
11 Primary and community health

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Attachment tables

Attachment tables are identified in references throughout this chapter by an 'A' suffix (for example, table 11A.3). A full list of attachment tables is provided at the end of this chapter, and the attachment tables themselves are available on the CD-ROM enclosed with the Report or from the Review website at <www.pc.gov.au/gsp>.

This chapter focuses on general practice, primary healthcare services for Indigenous people, public dental services, drug and alcohol treatment, maternal and child health, the Pharmaceutical Benefits Scheme (PBS) and a range of other community health services. The scope of this chapter does not extend to:

- Home and Community Care program services (see chapter 13, 'Aged care')
- public hospital emergency departments and outpatient services (see chapter 10, 'Public hospitals')
- community mental health services (see chapter 12, 'Health management issues').

The primary and community health sector is the part of the healthcare system most frequently used by Australians. It is important in preventative health care and in the

detection and management of illness and injury, through direct service provision and referral to acute (hospital) or other healthcare services as appropriate.

The following improvements have been made in the reporting of primary and community health in this Report:

- data are reported for the first time against the indicator ‘management of asthma’
- data are reported for a new measure of the indicator ‘management of diabetes’.

11.1 Profile of primary and community health

Definitions, roles and responsibilities

Primary and community healthcare services are delivered by a range of health and allied health professionals in various private, not-for-profit and government service settings. Those funded largely by government include general practice, community health services, the PBS and public dental services. Government also provides some funding for the use of private dental and allied health services by particular populations, for example people with long-term health conditions and/or mental health problems (through Medicare), and through the private health insurance rebate.

General practice

General practice is a major provider of primary healthcare in Australia. It is defined by the Royal Australian College of General Practitioners (RACGP) as ‘the provision of primary continuing comprehensive whole-patient medical care to individuals, families and their communities’ (RACGP 2005). General practice is the business structure within which one or more general practitioners (GPs) and other staff, such as practice nurses, provide and supervise healthcare for patients presenting to the practice. General practices are predominantly privately owned, by GPs or corporate entities.

General practice data reported in this chapter relate mainly to services provided by two types of medical practitioner:

- GPs who are vocationally recognised under s.3F of the *Health Insurance Act 1973* (Cwlth), hold Fellowship of the RACGP or equivalent, or hold a recognised training placement
- other medical practitioners (OMP) — medical practitioners who are not vocationally recognised GPs.

Services provided in general practice include:

- diagnosis and treatment of illness (both chronic and acute) and injury
- preventative care through to palliative care
- referrals to consultants, allied health professionals, community health services and hospitals.

Definitions for common health terms are provided in section 11.5.

Access to general practice services may influence the utilisation of other, more costly health services. For example, perceived or actual lack of access to GP services may lead to presentations at emergency departments for conditions better managed in the primary and community health sector (Van Konkelenberg, Esterman, Van Konkelenberg 2003). Proximity and convenience of emergency departments, as well as the level of trust and regard for emergency department staff, have also been found to relate to inappropriate emergency department attendance.

The Australian Government provides the majority of general practice income through Medicare fee for service and other payments. The remainder comes from insurance schemes, patient contributions, and State and Territory government programs. Through its funding role, the Australian Government seeks to influence the supply, regional distribution and quality of general practice services. State and Territory governments are responsible for registering and licensing GPs in their jurisdiction. Some provide additional incentives for GPs to locate in rural and remote areas.

While the majority of GPs provide services as part of a general practice, some are employed by hospitals, community health services or other organisations, in full time or part time capacities.

Pharmaceutical Benefits Scheme and Repatriation Pharmaceutical Benefits Scheme

The Australian Government subsidises the cost of around 80 per cent of prescription medicines through the Pharmaceutical Benefits Scheme (PBS) (DoHA 2008a). The PBS aims to provide affordable, reliable and timely access to prescription medicines for all Australians. Users make a co-payment, currently \$5.00 for concession card holders and \$31.30 for general consumers. The Australian Government pays the remaining cost of medicines that are eligible for the subsidy. Co-payment amounts are normally adjusted in line with inflation on 1 January each year.

Co-payments are also subject to a safety net threshold. Once spending within a calendar year has reached the threshold, PBS medicines are generally cheaper or free for the rest of the calendar year. The 2008 safety net threshold is \$1141.80 for general consumers and \$290.00 for concession card holders (DoHA 2008b).

The Repatriation Pharmaceutical Benefits Scheme (RPBS) provides subsidised pharmaceutical medicines, dressings and other items to war veterans and war widows. The RPBS is administered by the Department of Veterans' Affairs (DVA). Drugs eligible for subsidy under the RPBS may not be eligible under the PBS.

Community health services

Community health services usually comprise multidisciplinary teams of salaried health and allied health professionals, who aim to protect and promote the health of particular communities (Quality Improvement Council 1998). The services may be provided directly by governments (including local governments) or indirectly, through a local health service or community organisation funded by government. State and Territory governments are responsible for most community health services. The Australian Government's main role in the community health services covered in this chapter is in health services for Indigenous people. In addition, the Australian Government provides targeted support to improve access to community health services in rural and remote areas. There is no national strategy for community health and there is considerable variation in the services provided across jurisdictions.

Allied health services

While some allied health professionals are employed in community health services, allied health services are delivered mainly in the private sector. Governments provide some funding for private services through insurance schemes and private insurance rebates. The Australian Government also makes certain allied health services available under Medicare to patients with chronic conditions and complex care needs, and improves access to allied health services in rural and remote areas.

Dental services

The Australian Government and the states and territories play different roles in supporting dental services in Australia's mixed system of public and private dental health care. The states and territories have the main responsibility for the delivery of major public dental health care programs, primarily directed at children and disadvantaged adults. The Australian Government supports the provision of dental

services primarily through the 30 per cent private health insurance rebate. The Australian Government also provides Medicare funding for dental services for patients with chronic conditions and complex care needs, and for a limited range of medical services of an oral surgical nature. In addition, the Australian Government provides funding for the dental care of war veterans and full-time and part-time members of the Australian Defence Force. It also has a role in the provision of dental services through Community Controlled Aboriginal Medical Services. Each jurisdiction determines its own eligibility requirements for accessing public dental services, usually requiring a person to hold a concession card issued by Centrelink.

Funding

General practice

The Australian Government funds the majority of general practice services, primarily through Medicare and the DVA. The annual Bettering the Evaluation and Care of Health (BEACH) survey of general practice activity in Australia found that 95.2 per cent of all encounters with GPs in 2007-08 were for services at least partly funded by Medicare or the DVA (Britt *et al.* 2008) (table 11.1).

Table 11.1 GP encounters, by source of funding, 2007-08^{a, b, c}

	Number ^d	Per cent of all encounters ^e	95% LCL	95% UCL
GPs participating in the BEACH survey	953
Total encounters for which BEACH data were recorded	95 898
Encounters with missing data	8 311
Direct encounters	86 359	98.6	98.4	98.8
No charge	386	0.4	0.4	0.5
Medicare paid ^f	83 418	95.2	94.9	95.6
Workers compensation paid	2 000	2.3	2.1	2.5
Other paid (hospital, State, etc.)	577	0.7	0.5	0.8
Indirect encounters ^g	1 225	1.4	1.2	1.6

LCL = lower confidence limit. UCL = upper confidence limit. ^a April 2007 to March ^b An 'encounter' is any professional interchange between a patient and a GP (Britt *et al.* 2008). ^c Data from the BEACH survey may not be directly comparable with the other data on medical practitioners that are reported in this chapter. ^d Number of encounters after post stratification weighting for GP activity and GP age and sex. ^e Missing data removed. ^f Includes Australian Government payments made through the DVA. ^g Indirect encounters are those at which the patient is not seen by the GP but that generate a prescription, a referral, a certificate or another service. .. Not applicable.

Source: Britt *et al.* (2008), *General practice activity in Australia 2007-08*, Cat. no. GEP 22; table 11A.1.

The Australian Government also provides funding for general practice services under initiatives such as:

- the Practice Incentives Program (PIP)
- the General Practice Immunisation Incentives Scheme (GPII)
- the Divisions of General Practice (DGP).

Australian Government expenditure on general practice in 2007-08 was \$5.6 billion, or \$264 per person (figure 11.26).

Not all Australian Government funding of primary healthcare services is captured in these data. Funding is also provided for services delivered in non-general practice settings, particularly in rural and remote areas; for example, hospital emergency departments, Indigenous primary healthcare and other community health services, and the Royal Flying Doctor Service. Thus, expenditure on general practice understates expenditure on primary healthcare, particularly in jurisdictions with large populations of Indigenous people and people living in rural and remote areas. The Health preface includes expenditure data for Indigenous primary and community health services for 2004-05.

State and Territory governments provide funding for general practice through a number of programs. Generally, this funding is provided indirectly through support services for GPs (such as assistance with housing and relocation, education programs and employment assistance for spouses and family members of doctors in rural areas), or education and support services for public health issues such as diabetes management, smoking cessation, sexual health, and mental health and counselling. Non-government sources — insurance schemes (such as private health insurance, workers compensation and third party insurance) and private individuals — also provide payments to GPs.

Pharmaceutical Benefits Scheme and Repatriation Pharmaceutical Benefits Scheme

Australian Government expenditure on the PBS and RPBS was around \$6.4 billion, or \$301 per person, in 2007-08. Expenditure on the PBS was around \$5.9 billion in 2007-08, of which 79.3 per cent was for concessional patients (table 11.2). Government expenditure on pharmaceuticals data are also presented in the 'Health preface.'

Table 11.2 **PBS and RPBS expenditure, 2007-08 (\$ million)^a**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust</i>
PBS general ^b	406.5	291.3	237.6	128.3	91.4	24.3	25.0	7.1	1 211.6
PBS concessional ^c	1 631.8	1 184.3	884.0	388.1	414.3	136.0	47.8	14.4	4 700.6
PBS doctor's bag	4.8	3.2	3.0	1.0	1.0	0.3	0.2	0.1	13.5
PBS total	2 043.1	1 478.8	1 124.6	517.4	506.8	160.6	72.9	21.5	5 925.6
RPBS total ^d	157.0	96.2	101.3	35.5	34.5	13.5	6.8	0.9	445.6
Total	2 200.1	1 575.0	1 225.8	552.8	541.2	174.1	79.7	22.4	6 371.3
\$ per capita	317.6	300.2	289.9	259.4	340.0	351.2	233.9	103.1	300.8

^a State and Territory level data are only available on a cash basis for general, concessional and doctor's bag categories. These figures are not directly comparable to those published in the DoHA annual report which are prepared on an accrual accounting basis and also include other categories administered under special arrangements (such as dispensing conducted under s.100 of the *National Health Act 1953* [Cwlth]). ^b Includes PBS general ordinary and safety net. ^c Includes concessional ordinary and concessional free safety net. ^d Includes RPBS ordinary and RPBS safety net.

Source: DoHA (unpublished), derived from the PBS data system.

Community health services

Overall government expenditure data for the community health services covered in this chapter are not available. Expenditure data reported here also cover services such as food safety regulation and media campaigns to promote health awareness, as well as private dental services (funded by insurance premium rebates and non-government expenditure) (table 11.3).

In 2006-07, government expenditure on community and public health was \$5.8 billion, of which State, Territory and local governments provided 74.6 per cent, and the Australian Government 25.4 per cent (table 11.3). Australian Government direct outlay expenditure on dental services was \$114 million in 2006-07, while State, Territory and local government expenditure was \$519 million (table 11.3). In some states and territories, additional expenditure is incurred through schemes that fund the provision by private practitioners of public dental health services for eligible people.

Table 11.3 Estimated funding on community and public health, and dental services, 2006-07 (\$ million)

	<i>Australian Government</i>			<i>State and local govt</i>	<i>Total govt</i>	<i>Non-govt</i>	<i>Total</i>
	<i>Direct outlays</i>	<i>Premium rebates^a</i>	<i>Total</i>				
Community and public health ^b	1 469	–	1 469	4 322	5 792	304	6 095
Dental services ^c	114	414	528	519	1 047	4 690	5 737

^a Government expenditure on premium rebates relates to private health and dental services that are not within the scope of this chapter. ^b Includes some expenditure that was previously classified as 'other non-institutional (not elsewhere classified)', as well as expenditure on community and public health services. ^c Australian Government direct outlays on dental services are for services provided to veterans through DVA. – Nil or rounded to zero.

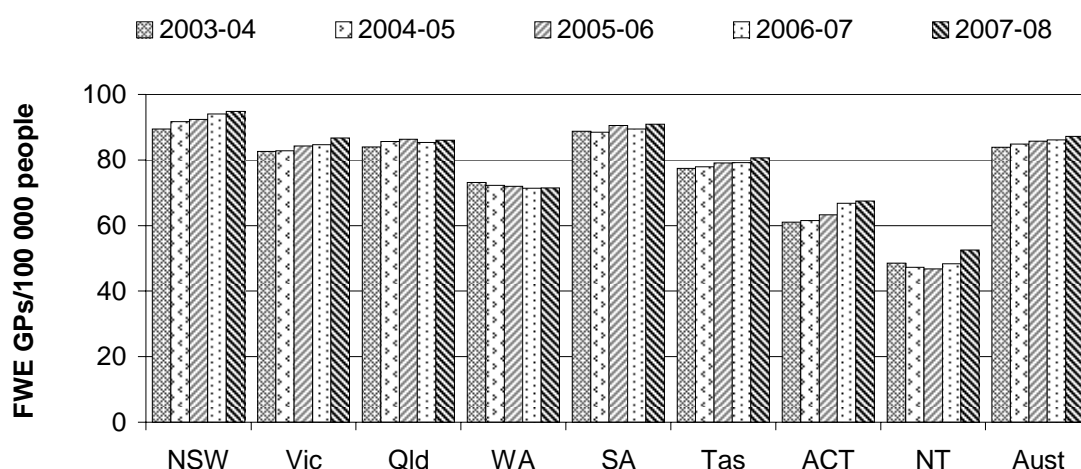
Source: AIHW (2008), *Health Expenditure Australia 2006-07*, Cat. no. HWE 42.

Size and scope

General practice

There were 26 212 vocationally recognised GPs and OMPs billing Medicare in Australia in 2007-08. On a full time workload equivalent (FWE) basis, there were 18 613 vocationally recognised GPs and OMPs (see section 11.5 for a definition of FWE). This was equal to 87.2 FWE recognised GPs and OMPs per 100 000 people (table 11A.3). These data exclude services provided by GPs working with the Royal Flying Doctor Service and GPs working in Indigenous primary health care services and public hospitals. In addition, the data are based on Medicare claims, which for some GPs (particularly in rural areas) pay for only part of their workload. Compared with metropolitan GPs, those in rural or remote areas spend more of their time working in local hospitals, for which they are not paid through Medicare. The numbers of FWE vocationally recognised GPs and OMPs per 100 000 people across jurisdictions are shown in figure 11.1.

Figure 11.1 Availability of GPs (full time workload equivalent)^a



^a Data include vocationally recognised GPs and OMPs billing Medicare who are allocated to a jurisdiction based on the postcode of their major practice.

Source: DoHA (unpublished), derived from the MBS data system; table 11A.3.

Pharmaceutical Benefits Scheme and Repatriation Pharmaceutical Benefits Scheme

There were around 186 million services provided under the PBS and RPBS in 2007-08, amounting to 8.8 scripts per person. There were around 171 million services provided under the PBS in 2007-08, of which 85.7 per cent were concessional (table 11.4).

Table 11.4 PBS and RPBS services, 2007-08 (million services)

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
PBS general ^a	8.1	5.9	4.8	2.5	1.8	0.5	0.5	0.1	24.1
PBS concessional ^b	50.3	37.7	27.9	12.1	12.8	4.4	1.4	0.4	146.8
PBS doctor's bag	0.1	0.1	0.1	–	–	–	–	–	0.3
PBS total	58.5	43.6	32.7	14.6	14.5	4.9	1.9	0.6	171.3
RPBS total ^c	4.9	3.2	3.2	1.1	1.1	0.5	0.2	–	14.3
Total	63.4	46.8	35.9	15.7	15.7	5.3	2.1	0.6	185.6
Services per capita	9.2	8.9	8.5	7.4	9.8	10.7	6.1	2.9	8.8

^a Includes PBS general ordinary and safety net. ^b Includes concessional ordinary and concessional free safety net. ^c Includes RPBS ordinary and RPBS safety net. – Nil or rounded to zero.

Source: DoHA (unpublished), derived from the PBS data system.

Community health services

The range of community health services available varies considerably across jurisdictions. Tables 11A.52–11A.60 provide information on community health programs in each jurisdiction. The more significant of these programs are described below. Other community health programs provided by some jurisdictions include:

- women’s health services that provide services and health promotion programs for women across a range of health related areas
- men’s health programs (mainly promotional and educational programs)
- allied health services
- community rehabilitation programs.

Community health programs that address mental health, home and community care, and aged care assessments are reported in chapters 12 (Health management) and 13 (Aged care).

Maternal and child health

All jurisdictions provide maternal and child health services through their community health programs. These services include: parenting support programs (including antenatal and postnatal programs); early childhood nursing programs; disease prevention programs (including childhood immunisations); and early intervention and treatment programs related to child development and health. Some jurisdictions also provide specialist programs through child health services, including hearing screening programs, and mothers and babies residential programs. Performance indicators for maternity services in public hospitals are reported in chapter 10 (Public hospitals).

Public dental services

All jurisdictions provide some form of public dental service for primary school children. Some jurisdictions also provide dental services to secondary school students. In WA, SA, Tasmania, and the NT, for example, general dental care (including preventative care) is provided for school children up to 18 years of age (tables 11A.56 [WA], 11A.57 [SA], 11A.58 [Tasmania] and 11A.60 [NT]).

States and territories also provide some general dental services and a limited range of specialist dental services to disadvantaged adults (holders of concession cards issued by Centrelink). In some jurisdictions, specialist dental services are provided mainly by qualified dental specialists; in others, they are provided in dental teaching

hospitals as part of training programs for dental specialists (National Advisory Committee on Oral Health 2004). A number of jurisdictions indicated to the Review that they provided public dental services in 2007-08 targeted at disadvantaged people (tables 11A.52–11A.60).

Alcohol and other drug treatment

Alcohol and other drug treatment activities range from a brief intervention to long term residential treatment. Types of treatment include detoxification, pharmacological treatment (also known as substitution or maintenance treatment), counselling and rehabilitation. The data included here have been sourced from a report on the Alcohol and Other Drug Treatment Services National Minimum Data Set (AIHW 2008a). Treatment activities excluded from that report include opioid pharmacotherapy treatment where no other treatment is provided, the majority of services for Indigenous people that are funded by the Australian Government, treatment services within the correctional system, and treatment units associated with acute care and psychiatric hospitals.

A total of 633 alcohol and other drug treatment services reported 2006-07 data to the Alcohol and Other Drug Treatment Services National Minimum Data Set (AODTS–NMDS). Of these, 305 (48.2 per cent) identified as government providers and 328 (51.8 per cent) identified as non-government providers (table 11A.8). All of the non-government providers received some government funding for 2006-07. There were 147 325 reported closed treatment episodes in 2006-07 (see section 11.5 for a definition of closed treatment episode). Clients seeking treatment for their own substance use, of whom 67.4 per cent were male, accounted for 140 475 closed treatment episodes (AIHW 2008a).

Alcohol was the most commonly reported principal drug of concern in closed treatment episodes for clients seeking treatment for their own substance abuse (42.3 per cent). Cannabis was the next most common drug of concern (22.8 per cent), followed by opioids (14.4 per cent; heroin accounted for 10.6 per cent) and amphetamines (12.3 per cent) (AIHW 2008a). Further information on alcohol and other drug treatment services funded by governments is included in tables 11A.52–11A.60.

Indigenous community healthcare services

Indigenous Australians use a range of primary health care services, including private general practitioners and Aboriginal and Torres Strait Islander Community Controlled Primary Health Care Services. There are Aboriginal and Torres Strait Islander Community Controlled Primary Health Care Services in all jurisdictions.

These services are planned and governed by local Indigenous communities and aim to deliver holistic and culturally appropriate health and health-related services. Funding is provided by Australian, State and Territory governments. In addition to these healthcare services, health programs for Indigenous Australians are funded by a number of jurisdictions. In 2007-08, these programs included services such as health information, promotion, education and counselling; alcohol, tobacco and other drug services; sexual health services; allied health services; disease/illness prevention; and improvements to nutrition standards (tables 11A.52–11A.60).

Data on Aboriginal and Torres Strait Islander primary healthcare services that receive funding from the Australian Government are collected through service activity reporting (SAR) questionnaires. Many of these services receive additional funding from State and Territory governments and other sources. The SAR data reported here represent the health related activities, episodes and workforce funded from all sources.

For 2006-07, SAR data are reported for 146 Indigenous primary healthcare services (table 11A.4). Of these services, 54 (37.0 per cent) were located in remote or very remote areas (table 11A.5). They provided a wide range of primary healthcare services, including the diagnosis and treatment of illness and disease, the management of chronic illness, immunisations and transportation to medical appointments (table 11A.6). An episode of healthcare is defined in the SAR data collection as contact between an individual client and staff of a service to provide healthcare. Over 1.6 million episodes of healthcare were provided by participating services in 2006-07 (table 11.5). Of these, around 582 000 (35.2 per cent) were in remote or very remote areas (table 11A.5).

Table 11.5 Estimated episodes of healthcare for Indigenous people by services for which SAR data are reported ('000)^a

	<i>NSW and ACT^b</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>NT</i>	<i>Aust</i>
2002-03	423	130	234	337	140	20	216	1499
2003-04	430	169	267	302	142	22	280	1612
2004-05	415	151	254	274	145	23	323	1585
2005-06	505	179	240	281	101	29	347	1681
2006-07 ^c	440	177	253	284	114	31	354	1652

^a An episode of healthcare involves contact between an individual client and service staff to provide healthcare. Group work is not included. Transport is included only if it involves provision of healthcare and/or information by staff. Outreach provision, for example episodes at outstation visits, park clinics and satellite clinics, is included. Episodes of health care delivered over the phone are included. ^b Data for NSW and the ACT have been combined for confidentiality purposes. ^c 2006-07 data are preliminary results.

Source: DoHA (unpublished), derived from the Service Activity Reporting data collection.

The services included in the SAR data collection employed 2198 full time equivalent health staff (as at 30 June 2007). Of these, 1351 were Indigenous (61.5 per cent). The proportions of doctors and nurses employed by surveyed services who were Indigenous were relatively low (3.2 per cent and 13.3 per cent, respectively) (table 11A.7).

11.2 Framework of performance indicators

The performance indicator framework is based on the shared government objectives for primary and community health (box 11.1). The framework provides information on equity, effectiveness and efficiency, and distinguishes outputs from outcomes. This approach is consistent with the general performance indicator framework for this Review that has been agreed by the Steering Committee (see chapter 1). The framework will evolve as better indicators are developed and as the focus and objectives for primary and community health change. In particular, the Steering Committee plans to develop and report against more indicators relating to community health services.

