	4.7
Services	per 1,000 population	5,406.4	0.84	0.80	0.70	0.56	4.8
Pathology expenditure							
Benefits paid	\$ per person	77.78	0.91	0.86	0.79	0.80	4.10
Out-of-pocket	\$ per person	2.12	0.93	0.74	0.36	0.33	4.10
Fees charged	\$ per person	79.89	0.91	0.85	0.78	0.79	4.10
Services	per 1,000 population	4,001.5	0.90	0.85	0.77	0.79	4.11
Imaging expenditure							
Benefits paid	\$ per person	80.46	0.87	0.77	0.60	0.45	4.13
Out-of-pocket	\$ per person	13.96	1.02	0.87	0.71	0.42	4.13
Fees charged	\$ per person	94.41	0.89	0.79	0.62	0.45	4.13
Services	per 1,000 population	732.5	0.89	0.82	0.65	0.47	4.14
Specialist expenditure							
Benefits paid	\$ per person	60.79	0.67	0.52	0.34	0.28	4.16
Out-of-pocket	\$ per person	23.61	0.69	0.52	0.33	0.20	4.16
Fees charged	\$ per person	84.40	0.68	0.52	0.34	0.25	4.16
Services	per 1,000 population	912.2	0.74	0.59	0.38	0.30	4.17

(a) ABS ASGC remoteness categorisation is according to the residential address of the service recipient.

(b) Indirectly age-standardised.

(c) Expressed as a multiple of the Major cities value.

(d) The table reference for a particular row refers to the table from which that data is sourced.

Source: AIHW health expenditure database.

Appendix D: Medicare Benefits Schedule

The broad Medicare types of services analysed in this report are based upon selected Medicare item and group numbers. The table below provides detailed information on the broad areas of Medicare expenditure and how these areas relate to the Medical Benefits Schedule item numbers that were used in the compilation of expenditure and service data (DoHA 2008).

Table D1: Medicare item and group numbers

Broad area of expenditure	Additional details
General practitioner services	GP/VRGP non-referred attendances includes Items 1, 2, 3, 4, 13, 14, 19, 20, 23, 24–26, 33, 35–40, 43, 44, 47–51, 193–195, 601–602, Group A18 and Group A22.
General practitioner-related services	In addition to the above codes listed against general practitioner service, the enhanced primary care items (700–779, 900, 903 and 2710, 2712 and 2713), other non-referred attendance items (1, 2, 5–12, 15–18, 21, 22, 27–32, 34, 41, 42, 45, 46, 52–84, 86, 87, 89–93, 95, 98, 101, 160–173, 444–449, 697–698, 980, 996–998, Group A19, Group A20 subgroup 2, Group A23 and item 17600) and practice nurse items (10993, 10994, 10995, 10996, 10997, 10998, 10999, 10988 and 10989).
Pathology	Pathology comprises Part 7 and Category 6 of the Schedule, including Items 74990 and 74991.
Imaging	Diagnostic Imaging comprises ultrasound (Items 791, 793, 794, 910, 911, 913, 990–993, 995 and 999 and Group I1), CT (Part 7A and items 2960–2971 and Group I2) Radiology (Part 8 and Items 9341–9344 and Group I3), MRI (Items 2980 and 2981 and Group I5), Nuclear Medicine Imaging (Items 8712, 8713, 8716, 8717, 8720, 8721, 8723, 8724, 8727–8840, 8851–8874 and Group I4) and Item 9066, and Group I6 (Items 64990 and 64991).
Specialists	Specialist attendances includes Items 85, 88, 94, 100, 102–152, 154–159, 177, 189, 300–338, 342–370, 385–388, 410–417, 501–536, 820–866, 887–893, 10801 to 10816 and 17603.
Dental	Data on oral and maxillofacial surgery, cleft lip and palate and other dental services have been included (Part 9 and Group T9).
Obstetrics	Obstetrics includes Part 2 and Group T4 of the Schedule and Item 9011.
Operations	Operations comprises Part 10 and Group T8 of the Schedule and Items 9401–9409, 9415–9435, 9440–9449, 9458, 9476–9850, anaesthetics which comprises Parts 3 (excluding Items 82, 85, 101, 102), 4 and 5, Groups T5, T6 (excluding Items 17600 and 17603), T7, T10 and Items 9021 to 9060 and assistance at operations (Part 9 and Group T9) and Categories 2, 4 and 7, Groups T1–T3, Group T11, Items 10990, 10991 and 10992.
Radiation and other	Other comprises miscellaneous (Part 6–other than ultrasound), radiotherapy and therapeutic nuclear medicine.
Other Allied health	Allied health items in MBS Groups M2 to M4 and Groups M6 to M9.
Optometrical services	Optometry comprises Items 180 to 186, inclusive, and Group A10 of the Schedule.

