
10 Primary and community health

This chapter covers general practice, primary healthcare services for Indigenous people, drug and alcohol treatment, public dental services, 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 12, ‘Aged care’)
- public hospital emergency departments and outpatient services (see chapter 9, ‘Public hospitals’)
- community mental health services (see chapter 11, ‘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 providing preventative care, diagnosis and treatment of illness, and referral to other healthcare services.

Descriptive information about primary and community health services is contained in section 10.1. A framework of performance indicators is presented in section 10.2, and key performance indicator results are discussed in section 10.3. Future directions for reporting are covered in section 10.4, and relevant terms are defined in section 10.5. Section 10.6 lists the supporting tables for this chapter. Supporting tables are identified in references throughout the chapter by an ‘A’ suffix (for example, table 10A.3 is table 3 in the attachment). Supporting tables are provided on the CD-ROM enclosed with the Report. Section 10.7 lists references used in this chapter.

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

- data on the PBS are included for the first time, including the ‘availability of PBS medicines’ indicator
- the ‘availability of GPs by region’ indicator is now reported by State and Territory
- the ‘management of diabetes’ indicator, which was previously reported as an outcome has been split into ‘management of diabetes’ and ‘hospitalisations for diabetes’ indicators

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- Indigenous data are now reported for the ‘hospitalisations for vaccine preventable conditions’ and ‘hospitalisations for diabetes’ indicators.

10.1 Profile of primary and community health

Definitions, roles and responsibilities

General practitioners (GPs) are a significant part of the medical practitioner workforce. The medical practitioner workforce comprises doctors trained in a specialty (including general practice) and other medical practitioners (OMPs). The Royal Australian College of General Practitioners (RACGP) defines a GP as ‘a medical practitioner who provides primary comprehensive and continuing care to patients and their families within the community’ (Britt *et al.* 2005, p. 140). Most of the data in this chapter include two types of medical practitioner who provide GP services:

- registered GPs — medical practitioners who are vocationally registered under s.3F of the *Health Insurance Act 1973* (Cwlth), hold Fellowship of the RACGP or equivalent (Fellowship of the RACGP has been required since 1996, to achieve vocational registration) or hold a recognised training placement
- OMPs — medical practitioners who are not registered GPs and who have at least half of the schedule fee value of their Medicare billing from non-referred attendances.

While the majority of GPs provide services as part of a general practice, some GPs are also employed by hospitals or other organisations in full time or part time capacities. General practice is the business structure within which one or more GPs and other staff such as practice nurses provide and supervise healthcare for a group of patients. General practices are predominantly privately owned, by either the GPs or corporate entities. In Australia, general practices are an important source of primary healthcare. The services they provide include: diagnosing and treating illness (both chronic and acute); providing preventative care through to palliative care; referring patients to consultants, allied health professionals, community health services and hospitals; and acting as gatekeepers for other healthcare services (DHFS 1996). Definitions for common health terms are provided in section 10.5.

The Australian Government provides the majority of general practice income through Medicare fee-for-service and other payments, with the remainder coming 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.

The Australian Government also subsidises the cost of many prescription medicines through the PBS. The PBS aims to provide all Australians affordable, reliable and timely access to prescription medicines. Around 80 per cent of prescriptions dispensed in Australia are subsidised under the PBS. Users make a co-payment with the Australian Government paying the remaining cost for drugs eligible for subsidy. For concession card holders the co-payment is currently \$4.60. For other people, or general consumers, the co-payment is currently \$28.60. These amounts are normally adjusted in line with inflation on 1 January each year. Both concession card holders and general consumers are subject to a safety net threshold. Once spending within a calendar year has reached the relevant threshold, PBS medicines will generally be cheaper or free for the rest of the calendar year for these people. The 2005 safety net threshold is \$874.90 for general patients and \$239.20 for people holding a concession card (DHA 2005).

The Repatriation Pharmaceutical Benefits Scheme (RPBS) provides subsidised pharmaceuticals to war veterans and war widows. Unlike the PBS, which is a universal scheme, the RPBS provides access to additional pharmaceutical items and dressings necessary for treatment of entitled veterans and war widows. The RPBS is administered by the Department of Veterans' Affairs (DVA). The drugs eligible for subsidy under the RPBS differ from those eligible under the PBS. This means that drugs eligible for subsidy under the RPBS may not be eligible under the PBS.

Community health services usually consist of multidisciplinary teams of salaried health professionals who aim to protect and promote the health of particular communities (Quality Improvement Council 1998). They are either provided directly by governments (including local governments) or funded by government and managed by a local health service or community organisation. State and Territory governments are responsible for most community health services. There is no national strategy for community health, and there is considerable variation in the services provided across jurisdictions. The Australian Government's main role in the community health services covered in this chapter is in health services for Indigenous people.

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 Australian Government supports the provision of dental services primarily through the 30 per cent private health insurance rebate. Additionally, the Australian Government provides Medicare funding for a limited range of medical services of an oral surgical nature, and 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. The states and territories have the main responsibility for the delivery of the major public dental health care programs, primarily directed at children and disadvantaged adults. 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

Almost all of the services provided by private GPs are at least partly funded by the Australian Government through Medicare and the DVA. This is illustrated by data from the annual Bettering the Evaluation and Care of Health (BEACH) survey of general practice activity in Australia. The BEACH survey found that 93.7 per cent of all encounters with GPs in 2004-05 were for services at least partly funded by Medicare or the DVA (table 10.1). The Australian Government also provides payments to GPs through the Practice Incentives Program (PIP) and the GP Immunisation Incentives Scheme (DHAC 2000). These payments are included in the data for Australian Government expenditure presented below (figure 10.1). The Australian Government also invests in general practice through the Divisions of General Practice Program.

The Australian Government spent approximately \$4.3 billion on general practice in 2004-05, including through Medicare, non-Medicare funding, expenditure by the DVA and other funding programs. This was equivalent to expenditure of \$213 per person in 2004-05 (figure 10.1). Figure 10.1 does not give a complete picture of government expenditure on primary health because it does not include expenditure on Indigenous-specific primary health care services, other community health services, and services delivered through hospital accident and emergency departments. These types of primary healthcare are more prevalent in rural and remote areas. Accordingly, figure 10.1 understates expenditure on primary health, particularly in jurisdictions with larger proportions of Indigenous people and people living in rural and remote areas.

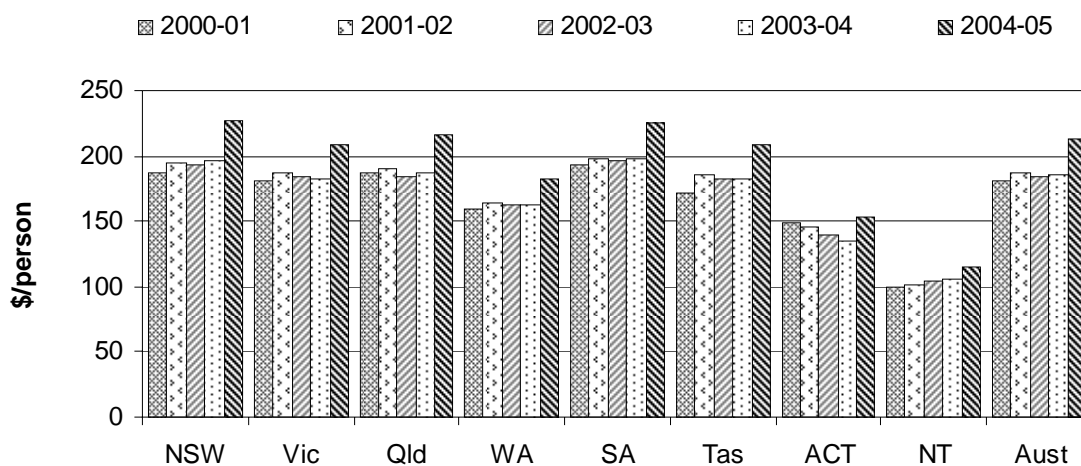
Table 10.1 **GP encounters, by source of funding, 2004-05^{a, b, c}**

	<i>Number^d</i>	<i>Rate^e</i>	<i>95% LCL</i>	<i>95% UCL</i>
	no.	no./100 encounters	no./100 encounters	no./100 encounters
GPs participating in the BEACH survey	954	..	..	..
Total encounters for which BEACH data were recorded	94 386	..	..	..
Encounters with missing data	7 355	..	..	..
Direct encounters	84 775	97.4	97.1	97.7
No charge	457	0.5	0.2	0.9
Medicare paid ^f	81 582	93.7	93.3	94.2
Workers compensation	2 132	2.5	2.1	2.8
Other paid (hospital, State, etc.)	605	0.7	0.1	1.3
Indirect encounters ^g	2 256	2.6	2.1	3.1

UCL = upper confidence limit. LCL = lower confidence limit. ^a April 2004 to March 2005. ^b An 'encounter' is any professional interchange between a patient and a GP (Britt *et al.* 2000). ^c They are usually the result of a phone call by a patient. 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. Percentage base (N = 87 030). ^f Includes Australian Government payments made through the DVA. ^g Indirect consultations 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.* (2005); table 10A.1.

Figure 10.1 **Australian Government real expenditure per person on GPs (2004-05 dollars)^a**



^a The data include Medicare, PIP, DVA, Divisions of General Practice and General Practice Immunisation Incentives Scheme payments. DVA data cover consultations by local medical officers (LMOs), whether vocationally registered 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. The Australian Government invests in general practice through the Divisions of General Practice Program.

Source: Department of Health and Ageing (DHA) (unpublished); table 10A.2.

State and Territory governments also 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

Expenditure on the PBS and RPBS was around \$5.8 billion, or \$285 per person, in 2004-05. Expenditure on the PBS was around \$5.3 billion in 2004-05, 79.6 per cent of which was expenditure on concessional patients (table 10.2). Data on government expenditure on pharmaceuticals is also presented in the 'Health preface.'

Table 10.2 PBS and RPBS expenditure, 2004-05 (\$ 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	369.3	266.6	203.7	101.2	82.0	21.5	22.7	6.2	1 073.6
PBS concessional ^c	1 471.5	1 062.5	792.2	357.2	363.0	119.1	44.4	12.6	4 222.5
PBS doctor's bag	3.4	2.4	2.0	0.6	0.7	0.2	0.1	–	9.4
PBS total	1 844.2	1 331.6	997.9	458.9	445.7	140.8	67.3	18.9	5 305.5
RPBS total ^d	na	na	na	na	na	na	na	na	465.7
Total	1 844.2	1 331.6	997.9	458.9	445.7	140.8	67.3	18.9	5 771.3
\$ per capita ^e	272.4	265.9	254.3	229.5	289.8	292.2	206.5	93.7	285.0

^a State and territory level data is 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 DHA annual report which are prepared on an accrual accounting basis and also include other categories administered under special arrangements. ^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. ^e Government cost per capita for PBS groups excluding doctor's bag. **na** Not available. – Nil or rounded to zero.

Source: DHA (unpublished).

Community health services

Expenditure data are not available for all of the community health services covered in this chapter. The Australian Institute of Health and Welfare (AIHW) publishes expenditure data on community and public health, and dental services. The former category, however, includes public health activities that are not covered in this chapter, such as food safety regulation and media campaigns to promote health awareness. The dental services category includes private dental services (funded by

insurance premium rebates and non-government expenditure) that are also not reported in this chapter. In 2003-04, government expenditure on community and public health was \$4.9 billion, with State, Territory and local government providing 80.3 per cent and the Australian Government providing 19.4 per cent of this expenditure (table 10.3). Australian Government direct outlay expenditure on dental services was \$77 million in 2003-04, and State, Territory and local government expenditure was \$326 million (table 10.3).

Table 10.3 Estimated funding on community and public health, and dental services, 2003-04 (\$ million)^{a, b}

	<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</i>	<i>Total</i>				
Community and public health ^c	941	–	941	3899	4840	17	4857
Dental services ^d	77	319	397	326	723	3971	4694

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

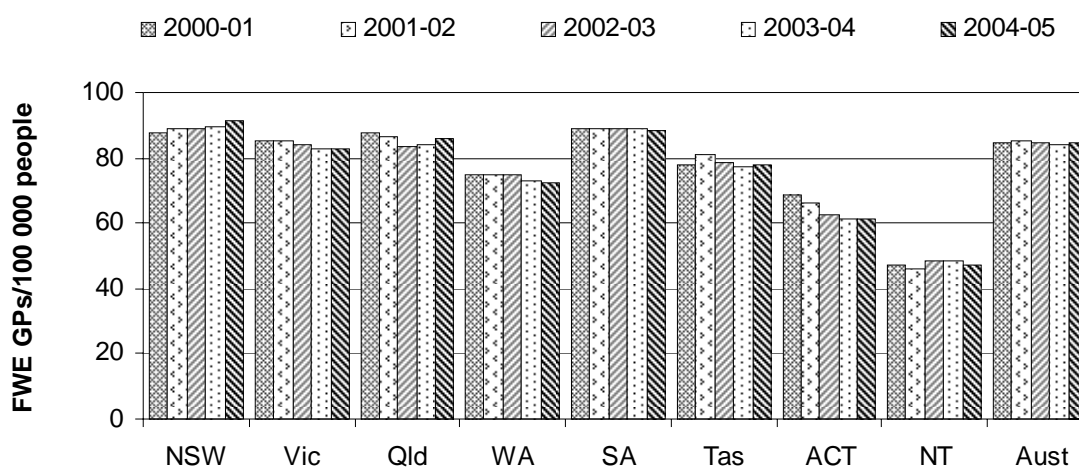
Source: AIHW (2005d).

Size and scope

General practice

There were 24 669 registered GPs and OMPs billing Medicare in Australia in 2004-05. On a full time workload equivalent (FWE) basis, there were 17 273 registered GPs and OMPs. This was equal to 84.9 registered GPs and OMPs per 100 000 people (table 10A.3). These data exclude services provided by GPs working with the Royal Flying Doctor Service and GPs working in Indigenous-specific primary health care services and public hospitals without the right of private practice. 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 number of FWE registered GPs and OMPs per 100 000 people are shown in figure 10.2.

Figure 10.2 Availability of GPs (full time workload equivalent)^a



^a Data include registered GPs and OMPs who are allocated to a jurisdiction based on the postcode of their practice.

Source: DHA (unpublished); table 10A.3.

Pharmaceutical Benefits Scheme and Repatriation Pharmaceutical Benefits Scheme

There were around 186 million services provided under the PBS and RPBS in 2004-05, amounting to 9.2 scripts per person. There were around 170 million services provided under the PBS in 2004-05, of which 83.1 per cent were concessional (table 10.4).

Table 10.4 PBS and RPBS services, 2004-05 (million services)

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
PBS general ^a	9.8	7.1	5.3	2.7	2.1	0.6	0.6	0.2	28.4
PBS concessional ^b	48.8	35.7	26.7	12.1	12.2	4.2	1.4	0.4	141.5
PBS doctor's bag	0.1	0.1	0.1	–	–	–	–	–	0.4
PBS total	58.8	42.9	32.2	14.9	14.3	4.8	2.0	0.6	170.3
RPBS total ^c	na	na	na	na	na	na	na	na	15.7
Total	58.6	42.8	32.1	14.8	14.3	4.8	2.0	0.6	186.0
Services per capita ^d	8.7	8.6	8.2	7.4	9.3	9.9	6.0	2.9	9.2

^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. ^d Services per capita for PBS groups excluding doctor's bag. na Not available. – Nil or rounded to zero.

Source: DHA (unpublished).

Community health services

The range of community health services available varies considerably across jurisdictions. Tables 10A.44–10A.52 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, including 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 11 and 12.

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 9.

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 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 10A.49, 10A.50 and 10A.52).

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 states, 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 dental services in 2004-05.