Box 11.1 Objectives for primary and community health

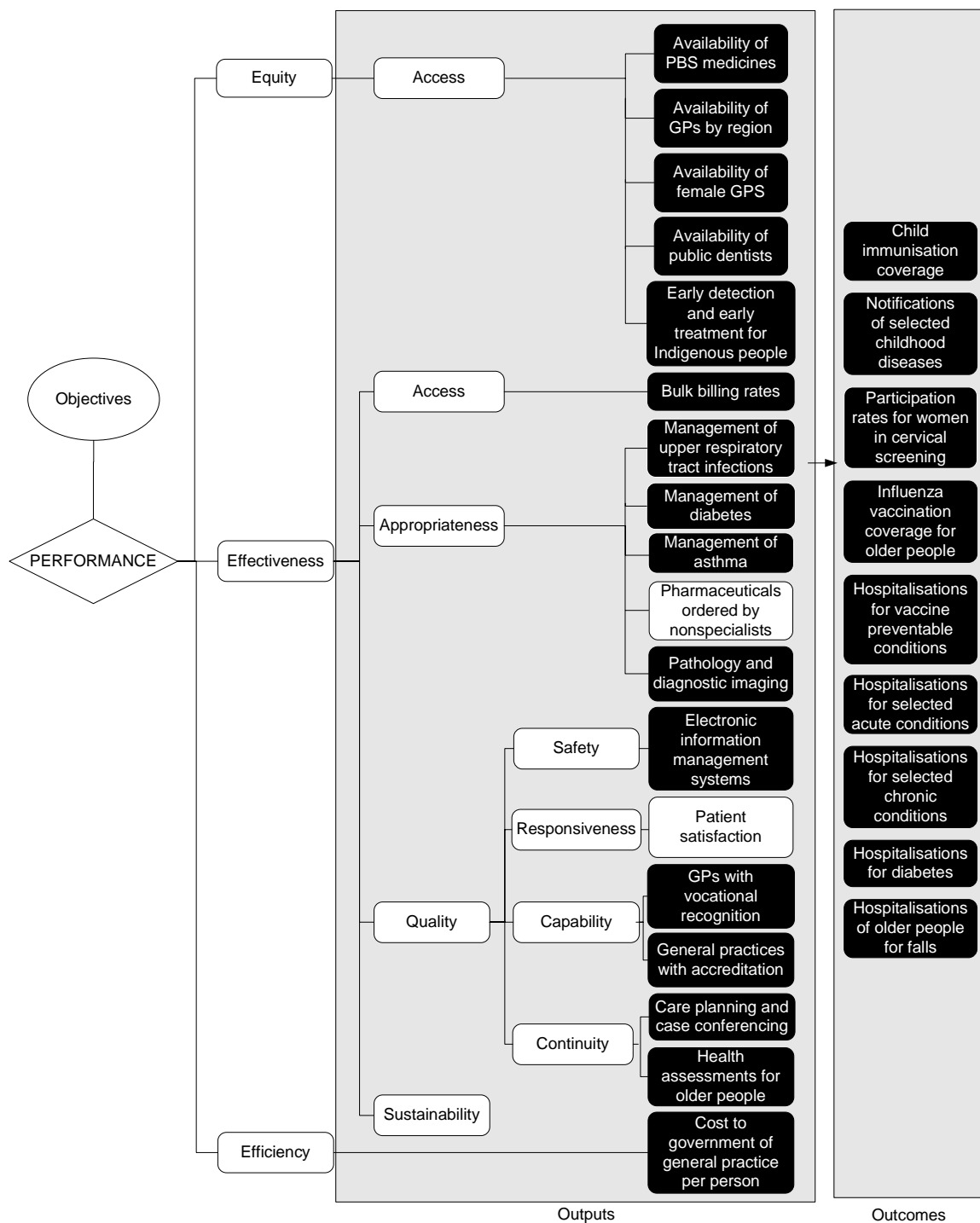
Primary and community health services aim to promote the health of Australians by:

- acting as the first point of entry to the healthcare system
- providing healthcare that promotes changes in lifestyle behaviour and prevents possible illness
- coordinating and integrating healthcare services on behalf of clients
- providing continuity of care

in an equitable and efficient manner based on the best available evidence of the effectiveness of healthcare interventions.

The performance indicator framework shows which data are comparable in the 2009 Report (figure 11.2). For data that are not considered directly comparable, the text includes relevant caveats and supporting commentary. Chapter 1 discusses data comparability from a Report wide perspective (see section 1.6). The ‘Health preface’ explains the performance indicator framework for health services as a whole, including the subdimensions for quality and sustainability that have been added to the standard Review framework.

Figure 11.2 Performance indicators for primary and community health



Key to indicators

Text Data for these indicators comparable, subject to caveats to each chart or table

Text Data for these indicators not complete or not directly comparable

Text These indicators yet to be developed or data not collected for this Report

11.3 Key performance indicator results

Different delivery contexts, locations and client factors may affect the equity, effectiveness and efficiency of health services. Appendix A contains detailed statistics and short profiles on each State and Territory, which may assist in interpreting the performance indicators presented in this chapter.

Outputs

Outputs are the actual services delivered (while outcomes are the impact of these services on the status of an individual or group) (see chapter 1, section 1.5).

Equity

For the purposes of this Report, equity is defined in terms of adequate access to government services for all Australians. Access to primary and community health services may be affected through factors such as disability, socioeconomic circumstance, age, geographic distance, cultural issues and English language proficiency (see chapter 1). Such issues have contributed to the generally poor health status of Indigenous people relative to other Australians (see the 'Health Preface' and SCRGSP 2007).

Access

Five indicators of governments' objective to provide equitable access to primary and community health services are reported:

- 'availability of PBS medicines'
- 'availability of FWE GPs by region'
- 'availability of female GPs'
- 'availability of public dentists'
- 'early detection and early treatment for Indigenous people'.

Availability of PBS medicines

'Availability of PBS medicines' is an indicator of governments' objective to provide equitable access to PBS medicines (box 11.2). Medicines are important in treating illness and can also be important in preventing illness from occurring. The availability of medicines is therefore a significant determinant of people's health

and medicines should be available to those who require them regardless of where they live or socioeconomic circumstance.

Box 11.2 Availability of PBS medicines

‘Availability of PBS medicines’ is measured in three ways:

- ‘People per pharmacy by region’
- ‘PBS expenditure per person by region’
- ‘The proportion of PBS prescriptions filled at a concessional rate’.

‘People per pharmacy by region’ is defined as the estimated resident population (ERP), divided by the number of pharmacies, in urban and in rural regions. A decrease in people per pharmacy may indicate greater availability of PBS medicines.

‘PBS expenditure per person by region’ is defined as expenditure on PBS medicines, divided by the ERP, in urban and in rural regions. An increase in PBS expenditure per person may indicate improved availability of PBS medicines.

‘The proportion of PBS prescriptions filled at a concessional rate’ is defined as the number of PBS prescriptions filled at a concessional rate, divided by the total number of prescriptions filled. An increase in the proportion of PBS prescriptions filled at a concessional rate may indicate improved availability of PBS prescriptions to disadvantaged people.

It is also important that there are not large discrepancies in these measures by region.

This indicator does not provide information on whether the services are appropriate for the needs of the people receiving them.

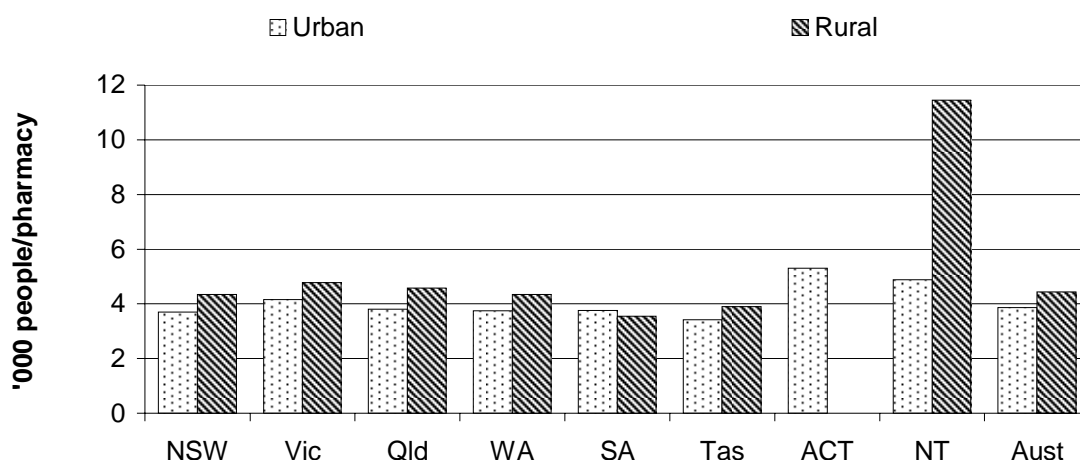
Data for this indicator are comparable.

Access to PBS medicines is primarily governed by the distribution of pharmacies. Across Australia, there were 3863 people per pharmacy in urban areas and 4436 in rural areas in 2007-08. In most states and territories, the number of people per pharmacy was higher in rural areas than in urban areas (figure 11.3).

Medical practitioners and hospitals can also be approved to supply PBS medicines to the community, improving access for people in some locations. There were 71 medical practitioners and 224 hospitals — 71 private and 153 public¹ — approved to supply PBS medicines to the community in 2007-08. The medical practitioners as well as 74 of the public hospitals were located in rural areas (table 11A.9).

¹ PBS approved private hospitals supply medicines to patients of the hospital (inpatients and outpatients), while public hospitals provide medicines only to patients on discharge.

Figure 11.3 People per pharmacy, 2007-08^a

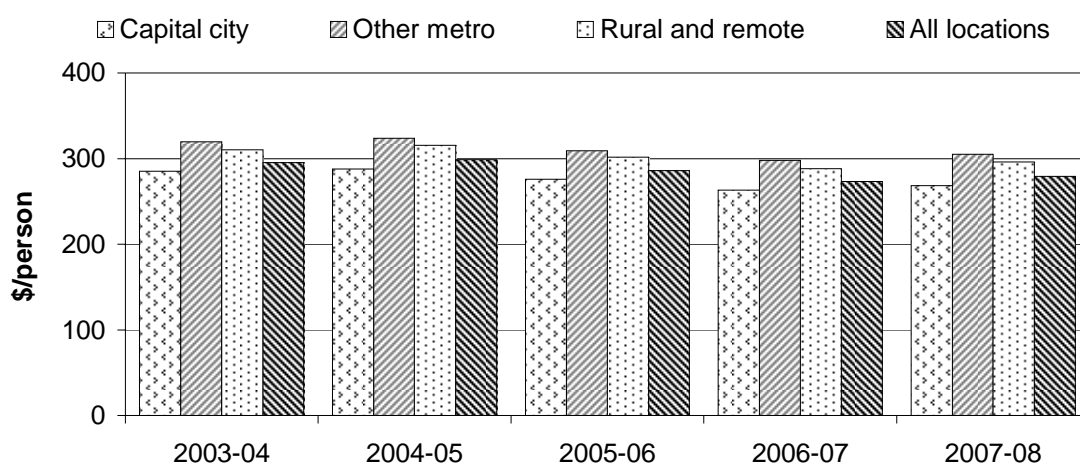


^a Geolocation based on the Pharmacy Access/Remoteness Index of Australia (PhARIA). Urban = PHARIA 1. Rural = PHARIA 2-6. The ACT has no rural statistical areas.

Source: DoHA (unpublished), derived from Medicare Australia, the ABS 2006 Census of Population and Housing and the University of Adelaide's National Centre for Social Applications of Geographic Information Systems; table 11A.9.

Nationally, PBS expenditure per person increased from \$273 in 2006-07 to \$279 in 2007-08 (figure 11.4). PBS expenditure per person was higher in rural and remote areas than in capital cities for the period 2003-04 to 2007-08 (in 2007-08 dollars).

Figure 11.4 PBS expenditure per person (2007-08 dollars)^a



^a Locality level data are only available on a cash basis for general and concessional categories. These figures are not directly comparable to those published in DoHA's annual report which are prepared on an accrual accounting basis and include other categories administered under special arrangements (such as medications dispensed under s.100 of the *National Health Act 1953* [Cwlth]).

Source: DoHA (unpublished), derived from the PBS data system; table 11A.11.

The proportion of PBS prescriptions filled at a concessional rate is reported by State and Territory in table 11A.9. These data are not available by regional location. Australia-wide, 85.7 per cent of prescriptions subsidised under the PBS were concessional in 2007-08.

Availability of GPs by region

‘Availability of GPs by region’ is an indicator of governments’ objective to provide equitable access to primary healthcare services (box 11.3). Low availability may be associated with an increase in distance travelled and waiting times to see a GP, and increased difficulty in booking long consultations. Low availability may also reduce bulk billing rates through reducing competition for patients. Australian, State and Territory governments seek to influence the availability of GPs by providing incentives for the recruitment and retention of GPs in rural and remote areas.

Box 11.3 Availability of GPs by region

‘Availability of GPs by region’ is defined as the number of FWE GPs per 100 000 people, by region.

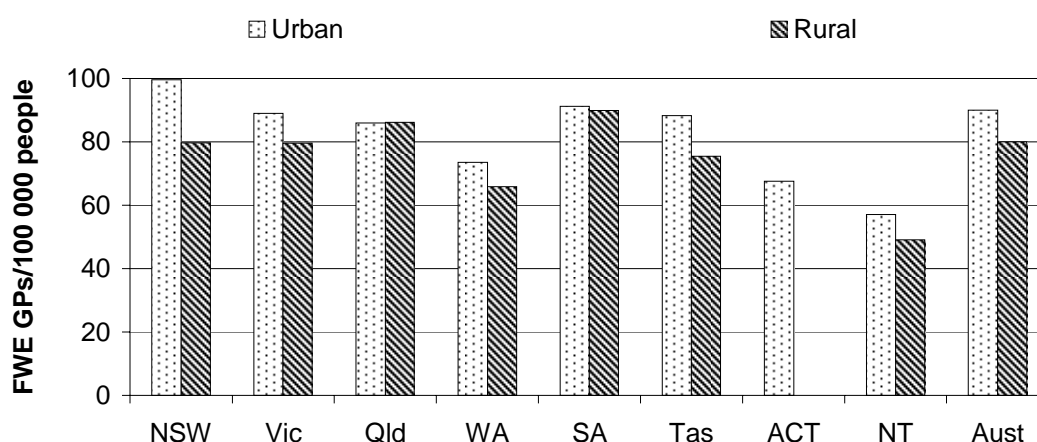
An increase in the availability of GPs may indicate improved access to GP services, particularly in rural and remote regions.

This indicator does not provide information on whether people are accessing GP services or whether the services are appropriate for the needs of the people receiving them.

Data for this indicator are comparable.

In terms of FWE GPs per 100 000 people, there were more GPs available in urban than in rural areas in almost all states and territories in 2007-08 (figure 11.5). The bulk billed proportion of non-referred attendances was generally lower in rural and remote areas, excepting ‘other remote’ areas, than in capital cities and ‘other metropolitan centres’ (table 11A.20).

Figure 11.5 **Availability of GPs (full time workload equivalent), 2007-08^{a, b, c}**



^a Geographical locations are based on the Rural, Remote and Metropolitan Areas (RRMA) classification. Urban areas consist of capital city and other metro areas. Rural areas consist of large rural centres, small rural centres, other rural areas, remote centres, other remote areas and other areas. ^b FWE GP numbers include vocationally recognised GPs and OMPs billing Medicare, who are allocated to a jurisdiction based on the postcode of their major practice. ^c The ACT has no rural areas.

Source: DoHA (unpublished), derived from the MBS data system; table 11A.12.

Availability of female GPs

‘Availability of female GPs’ is an indicator of governments’ objective to provide equitable access to GPs for women who prefer to discuss health matters with, and to receive primary healthcare from, a female GP (box 11.4).

Box 11.4 Availability of female GPs

‘Availability of female GPs’ is defined as the number of female FWE GPs per 100 000 females.

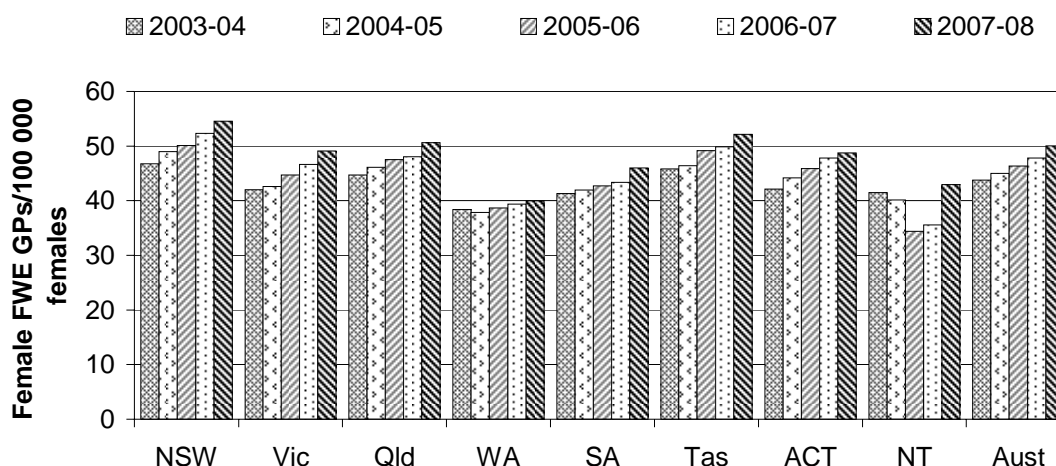
A higher rate means it is more likely that female patients who prefer to visit female GPs will have their preference met.

This indicator does not provide information on whether women are accessing female GPs or whether the services are appropriate for the needs of the people receiving them.

Data for this indicator are comparable.

In 2007-08, 38.7 per cent of Australia’s GPs — 28.9 per cent of FWE GPs — were female (tables 11A.3 and 11A.13). The number of FWE GPs per 100 000 females increased from 43.8 to 50.0 in the period 2003-04 to 2007-08 (figure 11.6).

Figure 11.6 Availability of female GPs (full time workload equivalent)^a



^a Data relate to vocationally recognised GPs and OMPs billing Medicare, who are allocated to a jurisdiction based on the postcode of their major practice.

Source: DoHA (unpublished), derived from the MBS data system; table 11A.13.

Availability of public dentists

‘Availability of public dentists’ is an indicator of governments objective to provide equitable access to dental services. The availability (or supply) of public dentists by region affects people’s access to public dental services, particularly in rural and remote areas. Low availability can result in increased travel distance to a dentist and increased waiting times to see a dentist (box 11.5).

Box 11.5 Availability of public dentists

‘Availability of public dentists’ is defined as the number of full time equivalent (FTE) public dentists per 100 000 people by region.

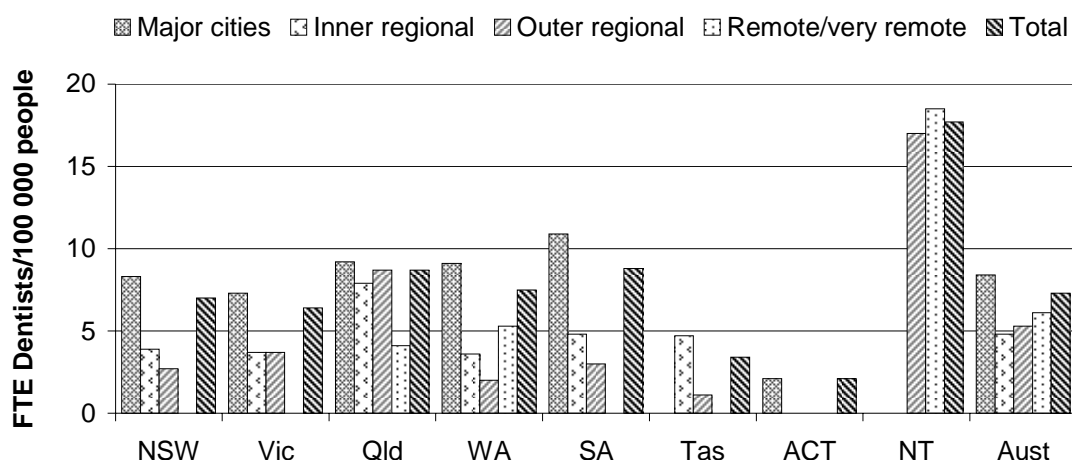
An increase in the availability of public dentists indicates improved access to dental services.

This indicator does not provide information on whether people are accessing the service or whether the services are appropriate for the needs of the people receiving them.

Data for this indicator are comparable.

Nationally, there were more FTE public dentists per 100 000 people in major cities than in regional or remote areas in 2006 (figure 11.7; table 11A.14).

Figure 11.7 Availability of public dentists, 2006^{a, b, c}



a FTE based on 40-hour week. **b** There were no public dentists in remote and very remote areas in Victoria or Tasmania. There were no public dentists in inner regional areas in the ACT. **c** Tasmania had no major cities. The ACT had no outer regional, or remote and very remote, areas. The NT had no major cities or inner regional areas.

Source: AIHW (unpublished), derived from the National dental labour force collection; table 11A.14.

Early detection and early treatment for Indigenous people

‘Early detection and early treatment for Indigenous people’ is an indicator of governments’ objective to provide equitable access to primary and community healthcare services for Indigenous people (box 11.6).

The high prevalence of preventable and/or treatable health conditions in the Indigenous population is strongly associated with relatively poor health outcomes for Indigenous people (AIHW 2007a; SCRGSP 2007). Early detection and early treatment refers to the identification of individuals who are at high risk for, or in the early stages of, such conditions. Early detection and early treatment services provide opportunities for timely prevention and intervention measures, and their availability and uptake is understood to be a significant determinant of people’s health.

Voluntary health assessments and checks are Medicare Benefit Schedule (MBS) items that allow GPs to undertake comprehensive examinations of patient health, including physical, psychological and social functioning. They are available for older Australians as well as for Indigenous people of all ages, as the prevalence of preventable and/or treatable conditions is high in both population groups.

Box 11.6 Early detection and early treatment for Indigenous people

'Early detection and early treatment for Indigenous people' is measured in four ways:

- Older people who received a voluntary health assessment by Indigenous status
- Older Indigenous people who received a voluntary health assessment, time series
- Indigenous people who received a voluntary health assessment or check by age group
- Aboriginal and Torres Strait Islander primary healthcare services that provided early detection services.

'Older people who received a voluntary health assessment by Indigenous status' is defined as the proportion of older people who received a voluntary health assessment by Indigenous status. A reduction in the gap between the proportion of all older people and older Indigenous people that received a health assessment indicates improved access to early detection and early treatment services for Indigenous people.

'Older Indigenous people who received a voluntary health assessment, time series' is defined as the proportion of older Indigenous people who received a voluntary health assessment in successive years of a five year period. An increase is desirable as it indicates improved access to these services.

'Indigenous people who received a voluntary health assessment or check by age group' is defined as the proportion of Indigenous people who received a voluntary health assessment/check, in each of the three age groups for which they are available. A reduction in the gap between the proportion of Indigenous people in different age groups that received a health assessment/check may indicate more equitable access to early detection and treatment services within the Indigenous population.

