### **CHAPTER 4**

## **HEALTH SERVICES: PROVISION, ACCESS AND USE**

INTRODUCTION

This Chapter focuses on the provision of health services, their level of accessibility, and the extent to which they are used. Health services include primary care services such as those provided by general practitioners, nurses and allied health professionals, as well as acute care provided in hospitals, and specialist services, such as those provided by obstetricians and eye specialists. These services may be provided in a range of settings including community health centres and clinics, doctors' rooms and hospitals.

Health expenditure patterns are used to examine health service provision by governments and utilisation of services by clients, while aspects of access to health services are examined in relation to the distances clients must travel to access services and facilities. A range of other factors that affect access are also addressed, including affordability and the composition of the health and community service workforce. A section on the use of health services provides information on the activity of Commonwealth funded Aboriginal primary health care services, and services provided by general practitioners and information about the use of hospital services. Detailed information about community services is presented in Chapter 5.

There are a number of difficulties in quantifying the provision of, access to and use of health services by Aboriginal and Torres Strait Islander peoples. The quality of administrative data sources is affected by the accuracy with which Indigenous people are identified in health service records (Chapter 11). Administrative data are collected by all providers of health services including Commonwealth, state, territory and local governments, community organisations and some private sector providers. The reasons for data collections are as diverse as the providers themselves. Generally there is a lack of comparability and consistency across collection methods and data items, which makes a comprehensive examination of service use difficult.

The accuracy of the Indigenous population estimates and projections, used in the calculation of rates, will also affect the accuracy of the rates presented here. Refer to Chapter 11 for information on the difficulties associated with estimating and projecting the Indigenous population.

# PROVISION OF HEALTH **SERVICES**

Expenditure on health services

Examining expenditure on health services is one way of understanding the way health services are delivered and used. Expenditure reflects not only differing client needs and preferences, but differing levels of access and modes of delivery that have developed in response to various policies and strategies. The 2001 edition of this publication included information on expenditure on health services for Indigenous and non-Indigenous peoples for 1998-99. New estimates of health expenditure on Indigenous peoples are produced every three years and will not be available until 2004. The information presented here describes slightly different aspects of health expenditure to that reported in the 2001 edition.

In 1998-99, an estimated \$1,245m was spent on health services for Aboriginal and Torres Strait Islander peoples, and translates into \$3,065 for each Indigenous person, compared with \$2,518 for each non-Indigenous person. This spending was financed by Commonwealth, state, territory and local government sources as well as by private funding sources such as patients or private health insurance (AIHW 2001b). The difference in health expenditure between Indigenous and non-Indigenous peoples is less than would have been expected, given the much poorer health status of Aboriginal and Torres Strait Islander peoples.

The pattern of health expenditure varied between Indigenous and non-Indigenous peoples. More money per person was spent on Indigenous peoples, compared with non-Indigenous peoples, in community and public health, patient transport, public hospital services (both admitted and non-admitted patient services), mental health institutions and government administration and research. The situation was reversed in the case of private hospitals, Medicare, the Pharmaceutical Benefits Scheme (PBS) and high level residential aged care where, on average, less was spent on Indigenous peoples.

Expenditures through government programs constitute the bulk of health expenditure for Aboriginal and Torres Strait Islander peoples (95%), whereas for non-Indigenous peoples these programs comprise 74% of health expenditure (table 4.1). Almost half of the total expenditures on Indigenous Australians are through public hospitals.

#### 4.1 ESTIMATED HEALTH EXPENDITURES PER PERSON, BY PROGRAM — 1998-99

Source: AIHW 2001b.

|  | Per person<br>Indigenous | Per person<br>non-Indigenous | Ratio Indigenous/ |
|--|--------------------------|------------------------------|-------------------|
|  | \$                       | \$                           | non-Indigenous    |
| Expenditures through government programs                         |                          |                              |                   |
| Acute-care institutions  |                          |                              |                   |
| Admitted patient services  | 1 125                    | 558                          | 2.0               |
| Non-admitted patient services                                    | 307                      | 139                          | 2.2               |
| Mental health institutions                                       | 64                       | 25                           | 2.5               |
| Public hospitals   | 1 496                    | 722                          | 2.1               |
| High-care residential aged care                                  | 99                       | 209                          | 0.5               |
| Community and public health                                      | 874                      | 170                          | 5.1               |
| Patient transport  | 106                      | 31                           | 3.4               |
| Medicare(a) and other medical                                    | 179                      | 468                          | 0.4               |
| PBS medicines  | 61                       | 195                          | 0.3               |
| Administration and research                                      | 101                      | 72                           | 1.4               |
| Total  | 2 917                    | 1 868                        | 1.6               |
| Expenditures on private sector services                          |                          |                              |                   |
| Private hospitals  | 25                       | 222                          | 0.1               |
| Dental and other professional                                    | 42                       | 213                          | 0.2               |
| Non-PBS medicines and appliances                                 | 66                       | 144                          | 0.5               |
| Medical (compensable, etc.)                                      | 11                       | 37                           | 0.3               |
| Administration   | 5                        | 34                           | 0.1               |
| Total  | 148                      | 650                          | 0.2               |
| Total  | 3 065                    | 2 518                        | 1.22              |
| (a) Includes Medicare optometrical and dental as well as medical | al services.             |                              |                   |

The Northern Territory was estimated to have the highest per capita government expenditure on health services for Indigenous peoples (\$3,208), followed by Western Australia (\$2,772), the Australian Capital Territory (\$2,431) and South Australia (\$2,350) (table 4.2). The jurisdictions with the highest per capita expenditure tended to be those with a higher proportion of Indigenous people living in remote areas, and this may explain some of the difference.

4.2 ESTIMATED STATE AND TERRITORY GOVERNMENT EXPENDITURES ON HEALTH SERVICES(a) — 1998–99

|                              | Indigenous | Non-Indigenous |          |
|------------------------------|------------|----------------|----------|
|                              | \$         | \$             | Ratio(b) |
| New South Wales              | 1 829      | 1 011          | 1.8      |
| Victoria                     | 1 444      | 828            | 1.7      |
| Queensland                   | 2 014      | 861            | 2.3      |
| South Australia              | 2 350      | 935            | 2.5      |
| Western Australia            | 2 772      | 929            | 3.0      |
| Tasmania                     | 1 638      | 861            | 1.9      |
| Northern Territory           | 3 208      | 1 139          | 2.8      |
| Australian Capital Territory | 2 431      | 950            | 2.6      |
| Australia(c)                 | 2 205      | 920            | 2.4      |

<sup>(</sup>a) Estimated recurrent expenditure per person through state and territory authorities.

Source: AIHW 2001b.

<sup>(</sup>b) Ratio is equal to Indigenous expenditure per person divided by non-Indigenous expenditure per person.

<sup>(</sup>c) Total of state and territory government expenditures across Australia.

## ACCESS TO HEALTH **SERVICES**

The accessibility of health services for Aboriginal and Torres Strait Islander peoples is affected by a number of factors. These include affordability; distance to and availability of health professionals, services and facilities; the availability of transport to access services; the degree of proficiency in English of patients and the cultural appropriateness of service delivery.

Although much of the focus of the following information relates to the limited access to health services of Aboriginal and Torres Strait Islander peoples who live in rural and remote areas, Indigenous peoples who live in metropolitan areas also suffer from poor access to culturally appropriate services.

# Availability of health professionals, services and facilities

The supply of medical professionals per head of population (both Indigenous and non-Indigenous) tends to decrease with increasing geographic remoteness. In 1999, there were about 2-3 times as many medical practitioners, nurses and pharmacists per person in capital cities as in the most remote areas, and about seven times as many medical specialists per person in capital cities than in remote areas (table 4.3). This limits access to health services for people in rural and remote areas. A higher proportion of Indigenous peoples than of the total Australian population, live in rural and remote areas.

#### 4.3 HEALTH PROFESSIONALS PER 100,000 PERSONS — 1999(a)

|                             | Capital<br>cities | Other<br>metropolitan<br>areas | Large<br>rural<br>centres | Small<br>rural<br>centres | Other<br>rural<br>areas | Remote centres | Other<br>remote<br>areas | Australia |
|-----------------------------|-------------------|--------------------------------|---------------------------|---------------------------|-------------------------|----------------|--------------------------|-----------|
| Medical practitioners       |                   |                                |                           |                           |                         |                |                          |           |
| Primary care practitioners  | 121               | 105                            | 105                       | 95                        | 79                      | (b)75          | _                        | 110       |
| Medical specialists         | 113               | 83                             | 115                       | 48                        | 8                       | (b)15          | _                        | 90        |
| Total medical practitioners | 317               | 248                            | 275                       | 163                       | 93                      | (b)115         | _                        | 264       |
| Nurses<br>Pharmacists       | 1 160             | 1 233                          | 1 789                     | 1 328                     | 910                     | (b)452         | _                        | 1 179     |
| Community pharmacists       | 67                | 61                             | 68                        | 60                        | 50                      | 32             | 26                       | 62        |
| Total pharmacists           | 87                | 71                             | 81                        | 68                        | 53                      | 38             | 31                       | 79        |

<sup>(</sup>a) Classifications are based on the Rural, Remote and Metropolitan Areas Classification (Department of Primary Industries and Energy and Department of Human Services and Health 1994).

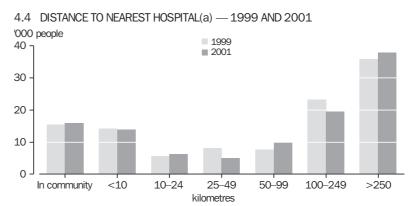
Source: AIHW 2003f, AIHW 2003g, AIHW 2003h.

Distance to health services in discrete Aboriginal and Torres Strait Islander communities Detailed information about the distance to, and the availability of, health services for people living in discrete Indigenous communities is collected in the Community Housing and Infrastructure Needs Survey (CHINS). The 2001 CHINS collected data concerning a total of 1,216 discrete communities with a combined population of approximately 109,000 (ABS 2002d). Approximately 85% of these people lived in Very Remote regions of Australia (see Glossary). Drawing from the CHINS data collection, the following section illustrates the number of people in discrete communities and the distances these communities are located from specified health facilities and services.

<sup>(</sup>b) Data refer to both remote centres and other remote areas combined.

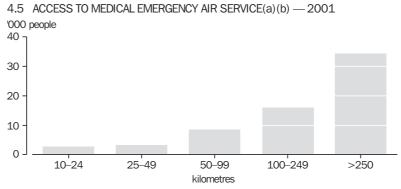
Distance to health services in discrete Aboriginal and Torres Strait Islander communities continued

In 2001, over two-thirds (841 communities or 69%) of all discrete Indigenous communities were located 100 kilometres or more from the nearest hospital, representing 53% (57,222) of the reported population living in discrete Indigenous communities. Approximately half (51%) of these communities that were located 100 kilometres or more from the nearest hospital reported having access to a medical emergency air service. These communities accounted for 50,278 people, which is 88% of surveyed people living in communities located 100 kilometres or more from the nearest hospital (graph 4.5).



(a) Persons living in discrete Indigenous communities. Excludes communities that did not state distance.

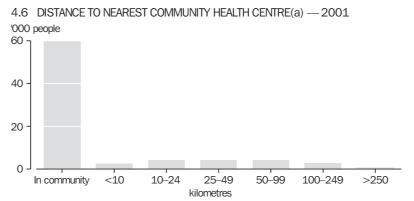
Source: ABS 2002d.



- (a) Persons living in discrete Indigenous communities. Excludes communities that did not state distance.
- (b) Excludes communities located less than 10 kilometres from the nearest hospital. Source: ABS 2002d.