- NSW provided basic and emergency dental care in the community (table 10A.45).
- Victoria provided emergency, general and denture services for concession card holders and their dependents. Victoria also provided specialist care for concession card holders and domiciliary services for people who find it difficult to leave their home (table 10A.46).
- Queensland provided free emergency, general, denture and specialist services to Pensioner Concession Card, Health Care Card, and State and Commonwealth Seniors card holders and their dependents. Free services were also provided to school children to Year 10 (table 10A.47).
- SA provided specialist dental services for concession card holders provided in association with students of the University of Adelaide. SA also provided emergency and general dental care (including dentures) for adult holders of concession card and their dependents in public dental clinics and through private providers (table 10A.49).
- Tasmania provided emergency, basic general dental care (such as check up, x-rays, dental health advice and referral), and dentures to holders of a Health Care or Pensioner Concession Card. Tasmania also engaged in health promotion and prevention activities to promote oral health on a population basis (table 10A.50).
- The ACT provided dental services with specific adult services such as periodontics, prosthodontics, domiciliary and oral surgery to adults (table 10A.51).
- The NT provided services to eligible adults from remote community health centres and town based clinics (table 10A.52).

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 2005a). This report excluded some treatment activities, including opioid pharmacotherapy treatment where it is the only treatment provided. The report also excluded data for the majority of Indigenous substance use services and Indigenous

community healthcare services that also provide alcohol and other drug treatment services and are funded by the Australian Government.

A total of 622 alcohol and other drug treatment services contributed 2003-04 data for the National Minimum Data Set. Of these, 300 (48.2 per cent) identified as government providers and 322 (51.7 per cent) identified as non-government providers (table 10A.8). All of the non-government providers received some government funding for 2003-04. A total of 115 163 clients were registered for treatment in 2003-04, of whom 65.9 per cent were male (AIHW 2005a). Alcohol was reported as the most common principal drug of concern for which clients sought treatment (37.5 per cent of treatment episodes). Cannabis was the next most common drug of concern (22.0 per cent of treatment episodes), followed by heroin (18.0 per cent of treatment episodes) and amphetamines (11.0 per cent of treatment episodes) (AIHW 2005a). Further information on alcohol and other drug treatment services funded by governments is included in tables 10A.44–10A.52.

Indigenous community healthcare services

Indigenous Australians utilise a range of primary health care services in Australia including private general practitioners, Indigenous-specific primary health care services and community health services. (The use of general practice services by Indigenous people is discussed separately below.) There are Indigenous-specific 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 for Indigenous-specific primary health care services is provided by Australian, State and Territory governments.

In addition to the Indigenous-specific primary health care services, specific health programs for Indigenous Australians are funded by jurisdictions. The following jurisdictions indicated to the Review that in 2004-05 they had community health programs aimed specifically at Indigenous people.

- NSW provided Indigenous health services, such as health information and education, counselling, pre and post natal programs, early childhood nursing and health promotion programs (table 10A.45).
- Queensland provided primary and community healthcare services and activities that address prevention and health management/maintenance for Indigenous communities. Services offered include: disease/illness prevention and promotion services; men's and women's health programs; child and adolescent health services; alcohol, tobacco and other drug services; sexual health services; allied

health services; and patient transport provided to increase access to healthcare (table 10A.47).

- SA provided a range of Indigenous health services provided through multidisciplinary teams from community health who work with Indigenous communities. Services provided by SA include strategies to improve Indigenous mental health, improve nutrition standards and reduce tobacco use (table 10A.49).
- Tasmania provided population and health priorities programs to prevent and manage chronic conditions such as diabetes and cardiovascular diseases, and to promote nutrition, physical activity and injury prevention in identified population groups, including the Indigenous population (table 10A.50).

All other jurisdictions treat Indigenous people through their mainstream community programs.

The Australian Government also funds Aboriginal and Torres Strait Islander primary healthcare services. Information on these services is collected through service activity reporting (SAR) surveys. Many of the surveyed 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 that are funded from all sources.

For 2003-04, SAR data are reported for 138 Indigenous primary healthcare services (table 10A.4). Of these services, 54 (39.1 per cent) were located in remote or very remote areas (table 10A.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 10A.6).

An episode of healthcare is defined in the SAR data collection as contact between an individual client and a service by one or more staff to provide healthcare. Over 1.6 million episodes of healthcare were provided by participating services in 2003-04 (table 10.5). Of these, around 585 000 (36.3 per cent) were in remote or very remote areas (table 10A.5).

The services included in the SAR data collection employed approximately 1713 full time equivalent health staff (as at 30 June 2004). Of these health staff, 1091 were Indigenous (63.7 per cent). The proportions of doctors and nurses employed by surveyed services who were Indigenous, however, were relatively low (3.3 per cent and 12.4 per cent respectively) (table 10A.7).

Table 10.5 **Estimated Indigenous episodes of healthcare by surveyed services ('000)^a**

	<i>NSW and ACT</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>NT</i>	<i>Aust</i>
2000-01	349	131	187	327	147	12	189	1342
2001-02	357	136	214	313	144	18	233	1416
2002-03	423	130	234	337	140	20	216	1499
2003-04	430	169	267	302	142	22	280	1612

^a An episode of healthcare involves contact between an individual client and a service by one or more staff, for the provision of healthcare. Group work is not included. Transport is included only if it involves provision of healthcare/information by staff. Episodes of healthcare provided at outreach locations are included — for example, episodes at outstation visits, park clinics and satellite clinics — as are episodes delivered over the phone.

Source: DHA SAR (unpublished).

Use of general practice services by Indigenous people

An overview of health factors and outcomes for Indigenous people is provided in the 'Health preface'. Data on national expenditure on general practice services for Indigenous people in 2001-02 (the most recent year for which expenditure data are available by Indigenous status) indicate:

- expenditure on Medicare per Indigenous person was about 39 per cent of expenditure per non-Indigenous person
- expenditure on the PBS per Indigenous person was about 33 per cent of expenditure per non-Indigenous person
- Indigenous Australians used secondary/tertiary care (such as hospitals) at a higher rate than they used primary care and at a higher rate than that used by non-Indigenous people (AIHW 2005c; see 'Health preface').

Data from the annual BEACH survey indicate the nature of encounters between Indigenous people and GPs. It is uncertain whether all patients are asked the Indigenous identification question and therefore these data may under-represent the actual number of GP encounters with Indigenous Australians. In addition, these data need to be treated with care because the BEACH survey was not designed to produce reliable results for Indigenous people and may under-identify them. For these reasons, the 2003 BEACH survey aggregated Indigenous data over a five year period to improve reliability

Over the period 1998-99 to 2002-03, 5476 encounters between Indigenous patients and GPs were recorded in the BEACH survey (table 10A.9). This represented 1.1 per cent of GP encounters in the study over this period. By comparison, the proportion of Indigenous people in the Australian population was 2.4 per cent at

June 2001 the midpoint of this period (tables A.2 and A.7). Extrapolating these results to all GP/patient encounters across Australia suggests there was an annual average of around 1.1 million encounters between Indigenous patients and GPs over the five years to 2002-03 (Britt *et al.* 2003).

The most common health problem managed in GP encounters with Indigenous people over the five years of the BEACH survey was diabetes, which accounted for 7.1 per 100 GP encounters with Indigenous people, compared with 2.8 per 100 GP encounters with all people. Other problems with significantly higher management rates in GP encounters with Indigenous people included acute otitis media/myringitis, asthma, and pre- and post-natal care (table 10.6). Further information about the location, remoteness and management activities of BEACH survey encounters between Indigenous patients and GPs is included in tables 10A.10, 10A.11 and 10A.12.

Table 10.6 **Selected health problems in encounters with GPs, by Indigenous status, 1998-99 to 2002-03**

Problems managed	Indigenous people's encounters			All encounters		
	Rate (n=5476)	95% LCL	95% UCL	Rate (n=502 100)	95% LCL	95% UCL
	no./100	no./100	no./100	no./100	no./100	no./100
Diabetes ^a	7.1	6.0	8.2	2.8	2.7	2.9
Hypertension ^a	6.7	5.7	7.7	8.8	8.6	9.0
Upper respiratory tract infection	5.7	4.8	6.5	6.0	5.9	6.2
Asthma	4.3	3.6	5.0	2.9	2.8	3.0
Acute bronchitis/ bronchiolitis	3.8	3.2	4.5	2.8	2.7	2.8
Depression ^a	3.4	2.9	3.9	3.8	3.7	3.9
Immunisation (all) ^a	3.3	2.6	3.9	4.8	4.6	5.0
Acute otitis media/ myringitis	3.1	2.5	3.6	1.4	1.4	1.5
Back complaint ^a	2.2	1.7	2.6	2.6	2.5	2.7
Pre- and post-natal check ^a	2.1	1.5	2.5	1.0	0.9	1.0
Subtotal	41.7	..	..	..	..	..
Total problems^b	147.7	143.7	151.6	148.1	147.3	148.9

LCL = lower confidence level. UCL = upper confidence level. ^a Includes multiple primary care classification codes. ^b Total problems managed is greater than 100, because more than one problem can be managed per encounter. .. Not applicable.

Source: Britt *et al.* (2003); table 10A.9.

10.2 Framework of performance indicators

The performance indicator framework is based on the shared government objectives for primary and community health (box 10.1). 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 (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 10.1 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 2006 Report (figure 10.3). 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 (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 for health services.

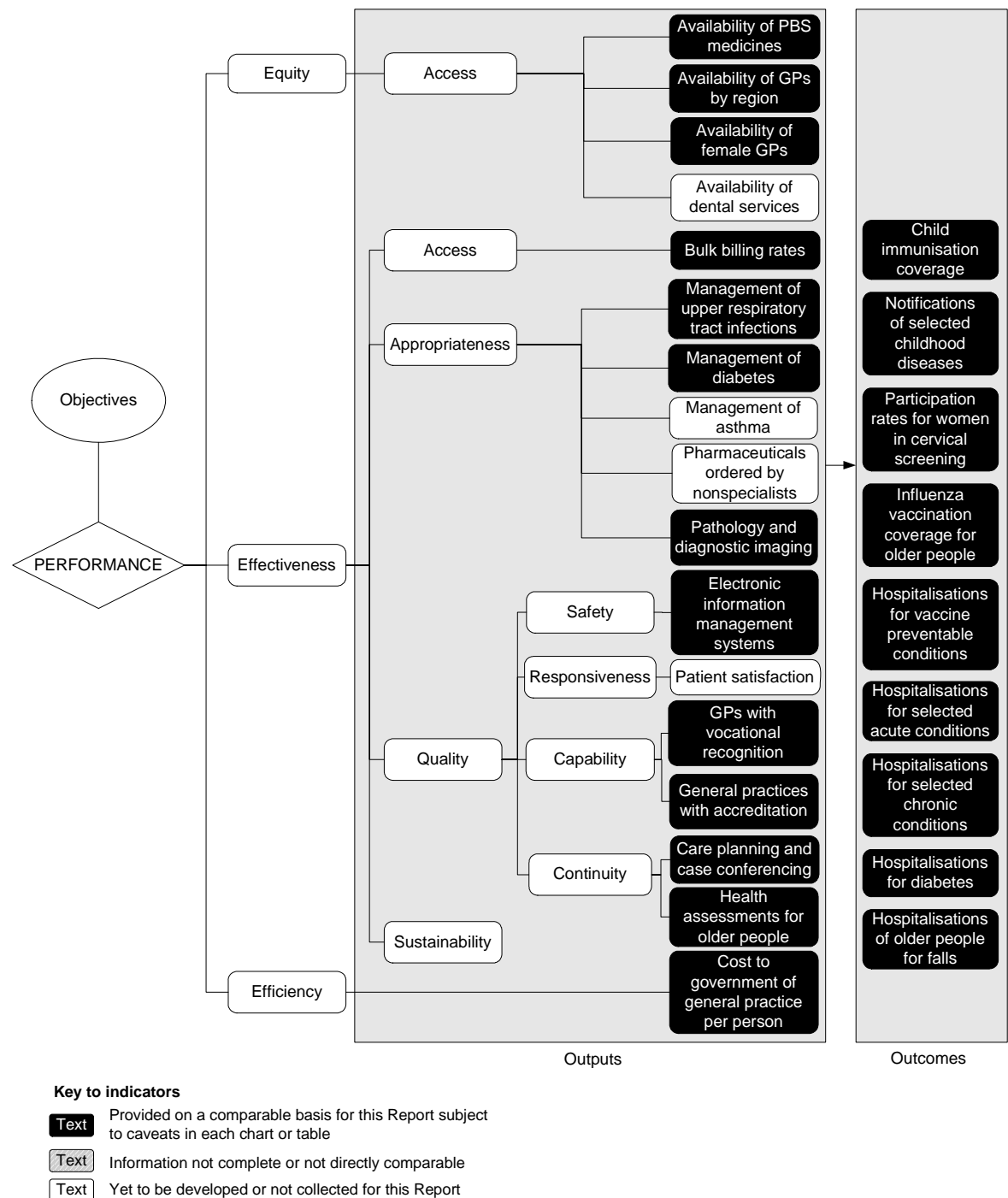
The following changes have been made to the performance indicator framework this year.

- ‘Availability of PBS medicines’ is included for the first time in line with the increase in scope of this chapter to include reporting on the PBS.
- ‘Management of diabetes’, which was previously reported as an outcome, has been split into two indicators, the first indicator ‘management of diabetes’ is reported as an indicator of appropriateness while the second indicator ‘hospitalisations for diabetes’ is reported as an outcome. The ‘management of

diabetes' indicator previously contained many pieces of data. The data on diabetes registers, glycaemic control assessments and patients at risk of complications are better classified as an output indicator of appropriateness, while the data on hospitalisations are better classified as an overall outcome indicator.

- 'Bulk billing rates' has been moved from being an indicator of equity of access to being an indicator of effectiveness of access. Equity of access relates to access by different groups such as those with a disability or from disadvantaged ethnic groups or geographic locations. The 'bulk billing rates' indicator does not report directly on these groups, but relates to timeliness and the cost of accessing GP services for all and so is better classified as an indicator of effectiveness of access. Chapter 1 contains a discussion of the distinction between equity of access and effectiveness of access.
- 'Availability of dental services' and 'management of asthma' have been included in the framework for the first time, however, specific measures have not been developed.

Figure 10.3 Performance indicators for primary and community health



10.3 Key performance indicator results

Different delivery contexts, locations and types of client may affect the effectiveness, equity 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.

Equity

For the purposes of this Report, equity is defined in terms of adequate access to government services for all Australians. This includes equal access for groups who may have special needs, or difficulties in gaining access to services, due to English language proficiency, gender, age, disability, ethnicity or geography (chapter 1).

Problems with accessing primary and community health services have contributed to the generally poor health status of Indigenous people relative to other Australians (see the 'Health Preface' and SCRGSP 2005). Geographic, language, gender or other barriers can also have an impact on access to primary and community health services for other groups of people, including people living in rural and remote areas and people who speak languages other than English.

Access

Three indicators of equity of access to primary and community health services are reported this year: 'availability of PBS medicines' (box 10.2); 'availability of FWE GPs by region' (box 10.3); and 'availability of female GPs' (box 10.4). 'Availability of PBS medicines' is reported for the first time this year. A fourth indicator, 'availability of dental services' has been included for the first time this year but data are not available for reporting against it (box 10.5).

Availability of PBS medicines

Box 10.2 Availability of PBS medicines

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 peoples' health and they should be available to those who require them regardless of where they live.

