1997

4704.0

Australian Bureau of Statistics

The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples

AUSTRALIAN INSTITUTE OF HEALTH & WELFARE

NEW ISSUE

The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples

W. McLennan
Australian Statistician
Australian Bureau
of Statistics

Richard Madden
Director
Australian Institute
of Health and Welfare

ABORIGINAL AND TORRES STRAIT ISLANDER HEALTH AND WELFARE INFORMATION:

A joint program of the Australian Bureau of Statistics
and the Australian Institute of Health and Welfare

AUSTRALIAN BUREAU OF STATISTICS

EMBARGO: 11:30AM (CANBERRA TIME) TUES 2 APR 1997

ABS Catalogue No. 4704.0

AIHW Catalogue No. IHW2

ISBN 0 642 23276 8

Produced by the Australian Government Publishing Service

INQUIRIES

- For information about other ABS statistics and services, please refer to the back page of this publication.
- For further information about these statistics, contact Joan Cunningham on 08 89432 165.

CONTENTS

Page

CHAPTERS

Page

ADDITIONAL INFORMATION

LIST OF GRAPHICS

Page

INTRODUCTION

HOUSING AND ENVIRONMENTAL HEALTH INFRASTRUCTURE

HEALTH RISK FACTORS

SMOKING

Page

MORTALITY

WELFARE

HEALTH OF TORRES STRAIT ISLANDERS

RECENT DEVELOPMENTS IN THE COLLECTION OF INDIGENOUS STATISTICS

PREFACE

This report provides a comprehensive statistical overview, largely at the national level, of Aboriginal and Torres Strait Islander health and welfare. It is designed to play a companion role to the Australian Institute of Health and Welfare's flagship publications dealing with the whole Australian population, *Australia's Health* and *Australia's Welfare*, which are published biennially in alternate years. *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples* will also be published biennially in the future to enable the monitoring of changes over time.

The report is primarily concerned with health and covers risk factors for poor health, health service issues, morbidity and mortality. Underlying social and economic conditions are beyond the scope of this report and some important areas of morbidity are inadequately covered because the necessary statistics and information are either not collected or are unreliable. Some information about welfare is presented and is intended that subsequent reports will include even more information on topics such as children' s services, aged care, housing assistance, income support and disability services as national statistics on these topics become available.

The report has been prepared by the Aboriginal and Torres Strait Islander Health and Welfare Information Unit of the Australian Bureau of Statistics' National Centre for Aboriginal and Torres Strait Islander Statistics. The Unit is a joint program of the Australian Bureau of Statistics and the Australian Institute of Health and Welfare and receives funding from the Commonwealth Department of Health and Family Services as part of the Commonwealth Government's efforts to improve statistics and information about Aboriginal and Torres Strait Islander health following the 1994 evaluation of the National Aboriginal Health Strategy.

We are grateful to the large number of people and organisations who supplied information and statistics and granted permission for their use in this publication. We also wish to thank Ms Trish Angus, Dr John Condon, Mr Arnold Hunter, Professor John Mathews, Professor Janice Reid, Dr Beverly Sibthorpe and Dr Neil Thomson for reviewing the manuscript prior to publication. Their comments and suggestions have been most helpful and have strengthened this report.

As this report is a joint publication, both the Australian Bureau of Statistics and the Australian Institute of Health and Welfare have catalogued it. The Australian Institute of Health and Welfare catalogue number is IHW2; the Australian Bureau of Statistics catalogue number is 4704.0.