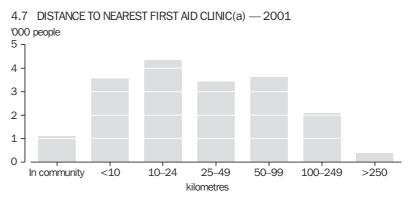
The following graphs show the distance to community health centres (graph 4.6), first aid clinics (graph 4.7) and chemists or dispensaries (graph 4.8) for communities that were located 10 kilometres or more from the nearest hospital. This represented 1,087 of the communities surveyed, with a total population of 78,382.

Distance to health services in discrete Aboriginal and Torres Strait Islander communities continued Community health centres were more likely to be located near or within Indigenous communities than were hospitals. There were 62,518 people (281 communities) who either had a health centre within their community, or were located within 10 kilometres of a community health centre. Of the 15,864 people (806 communities) that were located 10 kilometres or more from either a hospital or a community health centre, 3,255 people (174 communities) were located 100 kilometres or more away from either a hospital or a community health centre (graph 4.6).



(a) Persons living in discrete Indigenous communities. Excludes 'not stated' and communities that have a hospital located in or within 10 kilometres of the community. Source: ABS 2002d.

For the 132 communities (4,662 people) that were 10 kilometres or more from a hospital and did not have a community health centre, first aid clinics were located in, or less than 10 kilometres away from, the community. Of the 772 communities (13,818 people) that were more than 10 kilometres away from a first aid clinic, 151 communities (2,453 people) were located 100 kilometres or more from the nearest first aid clinic (graph 4.7).

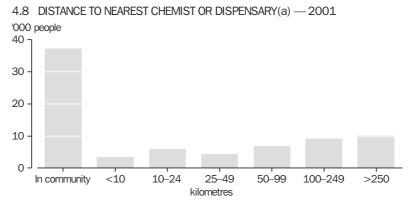


(a) Persons living in discrete Indigenous communities. Excludes 'not stated' and communities with a community health centre located within them, or that have a hospital located in or within 10 kilometres

Source: ABS 2002d.

Distance to health services in discrete Aboriginal and Torres Strait Islander communities continued

Furthermore, a total of 19,190 people in 390 communities were located 100 kilometres or more from the nearest chemist or dispensary (graph 4.8), although it should be noted that some health centres also act as dispensaries.



(a) Persons living in discrete Indigenous communities. Excludes 'not stated' and communities that have a hospital located in or within 10 kilometres of the community. Source: ABS 2002d.

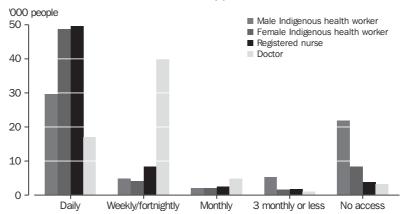
Health professionals and health promotion programs in remote communities While distance to various health services provides one measure of access, lack of transport can often mean that comparatively short distances are an impediment to service usage. For this reason, the frequency with which various health workers worked in the community was examined for 242 communities with a reported population of 50 or more which were located 10 kilometres or more from the nearest hospital (ABS 2002d). These communities had a total population of 66,197. The following graphs refer to these communities. If a health professional regularly visits or works in a community this is referred to as 'access to'. 'No access' means the communities in question did not receive any visits from relevant health professionals, and that there were none working in the community.

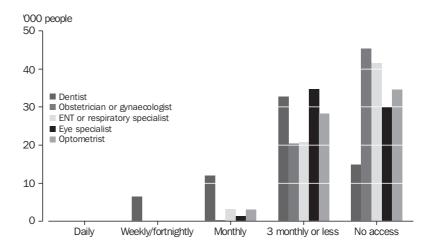
Graph 4.9 shows how frequently people living in the 242 communities surveyed by CHINS, that had 50 or more people and were 10 kilometres or more from the nearest hospital, had the services of a variety of health professionals.

Very few communities (26 with a total population of 16,997) had daily access to a doctor, although in 140 communities (total population 40,046) a doctor was available either weekly or fortnightly. Compared to the 1999 CHINS, doctors were practising on a more frequent basis in remote communities.

In 125 communities (total population 48,679) there was daily access to a female Indigenous health worker, however, there was no access to a male Indigenous health worker in 117 communities (total population 21,887). Access to a health professional of the same sex has been found to be an important factor in ensuring that health services provided are culturally appropriate (Ivers et al. 1997).

## 4.9 ACCESS TO HEALTH PROFESSIONALS(a) — 2001







(a) Persons living in discrete Indigenous communities. Communities with a population of 50 or more. Excludes 'not stated'.

Note: Some data values = 0.

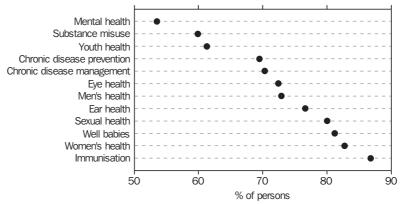
Source: ABS data available on request, 2001 CHINS.

Health professionals and health promotion programs in remote communities continued There were 193 (80%) communities (total population 45,331) with no access to an obstetrician-gynaecologist, 180 (74%) communities (total population 41,610) with no access to an ENT specialist, 145 (60%) communities (total population 34,641) with no access to an optometrist and 139 (57%) communities (total population 29,999) with no access to an eye specialist. The number of communities with no access to a dentist (99, total population 14,846) decreased from 1999 (105, total population 13,619) to 2001, while the number of communities with dentists working in the community weekly or fortnightly increased from 1999 to 2001.

A number of communities had no access to podiatrists (205 communities, 85%), physiotherapists (146 communities, 60%), drug and alcohol workers (129 communities, 53%), dieticians (118 communities, 49%) and mental health professionals (113 communities, 47%).

Graph 4.10 shows the percentage of people from communities with a population of 50 or more, that were located 10 kilometres or more from the nearest hospital, who had access to health promotion programs in operation. The most commonly conducted programs were immunisation, women's health and 'well babies' programs.

## 4.10 ACCESS TO HEALTH PROMOTION PROGRAMS(a) — 2001



(a) Persons living in discrete Indigenous communities. Communities with a population of 50 or more located 10 kilometres or more from the nearest hospital. Excludes 'not stated' Source: ABS data available on request, 2001 CHINS.

Other factors affecting access As discussed above, a range of physical, economic, cultural and personal factors can affect one's access to services. In this section, information is presented about some of these factors, including availability of transport, affordability, possession of private health insurance, proficiency in English, the involvement of Indigenous people in the provision of services, and community control of services.

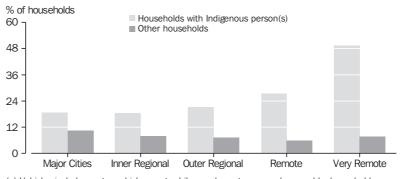
Transportation

The availability of roadworthy vehicles and the condition and proximity of roads and airstrips are some of the physical factors that can affect a person's access to health and other services. Data are available from the 2001 Census on the number of vehicles per household. As was discussed in Chapter 2, households with Indigenous person(s) are larger on average than Other households, and this may result in greater stress on the vehicles in households with Indigenous person(s).

Transportation continued

As shown in graph 4.11, households with Indigenous person(s) were more likely than Other households to be without a vehicle in 2001. The proportion of households with Indigenous person(s) without a vehicle was 22.7%, compared with 9.6% of Other households. Households with Indigenous person(s) in the Remote and Very Remote regions were most likely to report having no vehicle. The opposite trend in vehicle access was shown for Other households, with highest access to a vehicle greatest among dwellings in the Very Remote areas.

4.11 HOUSEHOLDS WITHOUT VEHICLES, BY REMOTENESS(a)(b) — 2001



(a) Vehicles includes motor vehicles, motor bikes and scooters owned or used by household members, garaged or parked at or near private dwellings on Census night.

Source: ABS data available on request, 2001 Census of Population and Housing,

(b) See Glossary for definition of households with Indigenous person( $\bar{s}$ ) and Other households.

Households with Indigenous person(s) in the Northern Territory and Western Australia were the most likely to report no vehicle. The largest difference between households with Indigenous person(s) and Other households in terms of vehicle access was also evident in these states (table 4.12).

4.12 DWELLINGS WITHOUT VEHICLES(a)(b) — 2001

|                              | Households with<br>Indigenous<br>person(s) | Other<br>households | Total<br>households |
|------------------------------|--|---------------------|---------------------|
|                              | %  | %                   | %                   |
| New South Wales              | 22.7                                       | 11.6                | 11.8                |
| Victoria                     | 16.0                                       | 8.8                 | 8.9                 |
| Queensland                   | 22.4                                       | 8.5                 | 8.9                 |
| South Australia              | 20.8                                       | 9.7                 | 9.9                 |
| Western Australia            | 23.9                                       | 7.1                 | 7.5                 |
| Tasmania                     | 11.7                                       | 9.8                 | 9.8                 |
| Northern Territory           | 40.3                                       | 7.1                 | 13.1                |
| Australian Capital Territory | 13.1                                       | 7.1                 | 7.1                 |
| Australia                    | 22.7                                       | 9.6                 | 9.8                 |

<sup>(</sup>a) Vehicles includes motor vehicles, motor bikes and scooters owned or used by household members, garaged or parked at or near private dwellings on Census night. Excludes 'not stated'.

Source: ABS data available on request, 2001 Census of Population and Housing.

<sup>(</sup>b) See Glossary for definition of households with Indigenous person(s) and Other households.

Transportation continued

The data on vehicles per household suggest that non-Indigenous peoples have better access to personal transport than Indigenous peoples and would therefore be more readily able to reach a health facility or service. Public transportation may compensate for the lack of personal transport and clinics may provide a transport service for their patients, but these services are not available everywhere.

Affordability

Many privately provided health services involve direct out-of-pocket payments by patients. These impact more on people with limited economic means and, given the generally poorer economic position of Aboriginal and Torres Strait Islander peoples (Chapter 2), the effect is likely to be greater on Aboriginal and Torres Strait Islander peoples than other Australians. Examples of this are services provided by dentists, physiotherapists and other health professionals not covered by Medicare, and pharmaceuticals not covered by the PBS. These do not attract subsidies from governments and, therefore, patients meet out-of-pocket fees when they are accessed. Other services — for example, medical services covered by Medicare and pharmaceuticals covered by the PBS although subsidised, can also involve out-of-pocket expenditures, which restrict the access of people in lower socioeconomic groups.

In the case of medical services, although they are subsidised under Medicare, if the services are not bulk-billed patients can face co-payments. In the quarter to March 2003, 67.9% of medical services were bulk-billed (DHA 2003). Bulk-billing rates are generally lower in rural and remote areas than in capital cities or other metropolitan centres (SCRCSSP 2003). Patients who are not bulk-billed are usually required to pay the full fee at the time of service and can then seek a refund from Medicare. This, however, means that they must first be able to pay for the service. This is further exacerbated by the fact that some practitioners charge fees above the Medicare Benefits Schedule fee. requiring larger gap payments, which are generally borne by the patients.

People who are prescribed drugs under the PBS are also required to make out-of-pocket co-payments. The amount that a patient needs to find is adjusted to some extent in accordance with the patient's ability to pay — different co-payments apply to concession card holders, pensioners and general patients. The PBS also has safety net provisions that protect individuals and families from large overall expenses for PBS medicines.