Three measures are presented for this indicator:

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

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Box 10.2 (Continued)

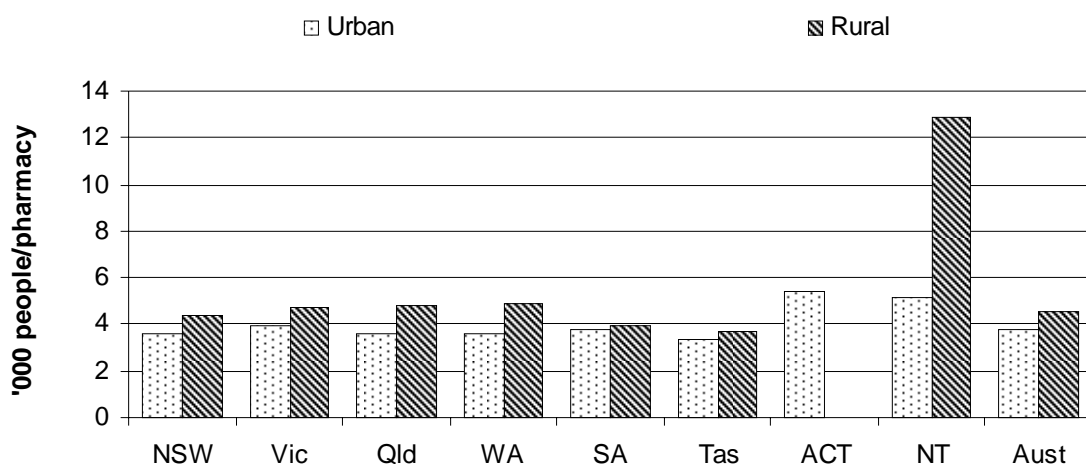
A decrease in people per pharmacy indicates improved availability of PBS medicines. An increase in PBS expenditure per person indicates improved availability of PBS medicines. An increase in the proportion of PBS prescriptions filled at a concessional rate indicates an improved access to PBS prescriptions. It is also important that there are not large discrepancies in these measures by region.

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

The distribution of pharmacies underlies access to the PBS. Across Australia, there were 3739 people per pharmacy in urban areas and 4591 people per pharmacy in rural areas in 2004-05. In all states and territories, the number of people per pharmacy was higher in rural than in urban areas (except in the ACT, which has no rural statistical areas) (figure 10.4).

In addition to pharmacies, 85 medical practitioners and 159 hospitals were approved to supply PBS medicines to the community in 2004-05. There were 83 medical practitioners and 59 hospitals located in rural areas (table 10A.14). These additional services may help to improve access to PBS medicines in some locations.

Figure 10.4 People per pharmacy, 2004-05^a



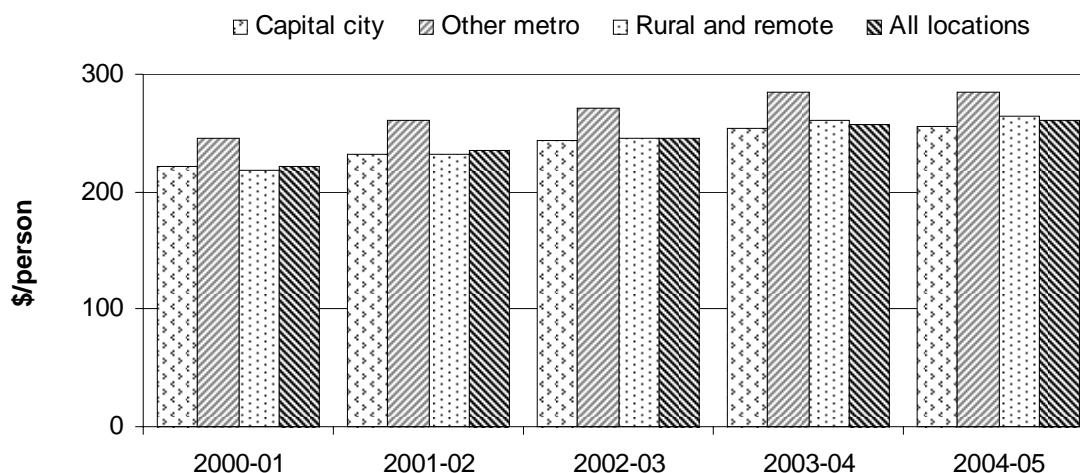
^a Pharmacies measured using the Accessibility/Remoteness Index of Australia modified for Pharmacies (PHARIA). Urban = PHARIA 1. Rural = PHARIA 2-6. The ACT has no rural statistical areas.

Source: DHA (unpublished); table 10A.14.

For Australia as a whole in 2004-05, PBS expenditure per person was fairly similar across regions except other metro. PBS expenditure per person has generally

increased each year over the past five years for each region in 2004-05 dollars (figure 10.5).

Figure 10.5 **PBS expenditure per person (2004-05 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 the DHA's annual report which are prepared on an accrual accounting basis and also include doctor's bag and other categories administered under special arrangements.

Source: DHA (unpublished); table 10A.15.

The proportion of PBS prescriptions filled at a concessional rate is reported by State and Territory (although this is not available by regional location) in table 10A.13. Australia-wide, 83.1 per cent of prescriptions were concessional in 2004-05.

Availability of GPs by region

Box 10.3 Availability of GPs by region

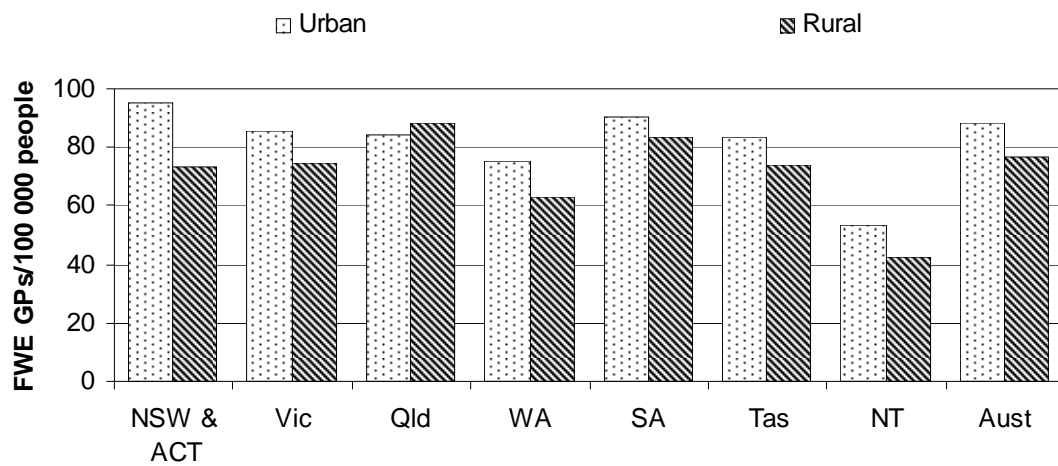
The availability (or supply) of GPs by region affects people's access to general practice services, particularly in rural and remote areas. Low availability can result in increased travel distance to a practice, increased waiting times to see a GP, and difficulty in booking long consultations. Low availability may also reduce bulk billing rates because there is less 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.

The indicator is defined as the number of FWE GPs per 100 000 people by region.

An increase in the availability of GPs indicates improved access to GP services. This indicator, however, does not provide information on whether the services are appropriate for the needs of the people receiving them.

'Availability of GPs by region' is reported by State and Territory for the first time this year. In terms of FWE GPs per 100 000 people, in all states and territories there were more GPs available in urban than rural areas in 2004-05 (figure 10.6). The bulk billed proportion of non-referred attendances was generally lower in rural and remote centres, except other remote areas, than in capital cities or other metropolitan centres (table 10A.18).

Figure 10.6 **Availability of GPs (full time workload equivalent), 2004-05^{a, b, c}**



^a 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 registered GPs and OMPs, who are allocated to a jurisdiction based on the postcode of their practice. ^c Data for NSW and the ACT have been combined for confidentiality reasons.

Source: DHA (unpublished); table 10A.16.

Availability of female GPs

Box 10.4 Availability of female GPs

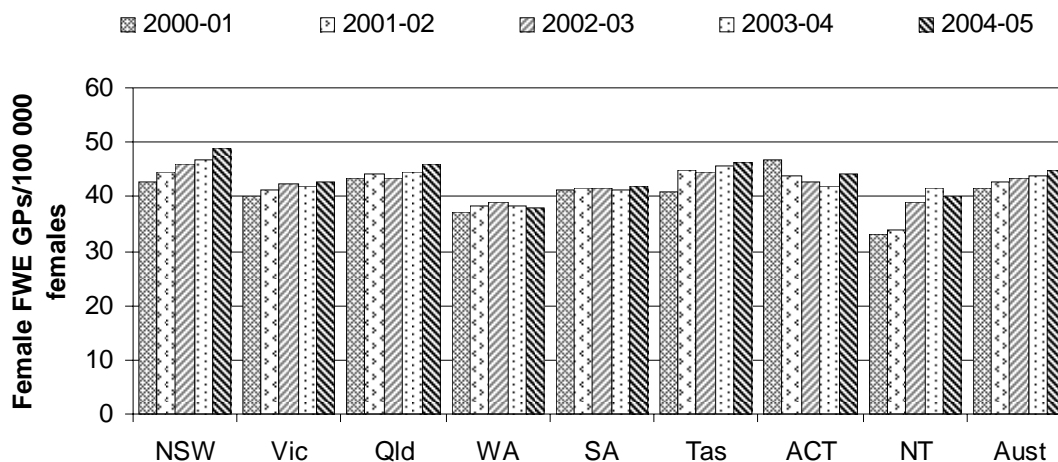
This indicator measures equity of access, recognising that some female patients prefer to discuss health matters with, and to receive primary healthcare from, a female GP.

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

In 2004-05, 36.8 per cent of Australia's GPs were female. This represented 26.7 per cent of FWE GPs (tables 10A.3 and 10A.17). In 2004-05, there were 45.0 female FWE GPs per 100 000 females in Australia (figure 10.7).

Figure 10.7 **Availability of female GPs (full time workload equivalent)^a**



^a Data relate to registered GPs and OMPs.

Source: DHA (unpublished); table 10A.17.

Availability of dental services

The Steering Committee has identified ‘availability of dental services’ as an indicator of access to primary and community health (box 10.5). Data for this indicator, however, were not available for the 2006 Report.

Box 10.5 Availability of dental services

‘Availability of dental services’ has been identified as an indicator of access, but a specific measure has not yet been developed.

Effectiveness

Access

‘Bulk billing rates’ (box 10.6) is currently the only indicator reported against effectiveness and access. In previous years this indicator was reported against equity and access.

Bulk billing rates

Box 10.6 Bulk billing rates

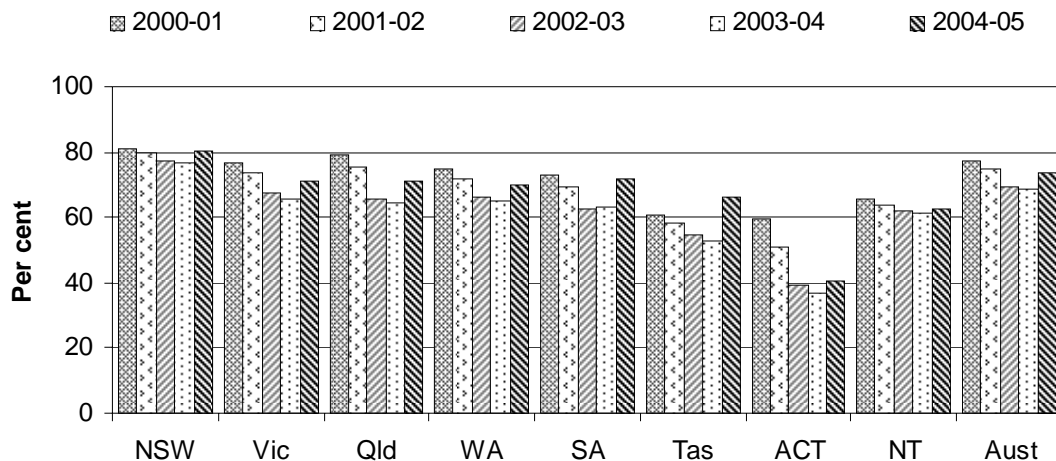
Patient visits to GPs are classed as non-referred attendances under Medicare. Patients are either bulk billed or required to pay part of the cost of the non-referred attendance. Where a patient is bulk billed, the GP bills Medicare Australia directly and since 1 January 2005 receives 100 per cent of 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. The bulk billed proportion of non-referred attendances indicates the affordability of GP services.

The indicator is defined as the number of non-referred attendances that were bulk billed as a proportion of all non-referred services.

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

Australia-wide, the bulk billed proportion of non-referred attendances was 73.8 per cent in 2004-05. This proportion varied across jurisdictions (figure 10.8).

Figure 10.8 Non-referred attendances that were bulk billed^a



^a Data for 2003-04 and 2004-05 include attendances by practice nurses.

Source: DHA (unpublished); table 10A.19.

Appropriateness

Three indicators of the appropriateness of GP services are reported here: the 'management of upper respiratory tract infections' (box 10.7); 'management of diabetes' (box 10.8); and 'pathology tests and diagnostic imaging ordered by non-specialists' (box 10.11). In previous reports 'management of diabetes' and 'hospitalisations for diabetes' (box 10.27) were reported as one 'management of diabetes' outcome indicator.

The Steering Committee has also identified 'management of asthma' (box 10.9) and 'pharmaceuticals ordered by non-specialists' (box 10.10) as indicators of the appropriateness of GP services. Data for these indicators, however, were not available for the 2006 Report.

Management of upper respiratory tract infections

Box 10.7 Management of upper respiratory tract infections

Upper respiratory tract infections without complications are most often caused by viruses. Antibiotics have no efficacy in the treatment of viral infections but are still frequently prescribed when viruses occur. Unnecessarily high antibiotic prescription rates for upper respiratory tract infections have the potential to increase pharmaceutical costs and to increase antibiotic resistance in the community.

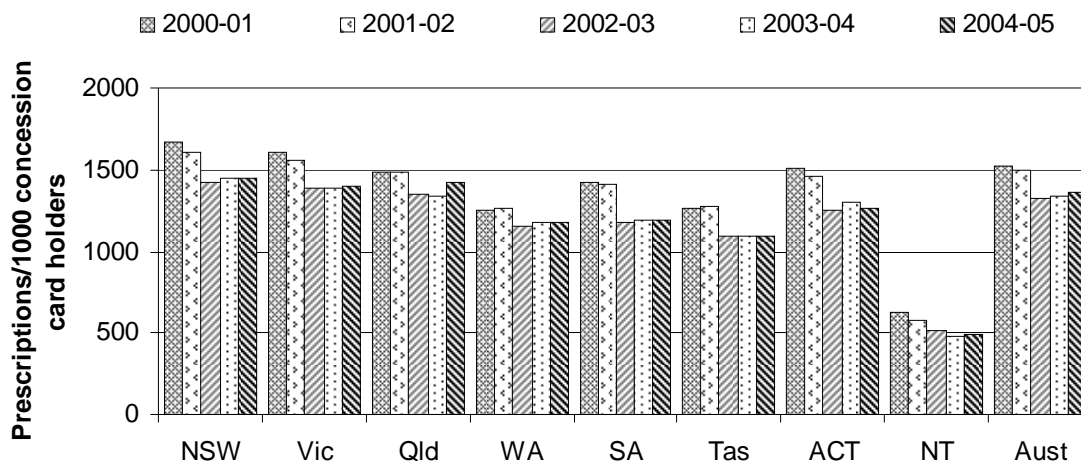
Ideally, this indicator would be based on the total population, but data restrictions mean it is based only on PBS concession card holders. The indicator is defined as the number of prescriptions for the oral antibiotics used most commonly to treat upper respiratory tract infection provided to PBS concession card holders per 1000 PBS concession card holders.

A reduction in the prescription rate may indicate that GPs are offering more appropriate treatment for viral infections.

Due to the effects of population ageing, the complexity of pharmaceutical needs of concession card holders may increase. In addition, the selected oral antibiotics may be prescribed for illnesses other than upper respiratory tract infections. The trend in the prescription of oral antibiotics should nevertheless be downwards if GPs more closely follow guidelines for the treatment of upper respiratory tract infections.

Australia-wide, the prescription rate for the oral antibiotics used most commonly to treat upper respiratory tract infection in 2004-05 was 1360.1 per 1000 PBS concession card holders. The prescription rate decreased by 10.6 per cent between 2000-01 and 2004-05 (although it had increased slightly between 2002-03 and 2004-05) (figure 10.9).

Figure 10.9 **Rate of prescription of the oral antibiotics used most commonly to treat upper respiratory tract infections**



Source: DHA (unpublished); table 10A.20.