W. McLennan	Richard Madden
Australian Statistician	Director
Australian Bureau of Statistics	Australian Institute of Health and Welfare

April 1997

LIST OF ABBREVIATIONS

ABS	Australian Bureau of Statistics
AHMAC	Australian Health Ministers' Advisory Council
AHW	Aboriginal Health Worker
AIHW	Australian Institute of Health and Welfare
AMS	Aboriginal Medical Service
ATSIC	Aboriginal and Torres Strait Islander Commission
BMI	body mass index
CDC	Centers for Disease Control
CDEP	Community Development Employment Project
CDHP	Commonwealth Dental Health Program
CDHS	Child Dental Health Survey
CDHHCS	Commonwealth Department of Health, Housing and Community Services
CDHSH	Commonwealth Department of Human Services and Health
DEETYA	Department of Employment, Education, Training and Youth Affairs
DAA	Department of Aboriginal Affairs
DMO	District Medical Officer
DSRU	Dental Statistics and Research Unit
HCINS	Housing and Community Infrastructure Needs Survey
HCSV	Health and Community Services Victoria
MSHR	Menzies School of Health Research
NACCHO	National Aboriginal Community Controlled Health Organisation
NAHS	National Aboriginal Health Strategy
NAHSWP	National Aboriginal Health Strategy Working Party
NATSIS	National Aboriginal and Torres Strait Islander Survey
NDS	National Drug Strategy
NHMRC	National Health and Medical Research Council
NHS	National Housing Strategy
NNDSS	National Notifiable Diseases Surveillance System
NSW	New South Wales
OATSIHS	Office for Aboriginal and Torres Strait Islander Health Services

RR	rate ratio
SAAP	Supported Accommodation Assistance Program
SHRs	age-standardised hospital separation ratios
SIDS	Sudden Infant Death Syndrome
SMR	Standardised Mortality Ratio
US DHHS	United States Department of Health and Human Services
US EPA	United States Environmental Protection Agency
WHO	World Health Organisation

SUMMARY

SCOPE

This report presents information about the health and welfare of Aboriginal and Torres Strait Islander peoples in Australia. The information comes mainly from national surveys and censuses and from administrative collections of various State and Territory agencies. The intention is to present a broad picture at the national level and to supplement this where information on variation by region and by State or Territory is available.

AVAILABLE DATA

The available data are limited by incomplete identification of Indigenous people in national administrative data collections. For example, reliable information on life expectancy and death is currently available only for Western Australia, South Australia and the Northern Territory. Queensland has only recently included Indigenous identification in its birth and death collections, and the quality of identification of Indigenous people in death collections remains a problem in New South Wales, Victoria and Tasmania. The availability of reliable hospital statistics is also limited, although less is known about the quality of identification in these collections. Some data are not routinely collected at a national level, or are not available at all.

DEMOGRAPHICS

In 1991, Indigenous people comprised about 1.6% of the Australian population. The Indigenous population is younger than the Australian population as a whole, and Indigenous people are more likely to live outside of urban areas than are non-Indigenous people. Although Indigenous people represent a higher proportion of the local population in the northern and central parts of the country, the majority of Indigenous people actually live in the southern and eastern regions of Australia.

MEASURES OF HEALTH

Indigenous Australians suffer a higher burden of illness and die at a younger age than non-Indigenous Australians, and this is true for almost every type of disease or condition for which information is available. In 1992–94, the life expectancy of Indigenous people in Western Australia, South Australia and the Northern Territory was about 15–20 years lower than for their non-Indigenous counterparts. Reliable information is not available about the life expectancy of Indigenous people in other parts of Australia.

The health disadvantage of Indigenous Australians begins early in life and continues throughout the life cycle. On average, Indigenous mothers give birth at a younger age than non-Indigenous mothers. In most States and Territories, their babies are about 2–3 times more likely to be of low birth weight and about 2–4 times more likely to die at birth than are babies born to non-Indigenous mothers.

Indigenous people are about 2–3 times more likely to be hospitalised than would be expected if they had the same hospitalisation rates as Australians overall. Respiratory disease and injury are among the most common causes of hospitalisation for both Indigenous males and Indigenous females, occurring at 3–4 times the numbers expected and accounting for much of the excess hospitalisation observed among Indigenous Australians.

Indigenous people also suffer higher rates of infectious diseases, including tuberculosis and sexually transmitted diseases. There were 4–5 times more hospitalisations and 15–18 times more deaths from infectious diseases than expected, based on rates for all of Australia.

Although there are difficulties in determining the extent of the problems, there is also evidence to suggest that Indigenous people are more likely to be diagnosed with some indicators of mental illness, such as self-harm, substance abuse, and suicidal behaviour.