'Aboriginal and Torres Strait Islander primary healthcare services that provided early detection services' is defined as the proportion of Aboriginal and Torres Strait Islander primary healthcare services that included early detection activities in the services provided. An increase is desirable as it indicates improved access to early detection and treatment services for Indigenous Australians.

This indicator provides no information about early detection and early treatment services that are not provided under Medicare. Such services are provided by salaried GPs in community health settings, hospitals and Indigenous-specific primary health care services, particularly in rural and remote areas. Accordingly, this indicator understates the proportion of people who received early detection and early treatment services.

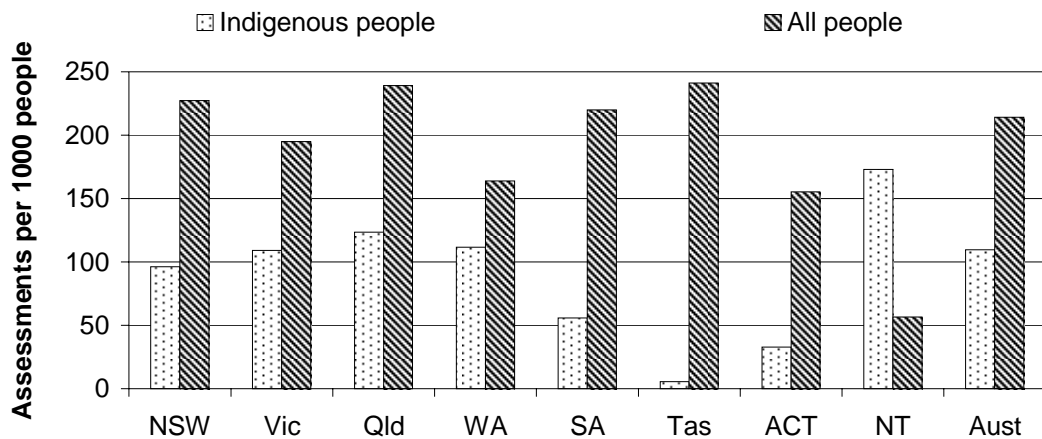
Data for this indicator are comparable.

For this indicator, older people are defined as non-Indigenous people aged 75 years or over and Indigenous people aged 55 years or over, excluding hospital inpatients and people living in aged care facilities. The larger age range for Indigenous people recognises that they typically face increased health risks at younger ages than most

other groups in the population. It also broadly reflects the difference in average life expectancy between the Indigenous and non-Indigenous populations (see the 'Health preface').

Figure 11.8 shows that in 2007-08 the proportion of Indigenous older people who received an annual health assessment was considerably lower than the proportion of all older people who received an annual health assessment. This suggests that access to early detection and early treatment services may not be equitable.

Figure 11.8 **Older people who received an annual health assessment by Indigenous status, 2007-08^{a, b}**

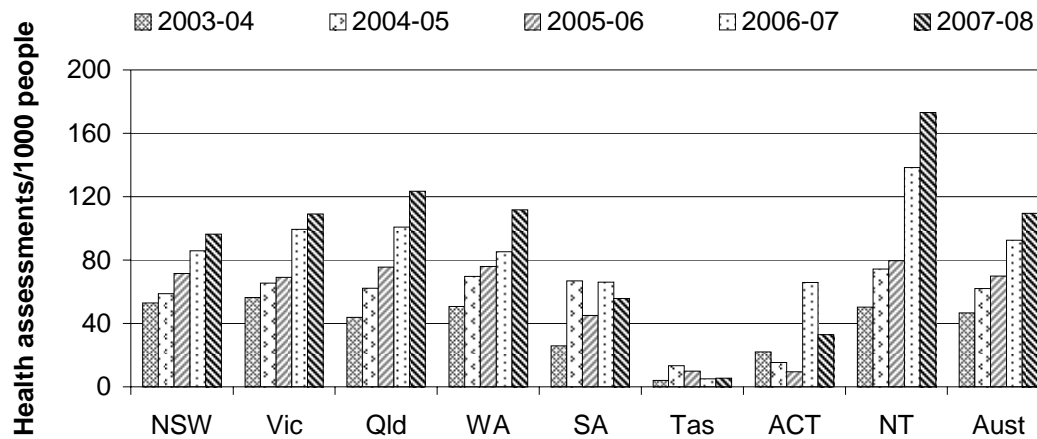


^a Older people are defined as Indigenous people aged 55 years or over and non-Indigenous people aged 75 years or over. ^b Indigenous status is determined by self-identification. Indigenous people aged 75 years or over may have received a health assessment under the 'all older people' MBS items. This is considered unlikely to affect overall proportions significantly, due to the relatively low average life expectancy of Indigenous people.

Source: Medicare Australia (unpublished), derived from *Medicare Benefits Schedule Item Statistics Reports*, available: http://www.medicareaustralia.gov.au/statistics/dyn_mbs/forms/mbs_tab4.shtml (accessed 9 October 2008); ABS 2004, *Experimental estimates and projections, Aboriginal and Torres Strait Islander Australians*, Cat. no. 3238.0; ABS 2008, *Australian demographic statistics March quarter 2008*, Cat. no. 3101.0; ABS (unpublished), derived from *2006 Census of Population and Housing*; table 11A.16.

Figure 11.9 shows that the proportion of older Indigenous people who received an annual health assessment steadily increased in most jurisdictions between 2003-04 and 2007-08. This indicates that access to early detection and early treatment services for this population has improved in these jurisdictions.

Figure 11.9 Older Indigenous people who received an annual health assessment^a



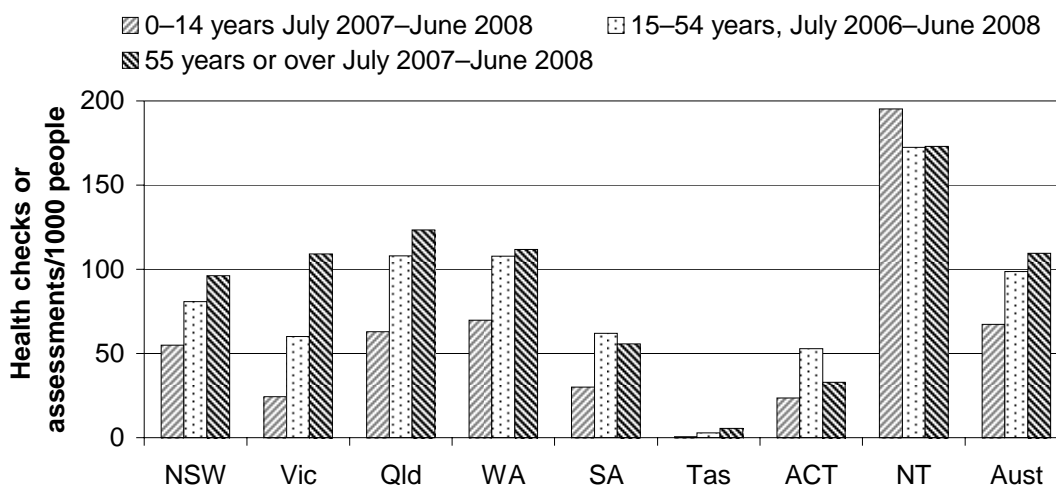
^a Indigenous status is determined by self-identification. Indigenous people aged 75 years or over may have received a health assessment under the 'all older people' MBS items. This is considered unlikely to significantly affect overall proportions due to the relatively low average life expectancy of Indigenous people.

Source: Medicare Australia (unpublished), derived from *Medicare Benefits Schedule Item Statistics Reports*, available: http://www.medicareaustralia.gov.au/statistics/dyn_mbs/forms/mbs_tab4.shtml (accessed 9 October 2008); ABS 2004, *Experimental estimates and projections, Aboriginal and Torres Strait Islander Australians*, Cat. no. 3238.0; ABS 2008, *Australian demographic statistics March quarter 2008*, Cat. no. 3101.0; ABS (unpublished), derived from *2006 Census of Population and Housing*, table 11A.17.

Health check MBS items were introduced for Indigenous people aged 15–54 years in May 2004, and Indigenous children aged 0–14 years in May 2006. Health checks are available annually for children aged 0–14 years, and biennially for 15–54 year olds.

Figure 11.10 shows that the proportion of the eligible Indigenous population that received a health assessment or check was highest for older people and lowest for children aged 0–14 years in most jurisdictions. This may in part reflect differences in how long the items have been available, as factors such as awareness and administrative requirements affect the uptake of new MBS items (AIHW 2007a).

Figure 11.10 Indigenous people who received a health check or assessment by age^{a, b}



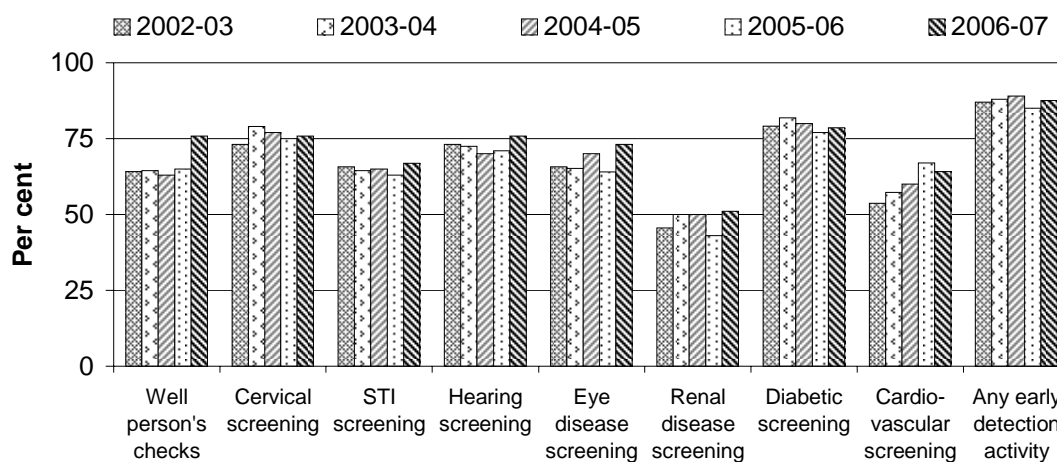
^a Indigenous status is determined by self-identification. Indigenous people aged 75 years or over may have received a health assessment under the 'all older people' MBS items. This is considered unlikely to significantly affect overall proportions due to the relatively low average life expectancy of Indigenous people.

^b Health checks for 0-14 year olds, and health assessments for those aged 55 years or over, are available annually. Data for these age groups are for the period 1 July 2007 to 30 June 2008. Health checks for 15-54 year olds are available biennially, and these data are for the period 1 July 2006 to 30 June 2008.

Source: Medicare Australia (unpublished), derived from *Medicare Benefits Schedule Item Statistics Reports*, available: http://www.medicareaustralia.gov.au/statistics/dyn_mbs/forms/mbs_tab4.shtml (accessed 9 October 2008); ABS 2004, *Experimental estimates and projections, Aboriginal and Torres Strait Islander Australians*, Cat. no. 3238.0; ABS 2008, *Australian demographic statistics March quarter 2008*, Cat. no. 3101.0; ABS (unpublished), derived from *2006 Census of Population and Housing*; table 11A.18.

Figure 11.11 shows the proportion of Indigenous primary healthcare services for which SAR data are reported that provided various early detection services over the five year period to 2006-07.

Figure 11.11 Indigenous primary healthcare services for which SAR data are reported that provided early detection services



Source: DoHA (unpublished), derived from the Service Activity Reporting data collection (SAR); table 11A.19.

Effectiveness

Access

'Bulk billing rates' is currently the only indicator reported against effectiveness and access.

Bulk billing rates

'Bulk billing rates' are an indicator of governments' objective to provide affordable access to GP services (box 11.7).

Patient visits to GPs are classed as non-referred attendances under Medicare. Patients are either bulk billed or required to pay part of the cost of the non-referred attendance. Where a patient is bulk billed, the GP bills Medicare Australia directly and, since 1 January 2005, receives 100 per cent of the Schedule fee (the patient's rebate) as full payment for the service. The 100 per cent Medicare rebate applies to most services provided by a GP. The patient makes no out-of-pocket contribution.

Box 11.7 Bulk billing rates

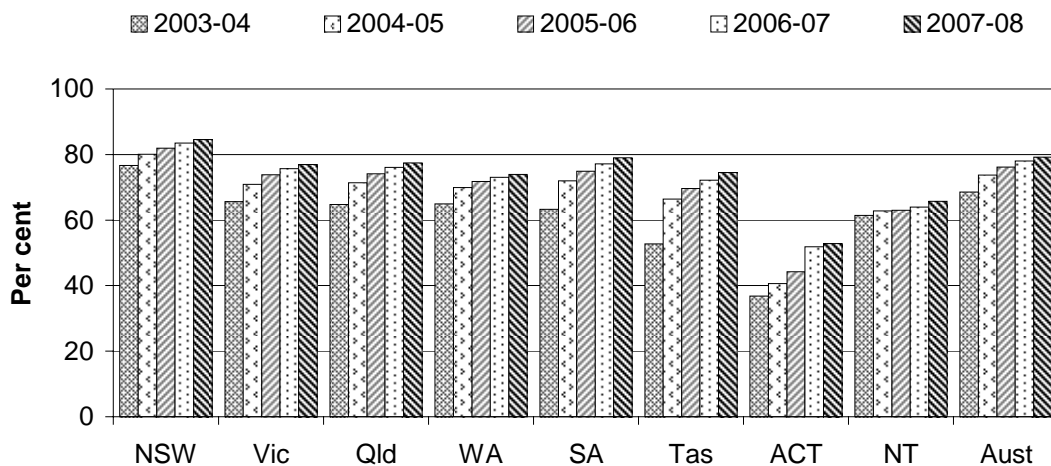
'Bulk billing rates' is defined as the number of non-referred attendances that were bulk billed as a proportion of all non-referred attendances.

A higher proportion of bulk billed attendances indicates greater affordability of GP services. However, this indicator does not provide information on whether the services are appropriate for the needs of the people receiving them.

Data for this indicator are comparable.

Australia-wide, the bulk billed proportion of non-referred attendances, including those by practice nurses, was 79.2 per cent in 2007-08. For all jurisdictions, this proportion increased in the period 2003-04 to 2007-08 (figure 11.12). The bulk billed proportion of non-referred attendances was highest in capital cities and other remote areas (table 11A.20).

Figure 11.12 Non-referred attendances that were bulk billed^a



^a Includes attendances by practice nurses since 2003-04.

Source: DoHA (unpublished), derived from the MBS data system; table 11A.21.

Appropriateness

Four indicators of the appropriateness of GP services are reported:

- 'Management of upper respiratory tract infections'
- 'Management of diabetes'
- 'Management of asthma'

-
- ‘Pathology tests and diagnostic imaging ordered by non specialists.

Management of upper respiratory tract infections

‘Management of upper respiratory tract infections’ is an indicator of governments’ objective to ensure that antibiotics are used appropriately and effectively (box 11.8).

Upper respiratory tract infection (URTI) without complication is most often caused by a virus. Antibiotics have no efficacy in the treatment of viral infections, but are nevertheless frequently prescribed for viral infections. Unnecessarily high rates of antibiotic prescription for URTI have the potential to increase pharmaceutical costs and to increase antibiotic resistance in the community.

Box 11.8 Management of upper respiratory tract infections

‘Management of upper respiratory tract infections’ is defined as the number of prescriptions for selected antibiotics (those oral antibiotics most commonly prescribed to treat upper respiratory tract infection [URTI]) that are provided to PBS concession card holders, per 1000 PBS concession card holders.

A downward trend in the prescription rate may indicate that GPs’ management of URTI more closely follows guidelines.

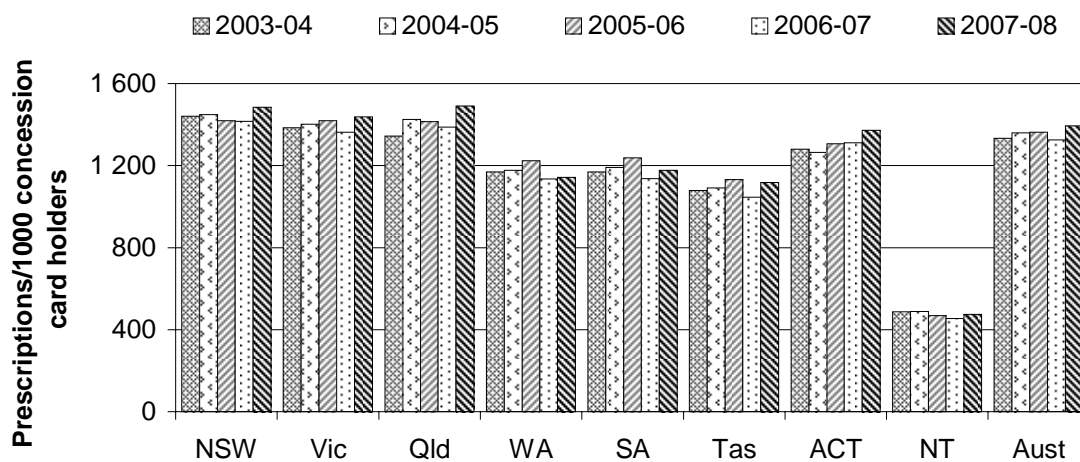
The selected antibiotics may be prescribed for illnesses other than URTI; the indicator provides no information about the condition for which they were prescribed. Data are available only for PBS concession card holders.

Data for this indicator are comparable.

Caution should be used in the interpretation of this indicator over time, as pharmaceutical needs of concession card holders may increase in complexity due to the effects of population ageing.

Australia-wide, the prescription rate for the oral antibiotics most commonly used to treat upper respiratory tract infection in 2007-08 was 1394 per 1000 PBS concession card holders. Prescription rates for these antibiotics fluctuated around the same level in most states and territories between 2003-04 and 2007-08 (figure 11.13).

Figure 11.13 Rate of prescription of the oral antibiotics used most commonly to treat upper respiratory tract infection



Source: DoHA (unpublished), derived from the PBS data system; table 11A.22.

Management of diabetes

‘Management of diabetes’ is an indicator of governments’ objective to ensure appropriate and effective management of chronic disease in the primary and community health sector (box 11.9).

Diabetes mellitus is a chronic disease of increasing prevalence. People with diabetes² are at high risk of serious complications such as cardiovascular, eye and kidney disease. Appropriate management in the primary and community health sector can prevent or minimise the severity of such complications (AIHW 2008b).

Patient compliance with measures to manage diabetes is also a critical determinant of the occurrence and severity of complications.

² Diabetes refers to diabetes mellitus. Diabetes insipidus is not considered here.

Box 11.9 Management of diabetes

The 'proportion of people with diabetes mellitus who have received an annual cycle of care within general practice' is defined as the number of MBS items for completion of a cycle of care for patients with established diabetes mellitus that are claimed, divided by the estimated number of people with diabetes mellitus.

The number of people with diabetes is estimated by applying diabetes prevalence data from the ABS 2004-05 National Health Survey (NHS) to the estimated resident population. Estimates should be treated with caution due to the changing prevalence of diabetes over time.

A high proportion of people with diabetes who have received an annual cycle of care within general practice is desirable.

Various factors influence the uptake of MBS items by GPs. As appropriate management of diabetes by GPs who do not claim the rebates is not captured in this measure, these data should be considered as minimum estimates.

Data reported against this indicator are comparable.

Type 2 diabetes is the most common form of diabetes and is largely preventable. Diabetes has been identified as a National Health Priority Area for Australia.

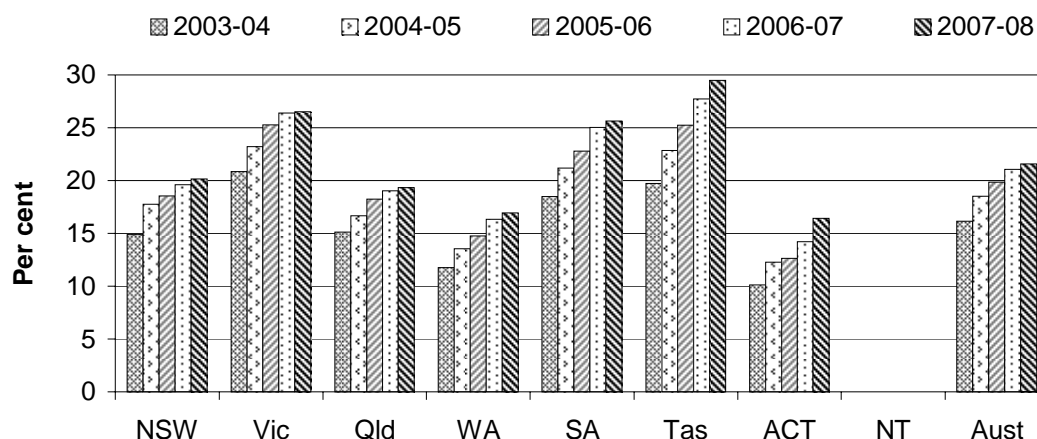
Since 2001, rebates have been available to GPs under the Medicare Benefits Scheme (MBS) on completion of an annual cycle of care for diabetes. The 'required annual cycle of care' is generally based on the RACGP's clinical guidelines for the management of Type 2 diabetes in general practice.³ The need for a standard definition of 'annual cycle of care' has been identified (AIHW 2007b).

The measure 'proportion of people with diabetes mellitus who have received an annual cycle of care within general practice' is reported for the first time against the indicator 'management of diabetes'.

The proportion of people with diabetes receiving an annual cycle of care within general practice increased for all jurisdictions for which data are available in the period 2003-04 to 2007-08 (figure 11.14). Nationwide, 21.6 per cent of people with diabetes received the annual cycle of care in 2007-08 (excluding the NT).

³ An exception is the frequency of glycosolated haemoglobin (HbA1c) testing. Royal Australian College of General Practitioners (RACGP) clinical guidelines specify testing of HbA1c at least 6 monthly for adults and 3 monthly for children and adolescents. The MBS annual cycle of care requires only annual testing of HbA1c (with no differentiation according to age).

Figure 11.14 **People with diabetes mellitus who have received an annual cycle of care within general practice^{a, b, c, d}**



^a Data are minimum estimates as they do not account for GPs who provide the annual cycle of care but do not claim the MBS rebate. ^b The clinical guidelines are for Type 2 diabetes, while the MBS items do not specify a particular type of diabetes. Clinical guidelines represent the minimum level of care required. ^c Estimates for all years are based on 2004-05 NHS prevalence data. They should be treated with caution as the prevalence of diabetes changes over time. ^d 2004-05 NHS data are not available for the NT.

Source: Medicare Australia (unpublished), derived from *Medicare Benefits Schedule Item Statistics Reports*, available: http://www.medicareaustralia.gov.au/statistics/dyn_mbs/forms/mbs_tab4.shtml (accessed 9 October 2008); ABS (2006), *National Health Survey: Summary of Results; State Tables, 2004-05*, Cat. No. 4362.0; ABS (2008), *Australian demographic statistics March quarter 2008*, Cat. no. 3101.0; table 11A.23.