Management of diabetes

Box 10.8 Management of diabetes

GPs and community healthcare services can play a significant role in the management of diabetes. Their role is to diagnose patients, enrol them in structured care, and follow best practice condition management guidelines, including where early intervention is warranted.

Poorly controlled diabetes mellitus results in the development of associated conditions. The most common are renal, circulatory and ophthalmic complications that usually require admission to hospital. Over time, good management is likely to start to noticeably affect patients' secondary care requirements, preventing avoidable admissions to hospitals.

Three performance measures relating to the management of diabetes are reported:

- the proportion of adults with diabetes who have been diagnosed and placed on a Divisions of General Practice diabetes register. An increase in this proportion indicates improved patient management and monitoring
- the proportion of people on the Divisions' diabetes registers who have had a glycaemic control assessment. An increase in this proportion indicates improved patient management and monitoring

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Box 10.8 (Continued)

- the proportion of those who have had a glycaemic control assessment who are at risk of future complications — that is, they have glycated haemoglobin (HbA1c) greater than 2 per cent above the upper limit of normal (ULN). A decrease in this proportion indicates improved disease control.

While good primary and community healthcare can limit the development of diabetic complications, patient compliance with measures to maintain blood glucose levels within the near normal range (such as medication, diet and physical activity) also plays an important part.

Management of diabetes — diabetes register

The National Divisions Diabetes Program Data Collation Project was carried out in 2002-03 and had several components. One component was the collation of the quality of care and health outcomes data from the Divisions of General Practice that had a diabetes program and a diabetes register that had operated for at least three years. Divisions participated on a voluntary basis, and 16 supplied complete data.

Nationally in 2002, 17.9 per cent of adults with diabetes were on the Divisions' diabetes registers (table 10.7). These data are based on a small and not necessarily representative number of Divisions of General Practice that voluntarily took part in a national data collection.

Table 10.7 Management of adults with diabetes by participating Divisions of General Practice, 2002^{a, b, c, d, e}

	<i>Number</i>	<i>Per cent</i>
Estimated adults with diabetes in population from participating Divisions ^f	126 386	100.0
Adults with diabetes who are on a Divisions register	22 575	17.9
Patients for whom HbA1c measurement is known	13 325	100.0
Patients for whom HbA1c measurement is known having a glycaemic control assessment in a 6 month period	6 132	46.0
Patients having a glycaemic control assessment in a 6 month period for whom HbA1c measured with result >2% of ULN	1 144	18.7

^a The AusDiab survey (from which these data were sourced) was not representative of Aboriginal and Torres Strait Islander people. ^b The results reported for glycaemic control are for the period 1 January 2002 to 30 December 2002. Glycated haemoglobin (HbA1c) levels are reported as being within a certain percentage from the ULN. The reagents and units of measurement used are different in different laboratories. The normal range is established by a set of standard samples which the lab tests using its particular reagents and equipment. For this reason, every laboratory reports a normal reference range when it reports an HbA1c result. Labs may also report whether a given result is within 1 per cent of the ULN range for their particular testing method, or 'good', 'poor' etc. ^c Divisions participated on a voluntary basis (19 participated and 16 supplied complete data). The duration of Division registers varied from three to seven years, averaging 4.4 years with a median of five years. ^d Adults are persons aged 25 years or over. ^e Around half the people with diabetes are not aware that they have the condition. ^f The estimated number of people with diabetes in a Division has been calculated using population data from the 2001 Census Division and then applying the AusDiab age-specific prevalence rates.

Source: Centre for GP Integration Studies (2003).

Management of diabetes — glycaemic control assessments

Where a patient has been diagnosed with Type 2 diabetes, accepted clinical guidelines suggest that GPs should regularly monitor a number of important elements, including glycaemic control, blood pressure, weight, foot status, lipids, microalbumin level and eye status. The RACGP/Diabetes Australia guidelines recommend assessment every three to six months for Type 1 diabetes, (otherwise known as insulin dependent diabetes or juvenile onset diabetes because peak onset is much earlier in life) and every six to 12 months for Type 2 diabetes (also known as non-insulin dependent or maturity onset diabetes), and a target of HbA1c within 1 per cent of the ULN. Evidence from the UK Prospective Diabetes Study demonstrated that keeping HbA1c within 1 per cent of the ULN reduces the risk of developing complications from diabetes. Where levels are more than 2 per cent above the ULN, early intensive intervention is important to prevent complications.

In 2002, 46.0 per cent of registered adults with Type 2 diabetes with a known HbA1c measurement, had undergone a glycaemic control assessment in the previous six months (table 10.7).

Management of diabetes — patients at risk of complications

Of the people who had undergone a glycaemic control assessment in 2002, 18.7 per cent had HbA1c levels above the point at which there is an increased likelihood of complications (2 per cent above the ULN) (table 10.7). The proportion of adults with Type 2 diabetes with HbA1c levels in this range may initially reflect an increase in the impact of risk factors on changing population cohorts. Over time, however, regular testing and good management by GPs is likely to result in a decline in the proportion of people with diabetes in the category most at risk of complications.

Management of asthma

The Steering Committee has identified ‘management of asthma’ as an indicator of the appropriateness of GP services (box 10.9). Data for this indicator, however, were not available for the 2006 Report.

Box 10.9 Management of asthma

‘Management of asthma’ has been identified as an indicator of appropriateness, but a specific measure has not yet been developed.

Pharmaceuticals ordered by non-specialists

The Steering Committee has identified ‘pharmaceuticals ordered by non-specialists’ as an indicator of the appropriateness of GP services (box 10.10). Data for this indicator, however, were not available for the 2006 Report.

Box 10.10 Pharmaceuticals ordered by non-specialists

‘Pharmaceuticals ordered by non-specialists’ has been identified as an indicator of appropriateness, but no data are currently available.

Box 10.11 Pathology tests ordered and diagnostic imaging referrals by non-specialists (registered GPs and OMPs)

The number of pathology tests ordered and diagnostic imaging referrals by registered GPs and OMPs per person in the population is used to report on the appropriateness of diagnosis and prescribing patterns.

Four measures are reported:

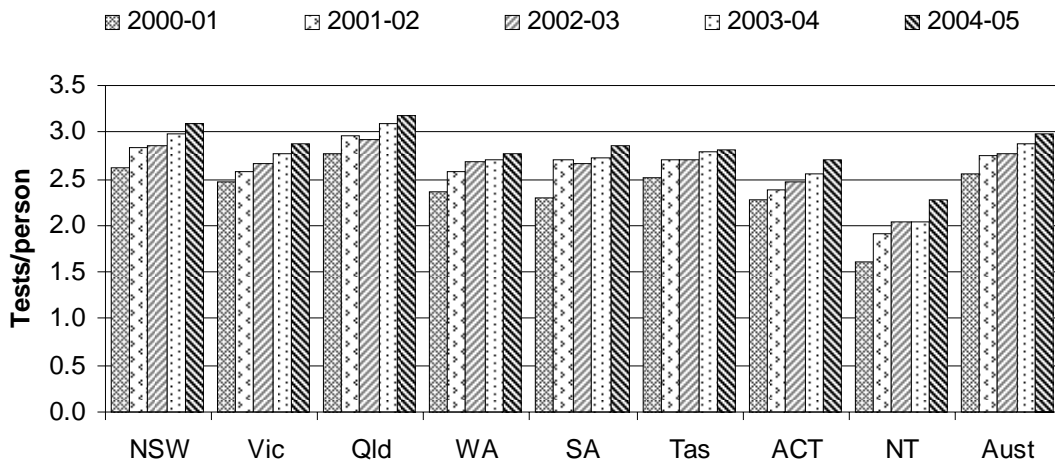
- pathology tests ordered by registered GPs and OMPs per person
- diagnostic imaging referrals from registered GPs and OMPs per person
- benefits paid per person for pathology tests
- benefits paid per person for diagnostic imaging.

In all cases, the data include only tests and referrals rebated through Medicare.

Differences across jurisdictions and over time may indicate inappropriate use of these services in diagnosis and treatment. While high levels may indicate GPs' over-reliance on these diagnostic tools, low levels may also indicate underuse. It is not possible to determine what might be the appropriate levels. Reporting these data contributes to the discussion of such issues.

Nationally, the number of pathology tests ordered per person increased from 2.5 in 2000-01 to 3.0 in 2004-05 (figure 10.10). These data represent only pathology tests paid through Medicare. In general, Medicare benefits are payable for a maximum of three tests performed on a specimen. Data on the number of tests performed but not rebated are not available. Pathology services for some areas of WA, SA, the ACT and the NT were funded by the Australian Government through health program grants until 2001-02, so these data may underestimate the number of pathology tests ordered in some jurisdictions before 2002-03 (although the amounts are relatively insignificant).

Figure 10.10 Pathology tests ordered by GPs^a

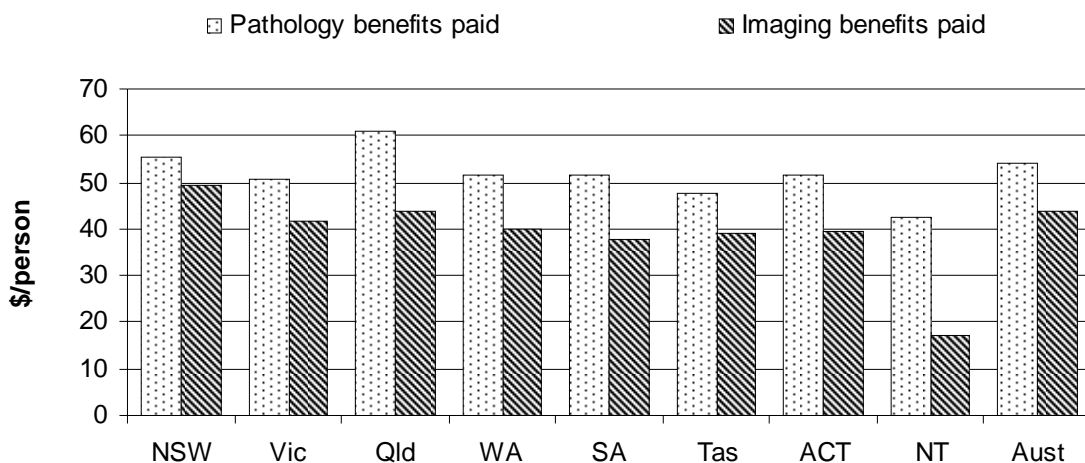


^a Data include tests ordered by registered GPs and OMPs. Data include tests ordered at the request of a patient (patient episode initiated items).

Source: DHA (unpublished); table 10A.21.

Australian Government expenditure (under Medicare) on pathology tests amounted to \$1.1 billion in 2004-05, equal to \$54 per person. Nationally, Medicare benefits worth \$892.5 million were paid for diagnostic imaging in 2003-04, equal to \$44 per person (figure 10.11).

Figure 10.11 Benefits paid for pathology tests and diagnostic imaging, 2004-05^a

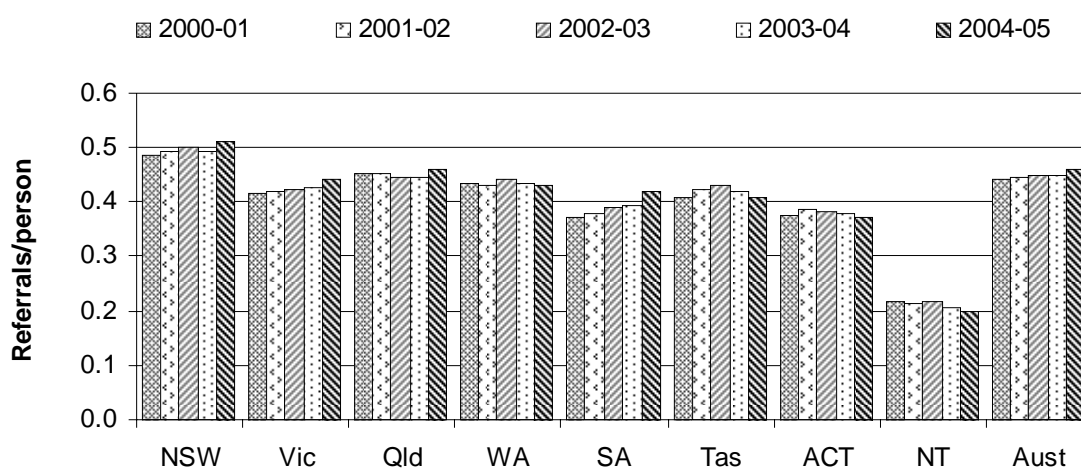


^a Includes benefits paid through Medicare (including DVA data) for pathology tests ordered, and diagnostic imaging referred, by registered GPs and OMPs.

Source: DHA (unpublished); tables 10A.21 and 10A.22.

Nationally, the number of diagnostic imaging referrals per person remained relatively constant over the five years to 2004-05 (figure 10.12). The marked difference in the number of pathology tests ordered per person and the imaging referrals per person might be because up to three tests can be ordered with one pathology specimen, whereas each imaging referral results in only one test.

Figure 10.12 **Diagnostic imaging referrals from GPs^a**



^a Data relate to registered GPs and OMPs.

Source: DHA (unpublished); table 10A.22.

Quality — safety

General practices with electronic information management systems

The Practice Incentives Program (PIP) provides payments to general practices based on patients' ongoing healthcare needs (rather than on service volumes), promoting activities such as: the use of electronic information management systems; after-hours care; the teaching of medical students; the employment of practice nurses; and improved chronic disease management.

Under the PIP Information Management, Information Technology program, two incentives encourage the computerisation of practices: first, the electronic prescribing incentive paid for the use of bona fide electronic prescribing software to generate the majority of prescriptions; and second, an incentive paid for the use of computer systems to send and/or receive clinical information. Computerisation of general practices can improve the safety (in terms of quality and effectiveness) of GP services (box 10.12).

Box 10.12 **General practices with electronic clinical information management systems**

The proportion of general practices with electronic information management systems is an indicator of safety because such systems can reduce prescribing and dispensing errors. Reductions in these types of error reduce the likelihood of harm to patients from adverse drug reactions. Electronic information management systems can 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 the management of screening and other preventive health activities for patients (DHAC 2000).

Two measures of this indicator are reported:

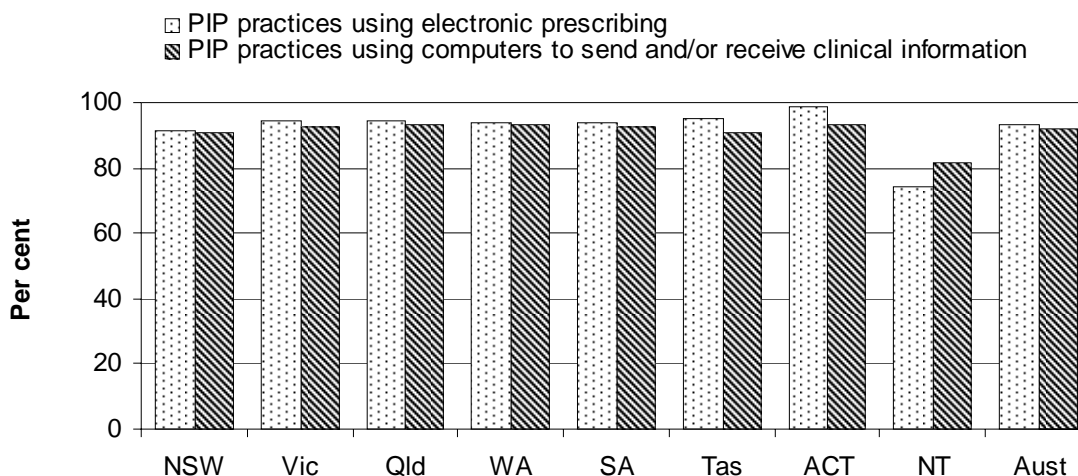
- the proportion of PIP practices that use electronic prescribing
- the proportion of PIP practices that use computers to send/or receive clinical information.

An increase in these proportions may indicate an improvement in the level of safety in patient management by general practices.

