6 General Practice

General practice is a major component of Australia's healthcare system. It accounts for a large number of services provided to the community and general practitioners (GPs) form part of the primary health care system. For these reasons, support to general practice is an important part of government strategy to improve health outcomes in Australia.

Descriptive information about services provided in general practice is contained in section 6.1. Policy developments in general practice are discussed in section 6.2, a framework of performance indicators is presented in section 6.3, and key results are discussed in section 6.4. Future directions for reporting are covered in section 6.5 and relevant terms are defined at section 6.6. Indicators for outcomes and quality have been refined in this year's Report.

Supporting tables

Supporting tables for chapter 6 are provided on the CD-ROM enclosed with the Report. The files are provided in Microsoft Excel 97 format as \Publications\Reports\2001\Attach6A.xls and in Adobe PDF format as \Publications\Reports\2001\Attach6A.pdf.

Supporting tables are identified in references throughout this chapter by an 'A' suffix (for example, table 6A.3 is table 3 in the electronic files). They may be subject to revision. The most up-to-date versions of these files can be found on the Commission's Review web page (www.pc.gov.au/service/gsp/2001/). Users without Internet access can contact the Secretariat to obtain up-to-date versions of these tables (see details on the inside front cover of the Report).

6.1 Profile of general practice

Definitions, roles and responsibilities

General Practitioners form part of the medical practitioner workforce. The medical practitioner workforce comprises doctors trained in a specialty — including general

practice — and other medical practitioners (OMPs). All GPs trained since 1996 must undertake the general practice specialist training program. 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.* 1999, p. XXXV). For the purposes of Medicare, 'recognised' GPs are those who are vocationally registered under section 3F of the *Health Insurance Act 1973 (Cth)*, hold fellowship of the Royal Australian College of General Practitioners or equivalent, or hold a recognised training placement (Britt *et al.* 1999). A summary of common health terms is provided at section 6.6.

General Practitioners are an important source of primary health care in Australia.[1] They also play a pivotal role in providing continuity of care. The services provided by GPs include: diagnosing and treating illness (both chronic and acute); providing preventive care through to palliative care; referring patients to consultants, allied health professionals, community health services, and hospitals; and acting as gatekeepers for other health care services (DHFS 1996). They may also be involved in teaching and research.

While the majority of GPs are private practitioners who provide services as part of a general practice (funded by the Commonwealth Government), they may also be employed by hospitals. In some parts of rural Australia, GPs provide a range of services to admitted patients, and rural and urban GPs staff emergency departments, although this latter role is declining (DHAC 2000a). Services provided by visiting medical officers or salaried doctors to public patients in public hospitals, and visiting medical and other primary health care services provided in rural and remote areas, are funded by State and Territory governments. State and Territory governments are also responsible for registering and licensing GPs in their jurisdiction. Commonwealth, State and Territory governments provide incentives for GPs to locate in rural and remote areas.

Funding

Almost all of the services provided by private GPs are funded by the Commonwealth Government through Medicare and the Department of Veterans' Affairs (DVA). This is illustrated by the *Bettering the Evaluation and Care of Health* (BEACH) study of general practice activity in Australia (Britt *et al.* 2000). About 1000 GPs participate in the BEACH study each year, with each participant

[1] Primary care refers to the care provided at the patient's first point of contact with the health care system. Other examples of primary care include services provided by community health centres, pharmacists in local pharmacies, nurses in the home and a number of other health providers in non-institutional settings.

recording details of 100 consecutive encounters. (Britt *et al*. (2000) define an 'encounter' as any professional interchange between a patient and a GP.) The BEACH study found that, in 1999-2000, 93 per cent of all encounters with GPs were for services funded by Medicare or DVA (table 6.1).

Table 6.1 **Encounters by source of funding, 1999-2000**[a, b]

	Number	*Rate per 100 encounters* [c]	*95% LCI* [d]	*95% UCI* [d]
GPs participating in the BEACH study	1 048	..	..	..
Total encounters for which BEACH data were recorded	104 856	..	..	..
Encounters with missing data	4 054	..	..	..
Direct consultations[e]	97 436	96.7	96.3	97.0
No charge	1 345	1.4	0.9	1.7
Medicare paid[f]	93 698	93.0	92.4	93.5
Workers compensation	2 005	2.0	1.7	2.3
Other paid	1 236	1.2	0.0	2.8
Indirect consultations[g]	3 367	3.3	2.8	3.8

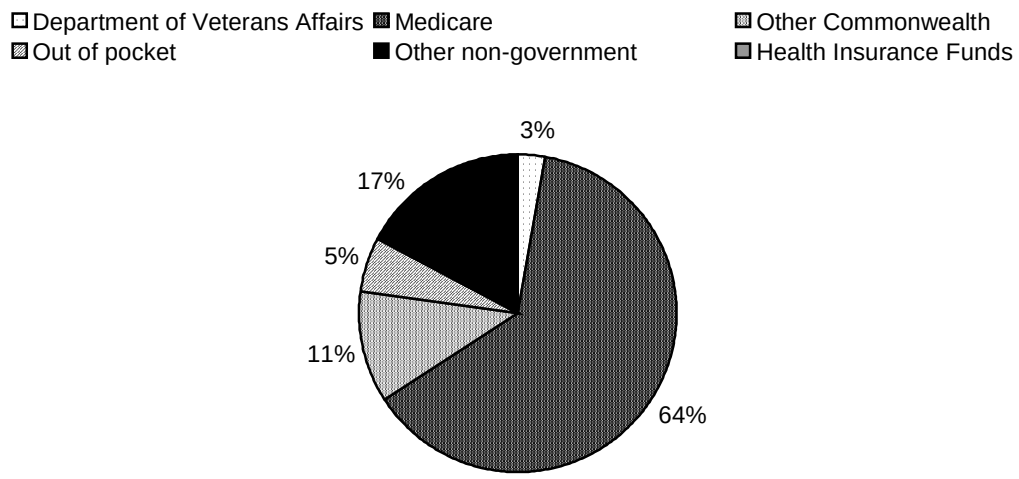
[a] April 1999 to March 2000. [b] Britt *et al.* (2000) define an 'encounter' as any professional interchange between a patient and a GP. [c] Missing data for 4054 encounters removed. Percentage base (N=100 802) [d] UCI= upper confidence interval; LCI= lower confidence interval. [e] Categories do not add up to total direct consultations because there is overlap in some cases. [f] Medicare paid includes Commonwealth payments made through DVA. [g] Indirect consultations are those at which the patient is not seen by the GP but which generate a prescription, a referral, a certificate or other service. They are usually the result of a phone call by a patient. **. .** Not applicable.

Source: table 6A.1.

Medicare fee for service payments comprised 82 per cent of Commonwealth expenditure on GPs in 1998-99 (and 64 per cent of total expenditure on GPs) (figure 6.1 and table 6A.2). The Commonwealth also provided payments for GPs through the DVA local medical officer arrangements,[2] the Divisions of General Practice Program, the Practice Incentive Payments Program and the GP Immunisation Incentive Scheme (DHAC 2000a). Non-government sources contributed 23 per cent of total expenditure on GPs in 1998-99, comprising payments by health insurance schemes (including workers compensation and third party insurance) and by private individuals.

[2] Local medical officers are GPs who are registered with the Department of Veterans' Affairs to provide services to veterans and other DVA beneficiaries.

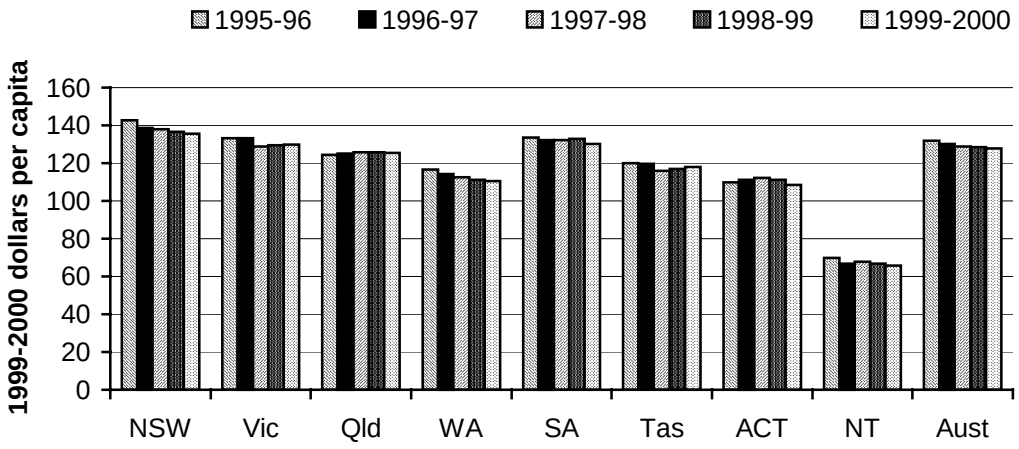
Figure 6.1 **Sources of funding for GPs, 1998-99**



Source: table 6A.2.

Medicare data suggest the cost to the Commonwealth Government of all unreferred attendances to, or consultations with, GPs was approximately $2.4 billion in 1999-2000. This was equivalent to expenditure of $128 per person in 1999-2000 (unchanged from 1998-99) (figure 6.2 and table 6A.3). This is likely to underestimate Commonwealth Government expenditure on GPs, however, as it does not include non-Medicare expenditure.

Figure 6.2 **Commonwealth Government real expenditure per person on unreferred consultations (1999-2000 dollars)**



Source: table 6A.3.

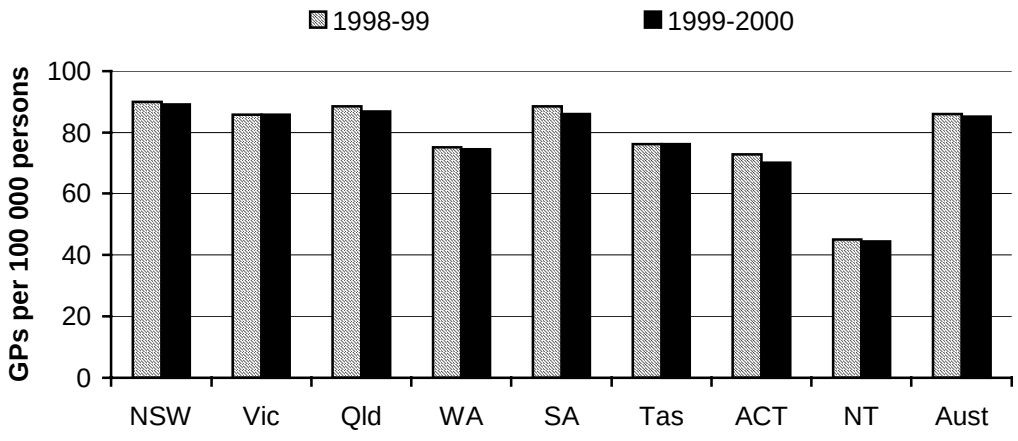
Size and scope of sector

In 1998-99, there were 24 176 vocationally registered GPs and OMPs billing Medicare in Australia (nearly 130 per 100 000 people) (table 6A.4). In contrast, 5478 doctors worked as non-specialist clinicians (mainly residents and interns) in hospitals in December 1998. These head counts of doctors billing Medicare should be interpreted with caution, however. Not all OMPs are GPs. In addition, some GPs provide only small numbers of services attracting Medicare benefits and there are substantial numbers of doctors working in medicine part-time.