Information on the incidence of cancer in Indigenous people is limited, but there is a suggestion in some areas such as the Northern Territory that the rates of getting most cancers may not be much different for Indigenous and non-Indigenous people. However, Indigenous people who get cancer are more likely to die from it than are non-Indigenous people who get cancer.

Three of every four deaths among Indigenous Australians are due to circulatory diseases (e.g. heart disease and stroke), injury, respiratory diseases (e.g. pneumonia and chronic bronchitis), cancer, and endocrine and metabolic diseases (e.g. diabetes). All occur at higher rates than in non-Indigenous people.

In 1992–94, there were 3.5 times more deaths among Indigenous males in Western Australia, South Australia and the Northern Territory than would be expected based on the death rates for non-Indigenous males. For Indigenous females, there were 4 times as many deaths as expected. Indigenous people experienced a higher death rate than non-Indigenous people at every age, but the largest gap between Indigenous and non-Indigenous death rates was among adults aged 25–54 years, when death rates were about 6–8 times higher.

Little improvement in death rates was observed between 1985 and 1994. Although the death rate for Indigenous males declined, there was also a reduction among non-Indigenous males, and the gap between Indigenous and non-Indigenous males remained the same. No decrease in the death rate was observed among Indigenous females. There was a large increase in the rate of death from diabetes for both Indigenous males and Indigenous females during the 10 year period.

There is only limited information about illnesses and conditions which do not result in hospitalisation or death but which may cause reduced quality of life, such as poor nutrition and repeated infections. Such illnesses and conditions may be treated at health clinics and doctors' surgeries, but data from such sources are not yet available on a national, State or regional level. It is also difficult to quantify the extent of the burden suffered by Indigenous people with multiple conditions or illnesses.

Because Indigenous people are more likely than non-Indigenous people to live in rural and remote areas, they are more likely to live at a greater distance from health facilities and health professionals. Distance is not the only barrier to access, but there are few statistics about other factors which may discourage or prevent Indigenous people from receiving the health care they need. Indigenous involvement in the provision of health services is important to Indigenous people, but a smaller proportion of Indigenous people work in health-related jobs, compared with non-Indigenous people.

HEALTH RISK FACTORS

Some of the differences between the health of Indigenous and non-Indigenous Australians can be attributed to the health risks to which Indigenous people are more likely to be exposed. Smoking is an especially important risk factor among Indigenous people and is preventable. Smoking is about twice as common among Indigenous people compared with non-Indigenous people, and Indigenous people have higher rates of illness and death from causes linked to smoking. Yet smoking is not perceived as an important problem by many Indigenous Australians.

Although Indigenous Australians are more likely to abstain from drinking alcohol than are their counterparts in the general population (33% versus 45% current regular drinkers), those who do drink are more likely to drink at unsafe levels (based on National Health and Medical Research Council (NHMRC) guidelines) than those in the general population (79% of current drinkers compared to 12%). Alcohol was widely perceived to be an important health and social problem by Indigenous people across Australia.

Other factors which put Indigenous people at higher risk of poor health include poor nutrition, obesity, substance abuse, exposure to violence, and inadequate housing and environmental infrastructure. On the other hand, a high proportion of Indigenous mothers reported breastfeeding their children, and this would be expected to have a positive influence on the health of their children.

WELFARE SERVICES

The rates of substantiated notifications to State/Territory welfare authorities of child abuse and neglect are higher for Indigenous children than for non-Indigenous children, with the rates 2–3 times higher for physical, emotional and sexual abuse, and almost 6 times higher for neglect.

Information about aged care is limited by poor identification of Indigenous people in the data collected from nursing homes, hostels and other facilities. The poor health experienced by many Indigenous people makes them more likely to need access to aged care at younger ages than is the case for non-Indigenous people.

Little is known about disability and the use of disability services among Indigenous people, but the available information suggests that Indigenous people suffer at least as great a burden as non-Indigenous people.