The PIP does not include all practices in Australia. PIP practices covered around 80 per cent of Australian patients (measured as standardised whole patient equivalents) in May 2004 (DHA unpublished).

Australia-wide, 93.2 per cent of PIP practices used electronic prescribing systems in May 2005. Of PIP practices, 92.0 per cent had the capacity to send and/or receive clinical information via use of computer technology in May 2005 (figure 10.13).

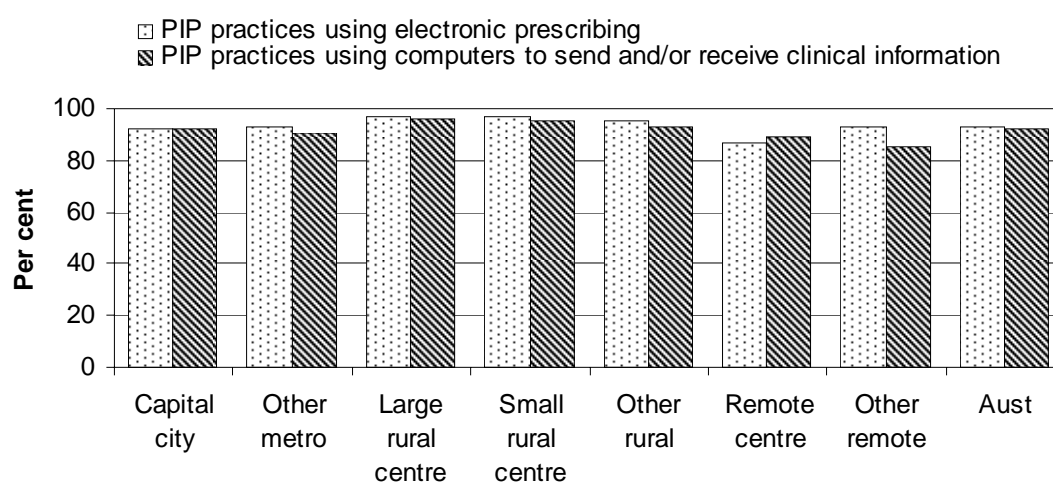
Figure 10.13 PIP practices using computers for clinical purposes, May 2005



Source: DHA (unpublished); table 10A.23.

In May 2005, PIP practices in rural areas were more likely than PIP practices in metropolitan areas or remote areas to use computers to send and/or receive clinical information and to use electronic prescribing (figure 10.14). Remote practices in the NT have difficulty meeting the accreditation requirements to qualify for the PIP, which affects the coverage of these data.

Figure 10.14 **PIP practices using computers for clinical purposes, by area, May 2005^a**



^a Capital city = State and Territory capital city statistical divisions; other metropolitan centre = one or more statistical subdivisions 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.

Source: DHA (unpublished); table 10A.24.

Quality — responsiveness

Patient satisfaction

The Steering Committee has identified ‘patient satisfaction’ as an indicator of the quality of GP services in terms of their responsiveness to patients (box 10.13). Data for this indicator, however, were not available for the 2006 Report.

Box 10.13 Patient satisfaction

‘Patient satisfaction’ has been identified as an indicator of responsiveness, but no data are currently available.

Quality — capability

Two indicators of the quality of GP services, in terms of the GPs' capability to provide services, are reported here: first, the proportion of GPs with vocational registration (box 10.14); and second, the proportion of general practices with accreditation (box 10.15).

GPs with vocational registration

Box 10.14 GPs with vocational registration

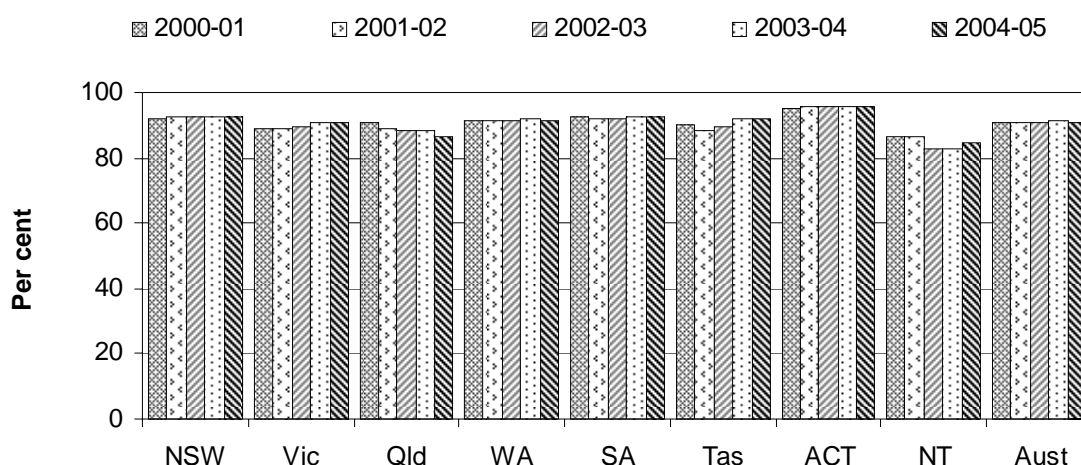
Since 1996, a GP can only achieve vocational registration by attaining Fellowship of the RACGP. GPs can attain Fellowship through the successful completion of a formal general practice training program or through the 'practice eligible' route. Once vocational registration is achieved, GPs must demonstrate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

The measure reported is the proportion of FWE GPs with vocational registration.

An increase in the proportion of GPs with vocational registration may indicate an improvement in the ability of the GP workforce to deliver high quality services. GPs without vocational registration, however, do not necessarily deliver services of a lower quality.

The proportion of GPs with vocational registration remained relatively constant over the five years to 2004-05 (figure 10.15). The proportions of GPs with vocational registration were highest in capital cities and other metro centres and lowest in remote areas in 2004-05 (table 10A.25).

Figure 10.15 **GPs (full time workload equivalent) with vocational registration**



Source: DHA (unpublished); table 10A.26.

General practices with accreditation

Box 10.15 General practices with accreditation

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.

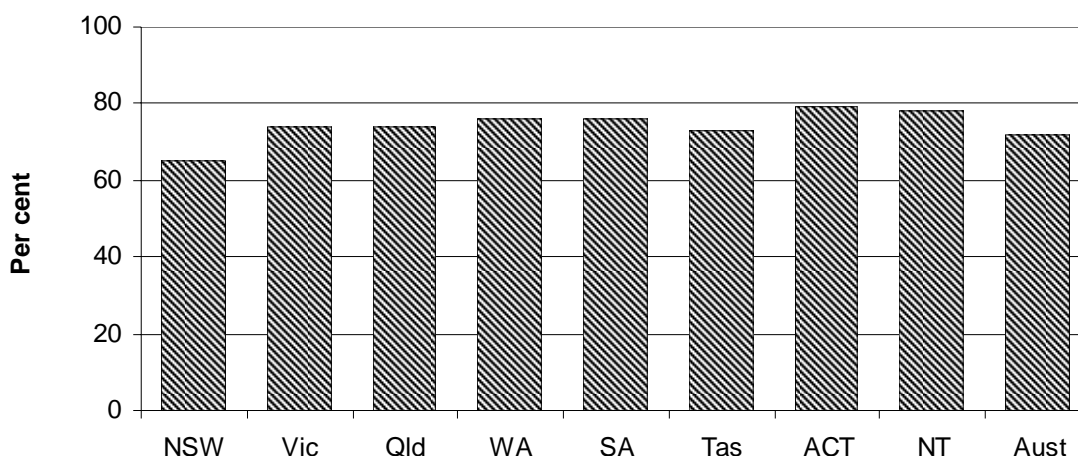
The two providers of general practice accreditation services are Australian General Practice Accreditation Limited (AGPAL) and Quality Practice Accreditation (QPA). This indicator is defined as the number of general practices accredited by AGPAL as a proportion of all general practices in Australia. Data on general practices accredited by QPA are not available for publication in this Report.

While an increase in the proportion of practices with accreditation may indicate an improvement in the capacity of general practices to deliver high quality services, the exclusion of QPA accredited practices from the indicator makes this interpretation uncertain.

A further caveat is that general practices without accreditation might not deliver lower quality services. 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.

In June 2005, 4260 general practices (representing 72.0 per cent of general practices) were accredited with AGPAL Australia-wide (figure 10.16).

Figure 10.16 Australian general practices that are AGPAL accredited, June 2005



Source: AGPAL (unpublished); table 10A.27.

Quality — continuity

The continuity aspect of the quality of primary healthcare services relates to the sector's ability to provide uninterrupted, coordinated services across programs, practitioners, organisations and levels over time. Two indicators of this aspect of quality are reported here: first, the use of care planning and case conferencing (box 10.16); and second, the use of health assessments for older people (box 10.17).

Care planning and case conferencing

Box 10.16 Care planning and case conferencing

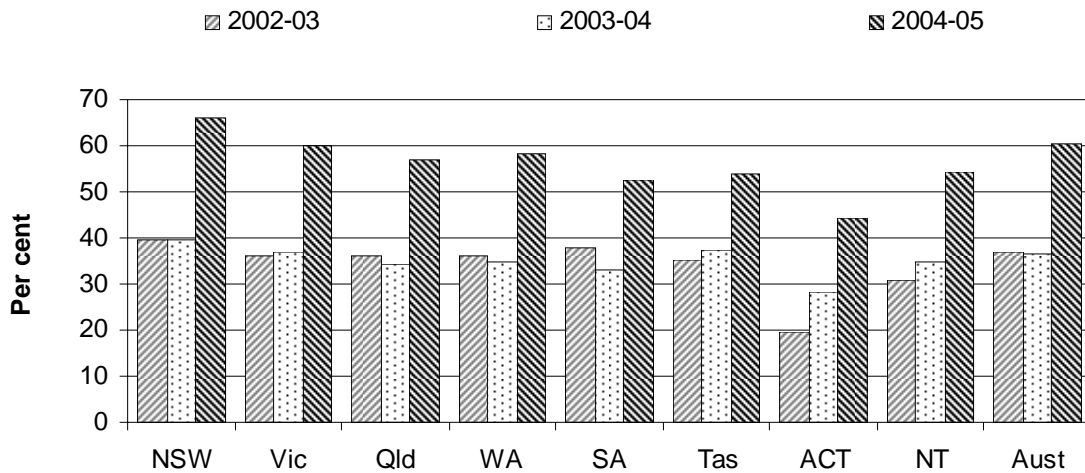
Care planning and case conferencing are chronic disease management items in the Medicare Benefits Schedule (MBS). They provide a framework for a multidisciplinary approach to healthcare for people with chronic or terminal medical conditions and complex, multidisciplinary care needs. The rationale for the indicator is that GPs with some experience using care planning and case conferencing are more likely to continue to use these options when they have the potential to improve patient care.

This indicator is defined as the proportion of GPs who used the chronic disease management items for care planning and case conferencing at least once during a 12 month period.

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

Nationally, 60.2 per cent of GPs used the chronic disease management items for care planning and case conferencing in 2004-05 (figure 10.17).

Figure 10.17 **GP use of chronic disease management Medicare items for care planning and case conferencing^{a, b}**



^a The number of active GPs who claimed at least one of the chronic disease management items for care planning and case conferencing during the financial year, as a proportion of all active GPs. Active GPs are registered GPs or OMPs who claimed 375 or more non-referred attendances on average per quarter. ^b The increase in the proportion of general practitioners using chronic disease management MBS items for care planning and case conferencing in 2004-05 may be due to the introduction of the Strengthening Medicare allied health and dental care initiative on 1 July 2004. This initiative provides access to a range of allied health and dental care treatments for patients with chronic conditions whose complex care needs are being managed through a chronic disease management care plan.

Source: DHA (unpublished); table 10A.28.

Health assessments for older people

Box 10.17 Health assessments for older people

An annual voluntary assessment for older people is an MBS item that allows 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 function, and aim to facilitate more timely preventive actions or treatments to enhance the health of the patient.

(Continued on next page)

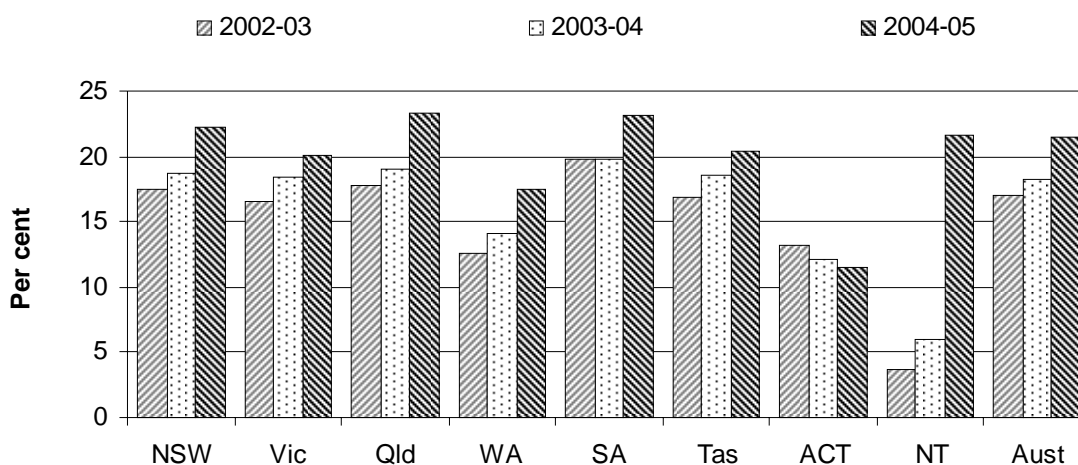
Box 10.17 (Continued)

This indicator 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. The lower age range for Indigenous people recognises that they face increased health risks at a much earlier age, compared with most other groups in the population. It also broadly reflects the difference in average life expectancy for the two population groups (see the 'Health preface').

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.

Nationally, the proportion of older people who received a voluntary health assessment increased from 17.0 per cent in 2002-03 to 21.4 per cent in 2004-05 (figure 10.18).

Figure 10.18 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: DHA (unpublished); table 10A.29.

Sustainability

No indicator of sustainability has been developed. The Steering Committee has identified sustainability 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 one indicator of the efficiency of general practice (box 10.18). Nationally, the recurrent cost to the Australian Government of general practice was \$213 per person in 2004-05 (figure 10.1).

Box 10.18 Cost to government of general practice per person

The 'cost to government of general practice per person' is an indicator of efficiency. It is defined as the cost to government of general practice (including the cost of Medicare, non-Medicare funding such as for the PIP, and expenditure by the DVA) per person in the population.

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

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 also 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, and where a salaried GP delivery model pertains.

Outcomes

Indicators of both intermediate and final primary and community health outcomes are reported here. 'Child immunisation coverage', for example, indicates the intermediate outcome of immunisation against disease (box 10.19). 'Notifications of selected childhood diseases' indicate the final outcome — the incidence of diseases — that child immunisation can prevent (box 10.20). The other reported outcome indicators relate to cervical screening (box 10.21), influenza vaccinations for older people (box 10.22) and potentially preventable hospitalisations (box 10.23).

Child immunisation coverage

Box 10.19 Child immunisation coverage

The 'child immunisation coverage' indicator is an indicator of outcomes for primary and community health services because one of the objectives of GPs and community health services is the achievement of high immunisation coverage levels for children. Many providers deliver child immunisation services (table 10.8). 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.

Two measures of this indicator are reported:

- 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 on valid vaccinations supplied to children under 7 years of age from the Australian Childhood Immunisation Register (ACIR) are shown in table 10.8. Figure 10.19 shows that around 91.0 per cent of Australian children aged 12 months to less than 15 months at 30 June 2005 were assessed as fully immunised.