Appendix E: Estimated resident population

Table E1: Estimated resident population by remoteness, 2001–02^(a)

Age (years)	Major cities	Inner regional	Outer regional	Remote	Very remote	Australia	Population distribution(%) ^(b)
0–4	851,997	251,508	133,203	26,137	16,144	1,278,987	6.5
5–9	877,513	284,477	144,849	26,709	16,000	1,349,547	6.9
10–14	878,700	297,988	146,214	24,416	13,890	1,361,206	7.0
15–19	924,019	277,545	126,357	19,031	12,360	1,359,311	7.0
20–24	973,820	207,749	102,030	19,119	13,416	1,316,133	6.7
25–29	1,023,420	212,970	116,609	24,114	14,986	1,392,098	7.1
30–34	1,064,098	246,413	132,503	26,480	14,651	1,484,145	7.6
35–39	1,031,245	271,553	141,722	25,996	13,590	1,484,106	7.6
40–44	1,013,123	295,747	148,567	25,516	12,045	1,494,997	7.7
45–49	925,411	275,204	136,123	21,979	10,545	1,369,261	7.0
50–54	879,986	260,252	129,512	20,316	9,100	1,299,165	6.7
55–59	697,290	219,082	108,085	16,034	6,837	1,047,327	5.4
60–64	542,200	183,845	90,333	12,190	5,160	833,728	4.3
65–69	449,501	156,076	72,503	9,075	3,387	690,540	3.5
70–74	420,250	143,609	63,397	7,330	2,520	637,106	3.3
75–79	354,512	114,259	47,850	5,046	1,626	523,292	2.7
80–84	232,202	72,757	29,850	3,027	1,027	338,861	1.7
85+	185,430	57,427	23,923	2,416	789	269,985	1.4
Total	13,324,714	3,828,455	1,893,625	314,928	168,068	19,529,790	100.0

(a) Populations are based on the average of the populations as at July 2001 and July 2002.

(b) Calculated by the population for each respective age group divided by the total population.

Source: Unpublished ABS data.

Table E2: Estimated resident population by remoteness, 2004–05^(a)

Age (years)	Major cities	Inner regional	Outer regional	Remote	Very remote	Australia	Population distribution(%)^(b)
0–4	862,855	248,139	128,777	24,866	15,816	1,280,452	6.3
5–9	875,542	279,892	140,501	25,180	15,333	1,336,448	6.6
10–14	905,516	306,792	148,158	24,154	12,984	1,397,604	6.9
15–19	947,932	286,205	127,544	18,918	11,929	1,392,527	6.9
20–24	1,054,433	224,127	106,179	19,455	13,451	1,417,644	7.0
25–29	1,017,370	203,901	109,062	21,899	13,528	1,365,758	6.7
30–34	1,102,649	248,616	129,038	25,309	14,017	1,519,628	7.5
35–39	1,036,974	263,880	134,783	24,706	12,976	1,473,317	7.3
40–44	1,053,936	301,314	150,235	25,361	12,103	1,542,948	7.6
45–49	977,353	294,343	144,555	23,722	10,915	1,450,888	7.2
50–54	890,517	274,711	134,431	20,718	9,541	1,329,917	6.6
55–59	809,290	257,996	125,073	18,072	7,637	1,218,067	6.0
60–64	598,118	207,797	98,887	13,598	5,509	923,908	4.6
65–69	483,953	173,201	80,185	9,871	3,548	750,758	3.7
70–74	409,575	143,667	62,925	7,061	2,506	625,732	3.1
75–79	365,548	122,933	51,080	5,479	1,706	546,744	2.7
80–84	267,620	84,399	33,151	3,289	889	389,347	1.9
85+	204,470	64,235	25,102	2,450	725	296,981	1.5
Total	13,863,647	3,986,144	1,929,662	314,103	165,109	20,258,664	100.0

(a) Populations are based on the average of the populations as at July 2004 and July 2005.

(b) Calculated by the population for each respective age group divided by the total population.

Source: Unpublished ABS data.

Table E3: Estimated resident population by remoteness, 2006–07^(a)

Age (years)	Major cities	Inner regional	Outer regional	Remote	Very remote	Australia	Population distribution(%)^(b)
0–4	900,696	254,369	129,045	24,374	15,416	1,323,900	6.3
5–9	881,287	280,378	139,913	24,676	15,418	1,341,672	6.4
10–14	908,022	308,325	148,203	23,688	12,658	1,400,896	6.7
15–19	971,952	297,014	131,629	18,939	11,695	1,431,227	6.9
20–24	1,110,209	236,813	109,365	20,061	13,535	1,489,983	7.1
25–29	1,071,726	210,601	111,849	21,985	13,542	1,429,703	6.8
30–34	1,083,183	238,344	123,618	23,649	13,652	1,482,446	7.1
35–39	1,093,406	276,704	138,783	25,025	13,243	1,547,159	7.4
40–44	1,050,754	294,417	145,727	24,435	11,838	1,527,170	7.3
45–49	1,015,071	307,614	150,550	24,198	11,068	1,508,499	7.2
50–54	916,421	286,540	139,861	21,672	10,043	1,374,535	6.6
55–59	837,913	273,211	132,155	19,034	8,041	1,270,354	6.1
60–64	663,758	233,093	109,510	14,519	6,038	1,026,916	4.9
65–69	507,280	186,365	86,300	10,593	3,965	794,502	3.8
70–74	413,923	148,953	65,812	7,460	2,559	638,706	3.1
75–79	365,757	126,026	53,377	5,709	1,869	552,737	2.6
80–84	278,905	90,692	36,195	3,561	1,064	410,416	2.0
85+	228,480	71,670	28,320	2,698	795	331,962	1.6
Total	14,298,739	4,121,127	1,980,209	316,271	166,434	20,882,779	100.0

(a) Populations are based on the average of the populations as at July 2006 and July 2007.

(b) Calculated by the population for each respective age group divided by the total population.

Source: Unpublished ABS data.

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