Figure 6.3 presents the distribution of full time workload equivalent GPs across jurisdictions. A full time workload equivalent is calculated for each doctor by dividing the doctor's Medicare billing (schedule fee value of claims processed by the Health Insurance Commission during the reference period) by the mean billing of full-time doctors. The data exclude services provided by medical practitioners working with the Royal Flying Doctor Service, some doctors working in Aboriginal Medical Services, and salaried doctors working in public hospitals without the right of private practice. In addition, the data are based on doctors' Medicare claims which for some doctors, particularly in rural areas, represents only part of their workload. GPs in rural or remote areas spend more of their time working in local hospitals than those in metropolitan centres.

The data in Figure 6.3 should be viewed with caution as OMPs are included with vocationally registered GPs. (The data are disaggregated in table 6A.4.) Australia wide in 1999-2000, there were 85 full time workload equivalent GPs per 100 000 people. NSW had the highest number per 100 000 (89) and the NT had the lowest (44).

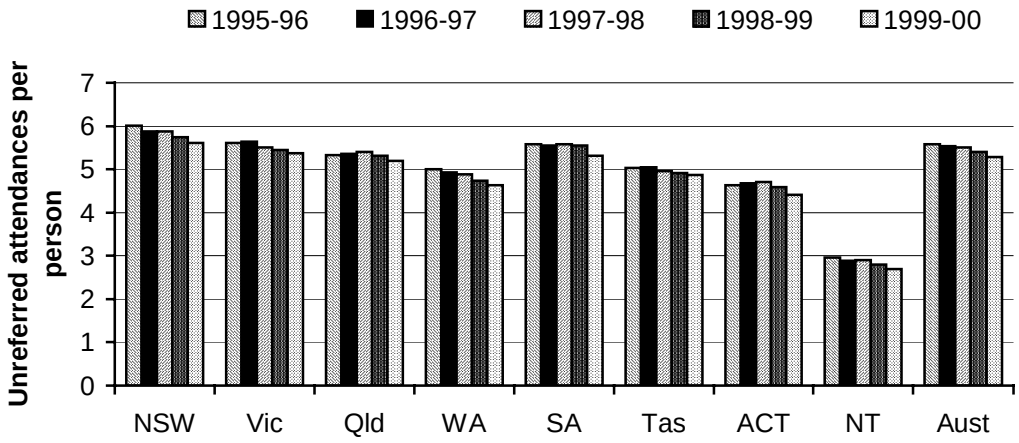
Figure 6.3 **GPs per 100 000 persons (full time workload equivalent)**



Source: table 6A.4.

Consulting a GP was the second most common health related action of Australians in 1995 (the last year for which data are available), after use of medications (ABS, 1997). In 1999-2000, Australians consulted a GP on average 5.3 times per person (DHAC 2000c). Consultations per person in 1999-2000 were highest in NSW (5.6) and lowest in the NT (2.7) (figure 6.4 and table 6A.5); and were highest in capital cities and lowest in remote areas — declining with population density (table 6A.6). The data reflected in figures 6.3 and 6.4 measure GPs differently and are not therefore consistent.

Figure 6.4 **Unreferred attendances to GPs, per person**



Source: table 6A.5.

The most common reasons given by patients for visiting a GP in 1999-2000 are outlined in table 6.2. General Practitioners participating in the *Bettering the Evaluation and Care of Health* study were asked to record at least one, and up to three, patient reasons for the encounter, reflecting the patient's reasons for consulting the GP (Britt *et al.* 2000). Reasons for encounter reflect the patient's demand for care and can indicate service use patterns.

Table 6.2 **Most frequent patient reasons for encounter, 1999-2000**[a, b]

Patient reason for encounter	*Number*	*% of total reasons for encounter*	*Rate per 100 encounters*	*95% LCI* [c]	*95% UCI* [c]
Check–up (all) [d]	13 223	9.3	13.7	13.0	14.3
Prescription	7 946	5.6	8.2	7.7	8.7
Cough	6 019	4.3	6.2	5.8	6.6
Immunisation/vaccination (all) [e]	4 742	3.4	4.9	4.4	5.4
Throat complaint	3 696	2.6	3.8	3.5	4.1
Back complaint	3 435	2.4	3.6	3.3	3.8
Test results	3 306	2.3	3.4	3.1	3.7
URTI[f]	2 794	2.0	2.9	2.5	3.3
Rash	2 539	1.8	2.6	2.4	2.8
Hypertension/high blood pressure	2 452	1.7	2.5	2.1	3.0
Abdominal pain	2 174	1.5	2.2	2.1	2.4
Depression	2 047	1.4	2.1	1.9	2.3
Total	141 766	100.0	146.3	144.6	148.0

a Figures do not sum to 100 as more than one reason for encounter can be recorded at each encounter. **b** An encounter is defined as any professional interchange between a patient and a GP. **c** UCI= upper confidence interval; LCI= lower confidence interval. **d** 'Check–up (all)' includes all medical examinations or health evaluations complete or partial, irrespective of whether the type was specified or the request was very general. **e** 'Immunisation/vaccination (all)' includes flu vaccination requests as well as those for childhood immunisation, hepatitis, etc. **f** Upper respiratory tract infection.

Source: table 6A.7.

Depression was one of the most common reasons patients gave for visiting a GP in 1999-2000. General Practitioners are important mental health service providers — 29 per cent of people with a mental disorder contacted a GP in relation to their problem in 1997 (ABS 1998). Mental health is discussed in chapter 7.

More than one problem is often managed by a GP at a single encounter. Problems managed reflect the GP's understanding of the health problem presented by the patient. The top ten health problems managed by GPs are listed in table 6.3. Hypertension was the most common problem managed followed by upper respiratory tract infection (a cold) (Britt *et al.* 2000).

Table 6.3 **Top ten health problems managed, 1999-2000[a]**

Problem Managed	*Number*	*Per cent of total problems*	*Rate per 100 Encounters[b]*	*95% LCI[c]*	*95% UCI[c]*
Hypertension[d]	8 821	5.7	8.4	7.9	8.9
URTI[e]	7 527	4.9	7.2	6.7	7.7
Immunisation/vaccination all[d]	4 818	3.1	4.6	4.2	5.0
Depression[d]	3 595	2.3	3.4	3.2	3.6
Asthma	3 365	2.2	3.2	3.0	3.4
Acute bronchitis/bronchiolitis	3 319	2.2	3.2	2.9	3.4
Back complaint[d]	2 880	1.9	2.8	2.6	2.9
Diabetes[d]	2 808	1.8	2.7	2.5	2.9
Lipid disorder	2 765	1.8	2.6	2.4	2.9
Osteoarthritis[d]	2 346	1.5	2.2	2.0	2.4
Total problems	**153 857**	**100.0**	**146.7**	**144.9**	**148.6**

[a] Problems managed reflect the GP's understanding of the health problem presented by the patient. [b] Figures do not total 100 per cent as more than one problem can be managed at each encounter. [c] UCI= upper confidence interval; LCI= lower confidence interval. [d] Multiple primary care classification codes. [e] Upper respiratory tract infection.

Source: table 6A.8.

The most common form of patient management undertaken by GPs in 1999-2000 was prescribing, advising or supplying medication (110.1 per 100 encounters) (table 6.4).

Table 6.4 **Summary of patient management, 1999-2000**

Management type	*Number*	*Rate per 100 encounters*	*95% LCI[a]*	*95% UCI[a]*
Medications	115 432	110.1	107.8	112.4
Prescribed	98 372	93.8	91.5	96.2
Advised, over the counter	9 842	9.4	8.6	10.2
GP supplied	7 218	6.9	5.8	7.9
Other treatments	48 194	46.0	44.1	47.8
Clinical	35 102	33.5	31.8	35.2
Procedural	13 092	12.5	11.9	13.0
Referrals	11 760	11.2	10.8	11.7
Emergency department	87	0.1	0.0	0.4
Hospital	744	0.7	0.5	0.9
Specialist	7 639	7.3	7.0	7.6
Allied Health	3 290	3.1	2.9	3.4
Pathology	27 613	26.3	25.2	27.5
Imaging	7 841	7.5	7.1	7.8

[a] UCI= upper confidence interval; LCI= lower confidence interval.

Source: table 6A.9.

6.2 Policy developments

In response to a recommendation by the General Practice Strategy Review, work has commenced on reviewing, identifying and developing a comprehensive set of indicators and associated minimum data set to measure quality in general practice.

There is no systematic measurement by government of patient satisfaction or patient safety in general practice. Further, some independent health complaints commissions, established in all States and Territories, do not cover the private sector and GPs (DHAC 2000a). A number of studies, however, have recorded patient views and experiences of general practice, including research funded by the Commonwealth Government in 1992 (DHAC 2000a). In addition, the Australian General Practice Accreditation Limited accreditation process incorporates a requirement for patient feedback which is commonly achieved through a survey instrument such as that developed by the Royal Australian College of General Practitioners, or other instruments such as interviews or other culturally appropriate methods.

Some programs aim to improve access to primary care services by target groups. For example, the Rural Incentives Program — administered by Rural Workforce Agencies under contract with the Commonwealth and also funded by State and Territory governments — encourages recruitment and relocation of GPs to rural and remote areas. Reporting on outcomes by rural/remote area is increasing.

The National Performance Indicators for Aboriginal and Torres Strait Islander Health endorsed by the Australian Health Minister's Advisory Council contain a group of nine indicators (numbers 15–24) covering various aspects of access to services. These refer to: the number of community controlled services;[3] distance from primary care and acute hospital care; Indigenous health workforce numbers; training and health issues; and Indigenous culture and management of key medical conditions.

6.3 Framework of performance indicators

The performance indicator framework is based on the shared government objectives for general practice, which reflect the primary care role of GPs (box 6.1).

[3] The Aboriginal Community Controlled Health Services are autonomous primary health services, planned and governed by local Aboriginal communities through their elected Aboriginal board of directors. Many such services employ GPs as part of a multi-disciplinary health team (DHAC 2000a).

Box 6.1 **Objectives for general practice**

General practice aims to promote the health of Australians by:

- acting as a main point of entry to the health care system;
- providing health care which promotes changes in lifestyle behaviour and prevents possible illness;
- coordinating and integrating health care services on behalf of clients; and
- providing continuity of care

in an equitable and efficient manner.