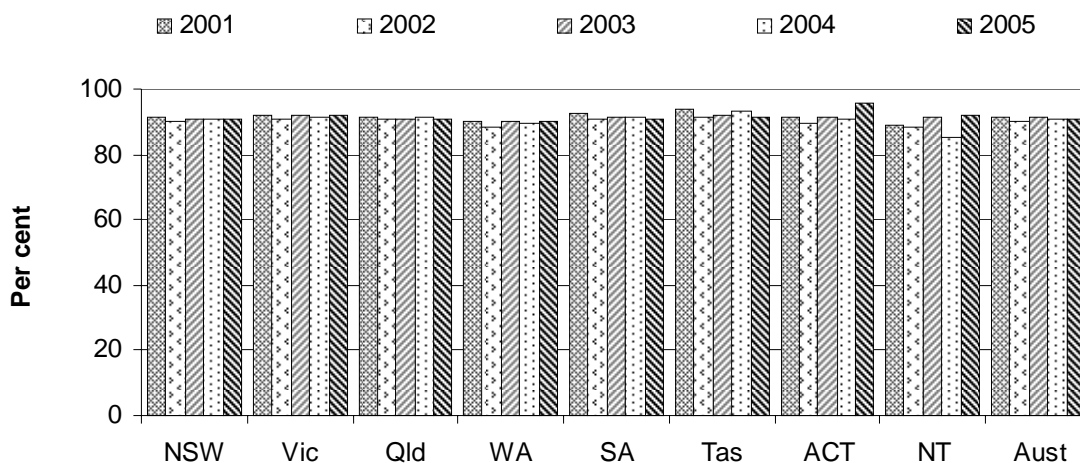
Table 10.8 Valid vaccinations supplied to children under 7 years of age, by provider type, 1996–2005 (per cent)^{a, b}

Provider	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
GP	83	52	83	63	69	86	37	3	70
Council	6	47	7	7	17	14	–	–	18
State or Territory health department	–	–	–	6	–	–	27	–	1
Flying doctor service	–	–	–	–	–	–	–	–	–
Public hospital	2	–	3	5	4	–	1	7	2
Private hospital	–	–	–	–	–	–	–	1	–
Indigenous health service	–	–	1	1	–	–	–	9	1
Indigenous health worker	–	–	–	–	–	–	–	–	–
Community health centre	7	1	5	18	10	1	35	79	8
Community nurse	–	–	–	–	–	–	–	–	–
Total^c	100	100	100	100	100	100	100	100	100

^a On 30 June 2005. Data collected since 1 January 1996. Data relates 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 Data for Australia include 4520 vaccinations (less than 0.1 per cent of the total) for which State or Territory is unknown. – Nil or rounded to zero.

Source: DHA (unpublished); table 10A.30.

Figure 10.19 Children aged 12 months to less than 15 months who were fully immunised^{a, b, c}

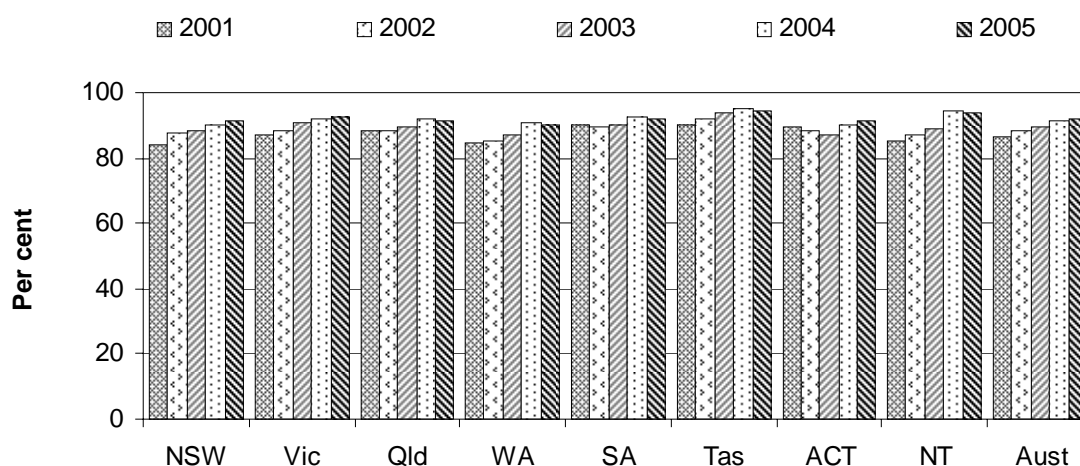


^a Coverage measured at 30 June for children turning 12 months of age by 31 March, by State or Territory in which the child was located. ^b The ACIR includes all children under 7 years of age who are registered with Medicare. By the age of 12 months, over 98 per cent of Australian children have been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

Source: DHA (unpublished); table 10A.31.

Nationally, 91.8 per cent of children aged 24 months to less than 27 months at 30 June 2005 were assessed as being fully immunised (figure 10.20).

Figure 10.20 **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. By the age of 12 months, over 98 per cent of Australian children have been registered with Medicare (NCIRS 2000). ^c There may be some under-reporting by providers, so vaccine coverage estimates calculated using ACIR data are considered minimum estimates (NCIRS 2000).

Source: DHA (unpublished); table 10A.32.

Notifications of selected childhood diseases

Box 10.20 Notifications of selected childhood diseases

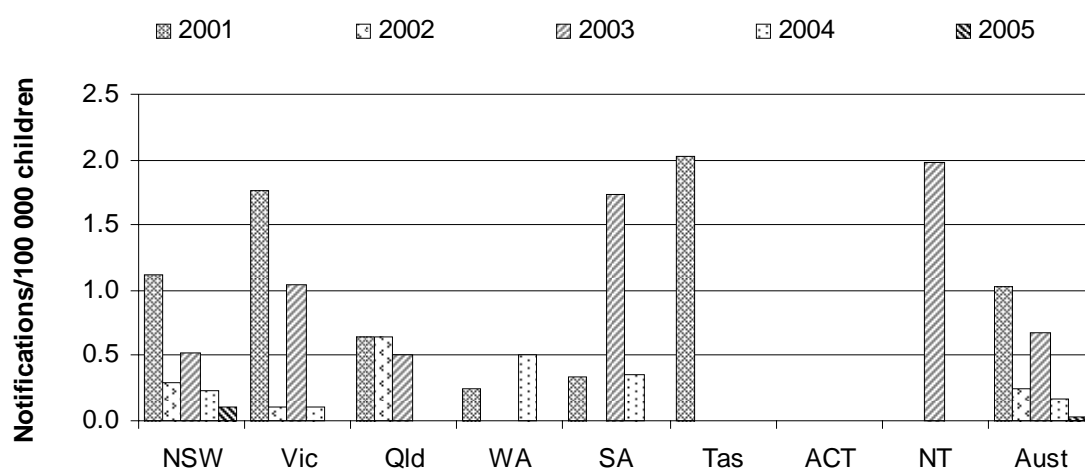
Notification rates for selected childhood vaccine preventable diseases (measles, pertussis [whooping cough] and *Haemophilus influenzae* type b) are an outcome indicator of primary and community health because the activities of GPs and community health services can influence the prevalence of these diseases through immunisation (and consequently the notification rates). These childhood diseases are nationally notifiable diseases — that is, if they are diagnosed, there is a requirement to notify the relevant State or Territory authorities. 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.

For each disease, the rate of notifications 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.

In 2005, there was only one notification of measles in Australia. This represented a national notification rate for measles of less than 0.1 per 100 000 children aged 0–14 years (figure 10.21) — a large decline from the high rates of the mid-1990s (table 10A.33). In 1994, for example, there were 3088 notifications of measles for children aged 0–14 years, representing a rate of 80.0 per 100 000 children in that age group. Since 2000, the number of annual notifications for measles in Australia has been below 100, with some jurisdictions reporting no notifications in some years.

Figure 10.21 Notifications of measles among children aged 0–14 years^{a, b}

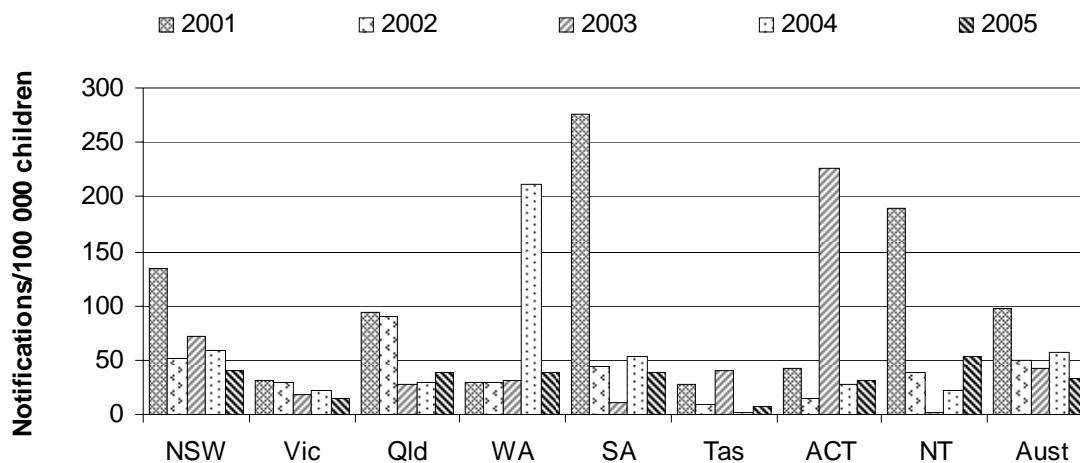


^a Notifications for 2004 are to June only and have been adjusted to annual rates for comparison. ^b Where a notification rate for a particular year is nil, no notifications were made in that jurisdiction.

Source: DHA (unpublished); table 10A.33.

In 2005, there were 982 notifications of pertussis (whooping cough) across Australia. This represented a notification rate of 33.0 per 100 000 children aged 0–14 years (figure 10.22).

Figure 10.22 **Notifications of pertussis (whooping cough) among children aged 0–14 years^{a, b}**

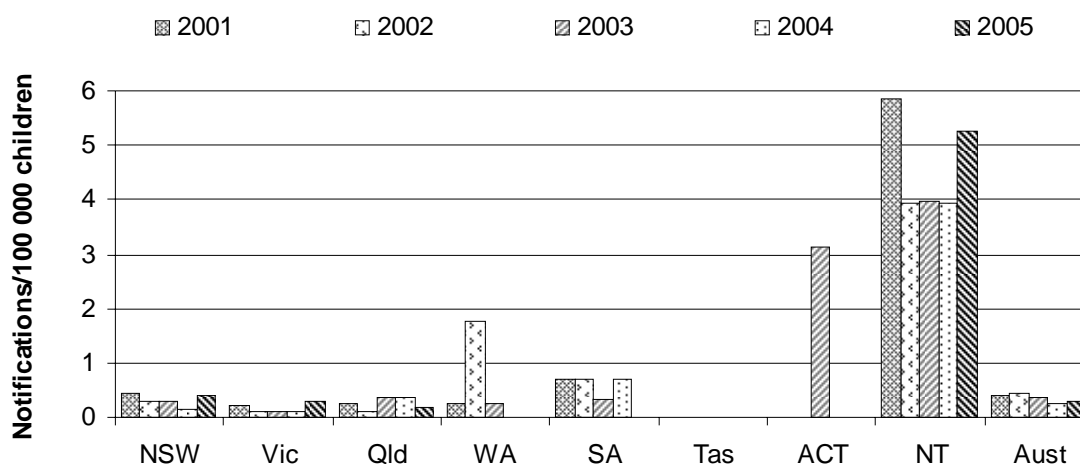


^a Notifications for 2004 are to June only and have been adjusted to annual rates for comparison. ^b Where a notification rate for a particular year is nil, no notifications were made in that jurisdiction.

Source: DHA (unpublished); table 10A.34.

In recent years, notification rates for *Haemophilus influenzae* type b have remained low. In 2005, the notification rate Australia-wide was 0.3 per 100 000 children aged 0–14 years (figure 10.23).

Figure 10.23 **Notifications of *Haemophilus influenzae* type b among children aged 0–14 years^{a, b}**



^a Notifications for 2004 are to June only and have been adjusted to annual rates for comparison. ^b Where a notification rate for a particular year is nil, no notifications were made in that jurisdiction.

Source: DHA (unpublished); table 10A.35.

Participation rates for women in cervical screening

‘Participation rates for women in cervical screening’ is an indicator of primary and community healthcare outcomes (box 10.21).

Box 10.21 Participation rates for women aged 20–69 years in cervical screening

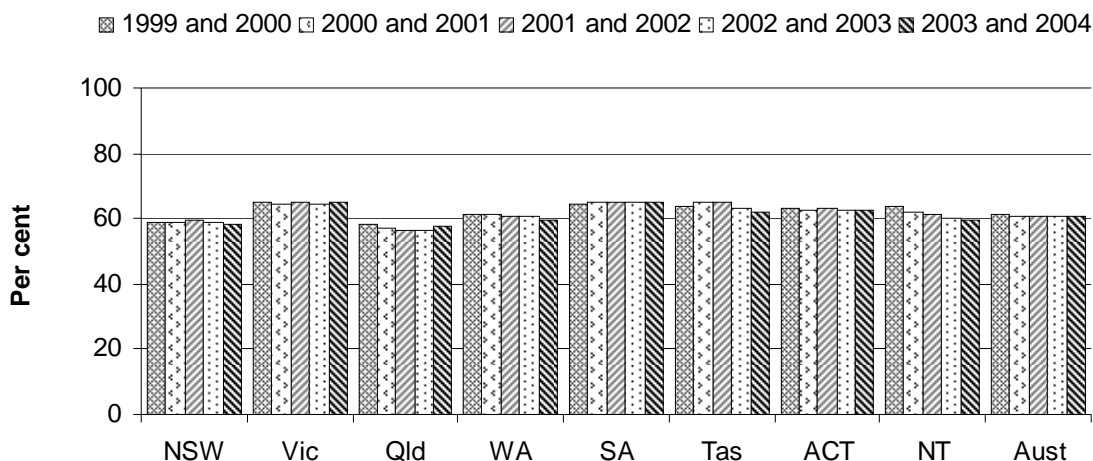
The ‘cervical screening rate for target population’ (women aged 20–69 years) is an outcome indicator for primary and community healthcare. It is estimated that up to 90 per cent of the most common type of cervical cancer (squamous cervical cancer) may be prevented if cell changes are detected and treated early. As for child immunisation, 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.

This indicator 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. Adjustments are made to account for differences in the female age distribution across states and territories, and to remove from the population of women 20–69 years old (the rate denominator) those who have had a hysterectomy.

An increase in the proportion of women aged 20–69 years who have been screened would be expected to result in a reduction in the number of women dying from this disease.

During 2003 and 2004, the national age standardised participation rate for women aged 20–69 years in cervical screening was 60.7 per cent (figure 10.24).

Figure 10.24 Age standardised participation rates for women aged 20–69 years in cervical screening^{a, b, c, d}



^a In 2001, the ABS carried out a full population Census and a National Health Survey. These led to the revision of the ABS estimated resident population (ERP) data, the introduction of a new Australian standard population for use in age standardisation, and the production of new estimates of hysterectomy status among Australian women. The denominators for participation rates for 2001 and 2002, and 2002 and 2003 have been calculated using the 2001 ABS National Health Survey hysterectomy fractions and the revised ERP values, and age adjusted using the 2001 Australian standard population. The denominators for the equivalent rates for previous years were calculated using the 1995 ABS National Health Survey hysterectomy fractions and unrevised ERP values, and age adjusted using the 1991 Australian standard population. The combined effect of these changes is that participation rates before 2001 and 2002 are on average 1–2 percentage points higher than equivalent rates for subsequent years. ^b Recent fluctuations in participation rates over time and across jurisdictions may be influenced by improvements in record linkage procedures in the State and Territory screening registers. These allow more accurate tracking of individual screening participants over time and may lead to an apparent decrease of up to 3 percentage points in recorded participation rates. ^c Some State and Territory cervical cytology registers register only women with a valid address in that State or Territory. Victoria began registering resident women from 2000-01, WA only registered resident women up to, and including, 2000-01, while the ACT has consistently only registered women with a valid ACT address. ^d All data are adjusted to exclude women who have had a hysterectomy.

Source: AIHW analysis of State and Territory Cervical Cytology Registry data (unpublished); table 10A.36.