Private health insurance

Lack of health insurance is a barrier to accessing private hospitals as well as those health professionals who work solely or primarily within the private health system. In the 2001 National Health Survey (NHS), non-Indigenous adults aged 18 years or more living in non-remote areas were three times more likely to report having private health insurance (including hospital and/or ancillary cover) than Indigenous adults (51% compared with 17%). People aged 45-54 years reported the highest level of private health insurance (table 4.13). The large gap between the Indigenous and non-Indigenous populations is due, at least in part, to the relative economic disadvantage of Indigenous Australians, as discussed in Chapter 2.

|                                  |       |       |           |       |       |       | Age group   | (years) |
|----------------------------------|-------|-------|-----------|-------|-------|-------|-------------|---------|
|                                  | 18–24 |       |           | 25–44 |       | 45–54 | 55 and over |         |
|                                  | '000  | %     | '000      | %     | '000  | %     | '000        | %       |
|                                  |       | IND   | IGENOUS   |       |       |       |             |         |
| With private health insurance    | *4    | *10   | 14        | 16    | 8     | 31    | *5          | *20     |
| Without private health insurance | 34    | 89    | 76        | 84    | 18    | 69    | 19          | 80      |
| Total(b)                         | 38    | 100   | 90        | 100   | 27    | 100   | 23          | 100     |
|                                  |       | NON-I | NDIGENOUS |       |       |       |             |         |
| With private health insurance    | 626   | 36    | 2 789     | 50    | 1 652 | 65    | 1 984       | 50      |
| Without private health insurance | 1 072 | 62    | 2 737     | 50    | 888   | 35    | 1 964       | 50      |
| Total(b)                         | 1 725 | 100   | 5 529     | 100   | 2 541 | 100   | 3 950       | 100     |

<sup>(</sup>a) Excludes persons living in remote areas.

Source: ABS data available on request, 2001 National Health Survey.

## Language

Limited proficiency in English is another potential barrier to accessing services. In the 2001 Census, about 15% of Indigenous peoples reported that they spoke a language other than English at home. This figure includes 12.1% who said they spoke an Indigenous language at home (Chapter 2) and 2.5% who said they spoke another language or for whom the language was not adequately described.

People who do not speak English at home may not have the same proficiency in English as those who do speak it at home. In 2001, 26% of Indigenous peoples who spoke an Indigenous language at home were reported to speak English 'not well' or 'not at all'. This group represented 3% of all Indigenous peoples.

Not being able to speak, read and write English proficiently can mean that some Indigenous peoples find it difficult to approach services such as health and welfare. They may therefore miss out on important information and entitlements and may have difficulty reading and completing forms (House of Representatives Standing Committee on Aboriginal and Torres Strait Islander Affairs 1993). More information about language, including where Indigenous languages are spoken, is presented in Chapter 2.

<sup>(</sup>b) Includes private health insurance 'not known'.

Other cultural barriers

Measurement of the accessibility of health services involves other factors besides the distance people must travel and the financial costs incurred (Ivers et al. 1997). The perception of cultural barriers may cause Indigenous peoples to travel substantial distances in order to access health services delivered in a more appropriate manner than those available locally (Ivers et al. 1997). The willingness of Indigenous peoples to access health services may be affected by such factors as community control of the service, the gender of health service staff, and the availability of Aboriginal and Torres Strait Islander staff, particularly where the degree of proficiency in spoken and written English is limited (Ivers et al. 1997). Aboriginal and Torres Strait Islander peoples who speak English as a second language and those who speak Aboriginal English — a separate dialect from standard Australian English — often experience difficulty in approaching services such as hospitals to obtain information and treatment (House of Representatives Standing Committee on Aboriginal and Torres Strait Islander Affairs 1993).

CURRENT AND FUTURE INDIGENOUS HEALTH AND **COMMUNITY SERVICES** WORKFORCE

This section presents information about the participation of Indigenous peoples in the health, welfare and community service workforce, and in higher education courses in health and welfare related fields. The availability of Aboriginal and Torres Strait Islander staff is an important factor in whether or not Indigenous peoples are able to effectively access services (Ivers et al. 1997).

In 2000–01, 67% of the full-time equivalent positions in Commonwealth-funded Aboriginal primary health care services were held by Aboriginal and Torres Strait Islander peoples. Most Aboriginal health workers (97%), field officers and drivers (94%), substance misuse workers (93%) and environmental health workers (96%) were Aboriginal and/or Torres Strait Islander peoples. Most doctors (98%), nurses (87%), allied health professionals (89%) and dentists (88%) were non-Indigenous (DHA & NACCHO unpublished).

The health workforce

In the 2001 Census, Indigenous adults (15 years and over) were less likely (1.5%) than non-Indigenous adults (3.1%) to be employed in health-related occupations (table 4.14). The coding of occupation was based on answers to Census questions on occupation title and the main tasks usually performed. This information was then used to classify occupation according to the second edition of the Australian Standard Classification of Occupations (ABS 1996, ABS 1997a).

At the time of the 2001 Census, 1,114 Indigenous persons were working as nursing professionals or enrolled nurses, and 800 were working as personal carers and nursing assistants. After nursing, the most common health-related profession for Indigenous people was Aboriginal and Torres Strait Islander health worker, with 853 Indigenous peoples indicating this profession. Aboriginal and Torres Strait Islander health workers may be employed as specialists in such areas as alcohol, mental health, diabetes, eye and ear health, and sexual health, or they may work as generalist members of primary care teams, or as hospital liaison officers.

#### EMPLOYMENT IN HEALTH-RELATED OCCUPATIONS(a) — 2001 4.14

|  |       | Indi                     | genous persons                                      |         | Non-Indigenous persons(b) |   |  |  |
|--|-------|--------------------------|---|---------|---------------------------|---|--|--|
|  |       | Proportion of population | Proportion of persons in health-related occupations |         | Proportion of population  | Proportion of persons in health-related occupations |  |  |
|  | no.   | %                        | %   | no.     | %                         | %   |  |  |
| Medical practitioners                                | 90    | _                        | 2.4   | 48 119  | 0.3                       | 10.7  |  |  |
| Nursing professionals                                | 912   | 0.4                      | 24.1  | 170 694 | 1.2                       | 38.1  |  |  |
| Enrolled nurses                                      | 202   | 0.1                      | 5.3   | 19 296  | 0.1                       | 4.3   |  |  |
| Personal care and nursing assistants                 | 800   | 0.3                      | 21.1  | 50 216  | 0.3                       | 11.2  |  |  |
| Aboriginal and Torres Strait Islander health workers | 853   | 0.3                      | 22.5  | 62      | _                         | _   |  |  |
| Miscellaneous health professionals(c)                | 159   | 0.1                      | 4.2   | 66 074  | 0.5                       | 14.7  |  |  |
| Dental associate professionals                       | 17    | _                        | 0.5   | 4 571   | _                         | 1.0   |  |  |
| Dental assistants                                    | 125   | 0.1                      | 3.3   | 12 971  | 0.1                       | 2.9   |  |  |
| Occupational and environmental health workers        | 141   | 0.1                      | 3.7   | 6 682   | 0.1                       | 1.5   |  |  |
| Ambulance officers and paramedics                    | 83    | _                        | 2.2   | 6 636   | 0.1                       | 1.5   |  |  |
| Health services managers                             | 73    | _                        | 1.9   | 6 475   | _                         | 1.4   |  |  |
| Other(d)   | 310   | 0.1                      | 8.2   | 56 516  | 0.4                       | 12.6  |  |  |
| Total(e)   | 3 787 | 1.5                      | 100.0   | 448 479 | 3.1                       | 100.0   |  |  |

<sup>(</sup>a) Persons aged 15 years and over.

Source: ABS data available on request, 2001 Census of Population and Housing.

Indigenous adults were less likely than other adults in every state and territory to be employed in health-related occupations in 2001 (table 4.15).

# 4.15 EMPLOYMENT IN HEALTH-RELATED OCCUPATIONS, BY JURISDICTION(a) — 2001

|  | NSW            | Vic.           | Qld           | SA            | WA            | Tas.          | NT           | ACT          | Aust.(b)       |
|--|----------------|----------------|---------------|---------------|---------------|---------------|--------------|--------------|----------------|
|  |                | INDIG          | ENOUS         |               |               |               |              |              |                |
| Persons in health-related occupations (no.)                                  | 1 233          | 296            | 1 045         | 216           | 470           | 155           | 341          | 31           | 3 787          |
| Proportion of the population (%)   | 1.7            | 1.9            | 1.6           | 1.5           | 1.3           | 1.6           | 1.1          | 1.4          | 1.5            |
|  |                | NON-INDI       | GENOUS(c      | :)            |               |               |              |              |                |
| Persons in health-related occupations (no.) Proportion of the population (%) | 145 353<br>2.9 | 115 629<br>3.1 | 82 471<br>3.1 | 38 847<br>3.3 | 44 350<br>3.2 | 11 087<br>3.1 | 3 695<br>3.5 | 7 008<br>2.9 | 448 479<br>3.1 |

<sup>(</sup>a) Persons aged 15 years and over. Health occupations include those listed in table 4.14. Excludes those whose occupation was not stated.

Source: ABS data available on request, 2001 Census of Population and Housing.

<sup>(</sup>b) Includes persons for whom Indigenous status was not stated.

<sup>(</sup>c) Includes dental practitioners, pharmacists, occupational therapists, optometrists, physiotherapists, speech pathologists, chiropractors and osteopaths, podiatrists, medical imaging professionals, dietitians, natural therapy professionals and other health professionals.

<sup>(</sup>d) Includes anatomist or physiologist, medical scientist, biomedical engineer, health information manager, clinical psychologist, medical technical officers, massage therapists, primary products inspectors, safety inspectors, admissions clerks, therapy aides, natural remedy consultants, and weight loss consultants.

<sup>(</sup>e) Includes persons whose occupation was coded as associate professional but was 'not further defined'.

<sup>(</sup>b) Includes Other Territories.

<sup>(</sup>c) Includes persons for whom Indigenous status was not stated.

The welfare and community services workforce Indigenous persons in the 2001 Census were more likely to report being employed in selected welfare and community service-related occupations (table 4.16) than in health-related occupations (table 4.14). About 2.7% of those employed in community and welfare service-related occupations were Indigenous, and employed Indigenous adults were more likely than non-Indigenous adults to be employed in community and welfare-related occupations (2.7% compared with 1.6%).

4.16 EMPLOYMENT IN WELFARE AND COMMUNITY SERVICE-RELATED OCCUPATIONS(a) — 2001

|                                    |       | In                       | digenous persons  |         | Non-Indig                | enous persons(b)  |
|------------------------------------|-------|--------------------------|---|---------|--------------------------|---|
|                                    |       | Proportion of population | Proportion of<br>persons in<br>welfare and<br>community<br>service-related<br>occupations |         | Proportion of population | Proportion of<br>persons in<br>welfare and<br>community<br>service-related<br>occupations |
|                                    | no.   | %                        | %   | no.     | %                        | %   |
| Child care coordinators            | 70    | _                        | 1.1   | 6 370   | _                        | 2.7   |
| Pre-primary school teachers        | 131   | 0.1                      | 2.0   | 14 036  | 0.1                      | 5.9   |
| Special education teachers         | 158   | 0.1                      | 2.4   | 11 595  | 0.1                      | 4.9   |
| Children's care workers            | 1 428 | 0.6                      | 21.7  | 66 880  | 0.5                      | 28.1  |
| Education aides(c)                 | 204   | 0.1                      | 3.1   | 14 871  | 0.1                      | 6.3   |
| Other carers and aides(d)          | 1 417 | 0.6                      | 21.5  | 58 228  | 0.4                      | 24.5  |
| Social workers                     | 166   | 0.1                      | 2.5   | 8 959   | 0.1                      | 3.8   |
| Welfare and community workers      | 1 473 | 0.6                      | 22.4  | 24 950  | 0.2                      | 10.5  |
| Counsellors                        | 131   | 0.1                      | 2.0   | 3 809   | _                        | 1.6   |
| Welfare associate professionals(e) | 851   | 0.3                      | 12.9  | 17 386  | 0.1                      | 7.3   |
| Other(f)                           | 526   | 0.2                      | 8.0   | 9 608   | 0.1                      | 4.0   |
| Total(g)                           | 6 592 | 2.7                      | 100.0   | 237 674 | 1.6                      | 100.0   |

<sup>(</sup>a) Persons aged 15 years and over.