Management of asthma

‘Management of asthma’ is an indicator of governments’ objective to ensure appropriate and effective management of chronic disease in the primary and community health sector. Data are reported for the first time in this Report against the measure ‘proportion of people with asthma who have an asthma action plan’ (box 11.10).

Asthma is a common chronic disease among Australians, particularly children, and is associated with wheezing and shortness of breath (ACAM 2008). Asthma may be intermittent or persistent, and varies in severity. Many symptoms of asthma respond readily to treatment. Asthma is an identified National Health Priority Area for Australia.

Written asthma action plans (AAP) enable people with asthma to recognise and respond quickly and appropriately to deteriorating asthma symptoms (ACAM 2008). This can prevent or reduce the severity of acute asthma episodes. AAPs have been associated with a reduction in hospitalisations and urgent GP visits

for asthma. AAPs have been included in clinical guidelines for asthma management for nearly 20 years (ACAM 2008).

Box 11.10 Management of asthma

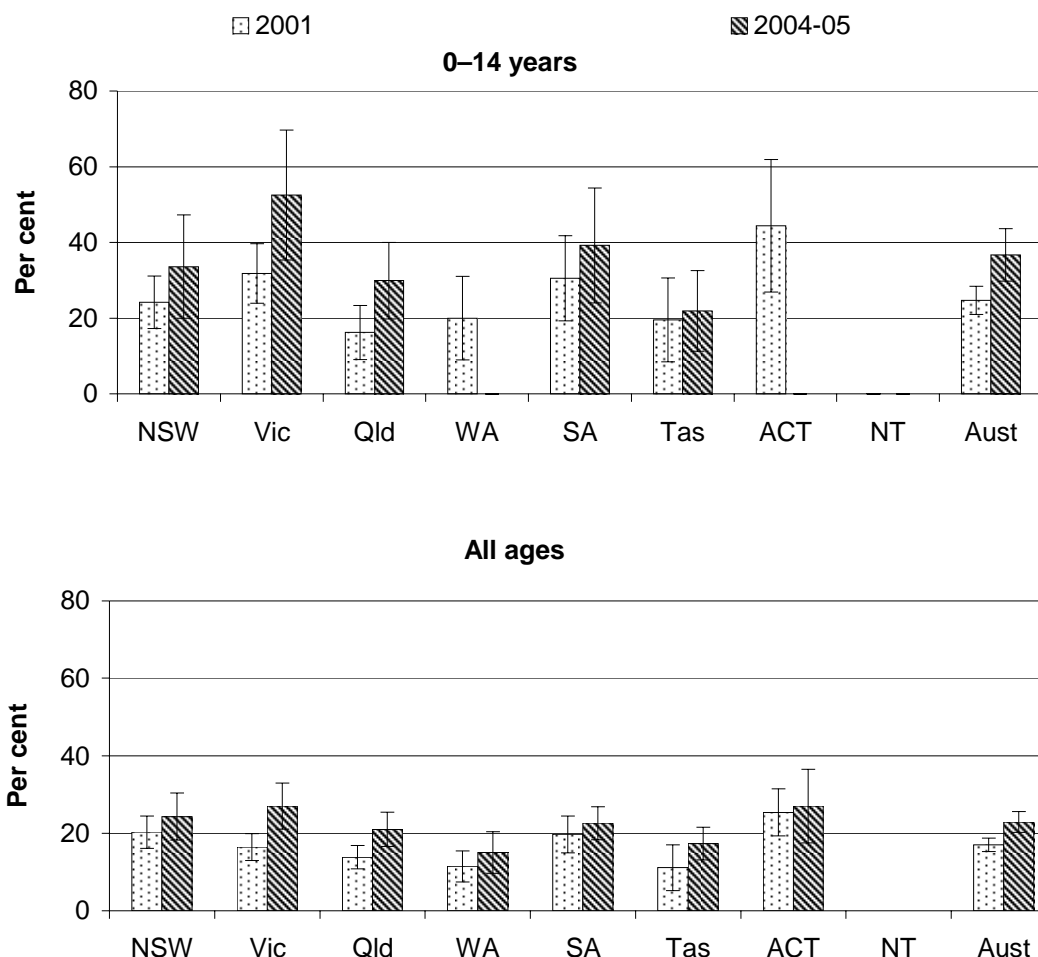
The 'proportion of people with asthma who have an asthma action plan' is defined as the number of people with asthma who have a written asthma action plan, divided by the estimated number of people with asthma.

A high proportion of people with asthma who have an asthma action plan is desirable.

Data reported against this indicator are comparable.

Australia wide, 22.9 per cent of NHS respondents with current asthma reported having a written asthma action plan (AAP) in 2004-05, compared with 17.0 per cent in 2001 (figure 11.15). Children aged 0–14 years with current asthma were most likely to report having an AAP in 2001 (24.7 per cent) and 2004-05 (36.7 per cent).

Figure 11.15 Proportion of people with asthma who have a written asthma action plan^{a, b}



^a Separate estimates for the NT are not available for this survey, but the NT sample contributes to the national estimates. ^b Data from the 2004-05 survey for children aged 0-14 years for WA and the ACT have relative standard errors greater than 50 per cent. They are considered too unreliable for general use and are not published, but the data contribute to the national estimates.

Source: ABS (unpublished), derived from the National Health Survey 2001, 2004-05; table 11A.24.

Pharmaceuticals ordered by non-specialists

'Pharmaceuticals ordered by non-specialists' has been identified as an indicator of governments' objective to ensure the appropriateness of primary healthcare services (box 11.11).

Box 11.11 Pharmaceuticals ordered by non-specialists

'Pharmaceuticals ordered by non-specialists' is yet to be defined.

Data for this indicator were not available for the 2009 Report.

Pathology tests and diagnostic imaging ordered by non-specialists

'Pathology tests and diagnostic imaging ordered by non-specialists' is an indicator of governments' objective to ensure that primary healthcare services are appropriate (box 11.12).

Pathology tests and diagnostic imaging are important tools used by GPs in the diagnosis of many diseases, and in monitoring response to treatment. Their underuse may contribute to the misdiagnosis of disease, and to relatively poor treatment decisions. Excessive use may reflect overreliance on tools to support the diagnostic process. What constitutes appropriate levels of use cannot be determined. However, reporting differences across jurisdictions and over time contributes to the discussion of these issues.

Box 11.12 Pathology tests ordered and diagnostic imaging referrals by non-specialists (vocationally recognised GPs and OMPs)

Four measures of 'pathology tests ordered and diagnostic imaging referrals by non-specialists' are reported:

- pathology tests ordered by vocationally recognised GPs and OMPs, that are rebated through Medicare, per person
- diagnostic imaging referrals by vocationally recognised GPs and OMPs, that are rebated through Medicare, per person
- Medicare benefits paid per person for pathology tests
- Medicare benefits paid per person for diagnostic imaging.

High levels may indicate overreliance by GPs on these diagnostic tools, while low levels may indicate underuse.

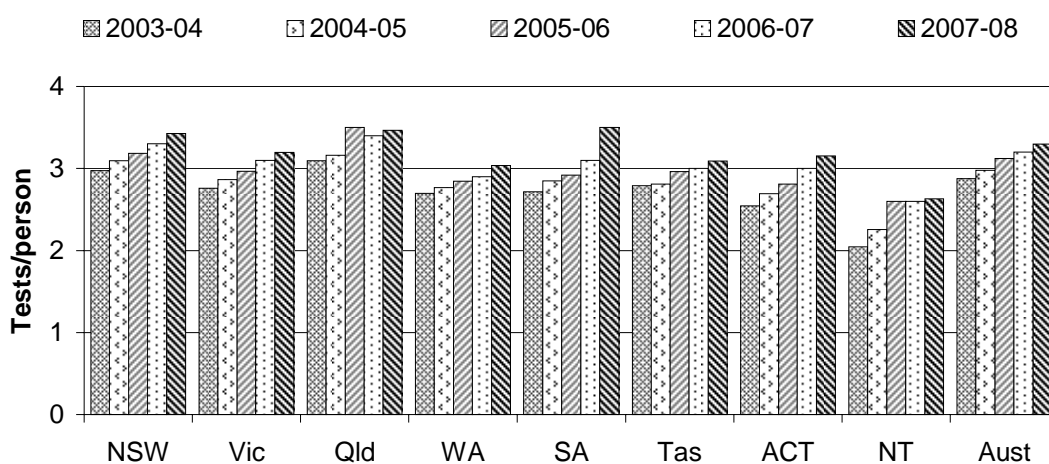
Data for this indicator are comparable.

Pathology tests and diagnostic imaging ordered by vocationally recognised GPs and OMPs and rebated through Medicare Australia is used as a proxy in reporting against this indicator. While data for the total number of pathology tests ordered and diagnostic imaging referrals made by GPs are not available from Medicare, data are available for those that are rebated through Medicare. The number of pathology

tests ordered may be higher than the number rebated through Medicare (where multiple tests are ordered, rebates are provided only for the three most expensive tests). Radiologists may identify a need for more or different imaging procedures than those for which patients are referred. Information about differences between the number of pathology tests ordered and the number of rebates claimed, and differences between the number of imaging procedures ordered by GPs and the number of rebates claimed, is not available.

Nationally, the number of pathology tests ordered and rebated through Medicare per person increased from 2.9 in 2003-04 to 3.3 in 2007-08 (figure 11.16).

Figure 11.16 Pathology tests ordered by GPs and rebated through Medicare^a

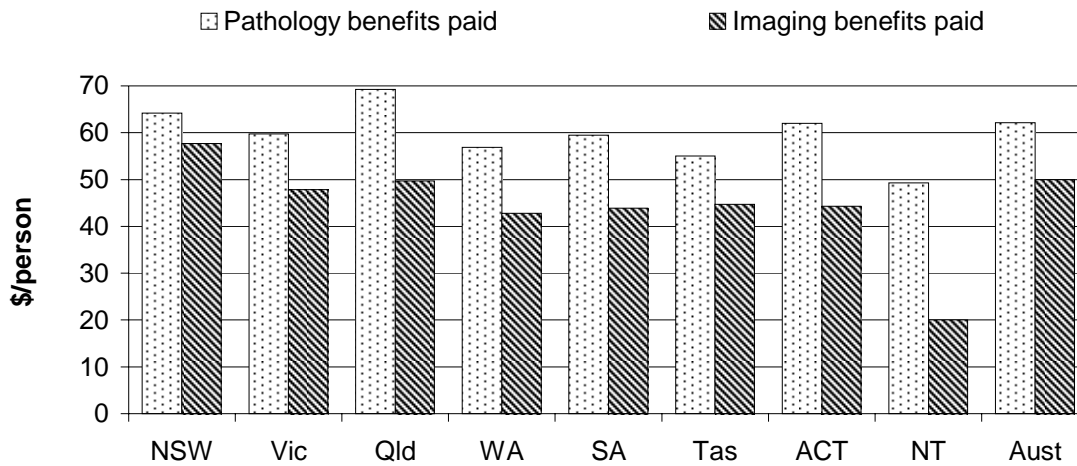


^a Data include tests ordered by vocationally recognised GPs and OMPs and rebated through Medicare. Data include patient episode initiated items.

Source: : DoHA (unpublished), derived from the MBS data system and unpublished DVA data; table 11A.25.

Australian Government expenditure (under Medicare) on pathology tests amounted to \$1.3 billion in 2007-08, equal to \$62 per person. Nationally, Medicare benefits worth \$1.1 billion were paid for diagnostic imaging in 2007-08, equal to \$50 per person (figure 11.17).

Figure 11.17 Benefits paid for pathology tests and diagnostic imaging, 2007-08^a

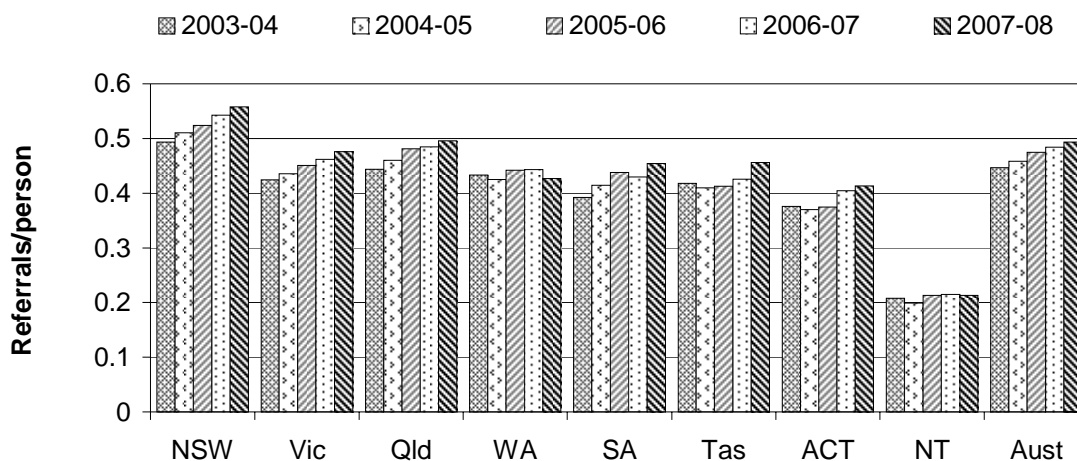


^a Includes benefits paid through Medicare (including DVA data) for pathology tests ordered, and diagnostic imaging referred, by vocationally recognised GPs and OMPs.

Source: DoHA (unpublished), derived from the MBS data system and unpublished DVA data; tables 11A.25 and 11A.26.

Nationally, there has been a gradual upward trend in the number of diagnostic imaging referrals per person between 2003-04 and 2007-08 (figure 11.18).

Figure 11.18 Diagnostic imaging referrals from GPs^a



^a Data relate to vocationally recognised GPs and OMPs.

Source: : DoHA (unpublished), derived from the MBS data system and unpublished DVA data; table 11A.26.

General practices with electronic information management systems

‘General practices with electronic information management systems’ is an indicator of governments’ objective to improve patient safety through minimising errors of prescribing and dispensing (box 11.13). Such errors may cause harm to patients through adverse drug reactions.

Electronic information management systems may also improve other aspects of quality by providing access to timely clinical data and improving the maintenance of patient health records. Use of such technology can, for example, facilitate best practice chronic disease management and preventative health activities such as screening (DHAC 2000).

Box 11.13 General practices with electronic clinical information management systems

‘General practices with electronic information management systems’ has two measures:

- the ‘proportion of practices enrolled in the Practice Incentives Program (PIP) that maintain secure electronic patient records’
- ‘the proportion of PIP practices that manage patient records predominantly using secure electronic management systems’.

An increase in these proportions may indicate that the likelihood of patient harm due to prescribing or dispensing errors in general practice is reduced.

The PIP does not include all practices in Australia. PIP practices covered around 81 per cent of Australian patients (measured as standardised whole patient equivalents) in 2006-07 (DoHA unpublished; table 11A.32).

Data for this indicator are comparable.

The Practice Incentives Program (PIP) provides financial incentives to general practices to support quality care, and improve access and health outcomes. The PIP promotes activities such as:

- use of electronic information management systems
- the provision of after hours care
- teaching medical students
- employment of practice nurses
- improving the management of chronic disease.

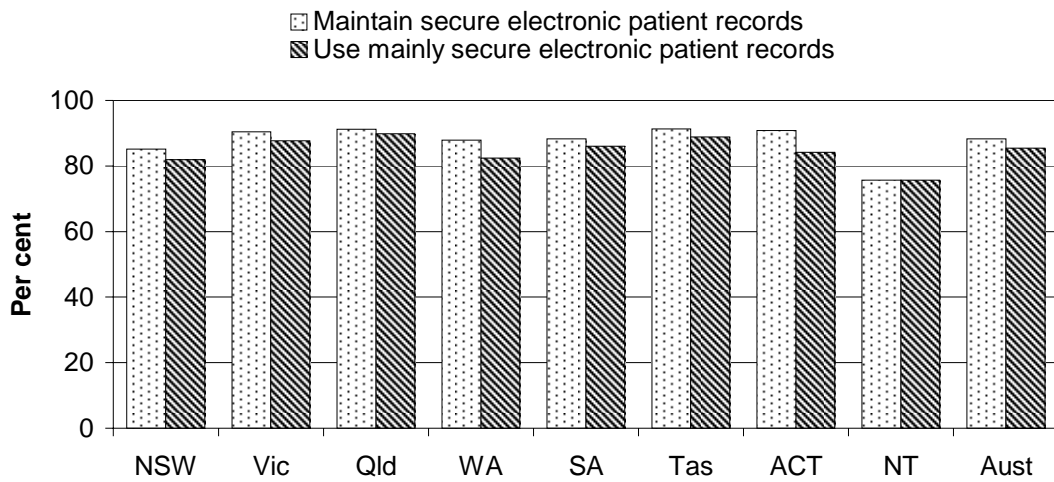
The PIP Information Management, Information Technology initiative provides two incentives to encourage the computerisation of practices:

- The first incentive requires that practices maintain electronic patient records, including clinical data on allergies/sensitivities for the majority of active patients, and implement appropriate information security measures
- The second incentive requires that practices, in addition, use electronic patient records to record and store clinical information on the majority of active patients, including current and past major diagnoses and current medications.

These replaced previous incentives for electronic prescribing and transmission of clinical data in November 2006. Data relating to previous incentives are reported in tables 11A.27 and 11A.28.

Australia-wide, 88.3 per cent of PIP practices maintained secure electronic patient records in May 2008. Patient records were managed predominantly using secure electronic management systems in 85.4 per cent of PIP practices (figure 11.19).

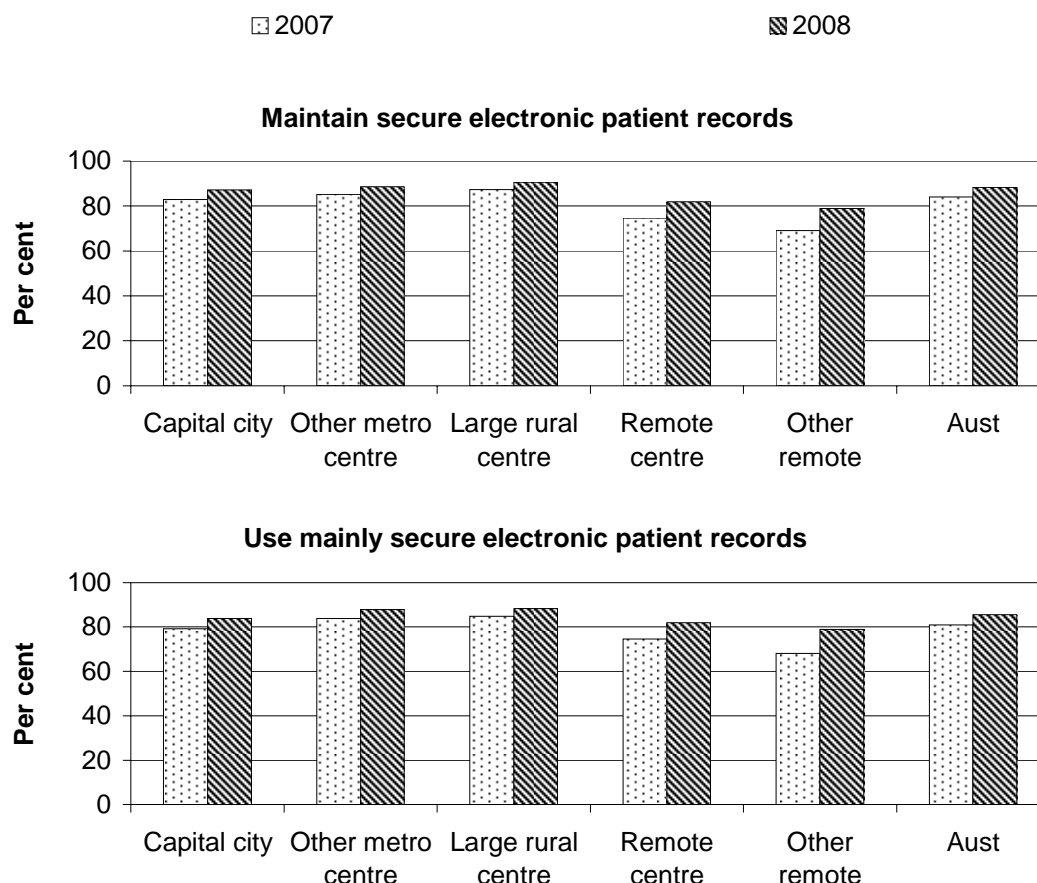
Figure 11.19 PIP practices using computers for clinical purposes, May 2008



Source: DoHA (unpublished), derived from the MBS and PIP data systems; table 11A.27.

There was an increase in the proportion of PIP practices that maintained secure electronic patient records, and that predominantly used secure electronic systems to manage patient records, in all areas from 2007 to 2008 (figure 11.20). For both incentives, the uptake by PIP practices in metropolitan and rural areas was higher than in remote areas and other remote areas. Remote practices in the NT have difficulty meeting accreditation requirements for PIP participation, which affects the coverage of these data.

Figure 11.20 PIP practices using computers for clinical purposes by area, May^a



^a Geographical locations are based on the Rural, Remote and Metropolitan Areas (RRMA) classification. Capital city = State and Territory capital city statistical divisions; other metropolitan centre = one or more SLAs that have an urban centre with a population of 100 000 or more; large rural centre = SLAs where most of the population resides in urban centres with a population of 25 000 or more; small rural centre = SLAs in rural zones containing urban centres with populations between 10 000 and 24 999; other rural area = all remaining SLAs in the rural zone; remote centre = SLAs in the remote zone containing populations of 5000 or more; other remote area = all remaining SLAs in the remote zone. SLA = statistical local area.

Source: DoHA (unpublished), derived from the MBS and PIP data systems; table 11A.28.

Quality — responsiveness

Patient satisfaction

‘Patient satisfaction’ has been identified for development as an indicator of governments’ objective to ensure GP services are responsive to the needs of patients (box 11.14).

Box 11.14 Patient satisfaction

'Patient satisfaction' is yet to be defined.

Data for this indicator were not available for the 2009 Report.

Quality — capability

Two indicators of the quality of GP services, relating to GPs' capability to provide services, are reported here: the proportion of GPs with vocational registration; and the proportion of general practices with accreditation.

GPs with vocational registration

'GPs with vocational registration' is an indicator of governments' objective to ensure the GP workforce has the capability to deliver high quality services (box 11.15). Vocationally registered GPs are considered to have the values, skills and knowledge necessary for competent unsupervised general practice within Australia (RACGP 2007).

Box 11.15 GPs with vocational registration

'GPs with vocational registration' is defined as the proportion of FWE GPs with vocational registration.

An increase in the proportion of FWE GPs with vocational registration may indicate an improvement in the capability of the GP workforce to deliver high quality services. However, GPs without vocational registration may deliver services of equally high quality.