The proportion of adults employed as community service workers was about twice as high among Indigenous people (2.1%) as for non-Indigenous people (0.9%) in 1991. The opposite was true for health-related occupations (0.8% of Indigenous adults versus 2.1% of non-Indigenous adults).

HOUSING

Indigenous households are about twice as likely as other Australian households to be in need of housing assistance. Almost 4 in 10 Indigenous households were estimated to have either insufficient income to meet basic needs (even before taking housing into account), or not enough income to afford adequate housing. Indigenous people were over-represented among clients of the Supported Accommodation Assistance Program (SAAP), which provides services for people with acute housing needs (such as homelessness).

Indigenous people were much less likely than non-Indigenous people to be home-owners. Only 25% of Indigenous people lived in homes that were owned or being purchased by their occupants, compared with 71% of Australians overall.

Public and community-owned housing were important sources of accommodation for Indigenous people. Indigenous households generally paid lower rent than did non-Indigenous households, but they received less for it, in an apparent tension between the affordability and adequacy of housing. Many Indigenous Australians report that their housing is not adequate to meet their needs.

INCOME, EMPLOYMENT AND EDUCATION

Indigenous people and households had low annual incomes, and a high proportion of Indigenous people reported that they received their main source of income from government payments. The Community Development Employment Projects (CDEP) scheme was an important source of income and work in many communities, especially in rural areas where alternative employment opportunities may be limited. Indigenous people were less likely than non-Indigenous people to have post-secondary school qualifications, putting them at a disadvantage with respect to the employment opportunities which do exist.

TORRES STRAIT ISLANDERS

Few statistics are available about Torres Strait Islanders as distinct from Aboriginal people, but there are some differences between the two groups, as well as between Torres Strait Islanders in the Strait and those on the mainland. Torres Strait Islanders are more likely to be overweight or obese than are Aboriginal people. They rated their health as slightly better and were less likely to report having a range of health conditions than were Aboriginal people. Despite recent declines, death rates for people living in the Torres Strait Area remained higher than for all Queenslanders, with the main causes of excess deaths being diabetes and heart disease.

Torres Strait Islanders in the Torres Strait named a large range of health problems in their community such as diabetes, alcohol, nutrition, heart disease and drugs.

RECENT STATISTICAL DEVELOPMENTS

Australian governments have stated their commitment to working towards improving the health of Aboriginal and Torres Strait Islander people and a number of important initiatives have taken place recently in relation to improving the quality of health statistics about Indigenous people. A workshop on best practice and quality assurance in relation to Indigenous identification in administrative health data was held at the end of 1996 (ABS 1997b). One of the outcomes of this workshop was the establishment of a broadly based working group to oversee initiatives to improve and assess identification in a range of health data collections. Other initiatives include the Australian Health Ministers' Advisory Council's (AHMAC) commissioning of the development of a National Aboriginal and Torres Strait Islander Health Information Plan. This is due to be finalised by mid-1997. AHMAC is also considering a set of performance indicators that will enable each jurisdiction's progress in addressing Indigenous health issues to be monitored and evaluated.

CHAPTER 1 INTRODUCTION

CONTEXT

When delivering a speech in the Northern Territory in 1996, Australia's Governor-General drew attention to the health of Indigenous Australians by stating:

> 'And, above all, there are the appalling problems relating to Aboriginal health. It is sometimes said that statistics lie. They do not lie when they identify the extent of those health problems' (Sir William Deane, Vincent Lingiari Memorial Lecture, Darwin, 22 August 1996).

Indeed in 1992–94, the life expectancy of Aboriginal and Torres Strait Islander people in Western Australia, South Australia and the Northern Territory (the only areas for which good estimates were available) ranged from about 57 to 61 years for males and 61 to 65 years for females (Anderson et al. 1996). These figures are about 15 to 20 years lower than those for non-Indigenous Australians, and are also lower than those for most countries of the world with the exception of central Africa and India (map 1.1). Although reliable statistics are unavailable about the life expectancy of Indigenous people in the south-eastern part of Australia, Aboriginal and Torres Strait Islander people in northern, Central and western Australia have a lower life expectancy than any other indigenous minority within a first world country (Kunitz 1994, pp. 24–5).