Source: ABS data available on request, 2001 Census of Population and Housing.

The proportion of adults employed in welfare and community services-related occupations was higher for Indigenous adults than for non-Indigenous adults in every state and territory (table 4.17).

<sup>(</sup>b) Includes persons for whom Indigenous status was not stated.

<sup>(</sup>c) Includes pre-school aides and integration aides.

<sup>(</sup>d) Includes hostel parents, child or youth residential care assistants, refuge workers, aged or disabled person carers and carers and aides not further defined.

<sup>(</sup>e) Includes parole or probation officers, youth workers, residential care officers, disabilities services officers and family support workers.

<sup>(</sup>f) Includes welfare centre managers and social security inspectors.

<sup>(</sup>g) Includes persons whose occupation was coded as 'social welfare professional, not further defined'.

#### EMPLOYMENT IN WELFARE AND COMMUNITY SERVICE-RELATED OCCUPATIONS, BY JURISDICTION(a) — 2001 4.17

|  | NSW    | Vic.   | Qld    | SA     | WA     | Tas.  | NT    | ACT   | Aust.(b) |
|--|--------|--------|--------|--------|--------|-------|-------|-------|----------|
|  |        | INDI   | GENOUS |        |        |       |       |       |          |
| Persons in welfare-related occupations (no.) | 1 830  | 503    | 1 773  | 490    | 942    | 205   | 774   | 69    | 6 592    |
| Proportion of the population (%)             | 2.5    | 3.3    | 2.6    | 3.4    | 2.7    | 2.1   | 2.4   | 3.2   | 2.7      |
| NON-INDIGENOUS(c)                            |        |        |        |        |        |       |       |       |          |
| Persons in welfare-related occupations (no.) | 70 429 | 64 374 | 45 532 | 20 867 | 22 282 | 6 697 | 2 381 | 5 097 | 237 674  |
| Proportion of the population (%)             | 1.4    | 1.7    | 1.7    | 1.8    | 1.6    | 1.9   | 2.2   | 2.1   | 1.6      |

<sup>(</sup>a) Persons aged 15 years and over. Welfare and community service occupations include those listed in table 4.16. Excludes those whose occupation was not stated.

Source: ABS data available on request, 2001 Census of Population and Housing.

Undergraduate studies in health, welfare and community service-related courses

Table 4.18 presents information about tertiary students who completed or commenced a course in a health or welfare field in the years 2000 and 2001 respectively. Indigenous students made up a larger proportion of all undergraduate students enrolled in welfare-related courses (2.6%) than those enrolled in health-related courses (1.4%). In the health-related field, most Indigenous enrolments were in health support activities and public health (e.g. public health and Indigenous health) (36%) and nursing (29%). Most enrolments of Indigenous students in welfare-related courses were in the field of early childhood education (33%), welfare studies (30%) and social work (16%). Overall in 2000, 165 Indigenous students completed health-related undergraduate courses, and 72 completed welfare-related courses, representing 1.3% and 1.2% respectively of all students completing undergraduate courses in these fields. In 2000, eight Indigenous students completed a degree in medicine, and 99 were enrolled in a medical undergraduate course in 2001.

The numbers of Indigenous students commencing and completing health and welfare-related courses in 2000 increased over 1999 completions (Appendix 3). The number of students commencing health and welfare related courses was also higher in 2001 than 2000. It is difficult to determine if these are real increases or if they are due to a change in classification from 'field of study' to 'field of education'.

<sup>(</sup>b) Includes Other Territories.

<sup>(</sup>c) Includes persons for whom Indigenous status was not stated.

#### INDIGENOUS UNDERGRADUATE STUDENTS IN HEALTH AND WELFARE-RELATED COURSES(a) — 2000-01 4 18

|  | 20      | 00 completions                     | 2001 commencements |                                     |  |
|--|---------|------------------------------------|--------------------|-------------------------------------|--|
|  |         | ndigenous as a<br>portion of total |                    | Indigenous as a proportion of total |  |
|  | no.     | %                                  | no.                | %                                   |  |
|  | HEALTH  |                                    |                    |                                     |  |
| Medical studies(b)                             |         |                                    |                    |                                     |  |
| Medical science                                | 1       | 0.2                                | 5                  | 0.3                                 |  |
| Medicine                                       | 7       | 0.6                                | 27                 | 1.3                                 |  |
| Total medical science, medicine                | 8       | 0.5                                | 32                 | 0.9                                 |  |
| Dental studies(c)                              | 2       | 0.8                                | 1                  | 0.4                                 |  |
| Health support activities and public health(d) | 94      | 12.3                               | 211                | 16.5                                |  |
| Health sciences and technologies(e)            |         |                                    |                    |                                     |  |
| Nursing  | 41      | 0.7                                | 101                | 1.3                                 |  |
| Other  | 8       | 0.4                                | 2                  | 0.1                                 |  |
| Total  | 49      | 2.6                                | 103                | 1.0                                 |  |
| Allied health(f)                               | 11      | 0.6                                | 8                  | 0.3                                 |  |
| Other(g)                                       | 1       | 0.2                                | 64                 | 1.8                                 |  |
| Total health                                   | 165     | 1.3                                | 419                | 2.0                                 |  |
|  | WELFARE |                                    |                    |                                     |  |
| Counselling(h)                                 | 1       | 0.9                                | 5                  | 2.9                                 |  |
| Social work                                    | 18      | 1.5                                | 40                 | 2.0                                 |  |
| Psychology                                     | 11      | 0.6                                | 23                 | 0.6                                 |  |
| Welfare studies(i)                             | 7       | 2.3                                | 76                 | 6.4                                 |  |
| Early childhood education(j)                   | 25      | 1.8                                | 121                | 4.6                                 |  |
| Special education(k)                           | 2       | 0.7                                | 3                  | 1.4                                 |  |
| Other(I)                                       | 8       | 1.1                                | 33                 | 1.9                                 |  |
| Total welfare                                  | 72      | 1.2                                | 301                | 2.6                                 |  |

- (a) For Indigenous students, 2000 completions based on 'field of study'; 2001 commencements based on 'field of education'.
- (b) Includes medical science and medicine in 2000. Includes medical science, medical studies, general medicine, surgery, psychiatry, obstetrics and gynaecology, paediatrics, anaesthesiology, pathology, radiology, internal medicine, general practice, medical studies not elsewhere classified, complementary therapies, naturopathy, acupuncture, traditional Chinese medicine and complementary therapies not elsewhere classified, in 2001.
- (c) Includes dentistry and dental therapy in 2000. Includes dentistry, dental assisting, dental technology and dental studies not elsewhere classified, in
- (d) Includes health support activities (general), health administration, health surveying and environmental health, and health support activities (other), in 2000. Includes public health, occupational health and safety, environmental health, Indigenous health, health promotion, community health, epidemiology and public health not elsewhere classified, in 2001.
- (e) Includes health sciences and technologies (general), nursing (basic), nursing (post-basic), medical radiography, medical technology, nutrition and dietetics, optometry, pharmacy, and health sciences and technologies (other), in 2000. Includes nursing, pharmacy, optical science, radiography and nutrition and dietetics, in 2001.
- (f) Includes rehabilitation therapies, physiotherapy, occupational therapy, chiropractic and osteopathy, speech pathology, audiology, massage therapy, podiatry rehabilitation therapies not elsewhere classified.
- (g) Includes nurse and health educators education, health-general and veterinary science, in 2000. Includes health, veterinary studies, veterinary science, veterinary assisting, other health, human movement, paramedical studies, first aid and health not elsewhere classified, in 2001.
- (h) Includes educational counselling, health counselling and other counselling.
- (i) Includes welfare studies and human welfare studies not elsewhere classified.
- (j) Includes early childhood education and post-initial early childhood education.
- (k) Includes initial special teacher education and post-initial special teacher education.
- (I) Includes children's services, youth work, care for the aged, care for the disabled, residential client care and behavioural science.

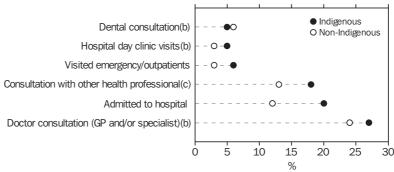
Source: Department of Education, Science and Training, unpublished data, Higher Education Student Statistics Collection.

### USE OF HEALTH SERVICES

Self-reported information on the use of health services is available from the 2001 NHS, including information for Indigenous Australians from the NHS Indigenous component (NHS(I)) (ABS 2002f, ABS 2002e). Respondents were asked about health-related actions they had taken in the previous two weeks (apart from hospital admissions which related to the previous 12 months). Although there are some limitations with self-reported data (e.g. people may have reported actions that occurred outside the two-week time frame), the reporting of actions is generally straightforward, as no specialised knowledge (such as a diagnosis) is required. It should be noted that both the NHS and NHS(I) are sample surveys and are therefore subject to sampling error. In addition, as the NHS was conducted over a 10 month period while the NHS(I) was conducted over a 6 month period, seasonal effects may be exaggerated for the NHS(I) sample. Therefore, reported differences between the two populations should be interpreted with caution.

After adjusting for age differences, in 2001 Indigenous Australians were more likely to have taken at least one health-related action (53%) than non-Indigenous Australians (47%). For both Indigenous and non-Indigenous peoples, the most commonly reported recent health action was consultation with a doctor. Indigenous peoples were more likely to consult with a health professional other than a doctor or dentist, to attend hospital, either as admitted patients or outpatients, or to seek emergency or day clinic services, than non-Indigenous peoples (graph 4.19). However, because the sample error associated with the estimate for consultations with doctors and dentists, it can not be stated with confidence that there is any difference between the Indigenous and non-Indigenous population in their likelihood to have consulted these professionals.

### 4.19 HEALTH RELATED ACTIONS BY INDIGENOUS STATUS(a) — 2001



<sup>(</sup>a) Hospital admissions relate to the 12 months prior to interview. All other health-related actions relate to the two weeks prior to interview

Source: ABS 2002e.

<sup>(</sup>b) Difference between Indigenous and non-Indigenous data is not statistically significant.

<sup>(</sup>c) Data collected for non-remote areas only.

<sup>(</sup>d) Includes Aboriginal health worker, nurse, chemist, social worker/welfare officer, accredited counsellor, actupuncturist, alcohol and drug worker, audiologist, chiropodist/podiatrist, dietician/nutritionist, herbalist, hypnotherapist, naturopath, occupational therapist, osteopath, psychologist and speech therapist/pathologist.

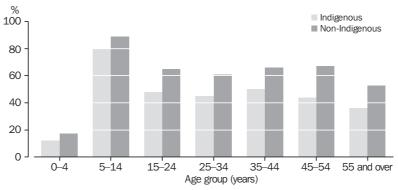
USE OF HEALTH SERVICES continued

Indigenous peoples in remote areas were more likely to be admitted to hospital (21%) or visit emergency or outpatients departments (9%) than Indigenous peoples in non-remote areas (19% and 5% respectively). Some people may use hospitals rather than general practitioners for their primary health care for a variety of reasons.

About 5% of Indigenous peoples reported that they had visited a dentist in the two weeks prior to the survey. The reporting of recent consultations does not necessarily represent routine and preventative care, but this is also of interest. Indigenous peoples in every age group were less likely to have visited a dentist in the last two years than non-Indigenous peoples (graph 4.20). Reporting a visit within the last two years was most common among children of school age, which is probably due to the impact of school dental health programs in many jurisdictions.