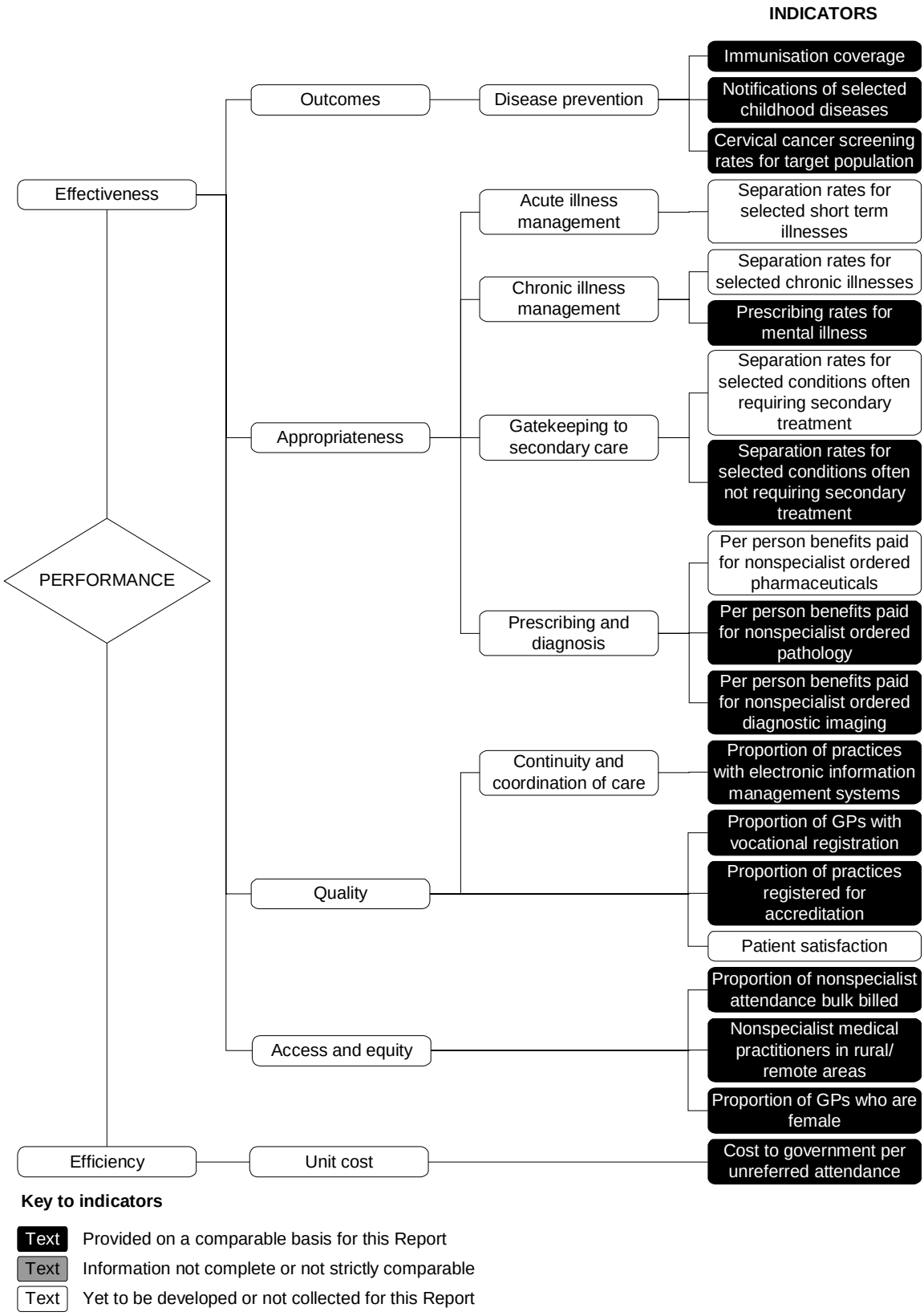
The performance indicator framework aims to inform analysis of the effectiveness and efficiency of policies targeted at services of general practice (figure 6.5). The framework is based on research conducted in Australia and the United Kingdom to develop performance indicators for primary care aspects of general practice services. The framework will change over time as better indicators are developed and as the focus and objectives for general practice change.

Effectiveness indicators relate to four broad categories: outcomes; appropriateness; quality; and access and equity. The outcome indicators focus on disease prevention — that is, immunisation coverage, notification of selected childhood diseases and cervical cancer screening rates.

The level of immunisation coverage has been included in the framework because GPs are encouraged to achieve high immunisation coverage levels under the General Practice Immunisation Incentives Scheme. The Scheme provides incentives for the immunisation of children in the 0-6 age group. General Practitioners see 93 per cent of children in the age group of 0–6 years seven times a year on average (DHAC 1999a). The aim is to have full immunisation of 90 per cent of all children attending 90 per cent of all general practices (DHAC 1999a). However, the introduction of the Scheme has had different impacts in different States and Territories depending on the structure of service provision (table 6.5).

Similarly, notification rates for selected childhood diseases (measles, pertussis (whooping cough) and Haemophilus influenzae type b) have been included because the activities of GPs can influence the level of these diseases. The debilitating effects of these diseases can be long term or even life threatening. The complications from measles, for example, can be very dangerous, and pneumonia occurs in one in 25 cases. As part of the Immunise Australia Seven Point Plan, Australia has embarked on a strategy to eliminate measles. This year, the notification rate will be reported for 0-14 year olds as a proportion of the population aged 0–14 years.

Figure 6.5 **Performance indicators for general practice**



The appropriateness indicators focus on four aspects: acute illness management; chronic illness management; gatekeeping to secondary care; and prescription and diagnosis. Acute illness management is measured by standardised hospital separation rates for some short term illnesses for which hospital admission is generally avoidable: severe ear/nose/throat infection; cellulitis; kidney/urinary tract infection; and gastroenteritis. Separation rates significantly greater than the average for these illnesses may demonstrate issues of primary care delivery that need to be further explored, and publishing these data is a means of promoting discussion.

Two indicators measure GP performance in chronic illness management: prescribing rates for mental illness and standardised hospital separation rates for some chronic illnesses. The prescribing rates for mental illness have been included in the framework, although it is not clear whether this represents an over reliance on the use of prescription drugs — benchmark data have yet to be defined — or whether the availability of a new range of prescription pharmaceuticals allows a range of conditions to be treated by GPs. Major programs, such as the Pharmaceutical Education Program are aimed at promoting alternative management approaches to anxiety and depression (Royal Australian College of General Practitioners 1999). The National Health System in the United Kingdom also has recommended using the 'volume of benzodiazepines' as an indicator of effective delivery of services by GPs for mental disorders as part of the 'high level performance indicators'.

People suffering from certain chronic conditions such as asthma, diabetes and epilepsy sometimes require hospitalisation. Ongoing management of these conditions can be provided by GPs. High levels of separations for these conditions may indicate a need to encourage GP management and self management of these conditions.

Standardised separation rates for conditions often not requiring hospitalisation — for example, myringotomy (insertion of grommets) and tonsillectomy — are indicators of the GP's role as the gatekeeper to secondary care services. High separation rates for myringotomy and tonsillectomy may indicate inappropriate care by GPs, because conditions requiring these treatments often can be managed at the primary care level.

Per person benefits paid by the Commonwealth Government for pharmaceuticals, pathology tests and diagnostic imaging ordered by GPs, are used as indicators of the appropriateness of prescribing and diagnosis. While high levels of benefits may indicate overreliance on these methods of treatment by GPs, it is not possible to determine what the appropriate levels might be. Reporting these data contributes to discussion of such issues.

The quality of general practice services is reflected by the proportion of full time workload equivalent GPs with vocational registration, patient satisfaction and the proportion of practices with electronic information management systems. The proportion of practices that are registered for accreditation is also used as a quality indicator.

Vocational registration of GPs has been included as a quality indicator because it establishes the framework within which other quality initiatives have occurred in general practice. It defines general practice as a distinct discipline of medicine, and emphasises the importance of formal training and the development of professional accountability through mandatory improvement (DHFS 1996).

Levels of practice accreditation are also a measure of quality practice. The accreditation of practices has two major components: setting acceptable minimum standards for general practice; and establishing an effective and objective process for assessing practices against these standards.

The proportion of practices with electronic information management systems is included as a quality indicator because information management/technology is recognised as a useful tool for helping GPs provide and maintain a high quality of care to patients. The use of clinical software and data interchange between GPs and organisations (such as divisions of general practice, pathology laboratories and hospitals) are examples (DHAC 2000e). Electronic information management systems also support directions and reforms in health care that focus on an integrated and evidence based health system. Under the Practice Incentives Program, a payment is made to those practices where the majority of GPs prescribe electronically, and/or where the practice has either an Internet connection or an email account.

Access and equity are measured by the proportion of non-specialist attendances that are bulk billed (thereby alleviating any financial barriers to accessing GPs); full time workload equivalent GPs per 100 000 people by region (capital city, rural and remote); and by female full time workload equivalent GPs per 100 000 females by jurisdiction. The latter recognises that some female patients may be uncomfortable discussing health matters with a male GP. The last two indicators were presented differently in last year's Report (as the proportion of full time workload equivalent GPs in rural/remote areas, and the proportion of full time workload equivalent GPs who are female).

The cost to government of unreferred attendances is the only suggested efficiency indicator for GP services at this stage.

6.4 Key performance indicator results

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

Outcomes

Disease prevention — immunisation

The level of immunisation coverage of children is the first outcome indicator of GP performance in providing primary care. Child immunisation services are delivered by many providers (table 6.5). The Australian Childhood Immunisation Register records suggest that since data were first collected in 1996, GPs have played a major role in immunising children under seven years of age in NSW, Queensland, WA, SA and Tasmania. In Victoria, local governments share the main immunisation provider role with GPs, whereas Territory governments are the main providers both in the ACT, and also in the NT through community health centres (table 6.5 and table 6A.10).[4]

Table 6.5 **Proportion of valid episodes by immunisation provider, 1 January 1996 to 30 June 2000 (per cent) for children under seven years of age**

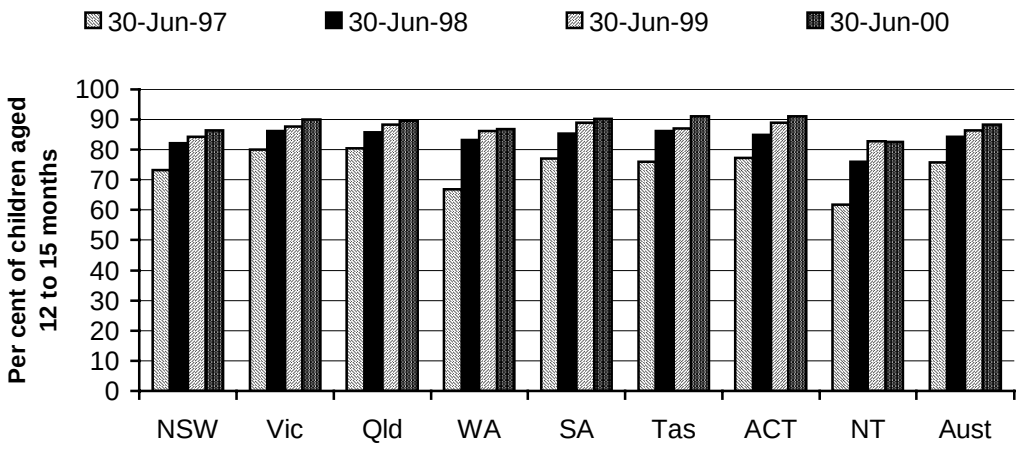
Provider	*NSW*	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aust*
GPs	81.7	48.3	83.3	61.7	69.4	84.1	39.5	2.8	68.8
Local government	7.3	50.7	8.2	8.8	18.9	15.4	–	–	19.5
State government	–	–	0.0	5.3	0.1	0.2	56.5	–	1.5
Flying doctor service	–	–	0.4	–	0.2	–	–	–	0.1
Public hospital	3.5	0.2	3.2	5.4	5.6	0.1	1.3	1.6	2.8
Private hospital	0.3	–	–	–	–	–	–	1.0	0.1
Aboriginal health service/worker	0.6	–	1.0	0.5	0.3	–	0.1	5.0	0.5
Community health centre	6.7	0.7	4.0	18.3	5.6	0.2	2.6	89.7	6.7

Source: table 6A.10.