Influenza vaccination coverage for older people

The ‘influenza vaccination coverage for older people’ is an indicator of primary and community healthcare outcomes (box 10.22). The hospitalisation rate of people for influenza and pneumonia is included as a separate indicator (box 10.24).

Box 10.22 Influenza vaccination coverage for older people

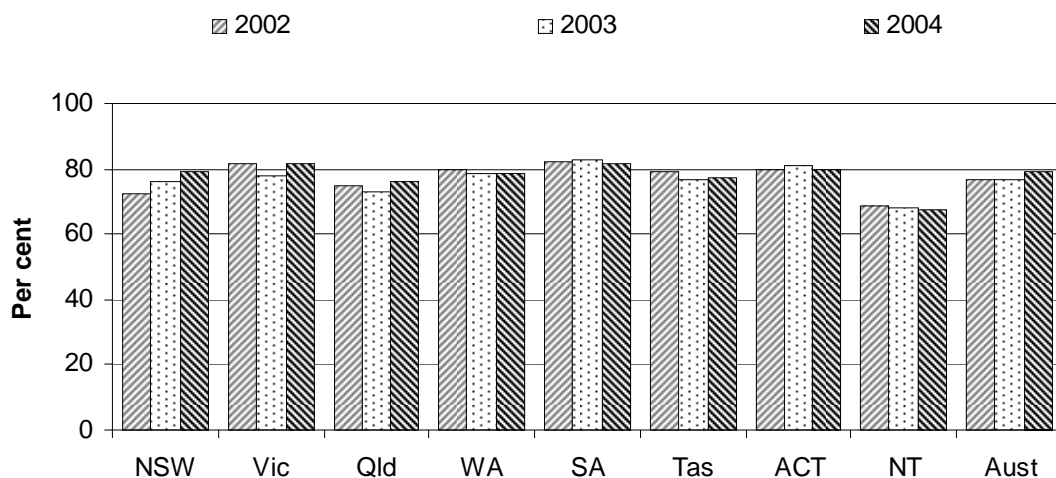
Each year, influenza and its consequences result in many older people being hospitalised, as well as a considerable number of deaths. Influenza vaccinations for older people have been demonstrated to reduce hospitalisations and deaths (National Health Performance Committee unpublished). GPs provide the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

The indicator 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.

Through the National Influenza Vaccine Program for Older Australians, the Australian Government funds free vaccines for Australians aged 65 years or over (AIHW 2005e). In 2004, 79.1 per cent of people aged 65 years or over were vaccinated against influenza in Australia (figure 10.25).

Figure 10.25 Influenza vaccination coverage, people aged 65 years or over



Source: AIHW (2003, 2004, 2005e); table 10A.37.

Potentially preventable hospitalisations

The following five outcome indicators relate to potentially preventable hospitalisations for a range of conditions. The first three indicators — hospitalisations for vaccine preventable conditions (box 10.24), selected acute conditions (box 10.25) and selected chronic conditions (box 10.26) — were developed by the National Health Performance Committee, based on empirical

research (box 10.23). The two other outcome indicators in this category relate to hospitalisations for diabetes (box 10.27) and the hospitalisation of older people for falls (box 10.28). ‘Hospitalisations for diabetes’ was previously reported as part of the ‘management of diabetes’ indicator which was previously reported as an outcome.

Box 10.23 Development of, and rationale for, potentially preventable hospitalisation indicators

The definitions adopted for vaccine preventable conditions, acute conditions and chronic conditions indicators were based on 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), which was recently 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 patients 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: National Health Performance Committee (unpublished).

Vaccine preventable hospitalisations

‘Vaccine preventable hospitalisations’ is an indicator of primary and community healthcare outcomes (box 10.24).

Box 10.24 Vaccine preventable hospitalisations

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.

This indicator is defined as the number of hospital separations for influenza and pneumonia, and other vaccine preventable conditions per 100 000 people. (Adjustments are made to account for differences in the age structure of populations across states and territories.)

(Continued on next page)

Box 10.24 (Continued)

A reduction in hospitalisation rates may indicate improvements in the effectiveness of the vaccination program. Effective treatment by primary health providers may also reduce hospitalisations.

A comparison of Indigenous people and all other people is also made by presenting the ratio of age standardised hospital separation rates of Indigenous people to all people. A ratio of close to one is desirable as it implies that Indigenous people have similar separation rates to all people.

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

Australia-wide, the age standardised hospital separation rate for all vaccine preventable conditions was 0.8 per 1000 people in 2003-04. Nationally, influenza and pneumonia accounted for 82.5 per cent of age standardised hospitalisations for vaccine preventable conditions in 2003-04 (table 10.9).

Table 10.9 Standardised hospital separations for vaccine preventable conditions, per 1000 people^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>
2002-03									
Influenza and pneumonia	0.61	0.52	0.76	0.82	0.54	0.55	0.30	1.44	0.63
Other conditions	0.16	0.15	0.13	0.10	0.16	0.11	0.03	0.42	0.15
Total^b	0.78	0.67	0.89	0.92	0.69	0.65	0.33	1.86	0.78
2003-04									
Influenza and pneumonia	0.69	0.52	0.71	0.79	0.61	0.50	0.41	1.78	0.66
Other conditions	0.16	0.17	0.10	0.11	0.11	0.09	0.08	0.29	0.14
Total^b	0.85	0.70	0.81	0.90	0.72	0.59	0.49	2.06	0.80

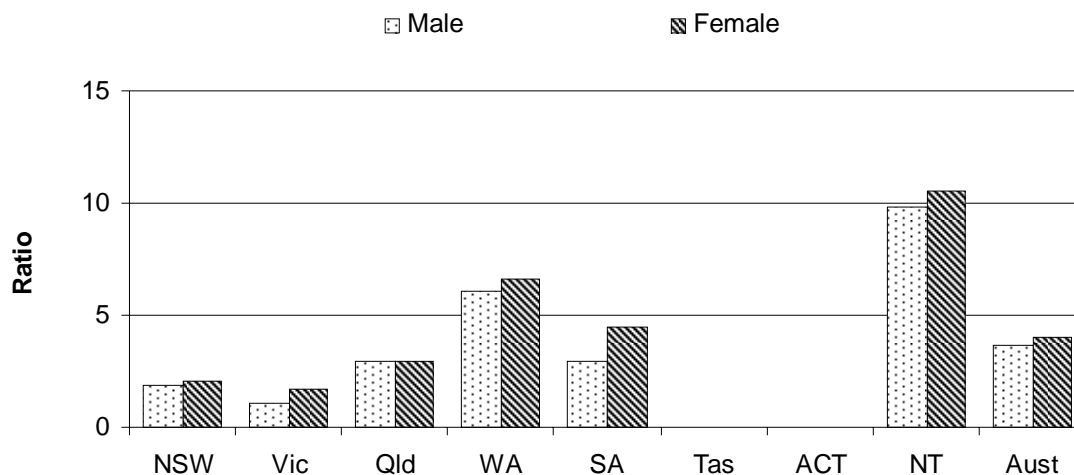
^a Separation rates are directly age standardised to the Australian population at 30 June 2001. ^b Totals may not equal the sum of the individual conditions due to rounding.

Source: AIHW (2005b).

Standardised hospital separation 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 age distributions. These data were previously reported in chapter 9 'Public hospitals'. For both males and females, there was a marked difference in 2003-04 between the separation rate for Indigenous people and those for the total population for infectious pneumonia diagnoses. The separation rate for Indigenous males was 3.7 times higher than those

for all Australians males. The separation rate for Indigenous females was 4.0 times the rate for all females (figure 10.26).

Figure 10.26 Ratio of age standardised hospital separation rates of Indigenous people to all people for infectious pneumonia, 2003-04^{a, b, c, d, e}



^a The ratios are indirectly age standardised using the Census based estimated resident population of Indigenous males at 30 June 2001, the hospital separation rates for Australian males aged 0–74 years for 2000-01 and the male population at 30 June 2001. ^b Identification of Aboriginal and Torres Strait Islander patients is not considered to be complete and completeness varies among jurisdictions. The variation in the number of Indigenous separations per 1000 Indigenous population across the states and territories suggests variation in the proportion of Indigenous persons who were identified as such in the hospital morbidity data collections and/or in the total population. The AIHW advised that only data from WA, SA and the NT are considered to be of acceptable quality. ^c Data for Tasmania and the ACT are not available, given the small size of the Indigenous population in those jurisdictions. ^d These data do not signal the performance of hospitals, but reflect a range of factors such as: the spectrum of public, primary care and post-hospital care available; Indigenous access to this care as well as hospital services; social and physical infrastructure services for Indigenous people; and differences in the complexity, incidence and prevalence of disease between the Indigenous and non-Indigenous populations (see appendix A). ^e NT data is for public hospitals only.

Source: AIHW (unpublished); tables 10A.38 and 10A.39.

Hospitalisations for selected acute conditions

Box 10.25 Hospitalisations for selected acute conditions

The effectiveness of primary and community healthcare services has a significant influence on the rates of hospitalisation for the following selected acute conditions: 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.

Hospital separation rates for the selected acute conditions are calculated per 100 000 people and adjusted to account for differences in age distributions across State and Territory populations.

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

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

Of the selected acute conditions, dental conditions, and dehydration and gastroenteritis had the highest rates of hospitalisation nationally in 2003-04 (table 10.10).

Table 10.10 **Standardised hospital separations for potentially preventable acute conditions, per 1000 people, 2003-04^a**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
Dehydration and gastroenteritis	2.01	2.51	2.49	2.01	2.60	1.85	1.21	1.77	2.25
Pyelonephritis ^b	1.89	1.98	2.07	1.97	1.84	1.37	1.40	3.01	1.94
Perforated/bleeding ulcer	0.26	0.30	0.22	0.30	0.29	0.30	0.26	0.40	0.27
Cellulitis	1.41	1.49	1.54	1.40	1.33	1.14	1.23	2.79	1.45
Pelvic inflammatory disease	0.29	0.31	0.32	0.31	0.31	0.25	0.25	0.50	0.31
Ear, nose and throat infections	1.67	1.43	1.86	1.82	2.36	1.30	1.15	1.95	1.70
Dental conditions	1.83	2.74	2.64	3.40	2.54	1.67	1.63	1.52	2.41
Appendicitis	0.15	0.16	0.15	0.22	0.12	0.13	0.16	0.27	0.16
Convulsions and epilepsy	1.74	1.51	1.57	1.47	1.62	1.49	1.24	2.88	1.61
Gangrene	0.17	0.26	0.26	0.19	0.21	0.17	0.11	0.54	0.22
Total^c	11.40	12.69	13.12	13.09	13.22	9.66	8.64	15.60	12.31

^a Separation rates are directly age standardised to the Australian population at 30 June 2001. ^b Kidney inflammation caused by bacterial infection. ^c Totals may not equal the sum of the individual conditions due to rounding.

Source: AIHW (2005b).

Hospitalisations for selected chronic conditions

Box 10.26 Hospitalisations for selected chronic conditions

The effectiveness of primary and community healthcare has a significant influence on the rates of hospitalisation for the following selected chronic conditions: asthma; congestive cardiac failure; diabetes complications; chronic obstructive pulmonary disease; iron deficiency anaemia; hypertension; and nutritional deficiencies. (Diabetes is considered in detail in a separate indicator.)

Hospital separation rates for the selected chronic conditions are calculated per 1000 people and adjusted to account for differences in age distributions across State and Territory populations.

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

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

Of the selected chronic conditions (excluding diabetes, which is discussed below) chronic obstructive pulmonary disease and angina had the highest rates of hospitalisation nationally in 2003-04. The hospitalisation rate for diabetes complications, however, was more than two and a half times higher than the rate for either of these conditions (table 10.11).

Table 10.11 **Standardised hospital separations for potentially preventable chronic conditions, per 1000 people, 2003-04^a**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
Asthma	1.93	1.89	1.81	1.96	2.75	0.97	1.08	1.79	1.92
Congestive cardiac failure	1.92	2.23	2.08	1.96	2.09	1.71	1.77	2.21	2.05
Diabetes complications	6.33	8.93	8.10	12.93	7.92	11.25	4.80	16.58	8.25
Chronic obstructive pulmonary disease	2.78	2.66	2.93	2.80	2.78	3.04	1.66	6.24	2.79
Angina	2.06	2.18	2.85	1.72	1.91	2.10	1.47	3.57	2.20
Iron deficiency anaemia	0.75	1.25	0.80	1.17	0.87	0.86	0.82	1.03	0.94
Hypertension	0.33	0.27	0.41	0.31	0.33	0.27	0.11	0.29	0.32
Nutritional deficiencies	0.01	0.01	0.01	0.01	–	–	–	0.06	0.01
Total^b	15.23	18.39	17.97	22.08	17.59	19.43	11.02	30.53	17.53

^a Separation rates are directly age standardised to the Australian population at 30 June 2001. ^b The total is not the sum of the individual conditions because diabetes complications overlap other categories. – Nil or rounded to zero.

Source: AIHW (2005b).

Hospitalisations for diabetes

Box 10.27 Hospitalisations for diabetes

The effectiveness of primary and community healthcare has a significant influence on the rates of hospitalisation for diabetes.

Hospital separation rates for patients with diabetes mellitus as the principal diagnosis, and for patients with a lower limb amputation and a principal or additional diagnosis of diabetes are reported. These rates are calculated per 100 000 people and adjusted to account for differences in the age distribution of State and Territory populations.

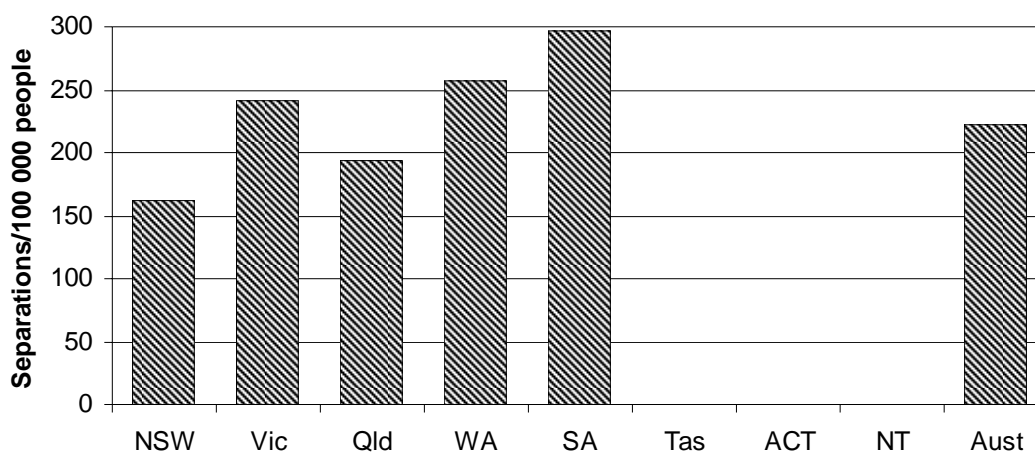
A reduction in these rates may indicate an improvement in GPs and community health providers' management of patients' diabetes.

A comparison of Indigenous and all other people is also made by presenting the ratio of age standardised hospital separation rates of Indigenous people to all people. A ratio of close to one is desirable as it implies that Indigenous people have similar separation rates to all people.

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

Australia-wide, the age standardised hospital separation rate in 2003-04 where the principal diagnosis was Type 2 diabetes mellitus was 222.2 separations per 100 000 people (figure 10.27).