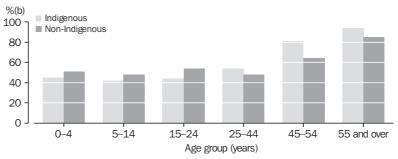
Self-reported information on the use of medications among people with selected health conditions is also available from the NHS. Those health conditions for which medication use was investigated were asthma, cancer, heart and circulatory conditions and diabetes. Indigenous Australians with these selected health conditions were less likely than non-Indigenous Australians to have used medication in the two weeks prior to interview — 60% reported medication use, compared with 68% of non-Indigenous Australians (graph 4.21). In the older age groups, reported use of medication was higher among Indigenous Australians than among non-Indigenous peoples.

4.20 PEOPLE REPORTING DENTIST VISITS WITHIN THE LAST TWO YEARS - 2001



Source: ABS 2002e.

### 4.21 PERSONS USING MEDICATIONS FOR SELECTED CONDITIONS(a), BY AGE OF RESPONDENT — 2001



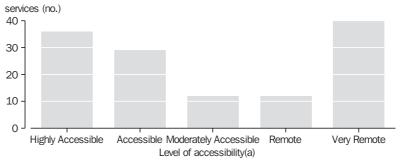
(a) Medication taken in the two weeks prior to interview, as reported by respondent. Limited to medication used for selected long term and current conditions (asthma, cancer, cardiovascular condition(s), and diabetes/high sugar levels). Excludes medication used for mental wellbeing. (b) Proportion of all respondents reporting that a doctor/nurse had advised them that they currently had a long-term condition of asthma, cancer, cardiovascular conditions and/or diabetes. Source: ABS data available on request, 2001 NHS.

Community controlled

health services

Health services that are initiated, controlled and operated by the Indigenous community have the potential to increase the level of access to health services for Aboriginal and Torres Strait Islander peoples by providing holistic and culturally appropriate care. A study by Keys Young (1997) found that some of the reasons for this might include the provision of services at no cost, a sense of ownership, the staff being likely to speak the local language, the centres playing a social role, and the provision of a wide range of services. In 2000-01, the Office for Aboriginal and Torres Strait Islander Health in the former Commonwealth Department of Health and Aged Care funded 129 Aboriginal primary health care services that had responsibility for providing or facilitating access to primary health care. Graph 4.22 shows the location of these services throughout Australia. (See Chapter 2 for more information on the distribution of the Aboriginal and Torres Strait Islander population.)

4.22 DISTRIBUTION OF COMMONWEALTH FUNDED ABORIGINAL PRIMARY HEALTH CARE SERVICES — 2000-01

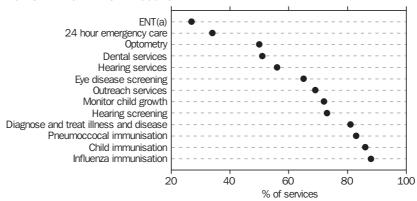


(a) See DHAC 2001b.

Source: OATSIH (2000-01) administrative data.

Community controlled health services continued Graph 4.23 shows the proportion of services offering various types of clinical care screening programs, preventative health care activities, and health related and community support services. In addition to these roles and activities, Aboriginal Community Control Health Services (ACCHS) provide health promotion activities, social and emotional wellbeing services, substance misuse services, counselling and health-related community support roles such as men's and women's support groups, transport to medical appointments and school-based activities.

4.23 COMMONWEALTH FUNDED ABORIGINAL PRIMARY HEALTH CARE SERVICES ROLES AND ACTIVITIES - 2000-01



(a) Ear, nose and throat specialist services. Source: OATSIH (2000-01) administrative data.

In 2000–01 an estimated 1,340,000 episodes of health care were provided by ACCHS, 90% of which were to Aboriginal and Torres Strait Islander clients. Approximately 40% of all episodes of care were provided to males and around 60% to females.

General practice

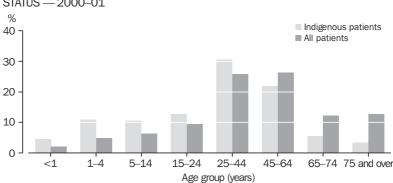
Some information about the extent to which general practitioners (GPs) are used by both Indigenous and non-Indigenous peoples is available from a survey being undertaken by the University of Sydney and the Australian Institute of Health and Welfare. Known as Bettering the Evaluation And Care of Health (BEACH), the survey is a study of general practice activity in Australia.

BEACH is conducted through a random sample of about 1,000 general practitioners per year, each of whom records the details of 100 consecutive GP-patient encounters. Details include patient reasons for each consultation, problems managed, medications and other treatments, referrals made, and tests ordered. Patient demographic information is also recorded, including each patient's self-reported Indigenous status. The GPs also record information about themselves and their practice.

General practice continued

The results presented here are for April 2001 to March 2002. There were 96,973 encounters, of which 982 (1%) were for Indigenous patients. This is low, relative to the proportion of Indigenous peoples in the total population (2.4% at 30 June 2001). These lower figures may be the result of lower use of private GP services by Indigenous peoples, where other services such as Aboriginal primary health care services exist, failure by GPs to record the Indigenous status of patients, or reluctance of patients to identify as Indigenous. Other reasons may also include the geographic distribution of GPs not reflecting that of the Indigenous population, or Indigenous peoples using other services such as hospital emergency departments or pharmacists' advice. For the 2002-03 collection, a substudy is being undertaken to try to assess the extent to which these figures are likely to be an under-representation of the true attendance rates of Indigenous peoples.

Indigenous patients were significantly younger than the total sample of patients encountered, the proportion of patients aged less than 15 years being 26% compared with 13% in the total data set. Only 9% of encounters were for Indigenous patients aged 65 years or over, compared with 25% in the total sample (graph 4.24). This reflects the younger age structure of the Indigenous population (Chapter 2). Almost 70% of Indigenous patients held a Health Care Card, compared with 42% in the total sample (Britt et al. 2002).



4.24 AGE DISTRIBUTION OF PATIENTS AT GP ENCOUNTERS BY INDIGENOUS STATUS - 2000-01

Source: Britt et al. 2002.

Hypertension, diabetes, asthma, upper respiratory tract infection, immunisation and acute bronchitis/bronchiolitis were the six most frequent problems managed by GPs for Indigenous people. The six most common problems managed for the total sample were hypertension, upper respiratory tract infection, immunisation, depression, diabetes and lipid disorder. The management rate of diabetes was about double the average rate (6.0 per 100 Indigenous encounters compared with 3.1 for the total data set). The rate of management of acute otitis media was also notable at 3.0 per 100 encounters (compared with 1.3 on average), as was the rate of impetigo (2.1 per 100 compared with 0.2) and pregnancy (2.0 per 100 compared with 0.9) (Britt et al. 2002).

### 4.25 GENERAL PRACTITIONER ABORIGINAL HEALTH CLINICS PROJECT

South Coast Medical Service, New South Wales The Shoalhaven area is situated on the south coast of New South Wales. It covers approximately 4,566 square kilometres and includes communities south of Gerringong and north of Ulladulla. Nowra is a rural town within the Shoalhaven region. Approximately 3.3% of Shoalhaven residents are Indigenous, which is above the average for the state.

Aboriginal community controlled health services in the Shoalhaven area include: South Coast Medical Service, Waminda Aboriginal Women's Health Centre, Oolong Aboriginal Corporation Drug and Alcohol Rehabilitation Service, and Rose Mumbler Retirement Village. Mainstream services include GP services and hospitals. Aboriginal access to mainstream services, particularly the primary health care services, is very low.

In 1999, the Shoalhaven Division of General Practice, in partnership with the South Coast Medical Service, undertook a health needs assessment to identify and respond to the major health concerns of the Aboriginal community. As a result, a General Practitioner Aboriginal Health Clinic was established. The aim of the intervention was to increase the accessibility of general practice health services and to improve local health outcomes for the Aboriginal community.

Accepted as fundamental to the collaborative partnership were the need for:

- Aboriginal self-determination and community control
- facilitation of strong collaboration between the Aboriginal Medical Service and the GP Division
- parties to consult and reach agreed positions in relation to Aboriginal health policy, and planning and resource allocation in operating the clinics
- health services to be provided in a culturally appropriate way.

One objective was to provide additional GP services outside the practitioner's surgery in a culturally appropriate setting, to enable the Aboriginal community to take charge of its own health. Another aim was to increase opportunities for appropriate, more efficient referral systems between GPs and other health services.

One of the first initiatives was training for GPs. This included not only training in management of common Indigenous health problems but also in cultural awareness ('A sorry state', The Australian Doctor, 26 January 2001, 27-31).

Before the intervention, many local Aboriginal women had felt apprehensive using health services as they had clear memories of being made to feel unwelcome at the local hospital only a generation ago. Women were therefore reluctant, for example, to use the mainstream health services for screening procedures or other preventative activities.

Aboriginal Health Workers (AHWs) were found to be crucial in community education, population health, contacting and transporting women to clinical services, acting as chaperone during Pap smear testing and, in some areas, collecting the smear specimens themselves. As a result of the project, AHWs are now successfully involved with these activities.

...continued

### 4.25 GENERAL PRACTITIONER ABORIGINAL HEALTH CLINICS PROJECT continued

A total of 59 clinic sessions were held during the period between July 1999 and March 2000, with 423 visitations and 191 new patients recorded, attesting to the success of the intervention. The South Coast Medical Service found that half the people now accessing GPs did not have a regular practitioner before the pilot program began.

Source: Case Study from South Coast Medical Service, 2000, cited in Department of Health and Aged Care ed. (2001), 'Better Health Care: Studies in the Successful Delivery of Primary Health Care Services for Aboriginal and Torres Strait Islander Australians', Commonwealth of Australia, Canberra.

## Alcohol and other drug treatment services

Information on the use of alcohol and other treatment services by Aboriginal and Torres Strait Islander persons is available from the Alcohol and Other Drug Treatment Services National Minimum Data Set (AODTS-NMDS). The information collected by the AODTS-NMDS is a nationally agreed set of common data items collected by service providers for clients registered for treatment (AIHW 2002a). Data for 2000-01, the first year of collection, are presented here.

There were 6,571 clients (7.9%) who identified themselves as being of Aboriginal and/or Torres Strait Islander origin in the 2000-01 collection (table 4.26). This is a higher proportion than the overall proportion of Indigenous peoples in the total Australian population. However, because a significant proportion of clients (8.5%) were recorded with a 'not stated' Indigenous status the Indigenous proportion should be reported with caution as it may be an under-count of the actual number of Indigenous clients in treatment. These figures also do not include the majority of Commonwealth-funded Indigenous substance use services (41 agencies) or a number of Aboriginal Health Services that also provide treatment for alcohol and other drug problems. These services are generally not under the jurisdiction of the state or territory health authority and the Commonwealth currently only reports NMDS data from one specific program. In addition, both of these services have a different collection basis to the NMDS. As a result, most of these data are not currently included in the AODTS-NMDS collection.

#### CLIENT REGISTRATIONS IN ALCOHOL AND DRUG TREATMENT SERVICES BY AGE GROUP(a) — 2000-01 4.26

|                   |       | ndigenous | Non-Ir | ndigenous(b) | Total  |       |  |
|-------------------|-------|-----------|--------|--------------|--------|-------|--|
| Age group (years) | no.   | %         | no.    | %            | no.    | %     |  |
| 10–19             | 1 185 | 1.4       | 10 656 | 12.8         | 11 841 | 14.2  |  |
| 20–29             | 2 341 | 2.8       | 27 806 | 33.3         | 30 147 | 36.1  |  |
| 30–39             | 1 943 | 2.3       | 19 532 | 23.4         | 21 475 | 25.7  |  |
| 40–49             | 716   | 0.9       | 11 477 | 13.7         | 12 193 | 14.6  |  |
| 50–59             | 223   | 0.3       | 4 825  | 5.8          | 5 048  | 6.0   |  |
| 60 and over       | 40    | _         | 1 522  | 1.8          | 1 562  | 1.9   |  |
| Not stated        | 123   | 0.1       | 1 140  | 1.4          | 1 263  | 1.5   |  |
| Total             | 6 571 | 7.9       | 76 958 | 92.1         | 83 529 | 100.0 |  |

<sup>(</sup>a) Excludes Queensland.