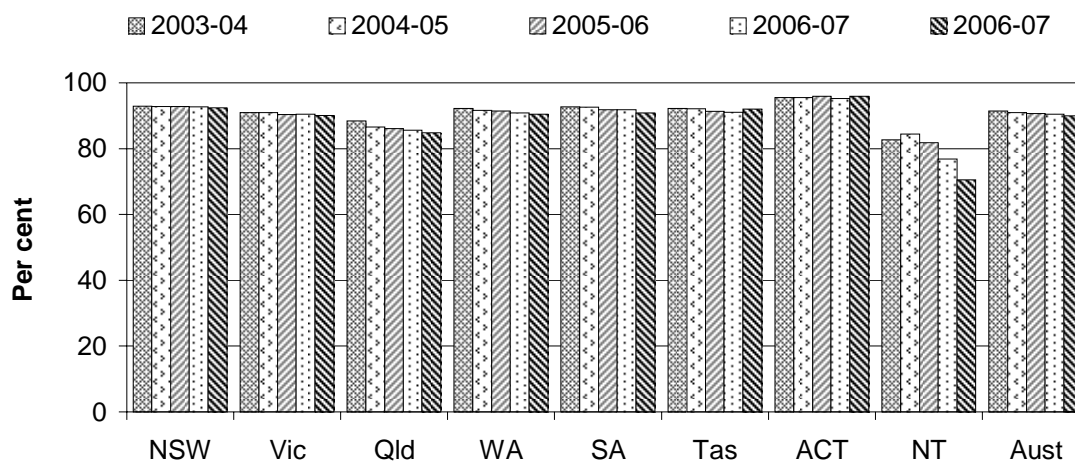
Data for this indicator are comparable.

Since 1996, a GP can only achieve vocational registration by attaining Fellowship of the Royal Australian College of General Practitioners (RACGP) or equivalent. GPs can attain Fellowship through the successful completion of a formal general practice training program or through the 'practice eligible' route. Once vocational registration is achieved, GPs must demonstrate ongoing involvement in continuing professional development activities in order to maintain their Fellowship status (DoHA unpublished).

The proportion of FWE GPs with vocational registration remained relatively constant over the five years to 2007-08 (figure 11.21). The proportion of FWE GPs

with vocational registration was highest in capital cities and other metro centres, and lowest in other remote areas, in 2007-08 (table 11A.29).

Figure 11.21 GPs (full time workload equivalent) with vocational registration



Source: DoHA (unpublished), derived from the MBS data system; table 11A.30.

General practices with accreditation

‘General practices with accreditation’ is an indicator of governments’ objective to ensure the general practitioner workforce has the capability to provide high quality services (box 11.16). Accreditation of general practice is a voluntary process of peer review that involves the assessment of general practices against a set of standards developed by the RACGP. Accredited practices, therefore, have been assessed as complying with a set of national standards.

Box 11.16 General practices with accreditation

‘General practices with accreditation’ is defined as the number of general practices that are accredited as a proportion of all general practices in Australia.

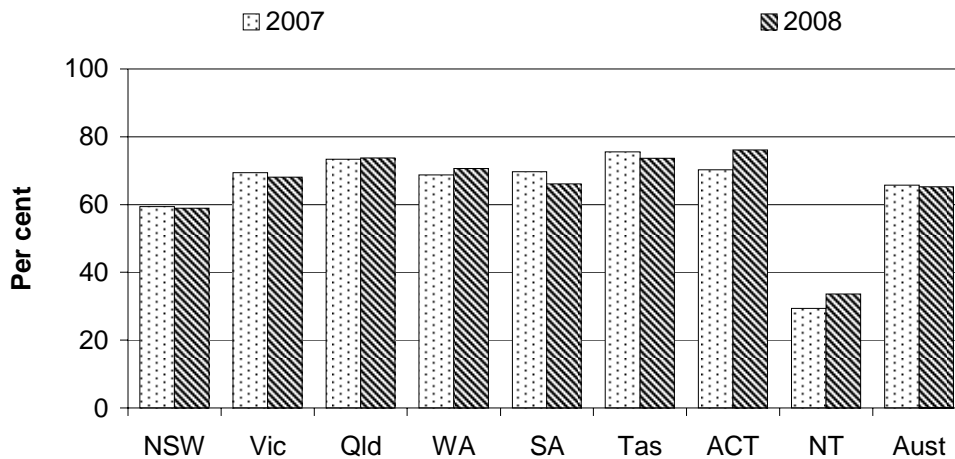
An increase in the proportion of practices with accreditation may indicate an improvement in the capability of general practice to deliver high quality services. However, general practices without accreditation may deliver services of equally high quality. For a particular general practice, the decision to seek accreditation might be influenced by perceived costs and benefits unrelated to its quality standards. Accreditation affects eligibility for some government programs (such as PIP), so there are financial incentives for gaining accreditation.

Data for this indicator are comparable.

The two providers of general practice accreditation services are Australian General Practice Accreditation Limited (AGPAL) and General Practice Australia ACCREDITATION *plus* (GPA Accreditation *plus*).

In June 2008, 4740 general practices — representing 65.3 per cent of general practices — were accredited Australia-wide (figure 11.22).

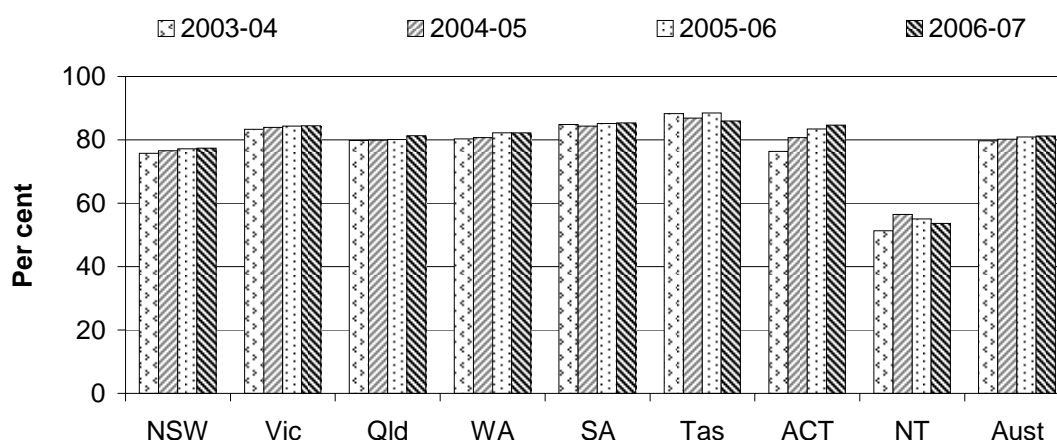
Figure 11.22 **General practices with accreditation, at 30 June**



Source: AGPAL (unpublished); GPA Accreditation *plus* (unpublished); Primary Health Care Research and Information Service (PHC RIS), DoHA (unpublished), derived from the 2007-08 Annual Survey of Divisions of General Practice; table 11A.31.

The proportion of patients attending accredited practices provides useful additional information relating to accreditation. For this measure, PIP practices provide a proxy for accredited practices, as accreditation is a requirement for PIP registration. Australia-wide, the proportion of patients — measured as standardised whole patient equivalents (SWPEs) — seen in PIP practices has varied little in the period from 2003-04 to 2006-07 (figure 11.23).

Figure 11.23 Proportion of patients in PIP practices^a



^a Patients are measured as SWPEs. A SWPE is an indicator of practice workload based on the number of patients seen. The SWPE value for a jurisdiction is the sum of the fractions of care provided by doctors in that jurisdiction to their patients, weighted for the age and sex of each patient in accordance with national ratios.

Source: DoHA (unpublished), derived from the PIP and MBS data systems; table 11A.32.

Quality — continuity

The continuity aspect of the quality of primary healthcare services relates to the timely, coordinated provision of services that address the needs of individual patients. For example, chronic disease imposes a significant burden on the health and wellbeing of Australians. Patients may need a range of services from within and outside the health sector. Continuity of care can help prevent or delay the progression of many circulatory, respiratory, endocrine, nutritional and metabolic diseases (NHPAC 2006). Two indicators of this aspect of the quality of GP services are reported here: the use of care planning and case conferencing; and the use of health assessments for older people.

Care planning and case conferencing

‘Care planning and case conferencing’ is an indicator of governments’ objective to improve the continuity of care provided to people with chronic or terminal medical conditions (box 11.17).

Chronic disease management items in the Medicare Benefits Schedule (MBS) allow for the preparation and regular review of care plans for individuals with chronic or terminal medical conditions, through GP managed or multidisciplinary team-based care. GPs with some experience using care planning and case conferencing may be

more likely to continue to use those options when they have the potential to improve patient care.

Box 11.17 Care planning and case conferencing

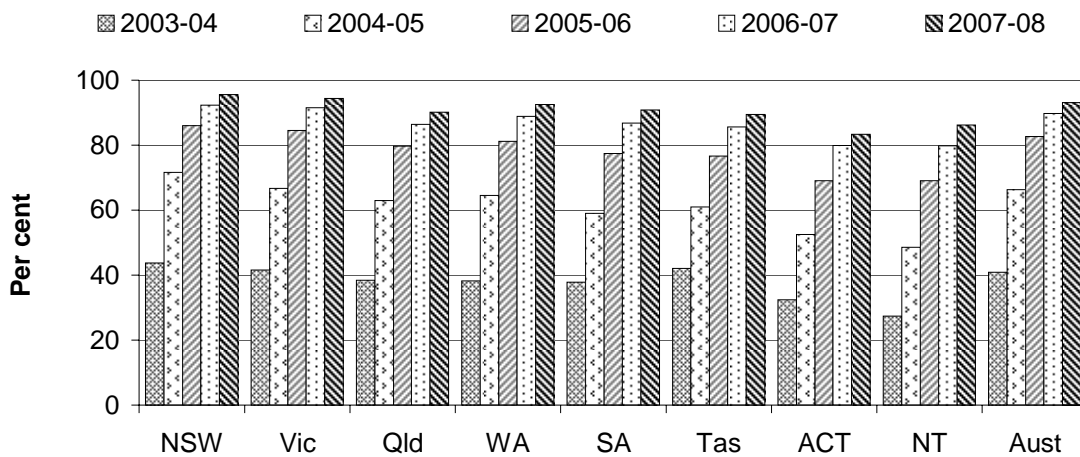
‘Care planning and case conferencing’ is defined as the proportion of GPs who used the Medicare Benefits Schedule (MBS) chronic disease management items for care planning or case conferencing at least once during a 12 month period.

An increase in the proportion of GPs who use these chronic disease management items may indicate an improvement in the continuity of care provided to people with chronic or terminal medical conditions, including people with complex, multidisciplinary care needs.

Data for this indicator are comparable.

Nationally, 93.1 per cent of GPs used the chronic disease management items for care planning or case conferencing in 2007-08 (figure 11.24).

Figure 11.24 GP use of chronic disease management Medicare items for care planning and case conferencing^a



^a The increase in the number of GPs using chronic disease management MBS items for care planning or case conferencing in 2004-05 may be due to the introduction of the Strengthening Medicare initiative on 1 July 2004. This initiative provided access to a range of allied health and dental care treatments for patients with chronic conditions and complex needs, on referral from a GP. The continued increase in subsequent years may be linked to the introduction of additional chronic disease management MBS items on a number of occasions.

Source: DoHA (unpublished), derived from the MBS data system; table 11A.33.

Health assessments for older people

'Health assessments for older people' is an indicator of governments' objective to improve population health outcomes through the provision of prevention as well as early detection and treatment services (box 11.18).

Annual voluntary health assessments for older people are MBS items that allow a GP to undertake an in-depth assessment of a patient's health. Health assessments cover the patient's health and physical, psychological and social functioning, and aim to facilitate more timely preventive actions or treatments to enhance the health of the patient (see also box 11.6).

Box 11.18 Health assessments for older people

'Health assessments for older people' is defined as the proportion of older people who received a voluntary health assessment. Older people are defined as non-Indigenous people aged 75 years or over and Indigenous people aged 55 years or over, excluding hospital inpatients and people living in aged care facilities.

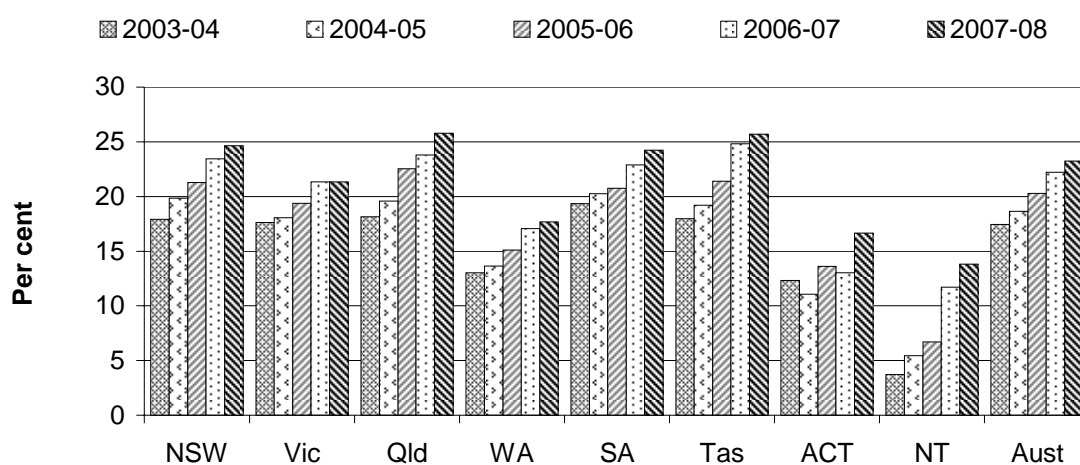
An increase in the proportion of eligible older people who received a voluntary health assessment may indicate a reduction in health risks for older people, through early and timely prevention and intervention measures to improve and maintain health.

Data for this indicator are comparable.

The larger age range for Indigenous people recognises that they typically face increased health risks at younger ages than most other groups in the population. It also broadly reflects the difference in average life expectancy between the Indigenous and non-Indigenous populations (see the 'Health preface'). Results for Indigenous people are reported under equity indicators (see box 11.6).

There has been a steady increase in the proportion of older people receiving a voluntary health assessment in most jurisdictions, in the period 2003-04 to 2007-08. Nationwide, this proportion increased from 17.5 per cent in 2003-04 to 23.2 per cent in 2007-08 (figure 11.25).

Figure 11.25 Older people who received a voluntary health assessment^a



^a Older people are defined as non-Indigenous people aged 75 years or over and Indigenous people aged 55 years or over, excluding hospital inpatients and people living in aged care facilities.

Source: DoHA (unpublished), derived from the MBS data system; table 11A.34.

Sustainability

The Steering Committee has identified the sustainability of primary and community health as a key area for development in future reports.

Efficiency

Cost to government of general practice per person

The ‘cost to government of general practice per person’ is an indicator of governments’ objective to provide primary healthcare services in an efficient manner (box 11.19).

Box 11.19 Cost to government of general practice per person

‘Cost to government of general practice per person’ is defined as the cost to government of general practice per person in the population.

A lower cost per person may indicate higher efficiency. However, this is likely to be the case only where the lower cost is associated with services of equal or superior effectiveness.

(Continued on next page)

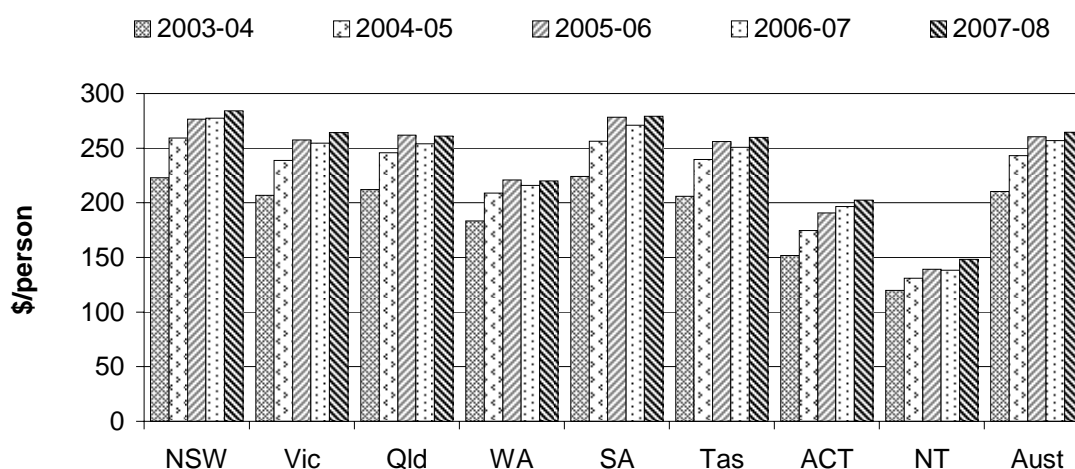
Box 11.19 (Continued)

This indicator needs to be interpreted with care because a lower cost per person may reflect service substitution between primary healthcare and hospital services or specialist services (the latter two both being potentially higher cost than primary care). Further, the indicator does not include costs for all primary healthcare services. Some primary healthcare services are provided by salaried GPs in community health settings, particularly in rural and remote areas, through accident and emergency departments, and Indigenous-specific primary health care services. Consequently, this indicator will understate costs for primary care in jurisdictions with larger proportions of rural and remote populations, where a salaried GP services delivery model is used.

Data for this indicator are comparable.

Nationally, the recurrent cost to the Australian Government of general practice was \$264 per person in 2007-08 (figure 11.26).

Figure 11.26 Australian Government real expenditure per person on GPs (2007-08 dollars)^a



^a The data include Medicare, DVA, PIP, Divisions of General Practice (DGP) and General Practice Immunisation Incentives Scheme (GPIS) payments. DVA data cover consultations by local medical officers (LMOs), whether vocationally recognised GPs or not. From available files, it is not possible to extract the amounts paid to LMOs (as opposed to specialists) for procedural items. It is expected, however, that the amounts for these services are small compared with payments for consultations.

Source: DoHA (unpublished), derived from the MBS, PIP, GPIS and DGP data systems, and unpublished DVA data; table 11A.2.

Outcomes

Outcomes are the impact of services on the status of an individual or group (while outputs are the actual services delivered) (see chapter 1, section 1.5).

Indicators of both intermediate and final primary and community health outcomes are reported here. ‘Child immunisation coverage’ indicates the intermediate outcome of immunisation against disease (box 11.20). ‘Notifications of selected childhood diseases’ is an indicator of the final outcome — the incidence of diseases — that child immunisation can prevent (box 11.21). Also reported are outcome indicators related to cervical screening (box 11.22), influenza vaccinations for older people (box 11.23) and ‘potentially preventable hospitalisations’ (box 11.24).

Child immunisation coverage

‘Child immunisation coverage’ is an indicator of governments’ objective to achieve high immunisation coverage levels for children, in order to prevent selected childhood diseases (box 11.20).

Box 11.20 Child immunisation coverage

‘Child immunisation coverage’ has two measures:

- ‘the proportion of children aged 12 months to less than 15 months who are fully immunised’. Children assessed as fully immunised at 12 months are immunised against diphtheria, tetanus, whooping cough, polio, *Haemophilus influenzae* type b and hepatitis B
- ‘the proportion of children aged 24 months to less than 27 months who are fully immunised’. Children assessed as fully immunised at 24 months are immunised against diphtheria, tetanus, whooping cough, polio, *Haemophilus influenzae* type b, hepatitis B, and measles, mumps and rubella.

An increase in the proportion of children who are fully immunised indicates a reduction in the risk of children contracting a range of diseases, including measles, whooping cough and *Haemophilus influenzae* type b.

Data for this indicator are comparable.

Many providers deliver child immunisation services (table 11.6). GPs are encouraged to achieve high immunisation coverage levels under the General Practice Immunisation Incentives Scheme, which provides incentives for the immunisation of children under seven years of age.

Data on valid vaccinations supplied to children under 7 years of age are shown in table 11.6. Around 91.2 per cent of Australian children aged 12 months to less than 15 months at 30 June 2008 were assessed as fully immunised (figure 11.27).

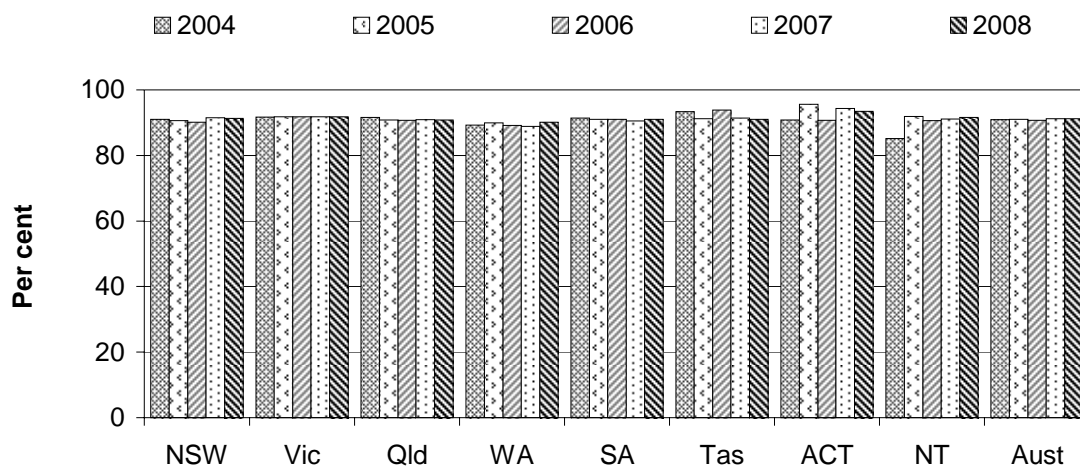
Table 11.6 Valid vaccinations supplied to children under 7 years of age, by provider type, 1996–2008 (per cent)^{a, b}

<i>Provider</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT^c</i>	<i>NT</i>	<i>Aust</i>
GP	84.0	52.9	82.6	63.8	68.8	86.6	40.9	3.4	70.9
Council	5.8	45.7	7.2	6.6	18.4	12.6	na	na	17.1
State or Territory health department	–	na	–	6.1	0.1	0.1	20.8	0.3	0.9
Flying doctor service	–	na	0.3	–	0.1	na	na	na	0.1
Public hospital	2.1	0.5	3.0	5.4	2.8	0.2	0.8	7.5	2.3
Private hospital	0.1	–	–	–	na	–	–	0.9	0.1
Indigenous health service	0.5	0.1	0.7	0.6	0.5	–	0.2	9.3	0.6
Indigenous health worker	–	na	0.5	na	0.1	na	na	0.2	0.1
Community health centre	7.4	0.8	5.7	17.6	9.3	0.6	37.3	78.3	8.0
Community nurse	na	–	na	na	na	na	–	na	–
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

^a 1 January 1996 to 30 June 2008. Data relate to the State or Territory in which the immunisation provider was located. ^b A valid vaccination is a National Health and Medical Research Council's Australian Standard Vaccination Schedule vaccination administered to a child under the age of 7 years. ^c Due to changes in provider classification in the ACT between 1996 and 2008, some vaccinations undertaken by ACT Health's Maternal and Child Health nurses are reported under 'State or Territory health departments' and some are reported under 'Community health centre'. The total proportion of vaccinations provided by ACT Health during this period was 58.1 per cent. **na** Not available. – Nil or rounded to zero.

Source: DoHA (unpublished), derived from the Australian Childhood Immunisation Register (ACIR); table 11A.35.