Figure 10.27 **Standardised hospital separations for Type 2 diabetes mellitus as principal diagnosis, all hospitals, 2003-04^{a, b, c, d, e}**

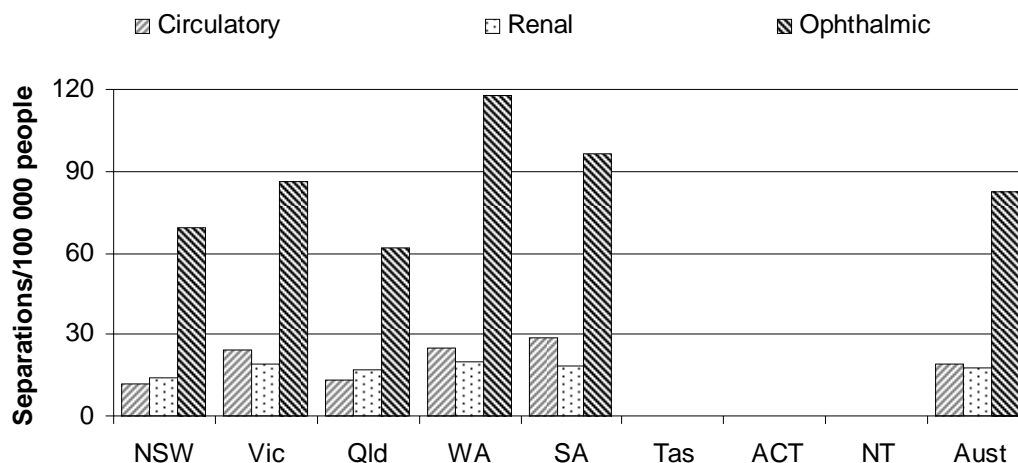


^a These data are not person-based, but episode-based. A person who is admitted to hospital, for example, three times in the year, will be counted three times. ^b Results for individual complications may be affected by small numbers, and need to be interpreted with care. ^c Differences across jurisdictions 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. ^d Morbidity data are coded under coding standards that may differ over time and across jurisdictions. ^e 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; table 10A.40.

The three most common complications from Type 2 diabetes that led to hospitalisation in 2003-04 were circulatory, renal and ophthalmic complications. Across all jurisdictions for which data were published, the highest hospital separation rates were for ophthalmic complications (figure 10.28). Each patient may have one or more complication (circulatory, renal and ophthalmic) for each diabetes hospital separation.

Figure 10.28 **Standardised hospital separations for Type 2 diabetes mellitus as principal diagnosis, by selected complications, all hospitals, 2003-04**^{a, b, c, d, e}



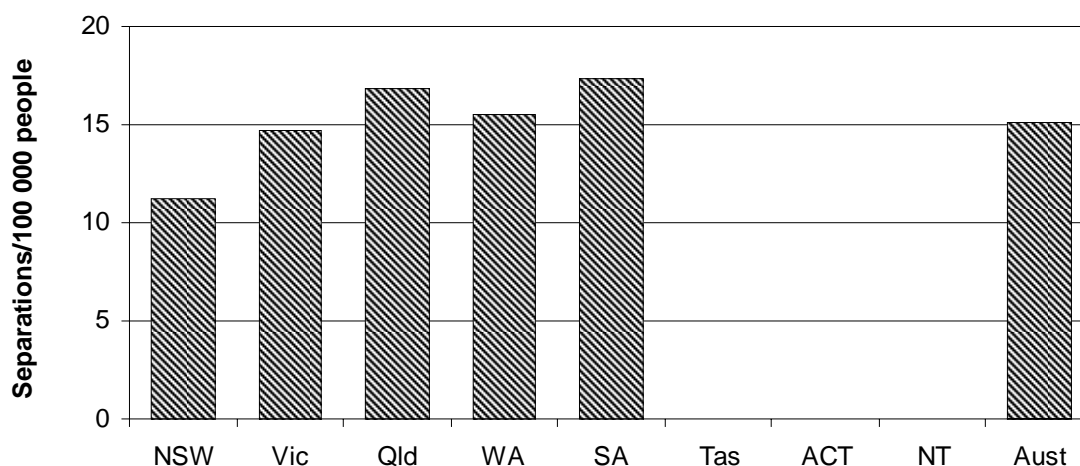
^a These data are not person-based, but episode-based. A person who is admitted to hospital, for example, three times in the year, will be counted three times. ^b Results for individual complications may be affected by small numbers, and need to be interpreted with care. ^c Differences across jurisdictions 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. ^d Morbidity data are coded under coding standards that may differ over time and across jurisdictions. ^e 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; table 10A.40.

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 will affect hospital separations rates. This effect is partly reflected in the substantial variation in the proportion of separations that are 'same day' across jurisdictions. Nationally, 45.7 per cent of separations for Type 2 diabetes were same day in 2003-04 (table 10A.41).

Amputation of a lower limb can be a serious outcome of diabetes-related complications. In 2003-04, there were 15.1 hospital separations per 100 000 people (age standardised) for lower limb amputations where Type 2 diabetes mellitus was a principal or additional diagnosis (figure 10.29).

Figure 10.29 **Standardised hospital separations for lower limb amputation with principal or additional diagnosis of Type 2 diabetes, all hospitals, 2003-04^{a, b, c}**



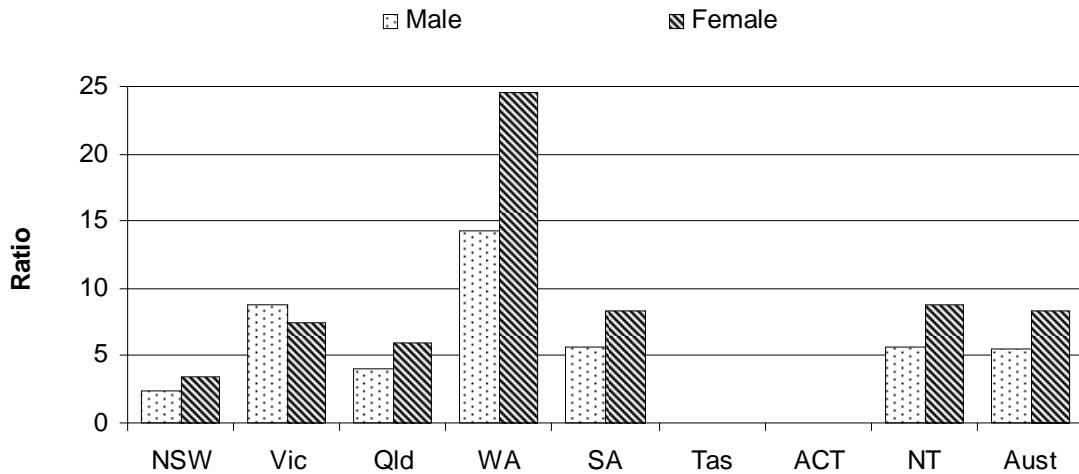
^a Includes unspecified diabetes. Separation rates are directly age standardised to the Australian population at 30 June 2001. The figures are based on the ICD-10-AM classification. The codes are E11.x and E14.x, where x=0-9 for diabetes, and Blocks 1533, 44367, 44370 and 44373 for amputations. ^b The data are not person-based, but episode-based. A person who is admitted to hospital, say, three times in the year will be counted three times. ^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); table 10A.42.

Standardised hospital separation ratios for all diabetes diagnoses illustrate differences between the rates of hospital admissions for Indigenous people and those for all Australians, taking into account differences in age distributions. These data were previously reported in chapter 9 'Public hospitals'. For both males and females there was a marked difference in 2003-04 between the separation rates for Indigenous people and those for the total population for all diabetes diagnoses.¹ The separation rate for Indigenous males was 5.5 times higher than those for all Australians males. The separation rate for Indigenous females was 8.3 times the rate for all females (figure 10.30). The 'Health preface' contains data on deaths from diabetes for Indigenous people.

¹ 'All diabetes' refers to separations with either a principal or additional diagnosis of diabetes.

Figure 10.30 **Ratio of age standardised hospital separation rates of Indigenous people to all people for all diabetes diagnoses, 2003-04**^{a, b, c, d, e, f}



^a The ratios are indirectly age standardised using the Census based estimated resident population of Indigenous males at 30 June 2001, the hospital separation rates for Australian males aged 0–74 years for 2000-01 and the male population at 30 June 2001. ^b Identification of Aboriginal and Torres Strait Islander patients is not considered to be complete and completeness varies among jurisdictions. The variation in the number of Indigenous separations per 1000 Indigenous population across the states and territories suggests variation in the proportion of Indigenous persons who were identified as such in the hospital morbidity data collections and/or in the total population. The AIHW advised that only data from WA, SA and the NT are considered to be of acceptable quality. ^c Data for Tasmania and the ACT are not available, given the small size of the Indigenous population in those jurisdictions. ^d 'All diabetes' refers to separations with either a principal or additional diagnosis of diabetes. ^e These data do not signal the performance of hospitals, but reflect a range of factors such as: the spectrum of public, primary care and post-hospital care available; Indigenous access to this care as well as hospital services; social and physical infrastructure services for Indigenous people; and differences in the complexity, incidence and prevalence of disease between the Indigenous and non-Indigenous populations (see appendix A). ^f NT data are for public hospitals only.

Source: AIHW (unpublished); tables 10A.38 and 10A.39.

Hospitalisations of older people for falls

Box 10.28 Hospitalisation of older people for falls

The effectiveness of primary healthcare has a significant influence on the rates of hospitalisation of older people for falls.

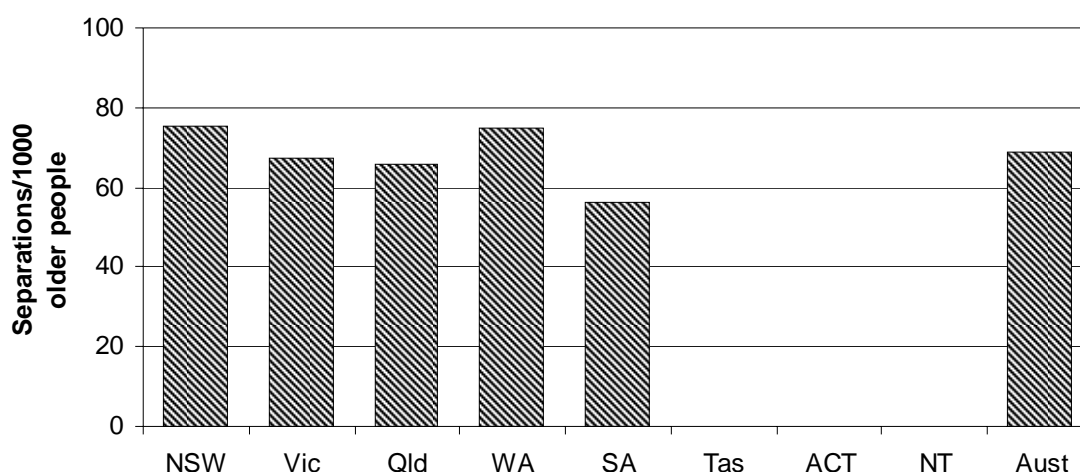
The indicator is defined as the number of hospital separations of older people for falls per 1000 older people, adjusted to take account of differences in State and Territory age distributions. Older people are defined as non-Indigenous people aged 75 years or over and Indigenous people aged 55 years or over.

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

Factors outside the control of the primary healthcare system, however, 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.

Nationally, the age standardised hospital separation rate in 2003-04 for older people with injuries due to falls was 68.7 per 1000 older people (figure 10.31).

Figure 10.31 **Standardised hospital separations for older people for injuries due to falls, 2003-04^{a, b}**



^a Older people are defined as non-Indigenous people aged 75 years or over and Indigenous people aged 55 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.

Source: AIHW (unpublished); table 10A.43.

10.4 Future directions in performance reporting

While the topic of this chapter is all primary and community health services, the indicators still focus heavily on general practice services. This focus partly reflects the lack of data that are available on a nationally consistent basis to support reporting against indicators for other primary and community health services. The National Health Performance Committee has recognised this issue and is working to develop a broader range of primary and community health indicators. Where appropriate, these indicators will be adopted and reported in future editions of this Report.

In addition to the work undertaken by the National Health Performance Committee, the Steering Committee has identified possible areas for which indicators may be available for inclusion in the 2007 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.

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 (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'). In recognition of this issue, the Steering Committee has identified primary and community health services for Indigenous people as a priority area for future reporting. Accordingly, the Steering Committee will examine options for including indicators of the accessibility of primary and community health services to Indigenous people. The Aboriginal and Torres Strait Islander Health Performance Framework that is being developed by the Standing Committee on Aboriginal and Torres Strait Islander Health will help inform the selection of future indicators of primary and community health services to Indigenous people (see the 'Health preface').

10.5 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.
Cervical screening rates for target population	Proportion of women aged 20–69 years who are screened for cervical cancer over a two year 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	Geographically-based networks of GPs. Currently there are 118 Divisions of General Practice, 7 State Based Organisations and the Australian Divisions of General Practice. 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.
Full time workload equivalents	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 are calculated in the same way as FWE except that full time equivalents are capped at 1 for each 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, 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)	Registered GPs — medical practitioners who, for the purposes of Medicare, are vocationally registered under s.3F of the <i>Health Insurance Act 1973</i> (Cwlth), hold Fellowship of the RACGP or equivalent, hold a recognised training placement or are otherwise entitled to bill Group A1 MBS items. OMPs — medical practitioners who have at least half of the schedule fee value of their Medicare billing from non-referred attendances, consisting solely or predominantly of Group A2 items.
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 (DHA 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	A medical practitioner other than a registered GP who has at least half of the schedule fee value of his/her Medicare billing from non-referred attendances.
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 registration	Number of FWE GPs who are vocationally registered, divided by the total number of FWE GPs.
Proportion of general practices registered for accreditation	Number of practices that have registered for accreditation through AGPAL, 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 with electronic prescribing and/or electronic connectivity 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.
Registered general practitioner	Medical practitioners who are vocationally registered under s.3F of the <i>Health Insurance Act 1973</i> (Cwlth), hold Fellowship of the RACGP or equivalent or hold a recognised training placement.
Recognised immunisation provider	A provider recognised by the 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/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.
Vocational registration	GPs who are registered separately for Medicare purposes and who receive higher Medicare benefits for services.

10.6 Supporting tables

Supporting tables for chapter 10 are provided on the CD-ROM enclosed with the Report. The files are provided in Microsoft Excel format as \Publications\Reports\2006\Attach10A.xls and in Adobe PDF format as \Publications\Reports\2006\Attach10A.pdf. Supporting tables are identified in references throughout this chapter by an 'A' suffix (for example, table 10A.3 is table 3 in the electronic files). These files can be found on the Review web page (www.pc.gov.au/gsp). Users without Internet access can contact the Secretariat to obtain these tables (see details on the inside front cover of the Report).

Table 10A.1	Types of encounter, 2004-05
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Table 10A.3	Medical practitioners billing Medicare and full time workload equivalent (FWE) GPs
Table 10A.4	Indigenous primary healthcare services for which service activity reporting (SAR) data is reported (number)
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Table 10A.17	Female GPs
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Table 10A.19	Non-referred attendances that were bulk billed (per cent)

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- Table 10A.20** Prescriptions for oral antibiotics used most commonly in the treatment of upper respiratory tract infections ordered by GPs and dispensed to patients (per 1000 people with Pharmaceutical Benefits Scheme [PBS] concession cards)
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- Table 10A.27** General practices accredited by Australian General Practice Accreditation Limited
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- Table 10A.30** Valid vaccinations supplied to children under seven years of age, by type of provider, 1996–2005
- Table 10A.31** Children aged 12 months to less than 15 months who were fully immunised (per cent)
- Table 10A.32** Children aged 24 months to less than 27 months who were fully immunised (per cent)
- Table 10A.33** Notifications of measles, children aged 0–14 years
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- Table 10A.38** Male Indigenous separations, by type, 2003-04
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- Table 10A.40** Standardised hospital separations for Type 2 diabetes mellitus as principal diagnosis by complication, all hospitals, 2003-04 (per 100 000 people)
- Table 10A.41** Separations for principal diagnosis of Type 2 diabetes mellitus that were same day by complication, all hospitals, all episode types, 2003-04 (per cent)
- Table 10A.42** Standardised hospital separations for lower limb amputation with principal or additional diagnosis of Type 2 diabetes, all hospitals, 2003-04
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- Table 10A.45** New South Wales, community health services programs
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- Table 10A.50** Tasmania, community health services programs
- Table 10A.51** Australian Capital Territory, community health services programs
- Table 10A.52** Northern Territory, community health services programs

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