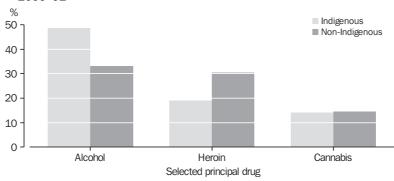
Source: AIHW 2002a.

<sup>(</sup>b) Includes those clients who identified as non-Indigenous and those for whom Indigenous status was not stated, (8.5%).

Alcohol and other drug treatment services continued

Despite the limitations, there were interesting differences between Indigenous and non-Indigenous substance-using clients for the most common principal drug of concern. Indigenous clients were more likely to nominate alcohol as their principal drug of concern (49%) compared with non-Indigenous clients (33%) (graph 4.27). By contrast, 19% of Indigenous clients reported heroin as their principal drug of concern compared with 30% of non-Indigenous clients.

4.27 SUBSTANCE USERS, SELECTED PRINCIPAL DRUG OF CONCERN -2000-01



Source: AIHW 2002a.

Hospital services

Hospital services are a major component of expenditure on health services for Aboriginal and Torres Strait Islander persons. In 1998-99, \$467m was spent on admitted patient services, representing 38% of all health expenditure for Indigenous Australians. In that same period, 31% of all health expenditure for non-Indigenous persons was spent on admitted patient services (AIHW 2001b).

While information on hospitalisation can provide insights into the health of the population they represent, the reasons for which persons are hospitalised and the procedures they may undergo in hospital, they are not necessarily indicators of the health of the total community. Hospitalisation statistics are limited to information about the conditions for which persons are admitted to hospital, thereby excluding information regarding those who have made use of other health services, such as GPs and community health clinics, and those who have not accessed health care at all. The number and pattern of hospital admissions can also be affected by the variation between hospitals in decisions about whether to admit patients or treat them as non-admitted patients, and information concerning non-admitted patients is not routinely reported. Other factors, such as the availability of and access to other medical services, may influence hospital utilisation. A rising rate of hospitalisation, for example, could mean that health status is deteriorating, or that access to hospitals has improved, or both.

### 4.28 IDENTIFICATION OF INDIGENOUS AUSTRALIANS IN HOSPITAL RECORDS

Analysis of hospital morbidity collections for Indigenous Australians is complicated by difficulties in estimating both the numbers of Indigenous patients admitted to hospital and the numbers in the overall population. Information concerning the numbers of Indigenous patients in hospital is limited by the accuracy with which they are identified in hospital records. Problems associated with identification will result in an understatement of morbidity patterns among Aboriginal and Torres Strait Islander persons.

Assessments of the level of completeness of Indigenous identification in hospital morbidity collections are provided annually by each state and territory to the Australian Institute of Health and Welfare. In 2000-01, only South Australia and the Northern Territory reported the quality of Indigenous status to be acceptable (AIHW 2002b).

While there are no national estimates of the level of completeness of coverage of Indigenous identification in hospital morbidity collections, a number of studies indicate that Indigenous persons are under-identified in hospital records. Other studies have demonstrated that the rate at which hospitals correctly record Indigenous status varied from as low as 44% complete in some hospitals, to 100% complete in others (Shannon et al. 1997; Lynch & Lewis 1997; ATSIHWIU 1999). Western Australia and the Northern Territory have calculated estimates from data quality audits. The Health Department of Western Australia undertook an assessment of hospital data involving 10,000 patients in 26 hospitals. Results from this project indicated that 86% of hospital records had an accurate indication of Indigenous status (Young 2001). In the Northern Territory, a 1997 data quality audit of all public hospitals showed a 94% agreement in Indigenous status responses recorded between hospital separation records and patient interviews (Condon et al. 1998).

Uncertainties regarding the accuracy of methods used to gather information about Indigenous persons also make it difficult to draw conclusions about changes occurring over time. Improvements in the identification of Indigenous patients can lead to higher apparent rates of hospitalisation. At present, it is not possible to ascertain whether a change in identified hospitalisation rates reflects changed Indigenous identification or a genuine change in hospital use.

In this publication, hospital separations by principal diagnosis and procedures for the 2000-01 reporting period are presented for all states and territories. With the exception of the Northern Territory, where only public hospital data were available, information from both public and private hospitals has been included in the National Hospital Morbidity Database. Complete information was not obtained from a few smaller public and private hospitals (AIHW 2002b). Principal diagnoses and procedures are classified according to the second edition of the International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification (ICD-10-AM) (NCCH 2000).

For hospitalisation data presented in this publication, where Indigenous status was not reported, the separation was regarded as being for a non-Indigenous patient. There were approximately 192,000 separations for which Indigenous status was not reported, compared to approximately 177,000 separations recorded as Indigenous. The proportion of records where Indigenous status was not reported declined from approximately 12% of separations in the National Hospital Morbidity Database in 1997-98 (AIHW 1999) to approximately 3% of separations in 2000-01.

Hospital separations

In Australia during 2000–01 there were 6.1 million hospital separations recorded. Separations where patients were recorded as Indigenous accounted for 177,407 or 2.9% of total separations. Indigenous males accounted for 2.7% of all male separations. Indigenous females accounted for 3.1% of all female separations. After adjusting for age, Indigenous males and females were about twice as likely to be hospitalised as non-Indigenous males and females. Indigenous males and females had higher separation rates when compared with non-Indigenous males and females in most states and territories. The rate of hospitalisation was two to four times as high for Indigenous persons living in the Northern Territory, Western Australia, South Australia and Queensland compared to non-Indigenous persons for these jurisdictions (table 4.29).

About 98% of Indigenous separations were recorded in public hospitals, compared with 62% of non-Indigenous separations. While Indigenous patients may be correctly identified less frequently in private hospitals than in public hospitals, the much lower proportions of separations for Indigenous patients in private hospitals largely reflects lower attendance at private hospitals by Indigenous patients.

These rates are influenced by the quality of the data on Indigenous status, which is likely to vary among the states and territories. Also some public and private hospitals are omitted from the data for some jurisdictions. For example, the restriction of Northern Territory data to only public hospitals is likely to understate the non-Indigenous hospitalisation rates and overstate the Indigenous to non-Indigenous separation rate ratios for that jurisdiction. The rates can also be influenced by variation among the jurisdictions in the health status of Indigenous persons and in their access to hospital services (AIHW 2002b).

| _                            | Indigenous | separations | Non-Indigenous separations(b) |            |                  |   |   |
|------------------------------|------------|-------------|-------------------------------|------------|------------------|---|---|
|                              |            |             |                               |            |                  | Proportion of<br>separations<br>identified as<br>Indigenous | Proportion of<br>the population<br>identified as<br>Indigenous(f) |
|                              | no.        | rate(c)(d)  | no.                           | rate(c)(d) | Rate<br>ratio(e) | %   | %   |
|                              |            |             | MALES                         |            |                  |   |   |
| New South Wales              | 15 591     | 375.2       | 870 255                       | 262.4      | 1.4              | 1.8   | 1.8   |
| Victoria                     | 2 706      | 315.4       | 733 749                       | 303.8      | 1.0              | 0.4   | 0.5   |
| Queensland                   | 21 044     | 579.3       | 537 355                       | 304.9      | 1.9              | 3.8   | 3.2   |
| South Australia              | 5 948      | 764.0       | 239 229                       | 303.4      | 2.5              | 2.4   | 1.6   |
| Western Australia(g)         | 15 144     | 712.6       | 268 989                       | 297.7      | 2.4              | 5.3   | 3.2   |
| Tasmania                     | 431        | 80.9        | 62 429                        | 261.4      | 0.3              | 0.7   | 3.5   |
| Northern Territory(h)        | 14 601     | 852.6       | 12 860                        | 204.2      | 4.2              | 53.2  | 27.1  |
| Australian Capital Territory | 447        | 1 130.0     | 32 648                        | 232.6      | 4.9              | 1.4   | 1.1   |
| Australia(i)                 | 76 194     | 550.5       | 2 769 027                     | 287.4      | 1.9              | 2.7   | 2.2   |
|                              |            |             | FEMALES                       |            |                  |   |   |
| New South Wales              | 19 200     | 425.4       | 1 009 019                     | 287.8      | 1.5              | 1.9   | 1.8   |
| Victoria                     | 4 083      | 473.0       | 857 432                       | 328.0      | 1.4              | 0.5   | 0.5   |
| Queensland                   | 28 515     | 701.0       | 603 727                       | 328.6      | 2.1              | 4.5   | 3.3   |
| South Australia              | 6 503      | 738.8       | 283 129                       | 342.6      | 2.2              | 2.2   | 1.6   |
| Western Australia(g)         | 22 021     | 964.7       | 305 753                       | 322.5      | 3.0              | 6.7   | 3.3   |
| Tasmania                     | 884        | 157.7       | 75 207                        | 302.5      | 0.5              | 1.2   | 3.5   |
| Northern Territory(h)        | 19 456     | 952.4       | 13 534                        | 226.2      | 4.2              | 59.0  | 29.4  |
| Australian Capital Territory | 357        | 236.6       | 36 563                        | 232.1      | 1.0              | 1.0   | 1.1   |
| Australia(i)                 | 101 213    | 657.7       | 3 191 907                     | 312.8      | 2.1              | 3.1   | 2.2   |

- (a) Based on place of usual residence. Data are for public and most private hospitals. No data were available for a number of small private hospitals and private free-standing day hospital facilities. Excludes separations for which sex was not stated.
- (b) Includes non-Indigenous separations and those for whom Indigenous status was not reported.
- (c) Per 1,000 population. Directly age-standardised using the total Australian population as at 30 June 1991.
- (d) The true rate of hospitalisation of Indigenous people in states and territories will be underestimated to the extent that Indigenous people are under-identified in the hospital records of those jurisdictions.
- (e) Rate ratio is equal to the rate of separations identified as Indigenous divided by the rate of non-Indigenous separations.
- (f) As estimated for 31 December 2000.
- (g) The Health Department of Western Australia suggests a correction factor of 1.09 for state level Indigenous counts, although this has not been applied to data presented in this table.
- (h) Public hospitals only
- (i) Includes those usually resident in other Australian territories or overseas, and those for whom place of usual residence was not stated.

Source: AIHW National Hospital Morbidity Database

The most common principal diagnosis (see Glossary) based on ICD-10-AM chapters for both Indigenous males and females in 2000-01 was 'Factors influencing health status and contact with health services'. The majority of these (88%) were for 'Care involving dialysis' which is used in the treatment of kidney failure. Indigenous males were also commonly hospitalised for injury and poisoning (12%), respiratory diseases (11%), digestive diseases (7%) and mental and behavioural disorders (6%). For Indigenous females, pregnancy and childbirth were important reasons for hospitalisation (16%), followed by respiratory diseases (8%), injury and poisoning (7%) and digestive diseases (5%). More detailed analysis of hospitalisations for specific diseases is discussed in Chapter 7.