Figure 11.27 **Children aged 12 months to less than 15 months who were fully immunised^{a, b, c}**

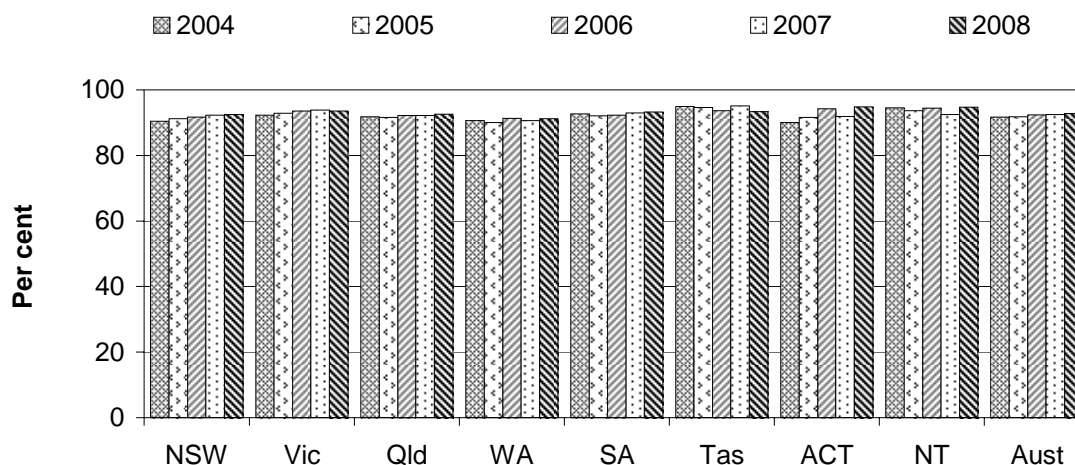


^a Coverage measured at 30 June for children turning 12 months of age by 31 March, by State or Territory in which the child was located. ^b The ACIR includes all children under 7 years of age who are registered with Medicare. By the age of 12 months, over 98 per cent of Australian children have been registered with Medicare. ^c There may be some under-reporting by providers, so vaccination coverage estimates calculated using ACIR data are considered minimum estimates (NCIRS 2000).

Source: DoHA (unpublished), derived from ACIR; table 11A.36.

Nationally, 92.8 per cent of children aged 24 months to less than 27 months at 30 June 2008 were assessed as being fully immunised (figure 11.28).

Figure 11.28 Children aged 24 months to less than 27 months who were fully immunised^{a, b, c}



^a Coverage measured at 30 June for children turning 24 months of age by 31 March, by State or Territory in which the child was located. ^b The ACIR includes all children under 7 years of age who are registered with Medicare Australia. By the age of 12 months, over 98 per cent of Australian children have been registered with Medicare Australia (NCIRS 2000). ^c There may be some under-reporting by providers, so vaccination coverage estimates calculated using ACIR data are considered minimum estimates (NCIRS 2000).

Source: DoHA (unpublished), derived from ACIR; table 11A.37.

Notifications of selected childhood diseases

‘Notifications of selected childhood diseases’ is an indicator of governments’ objective to improve population health outcomes through the prevention of selected childhood vaccine preventable diseases (box 11.21).

Measles, pertussis (whooping cough) and *Haemophilus influenzae* type b⁴ are nationally notifiable diseases — that is, if they are diagnosed, there is a requirement to notify the relevant State or Territory authority. The debilitating effects of these diseases can be long term or even life threatening. The complications from measles, for example, can include pneumonia, which occurs for one in 25 cases. The activities of GPs and community health services can influence the prevalence of these diseases through immunisation (and consequently the notification rates).

⁴ *Haemophilus influenzae* type b is a bacterium which causes bloodstream infection, meningitis, epiglottitis, and pneumonia (DoHA 2008c).

Box 11.21 Notifications of selected childhood diseases

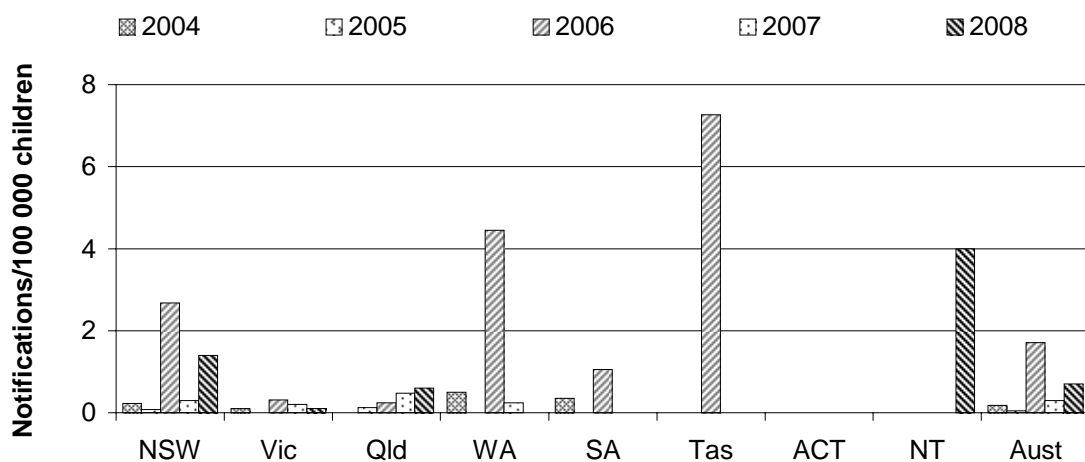
'Notifications of selected childhood diseases' is defined as the number of notifications for children aged 0–14 years per 100 000 children in that age group.

A reduction in the notification rate for the selected diseases indicates the effectiveness of the immunisation program.

Data for this indicator are comparable.

In 2008, there were 26 notifications of measles across Australia to 31 August (table 11A.38). This was the second time in the five year period 2004–2008 that notifications numbered more than 15 — there were 68 notifications in 2006. The national notification rate in 2008 was 0.7 per 100 000 children aged 0–14 years (figure 11.29).

Figure 11.29 Notifications of measles per 100 000 children aged 0–14 years^{a, b}

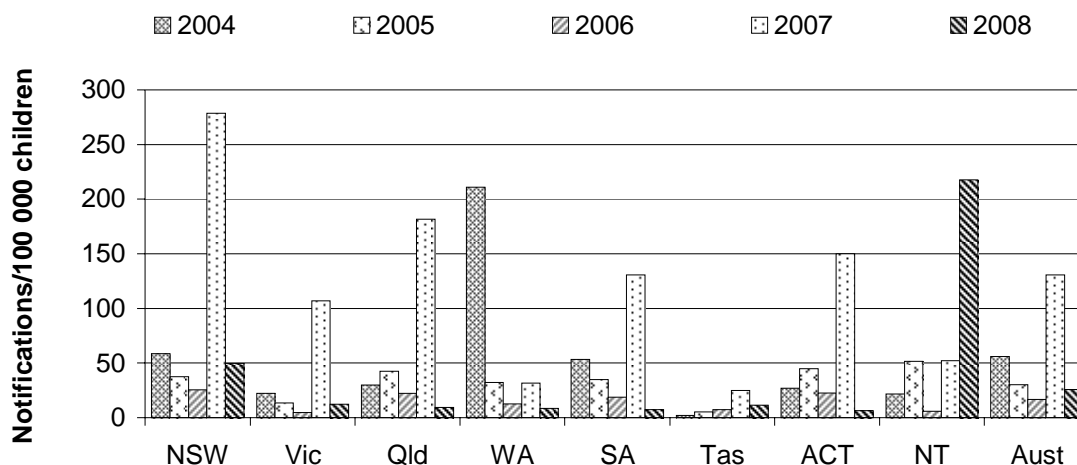


^a Notifications for 2008 are to 31 August. ^b Where a notification rate for a particular year is zero, no notifications were made in that jurisdiction.

Source: DoHA (unpublished), derived from the National Notifiable Diseases Surveillance System (NNDSS), ABS *Population by Age and Sex, Australian States and Territories* (various years), Cat. No. 3201.0; table 11A.38.

Australia-wide, there were 1029 notifications for pertussis (whooping cough) across Australia to 31 August in 2008. The national notification rate in 2008 was 25.9 per 100 000 children aged 0–14 years (figure 11.30).

Figure 11.30 Notifications of pertussis (whooping cough) per 100 000 children aged 0–14 years^a

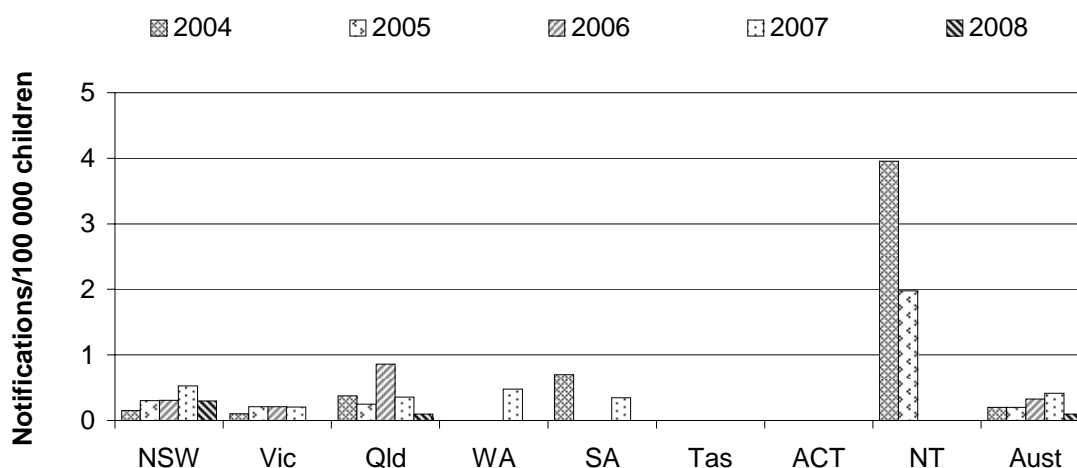


^a Notifications for 2008 are to 31 August.

Source: DoHA (unpublished), derived from the NNDSS, ABS *Population by Age and Sex, Australian States and Territories* (various years), Cat. No. 3201.0; table 11A.39.

In recent years, notification rates for *Haemophilus influenzae* type b have remained low. In 2008, the notification rate Australia-wide to 31 August was 0.1 per 100 000 children aged 0–14 years (figure 11.31).

Figure 11.31 Notifications of *Haemophilus influenzae* type b among children aged 0–14 years^{a, b}



^a Notifications for 2008 are to 31 August. ^b Where a notification rate for a particular year is zero, no notifications were made in that jurisdiction.

Source: DoHA (unpublished), derived from the NNDSS, ABS *Population by Age and Sex, Australian States and Territories* (various years), Cat. No. 3201.0; table 11A.40.

Participation rates for women in cervical screening

‘Participation rates for women in cervical screening’ is an indicator of governments’ objective to reduce morbidity and mortality attributable to cervical cancer through the provision of early detection services (box 11.22).

It is estimated that up to 90 per cent of the most common type of cervical cancer (squamous cervical cancer) may be prevented if cell changes are detected and treated early (Mitchell, Hocking, Saville 2003). A range of healthcare providers offer cervical screening tests (Pap smears). The National Cervical Screening Program involves GPs, gynaecologists, family planning clinics and hospital outpatient clinics.

Box 11.22 Participation rates for women aged 20–69 years in cervical screening

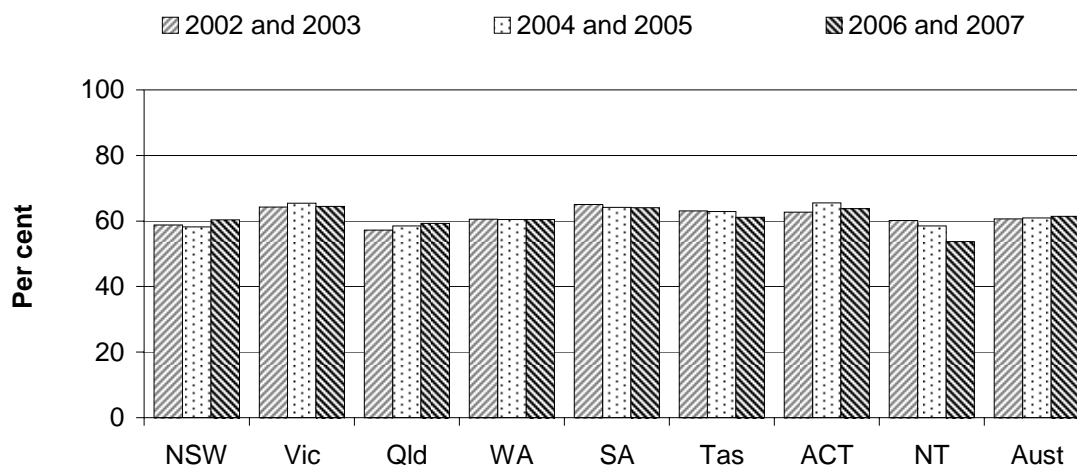
‘Participation rates for women in cervical screening’ is defined as the number of women aged 20–69 years who are screened over a two year period, as a proportion of all women aged 20–69 years.

An increase in the proportion of women aged 20–69 years who have been screened is desirable.

Data for this indicator are comparable.

The national age-standardised participation rate for women aged 20–69 years in cervical screening was 61.5 per cent for the 24 month period 1 January 2006 to 31 December 2007 (figure 11.32). For most jurisdictions, participation rates have remained about the same since the screening period of 2002 and 2003.

Figure 11.32 **Participation rates for women aged 20–69 years in cervical screening^{a, b, c, d}**



^a Rates are the number of women screened as a proportion of the eligible female population, calculated as the average of the ABS estimated resident population and age-standardised to the 2001 Australian population. ^b Eligible female population adjusted for estimated proportion who have had a hysterectomy. ^c Excludes women who have opted off the cervical cytology register. ^d Number of women screened includes all women screened in each jurisdiction (not just those women resident in each jurisdiction), except for Victoria and the ACT.

Source: AIHW (2008), *Cervical screening in Australia 2005–2006*, Cat. no. CAN 36; AIHW (unpublished), derived from the Cervical Cytology Registry; table 11A.41.

Influenza vaccination coverage for older people

‘Influenza vaccination coverage for older people’ is an indicator of governments’ objectives to reduce the morbidity and mortality attributable to vaccine preventable disease (box 11.23).

Each year, influenza and its consequences result in many older people being hospitalised, as well as a considerable number of deaths. Influenza vaccinations for older people have been demonstrated to reduce hospitalisations and deaths (DoHA and NHMRC 2008). GPs provide the majority of influenza vaccinations for older people.

Box 11.23 Influenza vaccination coverage for older people

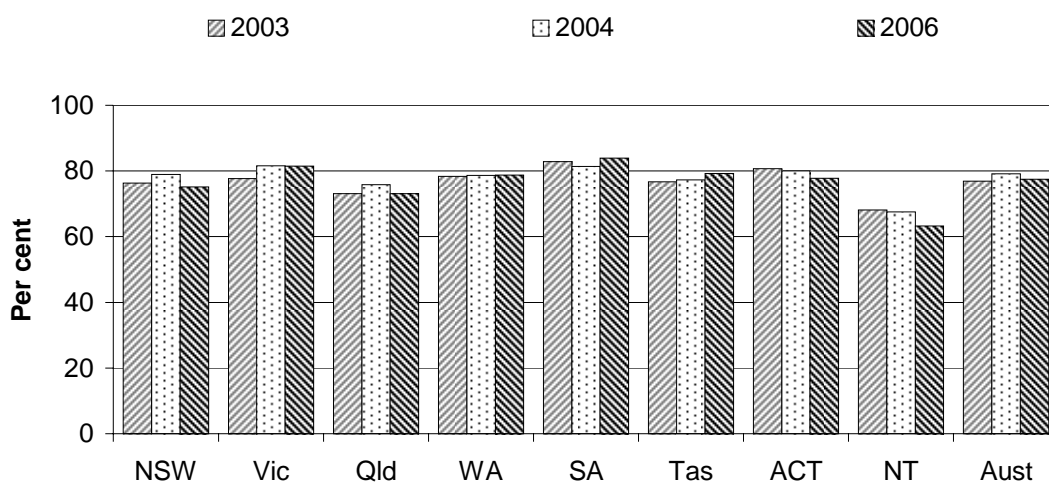
'Influenza vaccination coverage for older people' is defined as the proportion of people aged 65 years or over who have been vaccinated against influenza.

An increase in the proportion of older people vaccinated against influenza reduces the risk of older people contracting influenza and suffering consequent complications.

Data for this indicator are comparable.

Through the National Influenza Vaccine Program for Older Australians, the Australian Government funds free vaccines for Australians aged 65 years or over (AIHW 2005a). In 2006, 77.5 per cent of people in Australia aged 65 years or over were vaccinated against influenza.

Figure 11.33 Influenza vaccination coverage, people aged 65 years or over^a



^a The Adult Vaccination Survey was not conducted in 2005.

Source: AIHW 2004, 2005, *Influenza Vaccine Survey: Summary Results*, Cat. no. PHE 51, PHE 56; DoHA (unpublished), derived from the 2006 *Adult Vaccination Survey*; table 11A.42.

Potentially preventable hospitalisations

Five indicators are reported for potentially preventable hospitalisations. The first three indicators — hospitalisations for vaccine preventable conditions, selected acute conditions and selected chronic conditions — were developed by the National Health Performance Committee, based on empirical research. The fourth relates to hospitalisations for diabetes and the fifth to the hospitalisation of older people for falls.

Box 11.24 **Potentially preventable hospitalisation indicators**

Potentially preventable hospitalisations refer to hospital admissions that may be avoided by appropriate management in the primary healthcare sector and/or the broader community. They include vaccine preventable, acute and chronic conditions, defined according to the Victorian Ambulatory Care Sensitive Conditions Study (DHS 2002). This study built on research into ambulatory care sensitive conditions (for example, Billings, Anderson and Newman 1996; Bindman et al. 1995; Weissman, Gatsonis and Epstein 1992) that had recently been the subject of systematic review and empirical analysis.

These studies show that the availability of non-hospital care explains a significant proportion of the variation between geographic areas in hospitalisation rates for the specified conditions. Other explanations for this variation include variation in the underlying prevalence of the conditions, clinical coding standards and the likelihood that a patient will be treated as an outpatient rather than an admitted patient. Potentially preventable hospitalisations will never be entirely eliminated, but the variation across geographic areas demonstrates considerable potential for strengthening the effectiveness of non-hospital care.

Source: NHPC (2004).

Data are reported against these indicators for Indigenous Australians as well as for all Australians. The completeness of Indigenous identification in hospital admitted patient data varies across states and territories. The AIHW (2005b) report *Improving the Quality of Indigenous Identification in Hospital Separations Data* found that Indigenous admitted patient data were of acceptable quality for analytical purposes only for Queensland, WA, SA, and public hospitals in the NT. Following new assessments of the quality of Indigenous identification, the National Health Information Management Principal Committee (NHIMPC, now the National e-Health and Information Principal Committee [NEHIPC]) has approved Indigenous admitted patient data for NSW and Victoria as acceptable in quality for analytical purposes, from the 2004-05 reference year. Data are not published for Tasmania and the ACT because the quality of Indigenous identification is not considered to be acceptable for the purpose of analysis.

Reported data are not necessarily representative of other jurisdictions. Indigenous patients are underidentified, to an extent that varies across jurisdictions. Because of improvements in data quality over time, caution also should be used in time series analysis.

Vaccine preventable hospitalisations

‘Vaccine preventable hospitalisations’ is an indicator of governments’ objective to reduce hospitalisations for vaccine preventable conditions (box 11.25). The effectiveness of primary and community healthcare has a significant influence on the rates of hospitalisation for vaccine preventable conditions. This influence occurs mainly through the provision of vaccinations and the encouragement of high rates of vaccination coverage for target populations. Effective treatment of such conditions by primary health providers may also reduce hospitalisations.

Box 11.25 Vaccine preventable hospitalisations

‘Vaccine preventable hospitalisations’ is defined as the number of hospital separations for influenza and pneumonia, and other vaccine preventable conditions, per 1000 people. A reduction in hospital separation rates may indicate improvements in the effectiveness of the vaccination program.

Data are reported for Indigenous people as well as for all people. Adjustments are made to account for differences in the age structures of these populations across states and territories. A reduction in the gap in hospital separation rates between Indigenous and all people may indicate greater equity of access to primary healthcare services.

Factors outside the control of the primary healthcare sector also influence the rates of hospitalisation for vaccine preventable conditions; for example, the number and virulence of influenza strains from year to year.

Data for this indicator are comparable.

Australia-wide, the age standardised hospital separation rate for all vaccine preventable conditions was 0.6 per 1000 people in 2006-07. Nationally, influenza and pneumonia accounted for 74.1 per cent of hospital separations for vaccine preventable conditions in 2006-07 (table 11.7).

Table 11.7 **Separations for vaccine preventable conditions, by state and territory of usual residence, per 1000 people, 2006-07^a**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust^b</i>
Influenza and pneumonia	0.5	0.4	0.5	0.4	0.4	0.4	0.4	1.3	0.4
Other conditions	0.1	0.2	0.1	0.1	0.1	–	0.1	0.7	0.2
Total^c	0.6	0.6	0.6	0.5	0.5	0.5	0.4	2.0	0.6

^a Separation rates are directly age standardised to the Australian population at 30 June 2001. ^b Includes other territories and excludes overseas residents and unknown state of residence. ^c Totals may not equal the sum of individual conditions due to rounding. – Nil or rounded to zero.

Source: AIHW (2008), *Australian Hospital Statistics 2006-07*, Cat. no. HSE 55; table 11A.43.

The age standardised hospital separation rate of Indigenous people for all vaccine preventable conditions was 2.7 per 1000 Indigenous people in 2006-07 for NSW, Victoria, Queensland, WA, SA and the NT combined. The quality of Indigenous identification is considered acceptable for the purposes of analysis only for these jurisdictions. Around 74 per cent of vaccine preventable separations for Indigenous people were accounted for by influenza and pneumonia in 2006-07 (table 11.8).