[4] Approximately 40 per cent of children aged 0-6 years in the NT are Indigenous, living in remote communities that are not serviced by a GP. Since GPs provide immunisation services to only a small proportion of children in the NT, immunisation coverage rates are a weak indicator of GP performance in the NT.

Around 88 per cent of Australian children turning 12 months of age by 31 March 2000 were assessed as fully immunised against diptheria, tetanus, whooping cough, polio and Haemophilus influenzae type b (figure 6.6 and table 6A.11). The NT had the lowest proportion (83 per cent) and Tasmania the highest (92 per cent) (figure 6.6). The NT Childhood Immunisation Database estimate of vaccination coverage for children aged 12 months on 31 March 2000 was 89 per cent. Australian Child Immunisation Register (ACIR) records of immunisation for children in the NT are affected by difficulties in matching NT immunisation records with Medicare-generated ACIR records.

Figure 6.6 **Proportion of children aged 12 to 15 months who were fully immunised (per cent)[a, b, c]**

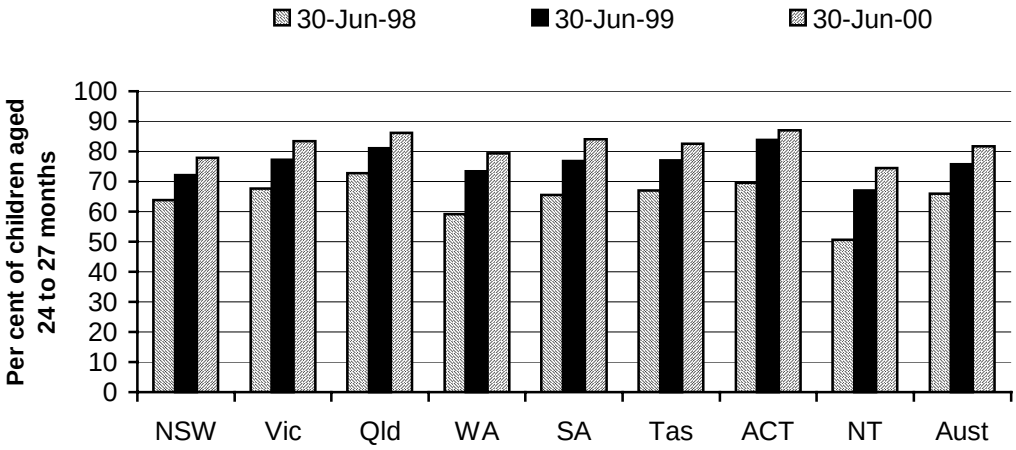


a Coverage measured at 30 June for children turning 12 months of age by 31 March. **b** The Australian Child Immunisation Register (ACIR) includes all children under seven years of age who are registered with Medicare. By the age of 12 months, over 98 per cent of Australian children have been registered with Medicare (NCIRS 2000). **c** There may be some underreporting by providers. Therefore vaccine coverage estimates calculated using ACIR data should be considered minimum estimates (NCIRS 2000).

Source: table 6A.11.

Nearly 82 per cent of children turning 24 months of age by 31 March 2000 were assessed as being fully immunised against diptheria, tetanus, whooping cough, polio, Haemophilus influenzae type b and measles, mumps and rubella (figure 6.7 and table 6A.12). Once again, the NT recorded the lowest proportion (75 per cent), while the ACT recorded the highest (87 per cent). ACIR records of immunisation for children in the NT are affected by difficulties in matching NT immunisation records with Medicare-generated ACIR records.

Figure 6.7 **Proportion of children aged 24 to 27 months who were fully immunised (per cent) [a, b, c]**



[a]Coverage measured at 30 June. [b] The Australian Child Immunisation Register includes all children under seven 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 underreporting by providers. Therefore, vaccine coverage estimates calculated using ACIR data should be considered minimum estimates (NCIRS 2000).

Source: table 6A.12.

Disease prevention — notifications of selected childhood diseases

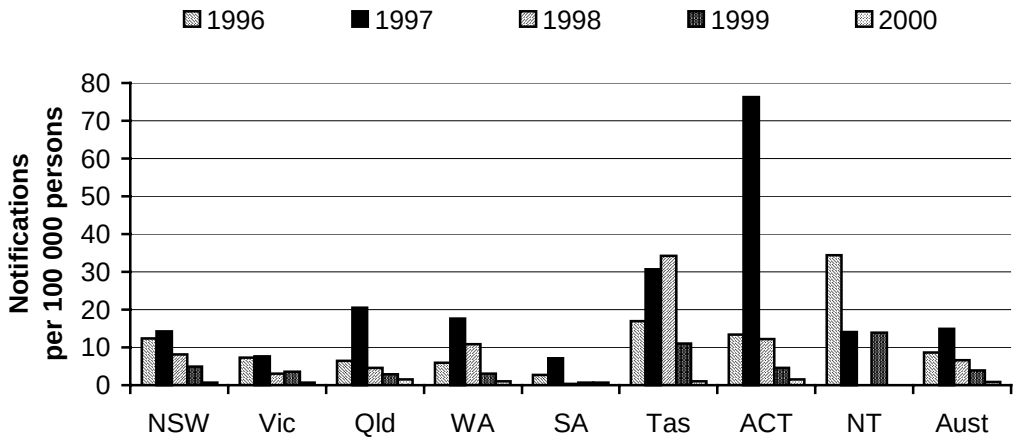
The indicator for the rate of notifications for selected childhood diseases now reflects the number of notifications for 0–14 year olds per 1000 people in that age group.

The Immunise Australia Seven Point Plan, organised outside general practice and implemented by the immunisation sector, including GPs, has resulted in a large fall in the number of notifications of measles. To September 2000, the notification rate for measles for 0–14 year olds was 0.9 per 100 000 children in that age group. This represents a large decline from the high levels of the early to mid-1990s (table 6A.14). To September 2000, notification rates for 0–14 year olds for measles were highest in the ACT and Queensland (1.5) and lowest in the NT (0.0) (figure 6.8).

A severe outbreak of pertussis (whooping cough) occurred in 1997 (figure 6.9 and table 6A.15) within the identified pattern of pertussis epidemics in three year cycles. The notification rate for Australia in that year was 154.1 notifications for 0–14 year olds per 100 000 persons aged 0–14 years. As a result of the increased incidence of pertussis, the then Commonwealth Department of Health and Family Services decided to encourage the immunisation of all children against the disease. To September 2000, the notification rate for 0–14 year olds Australia was 34.7. The

ACT was highest in that year with 124.7 notifications for 0–14 year olds per 100 000 children aged 0–14 years. WA was lowest with a notification rate of 3.0.

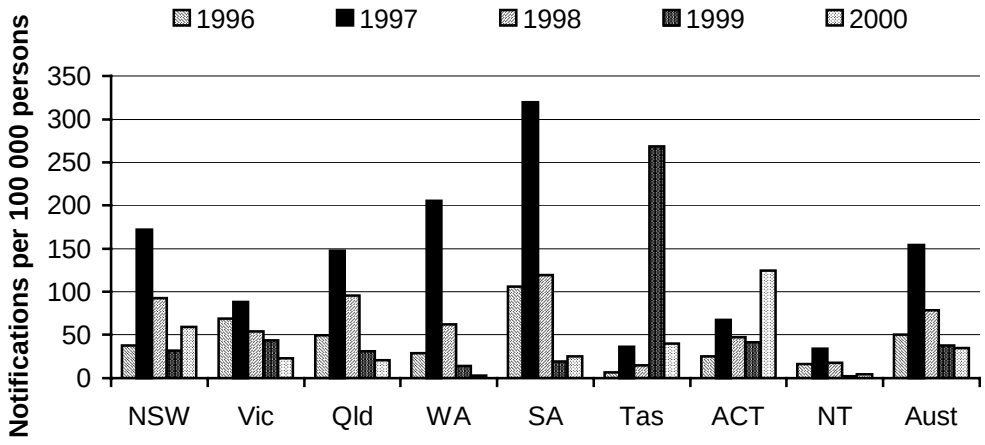
Figure 6.8 **Notification rates for measles among persons aged 0-14 (per 100 000 persons aged 0-14 years)[a]**



a Notifications for 2000 to September only.

Source: table 6A.14.

Figure 6.9 **Notification rates for whooping cough (pertussis) among persons aged 0-14 (per 100 000 persons aged 0-14 years)[a]**

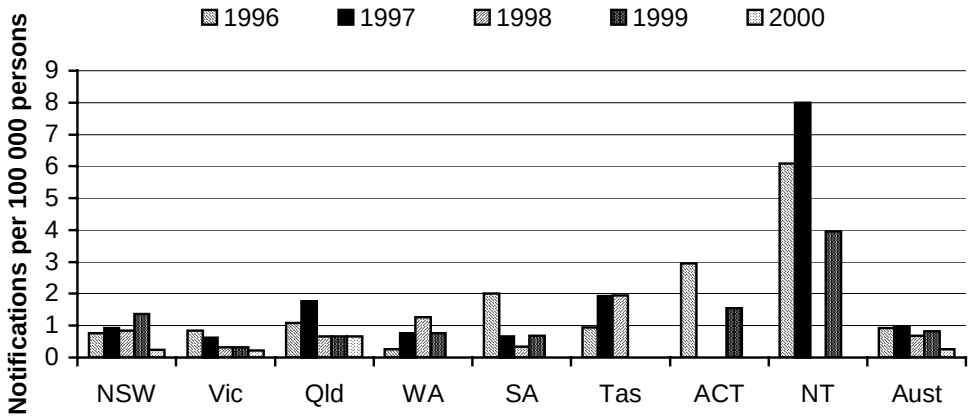


a Notifications for 2000 to September only.

Source: table 6A.15.

In recent years, notification rates for Haemophilus influenzae type b have remained relatively low (figure 6.10 and table 6A.13). In 2000 (to September), the notification rate Australia-wide was 0.3 (per 100 000 children aged 0–14 years). WA, SA, Tasmania, the ACT and the NT all had zero notifications.

Figure 6.10 **Notification rates for Haemophilus influenzae type b among persons aged 0-14 (per 100 000 persons aged 0-14 years)[a]**



a Notifications for 2000 to September only.

Source: table 6A.13.

Disease prevention — cervical cancer screening

The third outcome indicator for primary care services provided by GPs is the screening rate for cervical cancer. Like child immunisation, cervical cancer screening tests (that is, Pap smears) are offered by a range of health care providers under the National Cervical Cancer Screening Program — GPs, gynaecologists, family planning clinics and hospital outpatient clinics. Caution should be used when interpreting the results as the level of participation in the program reflects the activities of all health care providers — not only GPs.