Hospital separations continued As indicated by the rate ratios in table 4.30, for many principal diagnoses, the age-standardised separation rates for Indigenous persons were higher than the separation rates for non-Indigenous persons. Indigenous males were over six times more likely and Indigenous females over 12 times more likely to be hospitalised for a principal diagnosis of 'Care involving dialysis' than non-Indigenous males and females respectively. Similarly, Indigenous males and females were over three times more likely than non-Indigenous males and females to be hospitalised for a principal diagnosis of 'Endocrine, nutritional and metabolic diseases', which includes diabetes. Despite the under-identification of Indigenous persons in hospitalisation data, the data available indicate that the Indigenous population experiences a higher burden of illness and disease resulting in hospitalisation than does the rest of the population.

|   | Indigenous<br>separations |         | Proportion of<br>Indigenous<br>separations |         | Directly<br>age-standardised<br>rate(b) |         | Rate ratio(c) |         |
|---|---------------------------|---------|--|---------|---|---------|---------------|---------|
|   | Males                     | Females | Males                                      | Females |   |         |               |         |
|   | no.                       | no.     | %  | %       | Males                                   | Females | Males         | Females |
| Certain infectious and parasitic diseases   | 2 618                     | 2 672   | 3.4  | 2.6     | 10.6                                    | 11.4    | 2.3           | 2.6     |
| Neoplasms   | 937                       | 1 692   | 1.2  | 1.7     | 10.7                                    | 13.1    | 0.5           | 0.6     |
| Diseases of the blood and blood-forming organs & certain disorders involving the immune mechanism | 283                       | 523     | 0.4  | 0.5     | 2.1                                     | 3.7     | 0.7           | 1.2     |
| Endocrine, nutritional and metabolic diseases   | 1 578                     | 1 971   | 2.1  | 1.9     | 14.1                                    | 15.7    | 3.5           | 3.8     |
| Mental and behavioural disorders  | 4 583                     | 3 730   | 6.0  | 3.7     | 26.7                                    | 20.4    | 2.2           | 1.5     |
| Diseases of the nervous system  | 1 636                     | 1 186   | 2.1  | 1.2     | 11.5                                    | 7.3     | 1.6           | 1.2     |
| Diseases of the eye and adnexa  | 533                       | 674     | 0.7  | 0.7     | 6.4                                     | 7.2     | 0.9           | 0.9     |
| Diseases of the ear and mastoid process   | 968                       | 862     | 1.3  | 0.9     | 3.1                                     | 3.1     | 1.0           | 1.2     |
| Diseases of the circulatory system  | 3 298                     | 3 057   | 4.3  | 3.0     | 34.1                                    | 28.9    | 1.4           | 1.8     |
| Diseases of the respiratory system  | 7 976                     | 7 747   | 10.5                                       | 7.7     | 46.0                                    | 45.2    | 2.6           | 3.1     |
| Diseases of the digestive system  | 5 042                     | 5 304   | 6.6  | 5.2     | 34.6                                    | 32.7    | 1.0           | 0.9     |
| Diseases of the skin and subcutaneous tissue  | 2 611                     | 2 493   | 3.4  | 2.5     | 14.4                                    | 12.9    | 2.4           | 2.7     |
| Diseases of the musculoskeletal system and connective tissue                                      | 1 871                     | 1 673   | 2.5  | 1.7     | 12.9                                    | 11.6    | 0.7           | 0.8     |
| Diseases of the genitourinary system  | 1 379                     | 4 335   | 1.8  | 4.3     | 11.3                                    | 26.7    | 1.0           | 1.1     |
| Pregnancy, childbirth and the puerperium  |                           | 15 786  |  | 15.6    |   | 68.1    |               | 1.4     |
| Certain conditions originating in the perinatal period  | 1 203                     | 1 074   | 1.6  | 1.1     | 3.0                                     | 2.8     | 1.0           | 1.1     |
| Congenital malformations, deformations and chromosomal abnormalities                              | 494                       | 298     | 0.6  | 0.3     | 1.3                                     | 0.9     | 0.7           | 0.5     |
| Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified(d)        | 3 772                     | 4 516   | 5.0  | 4.5     | 27.1                                    | 27.7    | 1.7           | 1.5     |
| Injury, poisoning and certain other consequences of<br>external causes                            | 9 095                     | 7 184   | 11.9                                       | 7.1     | 48.6                                    | 38.3    | 1.9           | 2.3     |
| Factors influencing health status and contact with health services(e)                             |                           |         |  |         |   |         |               |         |
| Care involving dialysis   | 23 221                    | 30 136  | 30.5                                       | 29.8    | 207.6                                   | 251.8   | 6.6           | 12.6    |
| Other   | 2 867                     | 4 164   | 3.8  | 4.1     | 22.8                                    | 26.9    | 0.7           | 0.8     |
| Total   | 26 088                    | 34 300  | 34.2                                       | 33.9    | 230.4                                   | 278.7   | 3.6           | 5.3     |
| Not specified   | 229                       | 136     | 0.3  | 0.1     | 1.6                                     | 1.2     | 3.2           | 2.8     |
| Total (excluding 'Care involving dialysis')   | 52 973                    | 71 077  | 69.5                                       | 70.2    | 342.9                                   | 405.9   | 1.3           | 1.4     |
| Total (including 'Care involving dialysis')   | 76 194                    | 101 213 | 100.0                                      | 100.0   | 550.5                                   | 657.7   | 1.9           | 2.1     |

<sup>(</sup>a) Data are for public and most private hospitals. No data were available for a number of small private and private hospitals free-standing day hospital facilities. Excludes separations for which sex was not stated. Categories are based on the International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification (ICD-10-AM) (National Centre for Classification in Health 2000).

Source: AIHW National Hospital Morbidity Database.

Age-specific hospital separation rates in graph 4.31 show that at all ages, except for the 75 and over age group for males, higher separation rates were recorded for Indigenous patients than for non-Indigenous patients. The highest rate differences for both males and females were in the age groups between 35 and 64 years.

<sup>(</sup>b) Per 1,000 population. Directly age-standardised using the total Australian population as at 30 June 1991.

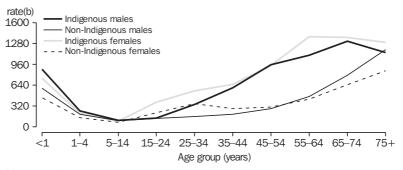
<sup>(</sup>c) Rate ratio is equal to the rate of Indigenous separations divided by the rate of non-Indigenous separations.

<sup>(</sup>d) Includes signs, symptoms and abnormal results of clinical or other investigative procedures that do not point conclusively to a specific diagnosis.

<sup>(</sup>e) Includes hospitalisation for 'Care involving dialysis', chemotherapy, radiotherapy and other reasons for contact that are not a disease or injury classified elsewhere.

Hospital separations continued The principal diagnosis, 'Care involving dialysis', was recorded for 30% of separations for Indigenous patients and 9% of separations among non-Indigenous patients. It is therefore useful to look at Indigenous-non-Indigenous comparisons of hospital separations both including and excluding 'Care involving dialysis'. After excluding separations where the principal diagnosis was 'Care involving dialysis' the differences were greatly reduced for the age groups 35-44 and above (graph 4.32). The overall rate ratio for both males and females was 1.4 (table 4.30).

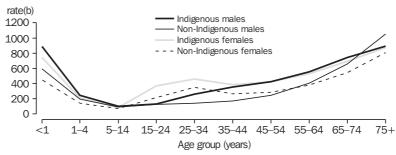
4.31 AGE-SPECIFIC HOSPITAL SEPARATION RATES(a)—2000-01



- (a) Data are for public and most private hospitals.
- (b) Per 1,000 population.

Source: AIHW National Hospital Morbidity Database.

4.32 AGE-SPECIFIC HOSPITAL SEPARATION RATES, EXCLUDING 'CARE INVOLVING DIALYSIS'(a) — 2000-01



- (a) Data are for public and most private hospitals.
- (b) Per 1,000 population.

Source: AIHW National Hospital Morbidity Database.

**Procedures** 

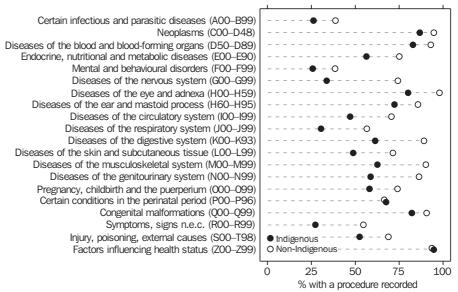
It is important to note that information on procedures in this publication is not comparable with that in previous editions of this publication, which only considered the formerly recognised concept of 'principal procedure', rather than all procedures. As one or more procedure can be reported for each separation, and all have equal 'status', the data presented in tables and graphs in this section and those presented in Chapter 7 refer to the total number of procedures reported. However, procedures are not undertaken during all hospital admissions, so only a proportion of the separation records includes procedure data. In 2000–01, 64% of Indigenous separations had a procedure recorded, compared with 79% of non-Indigenous separations.

Procedures continued

There were 4.8 million separations with a procedure reported in 2000-01, of which 2.3% (113,330) were recorded for Indigenous patients. Over half of all separations had more than one procedure performed, totalling about 10.9 million procedures in 2000-01. Just under 2% of all procedures were performed on Indigenous patients (200,060).

For almost all principal diagnoses chapters, Indigenous patients were less likely than non-Indigenous patients to have one or more procedures recorded (graph 4.33). Principal diagnoses of 'Certain conditions originating in the perinatal period' and 'Factors influencing health status and contact with health services' were the only exceptions to this. Graph 4.33 presents separations with one or more procedure recorded. The reasons why Aboriginal and Torres Strait Islander persons who are admitted to hospital are less likely to have a procedure recorded may include age, sex, area of residence, patient accommodation status, type of hospital and principal diagnosis (Cunningham 2002).

4.33 SEPARATIONS WITH A PROCEDURE RECORDED BY PRINCIPAL DIAGNOSIS(a)(b) - 2000-01



<sup>(</sup>a) Data are for public and most private hospitals.

(b) ICD-10-AM chapter names have been shortened. ICD-10-AM codes are provided to indicate disease groupings in each chapter. The full name of each ICD-10-AM chapter is included in Appendix 4. Source: AIHW National Hospital Morbidity Database.

On a population basis, the likelihood of an Indigenous person undergoing a procedure, including dialysis, in hospital was slightly greater nationally, and in the jurisdictions of Queensland, South Australia, Western Australia and the Northern Territory, than it was for other patients (table 4.34).

Procedures reported for

Procedures reported for Indigenous patients non-Indigenous patients(b)

|   | no.     | rate(c)(d) | no.       | rate(c)(d)     | Rate<br>ratio(e) | Proportion of<br>procedures<br>for<br>Indigenous<br>patients | Proportion of<br>the population<br>identified as<br>Indigenous(f) |  |  |  |
|---|---------|------------|-----------|----------------|------------------|--|---|--|--|--|
| MALES                                     |         |            |           |                |                  |  |   |  |  |  |
| New South Wales                           | 16 053  | 411.6      | 1 588 276 | 476.1          | 0.9              | 1.0  | 1.8   |  |  |  |
| Victoria                                  | 3 463   | 411.8      | 1 266 501 | 523.2          | 0.8              | 0.3  | 0.5   |  |  |  |
| Queensland                                | 22 420  | 624.5      | 928 391   | 525.2          | 1.2              | 2.4  | 3.2   |  |  |  |
| South Australia                           | 6 978   | 865.5      | 405 538   | 512.0          | 1.7              | 1.7  | 1.6   |  |  |  |
| Western Australia                         | 16 426  | 782.2      | 478 486   | 529.9          | 1.5              | 3.3  | 3.2   |  |  |  |
| Tasmania                                  | 776     | 155.8      | 109 445   | 455.2          | 0.3              | 0.7  | 3.5   |  |  |  |
| Northern Territory(g)                     | 18 044  | 1 049.5    | 22 074    | 359.5          | 2.9              | 45.0   | 27.1  |  |  |  |
| Australia (excluding<br>haemodialysis)(h) | 61 190  | 411.4      | 4 563 083 | 472.7          | 0.9              | 1.3  | 2.2   |  |  |  |
| Australia(h)                              | 85 077  | 624.8      | 4 877 153 | 504.6          | 1.2              | 1.7  | 2.2   |  |  |  |
| FEMALES                                   |         |            |           |                |                  |  |   |  |  |  |
| New South Wales                           | 20 576  | 475.4      | 1 873 024 | 525.4          | 0.9              | 1.1  | 1.8   |  |  |  |
| Victoria                                  | 5 313   | 611.4      | 1 520 997 | 572.9          | 1.1              | 0.3  | 0.5   |  |  |  |
| Queensland                                | 31 147  | 771.2      | 1 086 185 | 588.7          | 1.3              | 2.8  | 3.3   |  |  |  |
| South Australia                           | 8 146   | 904.6      | 486 102   | 584.2          | 1.5              | 1.6  | 1.6   |  |  |  |
| Western Australia                         | 25 552  | 1 092.2    | 585 967   | 617.0          | 1.8              | 4.2  | 3.3   |  |  |  |
| Tasmania                                  | 1 314   | 227.1      | 132 088   | 524.2          | 0.4              | 1.0  | 3.5   |  |  |  |
| Northern Territory(g)                     | 22 182  | 1 094.6    | 20 492    | 346.3          | 3.2              | 52.0   | 29.4  |  |  |  |
| Australia (excluding<br>haemodialysis)(h) | 84 080  | 491.9      | 5 571 401 | 540.9          | 0.9              | 1.5  | 2.2   |  |  |  |
| Australia(h)                              | 114 977 | 749.7      | 5 788 223 | 540.9<br>561.1 | 1.3              | 1.9  | 2.2   |  |  |  |
| Australia(II)                             | 114 311 | 1 73.1     | 3 100 223 | 301.1          | 1.5              | 1.5  | 2.2   |  |  |  |