Table 11.8 Separations of Indigenous people for vaccine preventable conditions, per 1000 Indigenous people, 2006-07^{a, b}

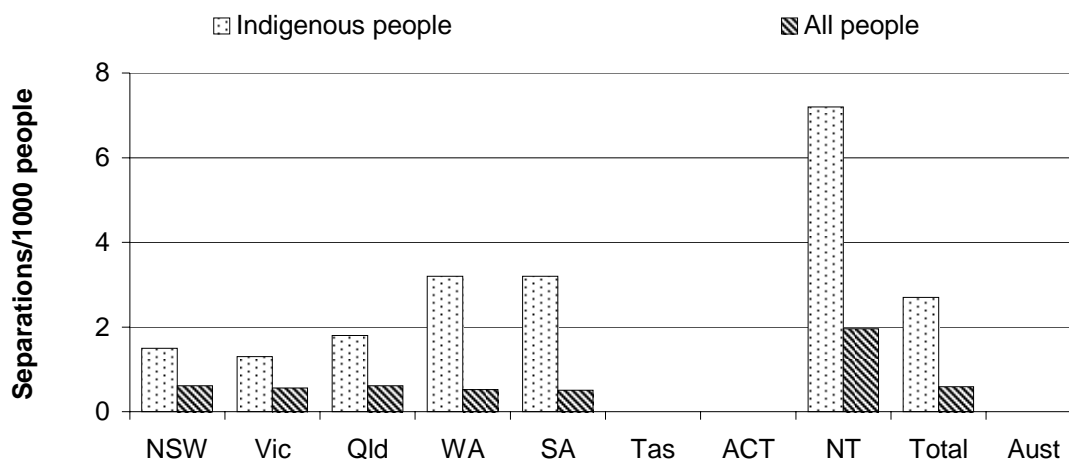
	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT^c</i>	<i>Total^d</i>	<i>Aust</i>
Influenza and pneumonia	1.1	0.9	1.3	2.9	2.1	np	np	4.8	2.0	np
Other conditions	0.4	0.4	0.4	0.3	1.0	np	np	2.4	0.7	np
Total^e	1.5	1.3	1.8	3.2	3.2	np	np	7.2	2.7	np

^a Separation rates are directly age standardised to the Australian population at 30 June 2001. ^b Caution should be used in the interpretation of these data because of jurisdictional differences in data quality. Published data are not necessarily representative of Tasmania and the ACT. ^c NT data are for public hospitals only. ^d Total comprises NSW, Victoria, Queensland, WA, SA and the NT. Data are not published for Tasmania and the ACT because the quality of Indigenous identification is not considered acceptable for purposes of analysis. ^e Totals may not equal the sum of individual conditions due to rounding. **np** not published.

Source: AIHW (unpublished), derived from the National Hospital Morbidity Database; table 11A.43.

The age standardised hospital separation rate of Indigenous people for vaccine preventable conditions was higher than that for all people in 2006-07 in all jurisdictions for which data were published (figure 11.34).

Figure 11.34 **Separations for vaccine preventable conditions, 2006-07^{a, b, c, d, e}**



^a Separation rates are directly age standardised to the Australian population at 30 June 2001. ^b Caution should be used in the interpretation of these data because of jurisdictional differences in data quality. Published data are not necessarily representative of Tasmania and the ACT. ^c Indigenous separation rates are based on state of hospitalisation while all person rates are based on state of usual residence. ^d NT data for Indigenous people are for public hospitals only. ^e Total comprises NSW, Victoria, Queensland, WA, SA and the NT. Data are not published for Tasmania and the ACT because the quality of Indigenous identification is not considered acceptable for purposes of analysis.

Source: AIHW (2008), *Australian Hospital Statistics 2006-07*, Cat. no. HSE 55; AIHW (unpublished), derived from the National Hospital Morbidity Database; table 11A.43.

Age standardised hospital separation rate ratios for infectious pneumonia illustrate differences between the rates of hospital admissions for Indigenous people and those for all Australians, taking into account differences in the age structures of the populations. Rate ratios close to one indicate that Indigenous people have similar separation rates to all people, while higher rate ratios indicate relative disadvantage. For both males and females there was a marked difference in 2006-07 between the separation rates for Indigenous people and those for the total population for infectious pneumonia diagnoses. For NSW, Victoria, Queensland, WA, SA and the NT combined, the separation rate for Indigenous males was higher than that for all Australian males, and the separation rate for Indigenous females was higher than the rate for all females (tables 11A.46 and 11A.47).

Hospitalisations for selected acute conditions

‘Hospitalisations for selected acute conditions’ is an indicator of governments’ objective to reduce hospitalisations due to acute conditions through the delivery of effective primary healthcare services (box 11.26).

Box 11.26 Hospitalisations for selected acute conditions

'Hospitalisations for selected acute conditions' is defined as the number of hospital separations for the following selected acute conditions per 1000 people: dehydration and gastroenteritis; pyelonephritis (kidney inflammation caused by bacterial infection); perforated/bleeding ulcer; cellulitis; pelvic inflammatory disease; ear, nose and throat infections; dental conditions; appendicitis; convulsions and epilepsy; and gangrene.

A reduction in hospitalisation separation rates may indicate improvements in the effectiveness of primary and community healthcare providers' treatment of these conditions.

The indicator is reported for Indigenous people as well as for all people. Adjustments are made to account for differences in the age structures of these populations across states and territories. A reduction in the gap in hospital separation rates between Indigenous and all people may indicate greater equity of access to primary healthcare services.

Factors outside the control of the primary healthcare sector also influence the rates of hospitalisation, for example, the underlying prevalence of the conditions. Public health measures not covered in this chapter may also influence hospitalisation rates.

Data for this indicator are comparable.

Of the selected acute conditions, dental conditions and dehydration and gastroenteritis had the highest rates of hospitalisation nationally in 2006-07 (table 11.9).

Table 11.9 Separations for potentially preventable acute conditions, by state and territory of usual residence, per 1000 people, 2006-07^a

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust^b</i>
Appendicitis	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.2
Cellulitis	1.6	1.6	1.7	1.4	1.6	1.4	1.4	4.5	1.6
Convulsions and epilepsy	1.7	1.5	1.6	1.4	1.6	1.6	1.3	3.3	1.6
Dehydration and gastroenteritis	2.2	3.1	2.4	2.2	2.7	2.1	1.8	2.1	2.5
Dental conditions	2.3	2.8	2.7	3.5	3.1	1.8	1.6	2.0	2.7
Ear, nose and throat infections	1.6	1.4	1.6	1.5	2.4	1.3	1.2	2.3	1.6
Gangrene	0.1	0.3	0.2	0.2	0.2	0.2	0.1	0.7	0.2
Pelvic inflammatory disease	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.5	0.3
Perforated/bleeding ulcer	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.3	0.2
Pyelonephritis ^c	2.1	2.4	2.2	2.1	2.0	1.6	2.2	3.6	2.2
Total^d	12.3	13.7	13.0	13.1	14.3	10.4	10.4	19.5	13.0

^a Separation rates are directly age standardised to the Australian population at 30 June 2001. ^b Includes other territories and excludes overseas residents and unknown state of residence. ^c Kidney inflammation caused by bacterial infection. ^d Totals may not equal the sum of individual components as more than one acute condition may be reported for a separation.

Source: AIHW (2008), *Australian Hospital Statistics 2006-07*, Cat. no. HSE 55; table 11A.44.

The age standardised hospital separation rate of Indigenous people for all potentially preventable acute conditions was 31.1 per 1000 Indigenous people in 2006-07 for NSW, Victoria, Queensland, WA, SA and the NT combined. Over half of potentially preventable acute separations for Indigenous people were accounted for by convulsions and epilepsy, pyelonephritis, and cellulitis in 2006-07 (table 11.10).

Table 11.10 Separations of Indigenous people for potentially preventable acute conditions, per 1000 Indigenous people, 2006-07^{a, b}

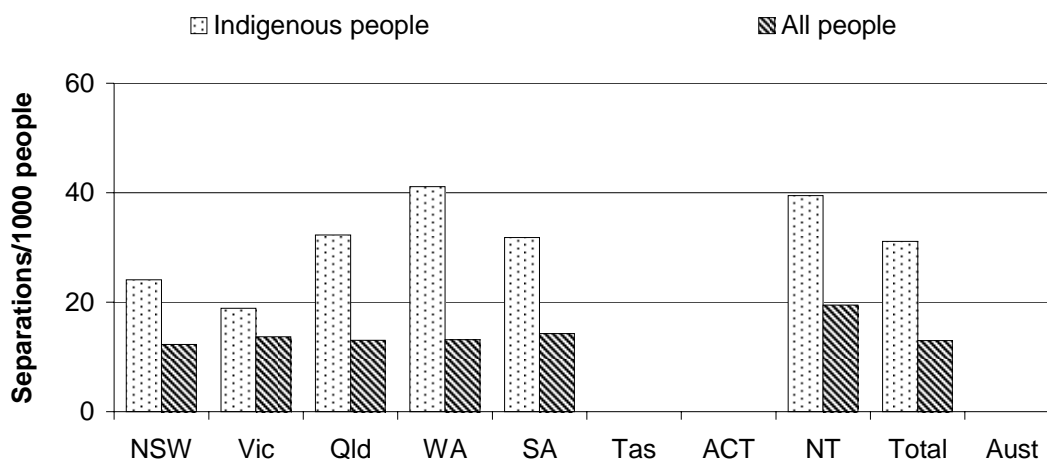
	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT^c</i>	<i>Total^d</i>	<i>Aust</i>
Appendicitis	0.2	0.2	0.3	0.4	0.2	np	np	0.4	0.3	np
Cellulitis	3.5	2.1	5.4	6.0	4.4	np	np	7.1	4.8	np
Convulsions and epilepsy	6.1	4.7	6.5	10.4	8.0	np	np	10.4	7.4	np
Dehydration and gastroenteritis	3.1	2.6	4.4	3.6	3.9	np	np	3.3	3.6	np
Dental conditions	2.4	2.9	3.2	3.8	4.4	np	np	3.4	3.1	np
Ear, nose and throat infections	2.9	1.7	2.9	4.0	3.8	np	np	3.5	3.1	np
Gangrene	0.3	0.3	1.1	2.7	0.8	np	np	1.8	1.1	np
Pelvic inflammatory disease	0.4	0.2	0.5	0.9	0.8	np	np	1.3	0.6	np
Perforated/bleeding ulcer	0.6	0.1	0.4	0.5	0.5	np	np	0.4	0.5	np
Pyelonephritis ^e	4.6	4.0	7.7	8.9	5.2	np	np	7.9	6.5	np
Total^f	24.1	18.9	32.3	41.1	31.8	np	np	39.5	31.1	np

^a Separation rates are directly age standardised to the Australian population at 30 June 2001. ^b Caution should be used in the interpretation of these data because of jurisdictional differences in data quality. Published data are not necessarily representative of Tasmania and the ACT. ^c NT data are for public hospitals only. ^d Total comprises NSW, Victoria, Queensland, WA, SA and the NT. Data are not published for Tasmania and the ACT because the quality of Indigenous identification is not considered acceptable for purposes of analysis. ^e Kidney inflammation caused by bacterial infection. ^f Totals may not equal the sum of individual conditions due to rounding. **np** not published.

Source: AIHW (unpublished), derived from the National Hospital Morbidity Database; table 11A.44.

The age standardised hospital separation rate of Indigenous people for all potentially preventable acute conditions was higher than that for all people in 2006-07 in all jurisdictions for which data were published (figure 11.35).

Figure 11.35 **Separations for potentially preventable acute conditions, 2006-07**^{a, b, c, d, e}



^a Separation rates are directly age standardised to the Australian population at 30 June 2001. ^b Caution should be used in the interpretation of these data because of jurisdictional differences in data quality. Published data are not necessarily representative of Tasmania and the ACT. ^c Indigenous separation rates are based on state of hospitalisation while all person rates are based on state of usual residence. ^d NT data for Indigenous people are for public hospitals only. ^e Total comprises NSW, Victoria, Queensland, WA, SA and the NT. Data are not published for Tasmania and the ACT because the quality of Indigenous identification is not considered acceptable for purposes of analysis.

Source: AIHW (2008), *Australian Hospital Statistics 2006-07*, Cat. no. HSE 55; AIHW (unpublished), derived from the National Hospital Morbidity Database; table 11A.44.

Hospitalisations for selected chronic conditions

‘Hospitalisations for selected chronic conditions’ is an indicator of governments’ objective to reduce hospitalisations due to selected chronic conditions through delivery of effective primary and community healthcare services (box 11.27).

Box 11.27 Hospitalisations for selected chronic conditions

‘Hospitalisations for selected chronic conditions’ is defined as the number of hospital separations for the following selected chronic conditions per 1000 people: asthma; congestive cardiac failure; diabetes complications; chronic obstructive pulmonary disease; angina; iron deficiency anaemia; hypertension; nutritional deficiencies; and rheumatic heart disease. A reduction in hospitalisation separation rates may indicate improvements in the effectiveness of primary and community healthcare providers’ treatment of these conditions.

(Continued on next page)

Box 11.27 (Continued)

This indicator is reported for Indigenous people as well as for all people. Adjustments are made to account for differences in the age structures of these populations across states and territories. A reduction in the gap in hospital separation rates between Indigenous and all people may indicate greater equity of access to primary healthcare services.

Factors outside the control of the primary healthcare sector also influence the rates of hospitalisation, for example, the underlying prevalence of the conditions. Public health measures that are not reported in this chapter may also influence the hospitalisation rates.

Data for this indicator are comparable.

Of the selected chronic conditions chronic obstructive pulmonary disease, congestive cardiac failure, asthma and angina had the highest rates of hospitalisation nationally in 2006-07 (except for diabetes complications). The hospitalisation rate for diabetes complications was more than three times higher than the rate for any of these conditions (table 11.11).

Table 11.11 Separations for potentially preventable chronic conditions, by state and territory of usual residence, per 1000 people, 2006-07^a

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust^b</i>
Angina	1.6	1.8	2.5	1.6	1.5	1.7	1.1	2.4	1.8
Asthma	2.0	1.9	1.4	1.4	2.6	1.4	1.2	1.5	1.8
Chronic obstructive pulmonary disease	2.5	2.5	2.7	2.2	2.8	2.4	1.7	5.5	2.6
Congestive cardiac failure	1.9	2.1	1.9	1.9	1.9	1.6	1.9	2.5	1.9
Diabetes complications	7.4	9.0	10.2	26.4	8.4	13.4	5.3	15.3	10.4
Hypertension	0.3	0.3	0.4	0.2	0.3	0.3	0.2	0.2	0.3
Iron deficiency anaemia	1.0	1.7	1.0	1.4	1.3	1.2	0.7	1.1	1.2
Nutritional deficiencies	–	–	0.0	0.0	–	0.0	–	0.1	0.0
Rheumatic heart disease ^c	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.8	0.1
Total^d	15.7	18.1	19.0	34.3	17.7	21.2	11.4	27.3	19.1

^a Separation rates are directly age standardised to the Australian population at 30 June 2001. ^b Includes other territories and excludes overseas residents and unknown state of residence. ^c Rheumatic heart disease includes acute rheumatic fever as well as the chronic disease. ^d Totals may not equal the sum of individual components as more than one chronic condition may be reported for a separation. – Nil or rounded to zero.

Source: AIHW (2008), *Australian Hospital Statistics 2006-07*, Cat. no. HSE 55; table 11A.45.

The age standardised hospital separation rate of Indigenous people for all potentially preventable chronic conditions was 57.4 per 1000 Indigenous people in 2006-07 for NSW, Victoria, Queensland, WA, SA, and the NT combined. The quality of Indigenous identification is considered acceptable for the purpose of

analysis only for these jurisdictions. Excluding diabetes complications (discussed below), chronic obstructive pulmonary disease, congestive cardiac failure and angina had the highest potentially preventable chronic hospitalisation rates for Indigenous people in 2006-07 (table 11.12).

Table 11.12 Separations of Indigenous people for potentially preventable chronic conditions, per 1000 Indigenous people, 2006-07^{a, b}

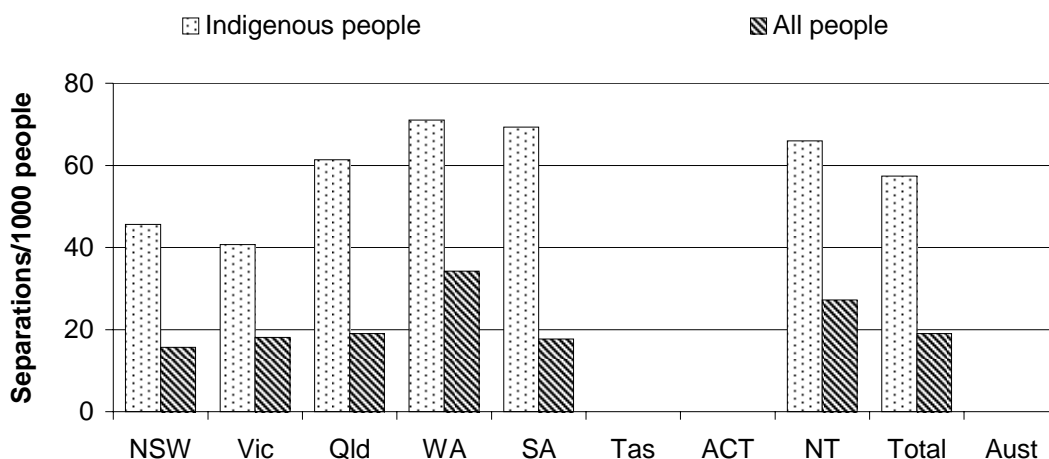
	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT^c</i>	<i>Total^d</i>	<i>Aust</i>
Angina	5.2	6.4	7.9	5.8	4.0	np	np	4.5	5.9	np
Asthma	4.1	2.4	3.3	4.9	4.4	np	np	4.0	3.9	np
Chronic obstructive pulmonary disease	12.3	9.6	11.7	12.4	14.0	np	np	15.8	12.4	np
Congestive cardiac failure	5.0	2.6	7.7	8.7	7.1	np	np	7.1	6.5	np
Diabetes ^e	21.6	20.5	35.1	44.0	41.0	np	np	36.4	31.7	np
Hypertension	0.6	0.2	1.4	0.7	1.4	np	np	0.7	0.9	np
Iron deficiency anaemia	1.6	2.3	1.7	2.2	1.8	np	np	2.4	1.9	np
Nutritional deficiencies	–	0.1	–	–	–	np	np	0.1	–	–
Rheumatic heart disease ^f	0.2	0.4	0.8	0.9	2.0	np	np	1.7	0.8	np
Total^g	45.6	40.7	61.4	71.0	69.3	np	np	66.0	57.4	np
Total excluding diabetes complications	28.8	24.1	34.6	35.7	34.6	np	np	36.4	32.3	np

^a Separation rates are directly age standardised to the Australian population at 30 June 2001. ^b Caution should be used in the interpretation of these data because of jurisdictional differences in data quality. Published data are not necessarily representative of Tasmania and the ACT. ^c NT data are for public hospitals only. ^d Total comprises NSW, Victoria, Queensland, WA, SA and the NT. Data are not published for Tasmania and the ACT because the quality of Indigenous identification is not considered acceptable for purposes of analysis. ^e Excludes separations with a principal diagnosis of renal dialysis and an additional diagnosis of diabetes. ^f Rheumatic heart disease includes acute rheumatic fever as well as the chronic disease. ^g Totals may not equal the sum of individual conditions due to rounding. – Nil or rounded to zero. **np** not published.

Source: AIHW (unpublished), derived from the National Hospital Morbidity Database; table 11A.45.

The age standardised hospital separation rate of Indigenous people for all potentially preventable chronic conditions was higher than that for all people in 2006-07 in all jurisdictions for which data were published (figure 11.36).

Figure 11.36 **Separations for potentially preventable chronic conditions, 2006-07^{a, b, c, d, e}**



^a Separation rates are directly age standardised to the Australian population at 30 June 2001. ^b Caution should be used in the interpretation of these data because of jurisdictional differences in data quality. Published data are not necessarily representative of Tasmania and the ACT. ^c Indigenous separation rates are based on state of hospitalisation while all person rates are based on state of usual residence. ^d NT data for Indigenous people are for public hospitals only. ^e Total comprises NSW, Victoria, Queensland, WA, SA and the NT. Data are not published for Tasmania and the ACT because the quality of Indigenous identification is not considered acceptable for purposes of analysis.

Source: AIHW (2008), *Australian Hospital Statistics 2006-07*, Cat. no. HSE 55; AIHW (unpublished), derived from the National Hospital Morbidity Database; table 11A.45.

Hospitalisations for diabetes

‘Hospitalisations for diabetes’ is an indicator of governments’ objective to reduce hospitalisations due to diabetes through the provision of high quality, appropriate and effective management of diabetes in the primary and community health sector (box 11.28).

Box 11.28 Hospitalisations for diabetes

‘Hospitalisations for diabetes’ has two measures:

- Hospital separation rates for patients with diabetes mellitus as the principal diagnosis
- Hospital separation rates for patients with a lower limb amputation as well as a principal or additional diagnosis of diabetes.

(Continued on next page)

Box 11.28 (Continued)

Hospital separation rates are defined as hospital separations per 100 000 people. Rates are adjusted to account for differences in the age structures of State and Territory populations.

A reduction in these rates may indicate an improvement in GPs' and community health providers' management of patients' diabetes.

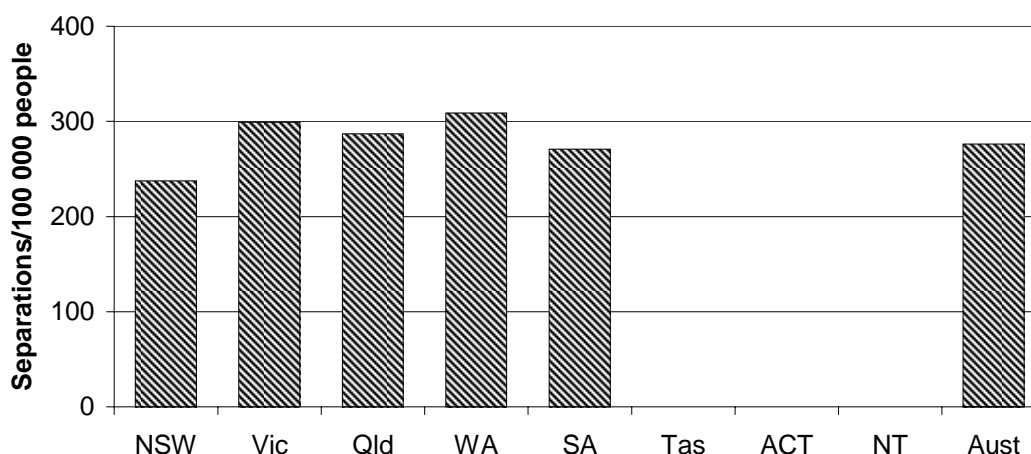
A comparison is made between Indigenous and all other people in the ratio of age standardised hospital separation rates of Indigenous people to all people. Rate ratios close to one indicate that Indigenous people have similar separation rates to all people, while higher rate ratios indicate relative disadvantage.

Factors outside the control of the primary healthcare sector also influence the rates of hospitalisation, for example, the underlying prevalence of the conditions. Public health measures that are not reported in this chapter may also influence the hospitalisation rates.

Data for this indicator are comparable.

Australia-wide, the age standardised hospital separation rate in 2006-07 where the principal diagnosis was Type 2 diabetes mellitus was 276.3 separations per 100 000 people (figure 11.37).