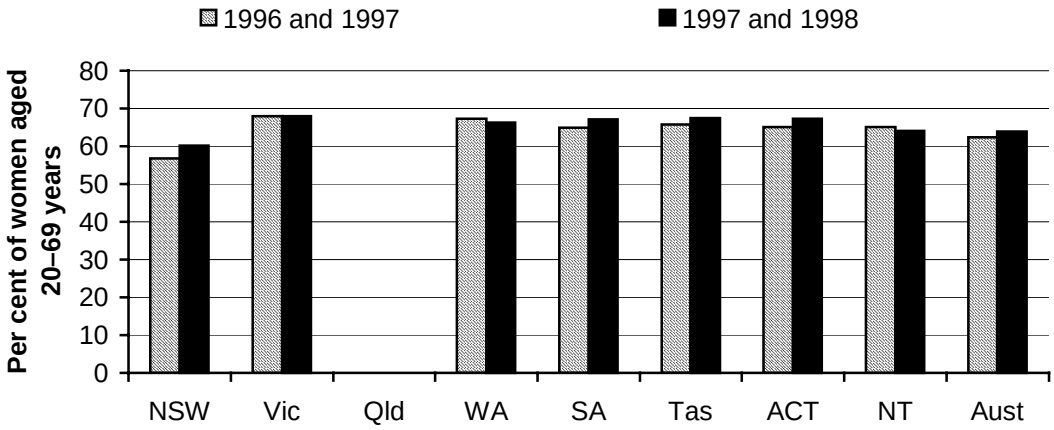
The National Cervical Cancer Screening Program is targeted at women aged 20–69 years. The screening interval is two years. Data for the 1998 and 1999 period will not be available until 2001. Figure 6.11 shows that in the 1997 and 1998 screening period, participation rates by women aged 20–69 years were highest in Victoria (68 per cent) and lowest in NSW (60 per cent). The Queensland Health Pap Smear Register did not start operating until February 1999, so no data were available for that State.

Appropriateness

Chronic illness management — prescribing rates for mental illness

General Practitioner prescribing rates for antidepressants and anxiolytics to people aged 15 years and over are reported here (figures 6.12 and 6.13). In 1998-99, Tasmania had the highest prescribing rates (599 scripts per 1000 people ordered by GPs for antidepressants and 346 scripts per 1000 people ordered by GPs for anxiolytics) and the NT had the lowest (206 and 57 respectively).

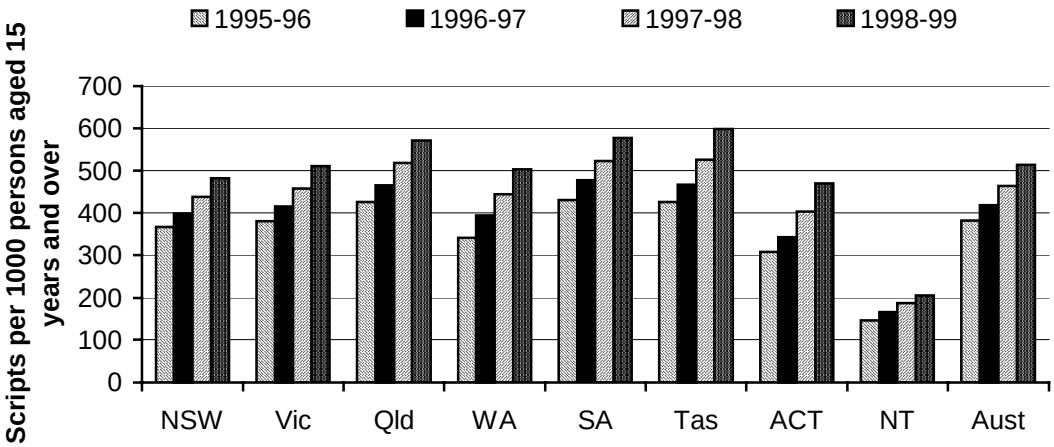
Figure 6.11 **Participation rates of women aged 20–69 years in cervical cancer screening programs (per cent)** [a, b, c, d, e, f, g]



[a] Rates are expressed per 100 000 women and are age standardised to the Australian 1991 population. [b] Rates cannot be calculated for women in the 85+ age group because hysterectomy fractions are not available for this age group. [c] Rates for Australia have been calculated excluding Queensland. [d] The NSW Register recently identified two laboratories had not been reporting Pap test data for women aged 70 years and over. The register calculates that the number of NSW women aged 70 years and over who were screened in 1997-98 is underestimated by approximately 10 per cent. [e] The Queensland Health Pap Smear Register did not start operating until February 1999. [f] All SA women aged 70 years or more are grouped together and for the purposes of this table they appear in the 70–74 age group. [g] The ACT register only registers women with an ACT address. [h] Participation rates differ from those published by the NT Pap Smear Register because the NT Pap Smear Register excludes Aboriginal women from the denominator. All women are included in the denominator here.

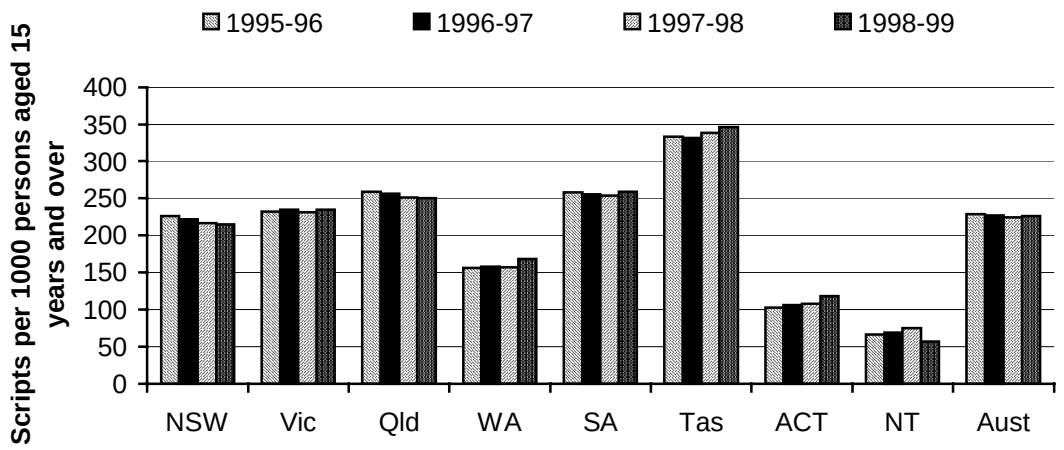
Source: table 6A.16.

Figure 6.12 **Prescribing rates for antidepressants — GP ordered scripts per 1000 persons aged 15 years and over**



Source: table 6A.17.

Figure 6.13 **Prescribing rates for anxiolytics — GP ordered scripts per 1000 persons aged 15 years and over**



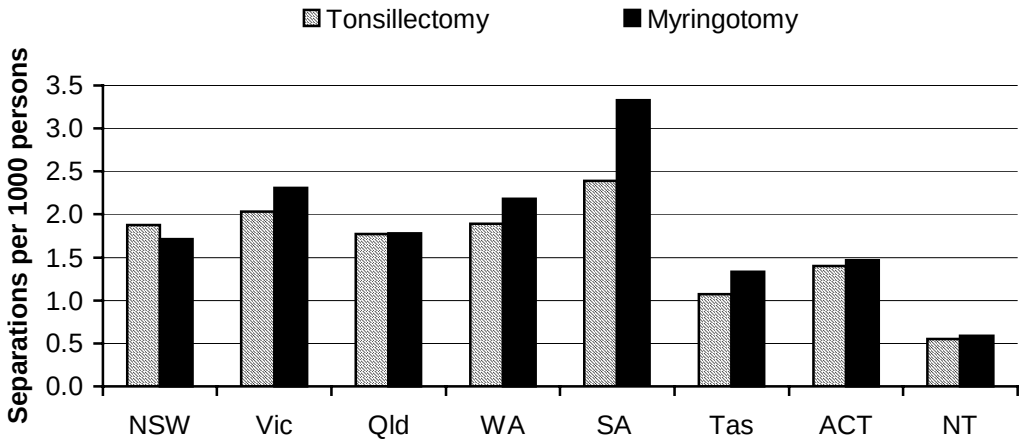
Source: table 6A.18.

Gatekeeping to secondary care

Age and sex standardised separation rates for selected conditions often not requiring secondary treatment — myringotomy (insertion of grommets) for the treatment of acute otitis media in children and tonsillectomy (removal of tonsils) — are also indicators of the GP's role as the gatekeeper to secondary services. High separation rates may indicate that patients are not receiving appropriate care by GPs, because the conditions can often be managed at the primary care level, without recourse to surgical procedures.

For myringotomy, separation rates in 1998-99 were highest in SA (3.33 per 1000 people) followed by 2.31 per 1000 people in Victoria. The lowest separation rate was in the NT (0.59 per 1000 people). For tonsillectomy, similarly, separation rates in 1998-99 were highest in SA (2.39 per 1000 people) followed by 2.03 per 1000 people in Victoria. Again, the lowest separation rate was in the NT — 0.55 per 1000 people (figure 6.14 and table 6A.19). Comparability across jurisdictions and over time may be affected by differences in disease classification coding systems. In 1998-99, NSW, Victoria, the ACT and the NT define procedures using ICD-10-AM codes, whereas Queensland, WA, SA and Tasmania define procedures using ICD-9-CM codes.

Figure 6.14 **Separation rates for selected conditions often not requiring secondary treatment, all hospitals, 1998-99[a, b, c, d]**



a Separation rate was age and sex standardised to the Australian population at 30 June 1991. **b** Excludes multiple procedures during the same separation within the same sentinel group. **c** Excludes private hospitals in the NT. This may result in underreporting of procedure rates for some of the procedures. **d** NSW, Victoria, ACT and NT define procedures using ICD-10-AM codes. Queensland, WA, SA and Tasmania define procedures using ICD-9-CM codes.

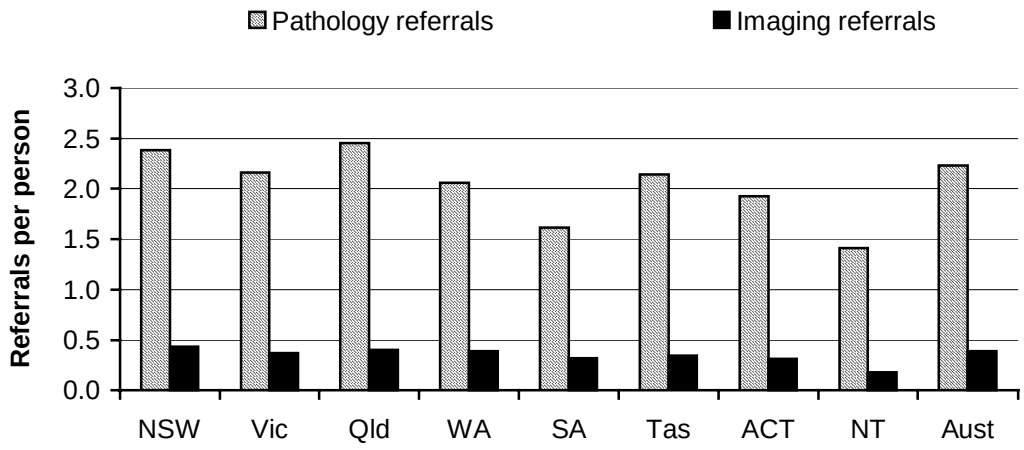
Source: table 6A.19.