<sup>(</sup>a) Based on place of usual residence. Data are for public and most private hospitals. No data were available for a number of small private and private free-standing day hospital facilities. Excludes procedures for patients for which sex was not stated.

Source: AIHW National Hospital Morbidity Database.

The most common types of procedure recorded for Indigenous persons in 2000-01 were 'Non-invasive, cognitive and interventions, not elsewhere classified'. A large proportion of procedures in this group was for allied health interventions such as physiotherapy and social work and for general anaesthesia and sedation. 'Procedures on the urinary system' was the second most common type of procedure for both males and females, the majority of which were for haemodialysis (table 4.35). Some 28% of procedures for Indigenous males and 27% for Indigenous females were for haemodialysis, a procedure which artificially performs the work of the kidneys in end-stage renal disease patients. For more detail on haemodialysis procedures and end-stage renal disease, see the section in Chapter 7 on chronic kidney disease.

<sup>(</sup>b) Includes those for whom Indigenous status was not reported.

<sup>(</sup>c) Per 1,000 population. Directly age-standardised using the total Australian population as at 30 June 1991.

<sup>(</sup>d) The true rate of hospitalisation of Indigenous people in states and territories will be underestimated to the extent that Indigenous people are under-identified in the hospital records of those jurisdictions.

<sup>(</sup>e) Rate ratio is equal to the rate of procedures for Indigenous patients divided by the rate of procedures for non-Indigenous patients.

<sup>(</sup>f) As estimated for 31 December 2000.

<sup>(</sup>g) Public hospitals only

<sup>(</sup>h) Includes those usually resident in the Australian Capital Territory or in other Australian territories or overseas, and those for whom place of usual residence was not stated.

## Procedures continued

Other types of procedures commonly performed on Indigenous male patients were procedures on the musculoskeletal system (6%), dermatological and plastic procedures (6%), and imaging services (5%). For Indigenous females (after haemodialysis), obstetric procedures were the most commonly performed procedures, accounting for 10% of total procedures recorded. Other common types of procedures for Indigenous females were gynaecological procedures (6%) and procedures on the digestive system (5%).

PROCEDURES FOR INDIGENOUS PATIENTS, BY ICD-10-AM PROCEDURE CHAPTER(a) — 2000-01 4.35

|  | Procedures for<br>Indigenous patients |         | Proportion of<br>procedures for<br>Indigenous patients |         | Directly<br>age-standardised<br>rate(b) |         | Rate ratio(c) |         |
|--|---------------------------------------|---------|--|---------|---|---------|---------------|---------|
|  | Males                                 | Females | Males  | Females |   |         |               |         |
|  | no.                                   | no.     | %  | %       | Males                                   | Females | Males         | Females |
| Procedures on nervous system                                       | 1 249                                 | 2 251   | 1.5  | 2.0     | 8.9                                     | 12.0    | 0.7           | 0.8     |
| Procedures on endocrine system                                     | 30                                    | 89      | 0.0  | 0.1     | 0.2                                     | 0.7     | 0.7           | 0.9     |
| Procedures on eye and adnexa                                       | 701                                   | 809     | 0.8  | 0.7     | 8.1                                     | 8.8     | 0.9           | 1.0     |
| Procedures on ear and mastoid process                              | 960                                   | 829     | 1.1  | 0.7     | 3.2                                     | 2.7     | 0.9           | 1.0     |
| Procedures on nose, mouth and pharynx                              | 876                                   | 699     | 1.0  | 0.6     | 4.3                                     | 3.1     | 0.5           | 0.4     |
| Dental services  | 2 149                                 | 2 255   | 2.5  | 2.0     | 7.3                                     | 7.6     | 0.6           | 0.5     |
| Procedures on respiratory system                                   | 2 465                                 | 1 915   | 2.9  | 1.7     | 15.5                                    | 11.1    | 1.6           | 1.9     |
| Procedures on cardiovascular system                                | 3 143                                 | 2 596   | 3.7  | 2.3     | 25.2                                    | 19.5    | 0.9           | 1.4     |
| Procedures on blood and blood-forming organs                       | 162                                   | 227     | 0.2  | 0.2     | 1.2                                     | 1.5     | 0.6           | 0.7     |
| Procedures on digestive system                                     | 3 750                                 | 5 244   | 4.4  | 4.6     | 30.9                                    | 35.5    | 0.6           | 0.6     |
| Procedures on urinary system                                       |                                       |         |  |         |   |         |               |         |
| Haemodialysis  | 23 887                                | 30 897  | 28.1   | 26.9    | 213.4                                   | 257.8   | 6.7           | 12.8    |
| Other  | 1 215                                 | 1 493   | 1.4  | 1.3     | 11.3                                    | 11.3    | 0.8           | 1.1     |
| Total  | 25 102                                | 32 390  | 29.5   | 28.2    | 224.7                                   | 269.1   | 4.8           | 8.9     |
| Procedures on male genital organs                                  | 735                                   |         | 0.9  |         | 4.2                                     |         | 0.5           |         |
| Gynaecological procedures  |                                       | 6 531   |  | 5.7     |   | 34.2    |               | 0.7     |
| Obstetric procedures   |                                       | 11 200  |  | 9.7     |   | 48.0    |               | 1.0     |
| Procedures on musculoskeletal system                               | 4 856                                 | 2 978   | 5.7  | 2.6     | 26.6                                    | 17.4    | 0.8           | 0.8     |
| Dermatological and plastic procedures                              | 4 672                                 | 3 579   | 5.5  | 3.1     | 26.2                                    | 19.0    | 1.0           | 1.0     |
| Procedures on breast   | 17                                    | 350     | 0.0  | 0.3     | 0.1                                     | 2.6     | 0.4           | 0.5     |
| Chemotherapeutic and radiation oncology procedures                 | 631                                   | 628     | 0.7  | 0.5     | 6.6                                     | 4.0     | 0.5           | 0.3     |
| Non-invasive, cognitive and interventions not elsewhere classified | 29 439                                | 36 441  | 34.6   | 31.7    | 200.3                                   | 225.7   | 0.9           | 1.0     |
| Imaging services   | 4 139                                 | 3 966   | 4.9  | 3.4     | 31.4                                    | 27.4    | 1.2           | 1.3     |
| Total (excluding haemodialysis)                                    | 61 190                                | 84 080  | 71.9   | 73.1    | 411.4                                   | 491.9   | 0.9           | 0.9     |
| Total (including haemodialysis)                                    | 85 077                                | 114 977 | 100.0  | 100.0   | 624.8                                   | 749.7   | 1.2           | 1.3     |

<sup>(</sup>a) Data are for public and most private hospitals. No data were available for a number of small private and private free-standing day hospital facilities. Excludes procedures for patients for which sex was not stated. Categories are based on the International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification (ICD-10-AM) (National Centre for Classification in Health 2000).

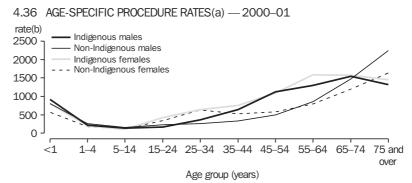
Source: AIHW National Hospital Morbidity Database.

<sup>(</sup>b) Per 1,000 population. Directly age-standardised using the total Australian population as at 30 June 1991.

<sup>(</sup>c) Rate ratio is equal to the rate of procedures for Indigenous patients divided by the rate of procedures for non-Indigenous patients.

Procedures continued

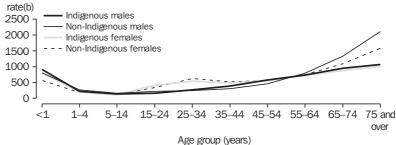
Indigenous males and females aged 25-74 years had higher age-specific procedure rates than were recorded for the non-Indigenous population, with Indigenous rates for some age groups two times the non-Indigenous rates (graph 4.36). The procedure rates for the non-Indigenous population for both males and females were greater than the corresponding rates for the Indigenous population in the 75 and over age group. Excluding haemodialysis procedures, rates for the Indigenous males and females overall were the same as for non-Indigenous males and females respectively, and across most age groups they were also similar (graph 4.37).



- (a) Data are for public and most private hospitals.
- (b) Per 1,000 population.

Source: AIHW National Hospital Morbidity Database.





- (a) Data are for public and most private hospitals.
- (b) Per 1,000 population.

Source: AIHW National Hospital Morbidity Database.

**SUMMARY** 

A range of factors that could affect Indigenous persons' access to, and use of, health services have been presented in this Chapter. Indigenous persons are more likely to live outside urban areas than non-Indigenous persons and are therefore more likely to live further from health services than other Australians. Aboriginal community controlled health services, operating in many parts of the country, including remote areas, go some way to addressing the gaps in health service provision for a more geographically dispersed population.

SUMMARY continued

Expenditure on health services is another area which may reflect levels of access to, and use of, particular services. In 1998-99, more was spent on Indigenous persons compared with non-Indigenous persons in some areas, such as community and public health, patient transport, and public hospital services, but less was spent on private hospitals, Medicare, the PBS and high level residential aged care. However, the amount spent on Indigenous peoples on health services is less than what might be expected given their poorer health status.

The provision of culturally appropriate health services, and the employment of Indigenous staff in services, may also affect access. The 2001 CHINS showed that male Indigenous health workers were not available in many remote communities, which could affect the willingness of Indigenous men to seek help for their health problems.

The future involvement of Indigenous persons in health and welfare services will be influenced by their current participation in health and welfare-related education. The numbers of Indigenous students commencing and completing undergraduate health courses increased substantially in 2000 (up 46% on 1999). Commencements in undergraduate health courses were also up significantly in 2001 (up 40% on 2000), although part of that increase may reflect a classification change from 'field of study' to 'field of education'.

Indigenous persons are disadvantaged on a range of factors that could affect access to and use of services, such as distance, availability of transport (particularly in remote areas), access to Medicare and the PBS, the proximity of culturally appropriate services, the proportion of Indigenous persons involved in health-related professions and in higher education courses leading into these professions, and coverage by private health insurance. Expenditure on health services for Indigenous persons is estimated to be more than that for non-Indigenous persons, but the difference is less than might be expected, given the much poorer health status of Indigenous persons, as described in the following Chapters.