Figure 11.37 Separations for Type 2 diabetes mellitus as principal diagnosis, all hospitals, 2006-07^{a, b, c, d}

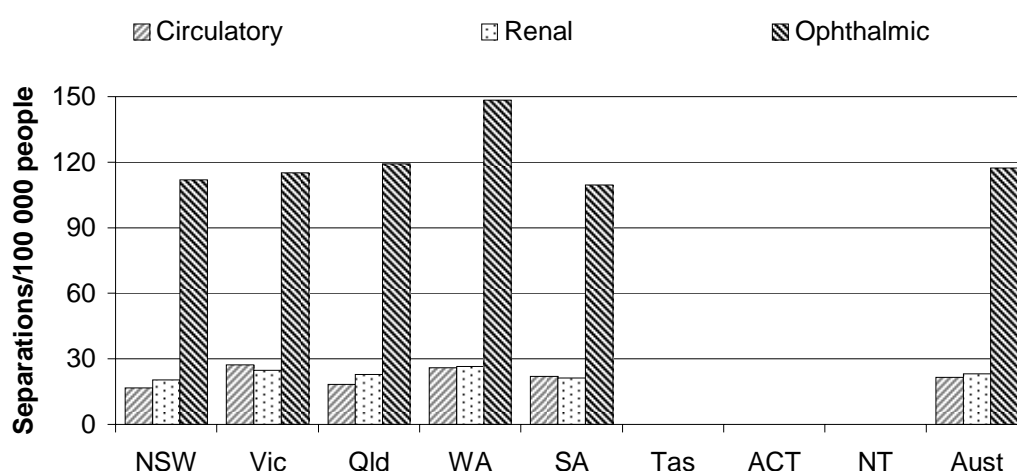


^a Results for individual complications may be affected by small numbers, and need to be interpreted with care. ^b Differences across jurisdictions in policy and practice relating to the admission of patients, the availability of outpatient services and the incentives to admit patients rather than treat them as outpatients will affect estimates of hospital separations. ^c Morbidity data are coded under coding standards that may differ over time and across jurisdictions. ^d Data for Tasmania, the ACT and the NT are not published separately (due to hospital confidentiality arrangements) but are included in the total for Australia.

Source: AIHW (unpublished), derived from the National Hospital Morbidity Database; table 11A.48.

The three most common complications from Type 2 diabetes that led to hospitalisation in 2006-07 were ophthalmic, renal and circulatory complications. Across all jurisdictions for which data were published, the highest hospital separation rates were for ophthalmic complications (figure 11.38). Each patient may have one or more complication (circulatory, renal and ophthalmic) for each diabetes hospital separation.

Figure 11.38 Proportion of separations for principal diagnosis of Type 2 diabetes mellitus by selected complications, all hospitals, 2006-07^{a, b, c, d}



^a Results for individual complications may be affected by small numbers, and need to be interpreted with care. ^b Differences across jurisdictions in policy and practice relating to the admission of patients, the availability of outpatient services and the incentives to admit patients rather than treat them as outpatients will affect estimates of hospital separations. ^c Morbidity data are coded under coding standards that may differ over time and across jurisdictions. ^d Data for Tasmania, the ACT and the NT are not published separately (due to private hospital confidentiality arrangements) but are included in the total for Australia.

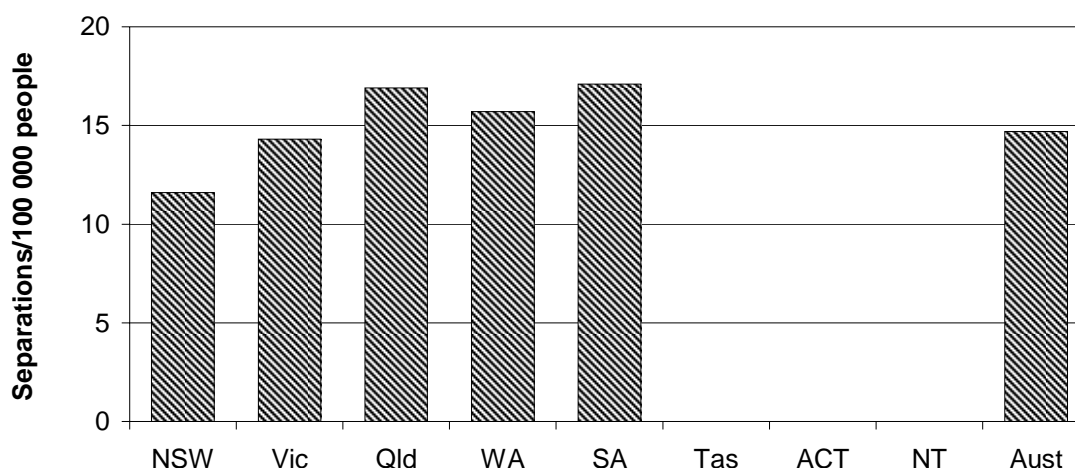
Source: AIHW (unpublished), derived from the National Hospital Morbidity Database; table 11A.48.

Treatment for Type 2 diabetes and related conditions is also provided in ambulatory care settings but the number of people accessing ambulatory services is not included in the hospital separations data. Differences across jurisdictions in policy and practice relating to the admission of patients, the availability of outpatient services and the incentives to admit patients rather than treat them as outpatients affect hospital separation rates. This effect is partly reflected in the substantial variation in the proportion of separations that are 'same day' across jurisdictions. Nationally, 48.4 per cent of separations for Type 2 diabetes were same day in 2006-07 (table 11A.49).

Amputation of a lower limb can be an outcome of serious diabetes-related complications. In 2006-07, there were 14.7 hospital separations per 100 000 people

(age standardised) for lower limb amputations where Type 2 diabetes mellitus was a principal or additional diagnosis (figure 11.39).

Figure 11.39 **Separations for lower limb amputation with principal or additional diagnosis of Type 2 diabetes, all hospitals, 2006-07^{a, b, c}**



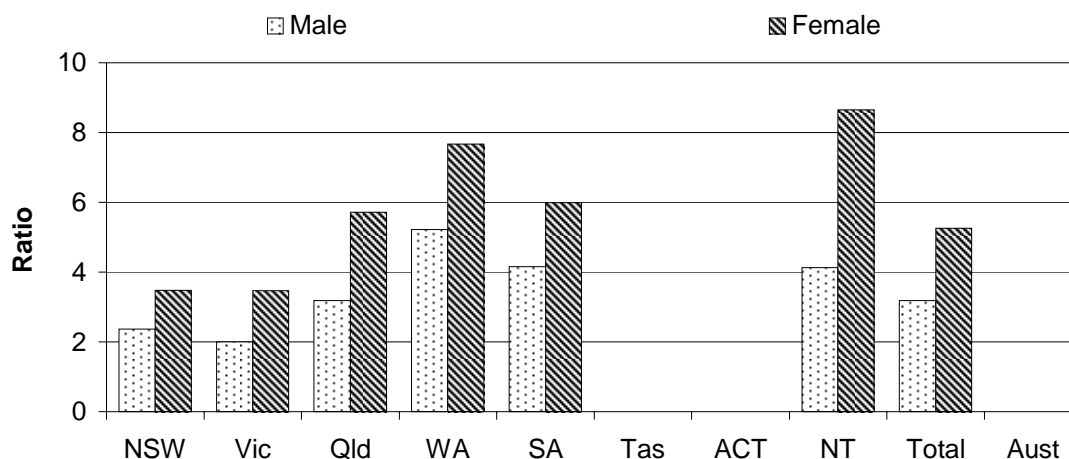
^a Separation rates are directly age standardised to the Australian population at 30 June 2001. ^b Includes unspecified diabetes. The figures are based on the ICD-10-AM classification. The codes used are ICD-10-AM diagnosis codes E11.x for diabetes, and ICD-10-AM procedure block 1533 and procedure codes 44370-00, 44373-00, 44367-00, 44367-01 and 44367-02 for lower limb amputation. ^c Data for Tasmania, the ACT and the NT are not published separately (due to private hospital confidentiality arrangements) but are included in the total for Australia.

Source: AIHW (unpublished), derived from the National Hospital Morbidity Database; table 11A.50.

Age standardised hospital separation ratios for all diabetes diagnoses⁵ illustrate differences between the rate of hospital admissions for Indigenous people and that for all Australians, taking into account differences in the age structures of the two populations. For both males and females there was a marked difference in 2006-07 between the separation rates for Indigenous people and those for the total population for all diabetes diagnoses. The quality of Indigenous identification is considered acceptable for the purpose of analysis only for NSW, Victoria, Queensland, WA, SA and the NT. For these jurisdictions combined, the separation rate for Indigenous males was 3.2 times higher than those for all Australian males. The separation rate for Indigenous females was 5.3 times the rate for all females (figure 11.40).

⁵ 'All diabetes' refers to separations with either a principal or additional diagnosis of diabetes, except where dialysis is the principal diagnosis.

Figure 11.40 Ratio of separation rates of Indigenous people to all people for all diabetes diagnoses, 2006-07^{a, b, c, d, e, f, g}



^a Ratios are directly age standardised to the Australian population at 30 June 2001. ^b Indigenous separation rates are based on state of hospitalisation while all person rates are based on state of usual residence. ^c 'All diabetes' refers to separations with a principal and/or additional diagnosis of diabetes, except where dialysis is the principal diagnosis. ^d Patients aged 75 years and over are excluded. ^e Caution should be used in the interpretation of these data because of jurisdictional differences in data quality. Published data are not necessarily representative of Tasmania and the ACT. ^f NT data are for public hospitals only. ^g Total comprises NSW, Victoria, Queensland, WA, SA and the NT. Data are not published for Tasmania and the ACT because the quality of Indigenous identification is not considered acceptable for purposes of analysis.

Source: AIHW (unpublished), derived from the National Hospital Morbidity Database; tables 11A.46 and 11A.47.

Hospitalisations of older people for falls

'Hospitalisations of older people for falls' is an indicator of governments' objective to reduce preventable hospitalisations through the delivery of effective primary and community health services (box 11.29). Effective primary and community healthcare may reduce the likelihood of falls and/or assist in reducing the severity of injury.

Box 11.29 Hospitalisation of older people for falls

'Hospitalisations of older people for falls' is defined as the number of hospital separations for older people with a reported external cause of falls per 1000 older people, adjusted to take account of differences in State and Territory age distributions. Older people are defined as aged 65 years or over for this indicator.

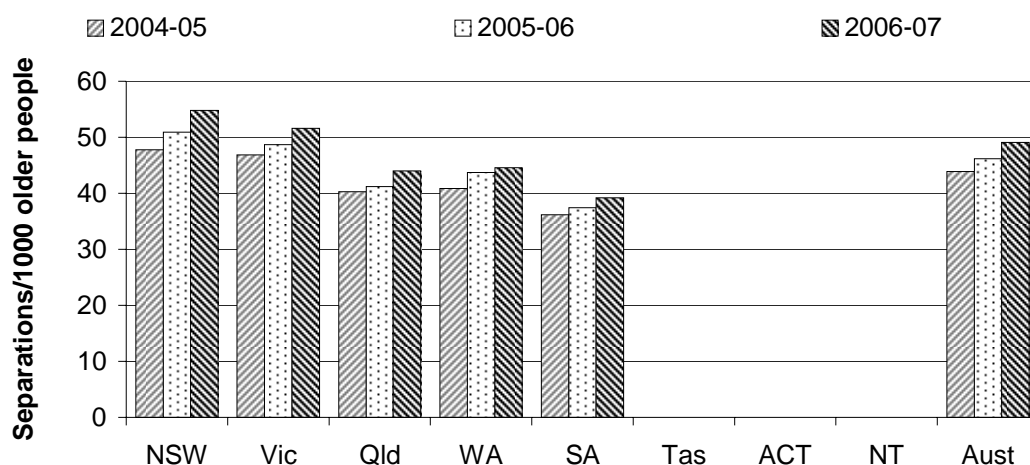
A reduction in the rate of hospitalisation due to falls may indicate improvements in the effectiveness of primary and community healthcare services provided to older people who are at risk of falls.

Factors outside the control of the primary healthcare system also influence the rates of hospitalisation. These include the support available to older people from family and friends, and the provision of aged care services such as Home and Community Care program services and residential care.

Data for this indicator are comparable.

In all jurisdictions for which data are published, separation rates for older people with injuries due to falls have gradually increased in the period 2004-05 to 2006-07 (figure 11.41). Nationally, the separation rate per 1000 older people increased from 43.9 in 2004-05 to 49.1 in 2006-07.

Figure 11.41 Separations for older people with a reported external cause of falls^{a, b, c}



^a Older people are defined as people aged 65 years or over. ^b Data for Tasmania, the ACT and the NT are not published separately (due to private hospital confidentiality arrangements) but are included in the total for Australia. ^c Separation rates are crude rates using the estimated population aged 65 years or over at December 31 as the denominator.

Source: AIHW (unpublished), derived from the National Hospital Morbidity Database; table 11A.51.

11.4 Future directions in performance reporting

While the topic of this chapter is all primary and community health services, the indicators remain heavily focused on general practice services. This partly reflects the lack of data available on a nationally consistent basis to support reporting against indicators for other primary and community health services. The Steering Committee has identified possible areas for which indicators may be available for inclusion in the 2010 Report or future reports. These include:

- dental health services
- community-based drug and alcohol treatment services
- additional indicators relating to the use of the MBS chronic disease management items.

In addition, the currently reported indicator ‘management of upper respiratory tract infection’ has been identified for reporting improvements.

The scope of this chapter may also be further refined to ensure the most appropriate reporting of primary health services against the Review’s terms of reference and reporting framework (see chapter 1).

Indigenous health

Barriers to accessing primary health services contribute to the poorer health status of Indigenous people compared to other Australians (see the ‘Health preface’). The Steering Committee has identified primary and community health services for Indigenous people as a priority area for future reporting. The Steering Committee will continue to examine options for the inclusion of further such indicators. The Aboriginal and Torres Strait Islander Health Performance Framework developed under the auspices of the Australian Health Ministers’ Advisory Council will inform the selection of future indicators of primary and community health services to Indigenous people.

The completeness of Indigenous identification in hospital admitted patient statistics remains variable across states and territories. There has been some improvement, for example, data for NSW and Victoria are now considered to be of acceptable quality for the purpose of analyses, whereas on previous assessment this was not the case. The quality of data for Tasmania and the ACT is considered to be too poor for publication. Continued efforts to improve Indigenous identification are necessary in order to better measure the performance of primary and community health services in relation to the health of Indigenous Australians. The AIHW is currently undertaking a project to develop best practice guidelines for identification.

Reform of Specific Purpose Payments

In December 2007, the Council of Australian Governments (COAG) agreed to reform Specific Purpose Payments (SPPs). SPPs are financial agreements between the Australian Government and State and Territory governments involving a contribution by the Australian Government to the funding of services which are considered a joint Australian and State and Territory government responsibility. The Australian Health Care Agreement was such an SPP.

At its 29 November 2008 meeting, COAG agreed to six new National Agreements, five of which are associated with a National SPP. In the area of Health and Ageing, there is a National Health Care Agreement associated with the National Health Care SPP (COAG November 2008). Under the reforms, the National Health Care Agreement contains the objectives, outcomes, outputs and performance indicators for Health and Ageing services. The performance of governments in achieving these mutually agreed outcomes will be assessed by the COAG Reform Council (CRC). The Steering Committee has been requested by COAG to provide the SPP performance information to the CRC (COAG July 2008).

The National Agreements/SPPs will be supplemented by a range of National Partnerships (NPs): project, facilitation and reward agreements. Funding for NPs may be conditional on states and territories meeting agreed milestones and performance benchmarks.

The Steering Committee and the Health Working Group will ensure that reporting in this chapter reflects the COAG priorities identified in the National Health Care Agreement, National Health Care SPP and relevant NPs.

11.5 Definitions of key terms and indicators

Age standardised	Removing the effect of different age distributions (across jurisdictions or over time) when making comparisons, by weighting the age-specific rates for each jurisdiction by the national age distribution.
Annual cycle of care for people with diabetes mellitus within general practice	<p>The annual cycle of care comprises the components of care, delivered over the course of a year, that are minimum requirements for the appropriate management of diabetes in general practice, based on RACGP guidelines.</p> <p>MBS items can be claimed on completion of the annual cycle of care according to MBS requirements for management, which are based on but not identical to the RACGP guidelines.</p>
Asthma Action Plan	<p>An asthma action plan (AAP) is an individualised, written asthma action plan incorporating information on how to recognise the onset of an exacerbation of asthma and information on what action to take in response to that exacerbation, developed in consultation with a health professional.</p> <p><i>Source: ACAM (Australian Centre for Asthma Monitoring) 2007, Australian asthma indicators: Five-year review of asthma monitoring in Australia. Cat. no. ACM 12, AIHW, Canberra.</i></p>
Cervical screening rates for target population	Proportion of women aged 20–69 years who are screened for cervical cancer over a two year period.
Closed treatment episode	A closed treatment episode is a period of contact between a client and an alcohol and other drug treatment agency. It has defined dates of commencement and cessation, during which the principal drug of concern, treatment delivery setting and main treatment type did not change. Reasons for cessation of a treatment episode include treatment completion, and client non-participation in treatment for three months or more. Clients may be involved in more than one closed treatment episode in the data collection period.
Community health services	Health services for individuals and groups delivered in a community setting, rather than via hospitals or private facilities.
Consultations	The different types of services provided by GPs.
Cost to government of general practice per person	Cost to the Australian Government of total non-referred attendances by non-specialist medical practitioners per person.
Divisions of General Practice	<p>Geographically-based networks of GPs. There are 111 Divisions of General Practice, 8 State Based Organisations and a peak national body, the Australian General Practice Network (AGPN).</p> <p>The Divisions of General Practice Program evolved from the former Divisions and Projects Grants Program established in 1992. The Divisions of General Practice Program aims to contribute to improved health outcomes for communities by working with GPs and other health services providers to improve the quality and accessibility of health care at the local level.</p>

Full time workload equivalents (FWE)	A measure of medical practitioner supply based on claims processed by Medicare in a given period, calculated by dividing the practitioner's Medicare billing by the mean billing of full time practitioners for that period. Full time equivalents (FTE) are calculated in the same way as FWE except that FTE are capped at 1 per practitioner.
Fully immunised at 12 months	A child who has completed three doses of diphtheria, tetanus, pertussis vaccine, three doses of oral polio vaccine and three doses of HbOC (HibTITER) (or two doses of PRP-OMP [PedvaxHIB]).
Fully immunised at 24 months	A child who has received four doses of diphtheria, tetanus, pertussis vaccine, three doses of oral polio vaccine, four doses of HbOC (HibTITER) (or three doses of PRP-OMP [PedvaxHIB]) and one dose of measles, mumps and rubella vaccine.
General practice	The organisational structure with one or more GPs and other staff such as practice nurses. A general practice provides and supervises healthcare for a 'population' of patients and may include services for specific populations, such as women's health or Indigenous health.
General practitioner (GP)	Vocationally recognised GPs — medical practitioners who are vocationally recognised under s.3F of the Health Insurance Act 1973 (Cwlth), hold Fellowship of the RACGP, ACRRM, or equivalent (From 1996, vocational registration was available only to GPs who attained Fellowship of the RACGP; since April 2007, it has also been available to Fellows of the ACRRM), or hold a recognised training placement. Other medical practitioners — medical practitioners who are not vocationally recognised GPs.
Health management	An ongoing process beginning with initial client contact and including all actions relating to a client. Includes: assessment/evaluation; education of the person, family or carer(s); diagnosis and treatment; management of problems associated with adherence to treatment; and liaison with, or referral to, other agencies.
Immunisation coverage	A generic term indicating the proportion of a target population that is fully immunised with a particular vaccine or the specified vaccines from the National Immunisation Program for that age group.
Management of upper respiratory tract infections	Number of prescriptions ordered by GPs for the oral antibiotics most commonly used in the treatment of upper respiratory tract infections per 1000 people with PBS concession cards.
Non-referred attendances	GP services, emergency attendances after hours, other prolonged attendances, group therapy and acupuncture. All attendances for specialist services are excluded because these must be 'referred' to receive Medicare reimbursement.
Non-referred attendances that are bulk billed	Number of non-referred attendances that are bulk billed and provided by medical practitioners, divided by the total number of non-referred non-specialist attendances.
Nationally notifiable disease	A communicable disease that is on the Communicable Diseases Network Australia's endorsed list of diseases to be notified nationally (DoHA 2004). On diagnosis of these diseases, there is a requirement to notify the relevant State or Territory health authority.

Notifications of selected childhood diseases	Number of cases of measles, pertussis and <i>Haemophilus influenzae</i> type b notified to State and Territory health authorities.
Other medical practitioner (OMP)	A medical practitioner other than a vocationally recognised GP who has at least half of the schedule fee value of his/her Medicare billing from non-referred attendances. These practitioners are able to access only the lower A2 Medicare rebate for general practice services they provide, unless the services are provided through certain Departmental incentive programs.
Pap smear	A procedure for the detection of cancer and pre-cancerous conditions of the female cervix.
Per person benefits paid for GP ordered pathology	Total benefits paid for pathology tests ordered by GPs, divided by the population.
Per person benefits paid for GP referred diagnostic imaging	Total benefits paid for diagnostic imaging tests referred by GPs, divided by the population.
Primary healthcare	<p>The primary and community healthcare sector includes services that:</p> <ul style="list-style-type: none"> • provide the first point of contact with the health system • have a particular focus on illness prevention or early intervention • are intended to maintain people's independence and maximise their quality of life through care and support at home or in local community settings.
Prevalence	The proportion of the population suffering from a disorder at a given point in time (point prevalence) or during a given period (period prevalence).
Proportion of GPs who are female	Number of all FWE GPs who are female, divided by the total number of FWE GPs.
Proportion of GPs with vocational recognition	Number of FWE GPs who are vocationally recognised, divided by the total number of FWE GPs.
Proportion of general practices registered for accreditation	Number of practices that have registered for accreditation through either of the two accreditation bodies, AGPAL and GPA ACCREDITATION plus, divided by the total number of practices in the Divisions of General Practice.
Proportion of general practices with electronic information management systems	Number of practices that maintain and/or use predominantly secure electronic patient records, that are registered under the PIP, divided by the total number of practices registered.
Public health	The organised, social response to protect and promote health and to prevent illness, injury and disability. The starting point for identifying public health issues, problems and priorities, and for designing and implementing interventions, is the population as a whole or population subgroups. Public health is characterised by a focus on the health of the population (and particular at-risk groups) and complements clinical provision of healthcare services.
Reasons for encounter	The expressed demand of the patient for care, as perceived and recorded by the GP.

Recognised immunisation provider

A provider recognised by Medicare Australia as a provider of immunisation to children.

Recognised specialist

A medical practitioner classified as a specialist on the Medicare database earning at least half of his or her income from relevant specialist items in the schedule, having regard to the practitioner's field of specialist recognition.

Screening

The performance of tests on apparently well people to detect a medical condition at an earlier stage than would otherwise be possible without the test.

Vocationally recognised general practitioner

A medical practitioner who is vocationally recognised under s.3F of the Health Insurance Act 1973 (Cwlth), holds Fellowship of the RACGP, ACRRM, or equivalent, or holds a recognised training placement, and who has at least half of the schedule fee value of his/her Medicare billing from non-referred attendances.

11.6 Attachment tables

Attachment tables are identified in references throughout this chapter by a '11A' suffix (for example, table 11A.3). Attachment tables are provided on the CD-ROM enclosed with the Report and on the Review website (www.pc.gov.au/gsp). Users without access to the CD-ROM or the website can contact the Secretariat to obtain the attachment tables (see contact details on the inside front cover of the Report).

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Table 11A.59	Australian Capital Territory, community health services programs
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