Prescribing and diagnosis

Per person benefits paid for GP-ordered pathology tests are used to report on the prescribing and diagnosis patterns of GPs. Differences across jurisdictions in the levels of benefits paid for pathology tests and diagnostic imaging ordered by GPs may indicate inappropriate use of these services in diagnosis and treatment. However, it is not possible to determine an appropriate benchmark level, and further exploration of these issues is necessary.

Figure 6.15 provides contextual information on referrals by GPs per person for pathology tests and diagnostic imaging in 1999-2000. The pathology data are for tests ordered through Medicare. Significant amounts of pathology (especially in SA) are ordered through State managed but Commonwealth funded health program grants. Hence, the data underestimate orders in some jurisdictions. For testing ordered through Medicare, Queensland had the highest rate of referrals for pathology testing (2.5 per person) and the NT the lowest (1.4). For diagnostic imaging, NSW had the highest number of referrals per person (0.4) and the NT had the lowest (0.2).

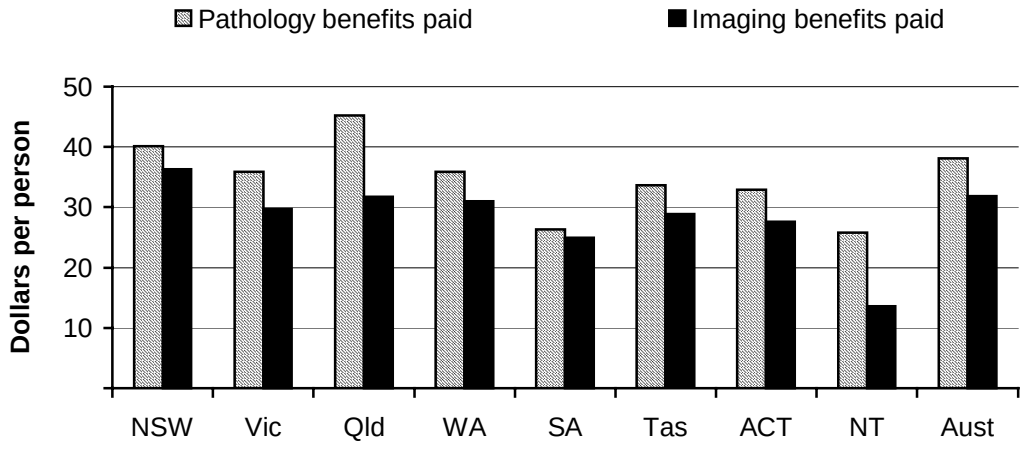
Figure 6.15 **Referrals per person for pathology tests and diagnostic imaging, 1999-2000**



Source: tables 6A.20 and 6A.21.

Overall, in 1999-2000 Commonwealth expenditure under Medicare on pathology tests was $38.1 per person (an increase from $35.5 per person in 1998-99) and on imaging was $31.9 per person (an increase from $31.7 per person in 1998-99). Figure 6.16 shows that benefits paid per person in 1999-2000 for pathology tests were highest in Queensland ($45.2 per person) and lowest in the NT ($25.8). Benefits paid per person for diagnostic imaging were highest in NSW ($36.2) and lowest in the NT ($13.6).

Figure 6.16 **Benefits paid per person for pathology tests and diagnostic imaging, 1999-2000**



Source: tables 6A.20 and 6A.21.

Quality

Three indicators of the quality of health care delivered by GPs are: the proportion of practices with electronic information management systems; the proportion of full time workload equivalent GPs with vocational registration; and the proportion of practices that are registered for accreditation.

The proportion of practices with electronic information management systems

The proportion of practices with electronic information management systems is an indicator of quality which helps to identify the capacity for efficient handling of patient information, including management of screening and other preventive health activities, reminder systems, patient education, record management, data collection and analysis and practice business management (DHAC 2000a). Data on practices with electronic information management systems are available from the Practice Incentives Program (PIP).

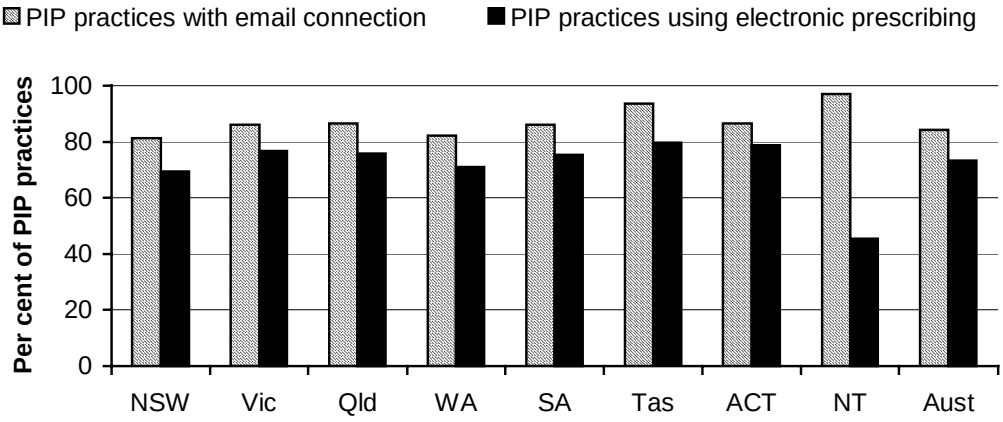
The PIP structures payments to practices based on patients' ongoing health care needs rather than service volumes, promoting activities such as use of electronic information management systems (including prescribing software), after hours care and teaching medical students. While the PIP does not include all practices in Australia, PIP practices covered around 78 per cent of Australian patients (measured as standardised whole patient equivalents) in August 2000 (DHAC PIP Information Booklet).[5]

The data suggest that the proportion of PIP practices nationally that used electronic prescribing systems in August 2000 was 73 per cent (an increase from 51 per cent in August 1999) (table 6A.22). The proportion of PIP practices with an Internet connection or an e-mail account was 84 per cent in August 2000 (an increase from 68 per cent in August 1999) (table 6A.22).

At August 2000, PIP practices in Divisions of General Practice in the NT were most likely to have an e-mail connection and least likely to use electronic prescribing software (97 per cent and 45 per cent respectively). PIP practices in Divisions of General Practice in Tasmania were most likely to use electronic prescribing software (80 per cent) (figure 6.17 and table 6A.23).

[5] A standardised whole patient equivalent is an indicator of practice workload based on the number of patients seen. A standardised whole patient equivalent is the sum of the fractions of care provided by doctors to their patients, weighted for the age and sex of each patient. Fractions of care are calculated by dividing the schedule fee value of all Medicare and Veterans' Affairs non-referred attendances provided by the doctor to the patient within the twelve month reference period, by the total schedule fee value of all non-referred attendances received by the patient within that reference period (DHAC unpublished).

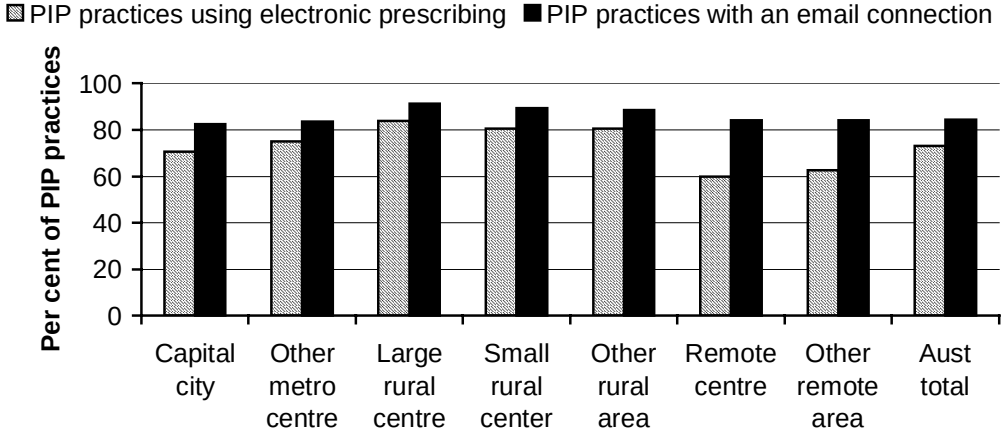
Figure 6.17 **Proportion of PIP practices using electronic prescribing systems or with access to the Internet, August 2000 (per cent)**



Source: table 6A.23.

PIP practices in rural areas were more likely to use electronic prescribing and be connected to the Internet in August 2000 than PIP practices in metropolitan areas or remote areas. PIP practices in remote areas were least likely to use electronic prescribing systems (figure 6.18 and table 6A.22). Remote practices in Indigenous communities in the NT have difficulty accessing the PIP which affects coverage of these data.

Figure 6.18 **Proportion of PIP practices using electronic prescribing software or with an email connection, August 2000 (per cent)[a]**



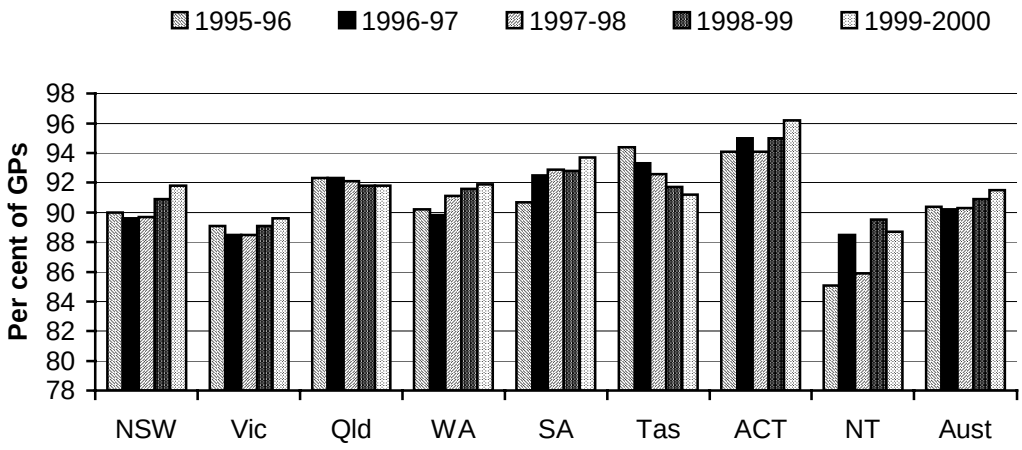
a Capital city – State and Territory capital city statistical divisions; Other metropolitan centre – one or more statistical subdivisions that have an urban centre with a population of 100,000 or more; Large rural centre – Statistical Local Areas (SLAs) where most of the population resides in urban centres 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 5,000 or more; Other remote area – all remaining SLAs in the remote zone.

Source: table 6A.22.

Vocational registration

The proportion of full time workload equivalent GPs with vocational registration indicates the standard of appropriate training of GPs and their ability to deliver services of high quality. In 1999-2000, the ACT had the highest proportion (96 per cent) and the NT had the lowest proportion (89 per cent) (figure 6.19). While the proportion of full time workload equivalent GPs with vocational registration has increased Australia wide since 1996-97, this trend has not been experienced in all jurisdictions — most notably, in Tasmania (figure 6.19). The proportion of GPs with vocational registration is lower in remote centres and other remote areas (table 6A.25).

Figure 6.19 **Share of GPs with vocational registration (full time workload equivalent)**



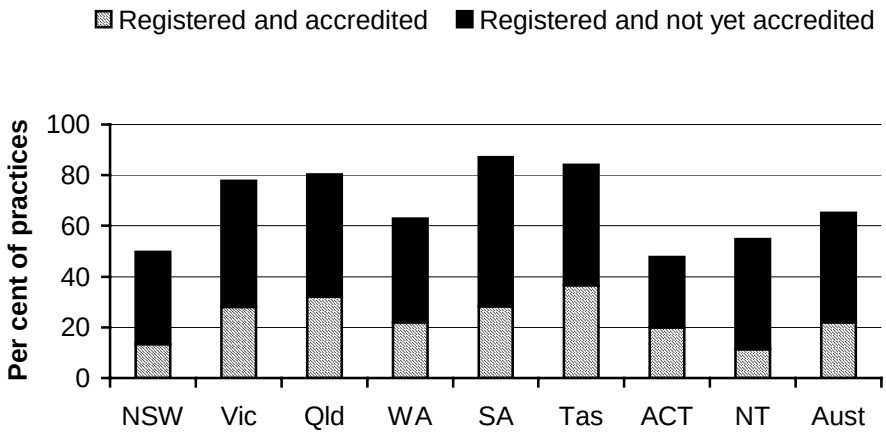
Source: table 6A.24.

Accreditation

Accreditation of practices is a systematic way to help identify quality in general practice and to provide GPs with a framework for improving their practices over time. There are two agencies providing general practice accreditation services: Australian General Practice Accreditation Limited (AGPAL), which oversees a peer review process to assess general practices against the Royal Australian College of General Practitioners Standards for General Practices; and General Practice Australia. The latter is a for-profit private company and details of the scope of its activities are not available publicly. Australian General Practice Accreditation Limited data suggest that, at 11 August 2000, 3864 practices throughout Australia (65 per cent of all practices) were registered for accreditation with Australian General Practice Accreditation Limited. This compares with nearly 50 per cent in

October 1999. More than 80 per cent of practices were registered for accreditation in Queensland, SA and Tasmania in August 2000. The ACT had the lowest rate of registration for accreditation in August 2000 (around 48 per cent) (figure 6.20).

Figure 6.20 **Proportion of practices registered for accreditation with AGPAL, August 2000 (per cent)**



Source: table 6A.26.

Access and equity

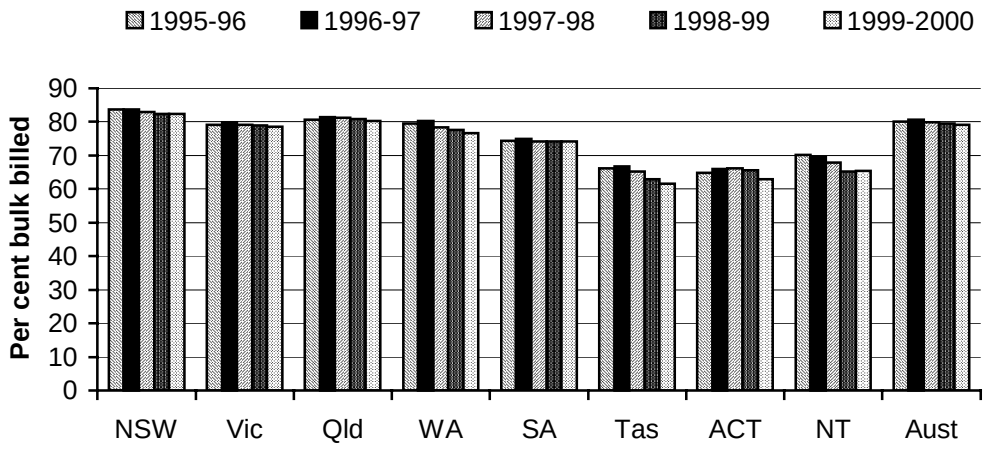
Three indicators are used to measure access and equity in GP service delivery: the proportion of total non-specialist unreferred attendances that are bulk billed; the number of full time workload equivalent GPs in rural/remote areas; and the proportion of full time workload equivalent GPs who are female.

Unreferred attendances that are bulk billed

The proportion of total non-specialist unreferred attendances that are bulk billed indicates the affordability of GP services. Under Medicare, clients may pay the GP's consultation fee and seek reimbursement from the Commonwealth Government, or the GP may bill the Government directly and reduce out-of-pocket costs for patients. A high proportion of bulk billed services indicates a greater level of affordability. Visits to GPs are classed as unreferred attendances under Medicare, and these are further disaggregated into services provided by vocationally registered GPs and those provided by OMPs who are not vocationally registered. In 1999-2000, Tasmania had the lowest proportion of attendances that were bulk billed (62 per cent) and NSW had the highest (82 per cent). Australia-wide, the proportion was 79 per cent (figure 6.21).

Bulk billing rates are generally lower in rural areas and remote centres than in capital cities (table 6A.28).

Figure 6.21 **Unreferred attendances to GPs that were bulk billed as a proportion of all unreferred attendances (per cent)**



Source: table 6A.27.

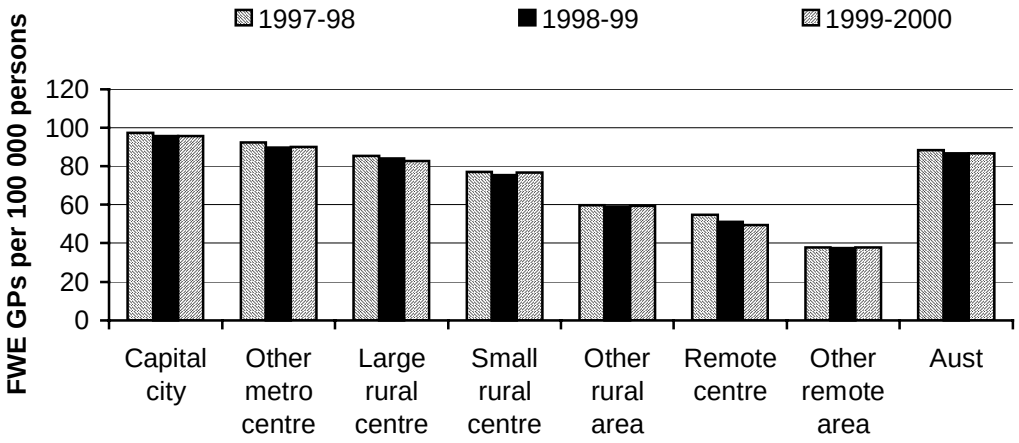
Full time workload equivalent GPs in rural/remote areas

Another important access issue is the ability of people in nonmetropolitan areas to access primary health care services provided by GPs. Commonwealth, State and Territory governments provide incentives for the recruitment and retention of GPs in rural and remote areas.

Many rural GPs provide a wide range of services in their own practices and in the public hospital system, including consultations, anaesthetics, obstetrics, psychiatric triage, emergency medicine, and relatively complex trauma procedures and operations. The comparatively low number of rural GPs per person means that they are often stretched in responding to their community's physical and mental health care needs (figure 6.22).

In 1999-2000 there were 87 full time workload equivalent GPs per 100 000 people in Australia — 96 per 100 000 in capital cities, 50 per 100 000 in remote centres and 38 in other remote areas (figure 6.22). The number of GPs per person by region has not changed substantially since 1997-98, except in remote centres, where the number of GPs per 100 000 people has fallen from 55 to 50.

Figure 6.22 **Full time work load equivalent GPs per 100 000 people by region[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 – Statistical Local Areas (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 5,000 or more; Other remote area – all remaining SLAs in the remote zone.

Source: table 6A.29.

Full time workload equivalent GPs who are female

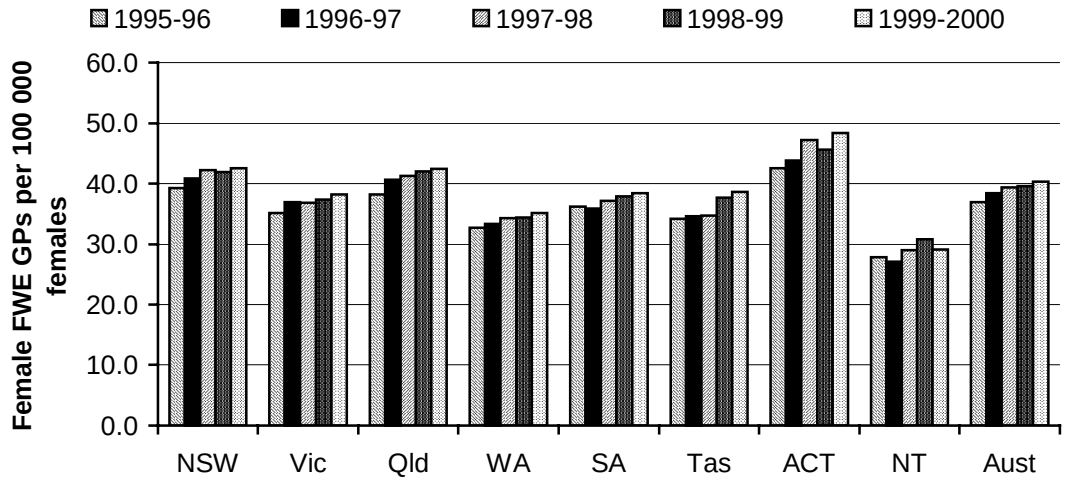
The final access indicator relates to full time workload equivalent GPs who are female per 100 000 females. This indicator differs from that presented last year which was female full time workload equivalent GPs as a proportion of all full time workload equivalent GPs. As a measure of access, this recognises that some female patients may be uncomfortable discussing health matters with a male GP. The number of female GPs per 100 000 females Australia wide has steadily increased from 37 in 1995-6 to 40 in 1999-2000. By contrast, in 1999-2000, there were 130 male GPs per 100 000 males. The ACT had the highest number of female full time workload equivalent GPs per 100 000 females (48) and the NT had the lowest (29) in 1999-2000 (figure 6.23).

Efficiency

Unit cost

It is an objective of the Review to report comparable estimates of costs. Comparability is maximised when the full range of costs to government is counted on a comparable basis. Where the full costs cannot be counted, comparability is achieved by estimating costs on a consistent basis.

Figure 6.23 **Female full time workload equivalent GPs per 100 000 females**



Source: table 6A.30.

The cost to government of total unreferred attendances to GPs per person is the only suggested efficiency indicator for GP services at this stage. This indicator should be interpreted with care, however, as a higher cost per person may reflect service substitution between primary care and acute hospital services or specialist services (the latter both potentially higher cost than primary care).

Nationally, the annual cost per person in 1999-2000 was $128 (figure 6.2 and table 6A.3). Commonwealth expenditure in that year was highest in NSW and SA ($136 and $130 per person respectively) and lowest in the NT ($66 per person). Since 1984-85, the real cost to the Commonwealth Government was highest in 1995-96 ($132 per person) (figure 6.2 and table 6A.3).

6.5 Future directions

The key challenges for the Steering Committee in future years are to: improve the reporting of GP services delivered to special needs groups, especially Indigenous people; and improve the reporting of indicators in the performance indicator frameworks.

Provision of GP services to people with special needs — Indigenous people

As noted in chapter 2, the Steering Committee decided to improve the reporting of Indigenous people's access to mainstream services. The discussion earlier in this chapter highlighted that GPs provide a diverse range of activities including

identifying, treating and assisting in the ongoing management of health care problems, and with providing referrals to other secondary health care providers. Commonwealth, State and Territory government support for this role is not inconsiderable, accounting for approximately $6.9 billion of recurrent expenditure in 1997-98. Yet estimates from Deeble *et al.* (1998) suggest that per person expenditure on Medicare services on non-Indigenous Australians is approximately five-times that expended on Indigenous Australians (table 5A.69). There is little other evidence of the level and type of services provided by GPs to Indigenous Australians. This represents a large gap in the understanding of Indigenous people's access to health services.

In future, the Review will seek to report against the access indicators endorsed by the Australian Health Minister's Advisory Council as part of the National Performance Indicators for Aboriginal and Torres Strait Islander Health (see 'Policy developments').

Existing indicators and framework

There are a number of gaps remaining in the reporting framework relating to appropriateness. These include the reporting of:

- acute illness management (separation rates for selected acute illnesses, such as severe ear, nose and throat infections, cellulitis, kidney/urinary tract infection and gastroenteritis);
- chronic illness management (separation rates for selected chronic illnesses, such as asthma, diabetes, and epilepsy); and
- prescribing and diagnosis (per person benefits for pharmaceuticals).

For each indicator, there is no benchmark to determine what constitutes an appropriate rate. Similarly, there is no benchmark for an appropriate level of prescribing rates for antidepressants and anxiolytic drugs.

There are several health care providers participating in the National Cervical Cancer Screening program. Data are presented on the participation rate of women in cervical cancer screening, but what is not clear is the relative contribution of GPs in the provision of screening.

It is the objective of the Review to improve the reporting of these indicators in the future.

Quality

No routinely collected data relating to patient satisfaction as an indicator of the quality of GP services are available at present. Definitional problems surrounding this indicator still exist (box 6.2). Nevertheless, patients' views of, or complaints about, medical practice could be used as a proxy measure of dissatisfaction.

Box 6.2 **Measuring satisfaction in general practice**

A report prepared by Hill and Draper (1995) for the Consumers' Health Forum explored the strengths and weaknesses of a range of consumer feedback mechanisms in general practice. A number of projects funded by the General Practice Evaluation Program sought to develop consumer satisfaction surveys that could be used as a surrogate measure of quality. The fact that most of these surveys found a high level of satisfaction caused some concern within the consumer group, not because consumers were generally not satisfied with general practice, but because this result meant that the mechanism could not contribute to an ongoing quality improvement process.

As Hill and Draper note, while satisfaction is an important issue, it is more important to discuss what troubles consumers and what causes dissatisfaction. They quote research showing that even small expressions of dissatisfaction translate into important factors affecting behaviour related to health care.

Some practical suggestions for improving satisfaction surveys included:

- asking about experiences rather than seeking judgements;
- conducting interviews rather than asking people to complete pre-coded questionnaires; and
- using discussion groups to develop questionnaires.

Finally it was recommended that feedback from surveys not be seen as a substitute by consumers in the planning and evaluation of service delivery.

While the quality movement is some way from the development of criteria for such a complex process, preliminary work has been undertaken to clarify and document consumer values and experiences.

Source: Hill and Draper (1995).

Patient safety is another potentially important source of quality data for general practice. There are no Australia-wide data available on the prevalence of harmful incidents in general practice, although some work has been done on the types of incidents occurring (box 6.3). The Steering Committee is hopeful that progress will be made in both these areas to enable future reporting.

Box 6.3 **Analysing potential harm in Australian general practice: an incident monitoring study**

Between October 1993 and June 1995, a study was conducted in Australia to collect data on incidents of potential or actual harm to general practice patients and to evaluate the possible causes of these incidents.[6] A non random sample of 324 GPs participated in the study and submitted 805 incident reports.

According to the results, 76 per cent of the incidents reported were considered preventable and 27 per cent had potential for severe harm. Major immediate consequences were reported in 17 per cent of incidents and 4 per cent resulted in the patient's death.

Incidents were grouped into pharmacological, non-pharmacological, diagnostic and equipment. Pharmacological incidents (such as use of inappropriate drugs, prescription error or administering error) were the most frequent and largely preventable (51 per 100 incidents). In contrast, diagnostic events (such as missed or delayed diagnosis) were less preventable and potentially more harmful (34 per 100 incidents). Of the 38 deaths reported, 30 involved a diagnostic incident.

Ineffective communication was a frequent contributing factor, with patients with mental health problems or poor or no English language skills particularly at risk.

While the study does not indicate the prevalence of incidents of potential or actual harm to general practice patients, it demonstrates some of the types of incidents occurring in Australian general practice. Limitations to the validity of the data include the non random sample, limited recognition of incidents, selectivity in reporting incidents and the lack of an alternative perspective (such as the patient's view).

Source: Bhasale, A., Miller, G., Reid., S., Britt, H. (1998) Analysing potential harm in Australian general practice: an incident monitoring study, *Medical Journal of Australia*, V 169, 20 July, p.73.

6 An incident was broadly defined as 'an unintended event, no matter how seemingly trivial or commonplace, that could have harmed or did harm a patient'. This criterion included near misses where the harm may have been averted but the potential for harm existed.

6.6 Definitions

Table 6.6 **Terms**

Term	*Definition*
Age standardised	Removing the effect of different age distributions (across jurisdictions or over time) when making comparisons, calculated by weighting the age-specific rates for each jurisdiction by the national age distribution.
Ambulatory services	Services provided by an acute care hospital to non-admitted patients.
Casemix adjustment	Adjustment of data on cases treated to account for the number and type of cases. Cases are sorted into diagnosis related groups that represent a class of patients with similar clinical conditions requiring similar hospital services.
Community health services	Health services for individuals and groups delivered in a community setting, rather than in hospitals or private facilities.
Consultations	The different types of services provided by GPs.
Divisions of general practice	Geographically based networks of GPs who provide peer support and promote links with the local community and other health professionals. In 1998, there were 123 Divisions in Australia. The Divisions of General Practice Program (DGPP) evolved from the former Divisions and Projects Grants Program established in 1992. Priorities include providing infrastructure to link GPs with government and other health service providers and the recruitment and the retention of GPs in rural areas. Around $64 million was provided by the Commonwealth in 1998-99 under the DGPP (DHAC 2000a, p.266).
Full time workload equivalents	A measure of medical practitioner supply based on claims processed by Medicare in a given period. The calculation is made by dividing the practitioner's Medicare billing by the mean billing of full time practitioners for that period. Full time equivalents (FTEs) are calculated in the same way as full time workload equivalents.
General practice	The organisational structure in which one or more GPs provide and supervise health care for a 'population' of patients. This definition includes medical practitioners who work solely with one specific population such as women's health and Indigenous health.
General practitioner	Medical practitioners who, for the purposes of Medicare, are vocationally registered under section 3F of the *Health Insurance Act 1973* (Cwlth), hold fellowship of the Royal Australian College of General Practitioners or equivalent, or hold a recognised training placement.
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; and problems associated with adherence to treatment; and liaison with or referral to other agencies.
Other medical practitioner	A medical practitioner other than a recognised general practitioner who has at least half of the schedule fee value of his/her Medicare billing from 'other non-referred attendance items'.
Other specialist	A medical practitioner not classified as general practitioner, other medical practitioner or recognised specialist who undertakes a majority of specialist work, but who is not formally recognised as a specialist by Medicare. Also includes specialists with recognition in one field but working in an unrelated field.

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Table 6.6 **(continued)**

Pap smear	A procedure for the detection of cancer and pre-cancerous conditions of the female genital tract.
Primary care	Essential health care based on practical, scientifically sound and socially acceptable methods made universally accessible to individuals and families in the community.
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).
Preventive interventions	Programs designed to decrease the incidence, prevalence and negative outcomes of disorders.
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 health care services.
Psychiatrist	Medical practitioner with specialist training in psychiatry.
Reasons for encounter	The expressed demand of the patient for care as perceived and recorded by the GP.
Recognised general practitioner	A vocationally registered general practitioner, a Fellow of the Royal Australian College of General Practitioners or equivalent, or a general practice registrar in a training placement.
Recognised immunisation provider	A provider recognised by the Health Insurance Commission 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.
Unreferred attendances	GP services, emergency attendances after hours, other prolonged attendances, group therapy and acupuncture. All attendances for specialist services are excluded as these must be 'referred' to receive Medicare reimbursement.
Vocational registration	A formal training program that promotes quality in general practice. Vocationally registered GPs are registered separately from other non-specialist practitioners for Medicare purposes, and receive higher Medicare benefits for services.

Table 6.7 **Indicators**

Indicator	*Definition*
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 Australian Standard Vaccination Schedule for that age group.

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Table 6.7 **(continued)**

Indicator	*Definition*
Fully immunised at 12 months	A child that has completed three doses of Diptheria, Tetanus, Pertussis containing vaccine, three doses of Oral Polio Vaccine, three doses of HbOC (HibTITER) (or two doses of PRP-ONP (PedvaxHIB)) and one dose of measles, Mumps, Rubella.
Fully immunised at 24 months	A child that has received four doses of Diptheria, Tetanus, Pertussis containing vaccine, three doses of Oral Polio Vaccine, four doses of HbOC (HibTITER) (or three doses of PRP-ONP (PedvaxHIB)) and one dose of Measles, Mumps, Rubella.
Notifications of selected childhood diseases	Number of cases of measles, pertussis and Haemophilus influenzae type b notified by State and Territory health authorities.
Cervical cancer screening rates for target population	Proportion of women screened against cervical cancer in the age group 20–60 years.
Prescribing rates for mental illness	Number of GP scripts per 1000 persons for anti depressants and anxiolytics.
Standardised separation rates for selected conditions often not requiring secondary treatment	Age and sex standardised hospital separation rates for myringotomy and tonsillectomy.
Standardised separation rates for selected conditions often requiring secondary treatment	Age and sex standardised hospital separation rates for hip replacements, lens insertion and angioplasty.
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-ordered diagnostic imaging	Total benefits paid for diagnostic imaging tests ordered by GPs divided by the population.
Proportion of practices with electronic information management systems	Number of practices with electronic prescribing and/or electronic connectivity, registered under the Practice Incentive Program, divided by the total number of practices registered.
Proportion of practices registered for accreditation	Number of practices that have registered for accreditation through Australian General Practice Accreditation Limited divided by the total number of practices in the Divisions of General Practice.
Proportion of GPs with vocational registration	Number of full time workload equivalent GPs who are vocationally registered divided by the total number of full time workload equivalent GPs.
Non-specialist attendances that are bulk billed	Number of unreferred attendances that are bulk billed and provided by non-specialist medical practitioners divided by the total number of unreferred attendances.
Non-specialist medical practitioners by region	Number of full time workload equivalent non-specialist medical practitioners practising in capital cities, other metropolitan centres and rural/remote areas, divided by the total number of FWE non-specialists.
Proportion of GPs who are female	Number of all full time workload equivalent GPs who are female divided by the total number of full time workload equivalent GPs.
Cost to government per unreferred attendance	Cost to the Commonwealth Government of total unreferred attendances by non-specialist medical practitioners per 1000 population.