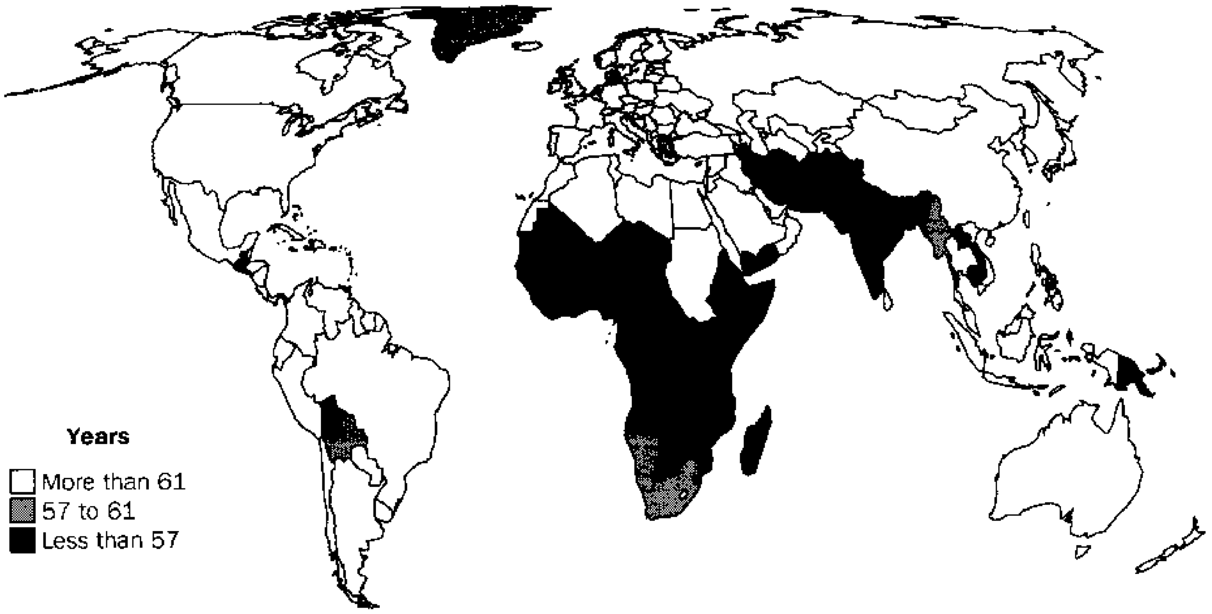
This publication draws on a number of different data sources in order to provide a statistical picture of Indigenous health and welfare. Such statistics should be viewed within their human context. As the Governor-General went on to say in the speech referred to above, 'Nor can those statistics be discounted as bare figures without human content. They tell a story of present human sickness, suffering, dying and death which can be traced to the past dispossession, oppression and injustice'.

Presenting a comprehensive and up-to-date statistical 'snap shot' in a single volume is only one of the purposes of this report. The underlying aim of this report is to provide statistics and information which, with the publication of future editions, will allow the monitoring of changes in Indigenous health and welfare over time to inform the public and professionals alike about our progress as a nation in tackling this important social issue.

DEFINING HEALTH AND WELFARE

The World Health Organization (WHO) defines health as ' a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity' (WHO 1946). Health in relation to the wellbeing of the whole community is very important for Indigenous peoples. The National Aboriginal Health Strategy Working Party (NAHSWP) (1989, p. x) defined health in the following way: 'Not just the physical well-being of the individual but the social, emotional and cultural well-being of the whole community. This is a whole-of-life view and it also includes the cyclical concept of life-death-life.' As a consequence, their working definition of primary health care was: 'Essential health care based on practical, scientifically sound, socially and culturally acceptable methods and technology made universally accessible to individuals and families in the communities in which they live through their full participation at every stage of development in the spirit

1.1 MALE LIFE EXPECTANCY AT BIRTH(a)(b)



(a) Latest available estimates. Australian data are for the total male population.
(b) Life expectancy at birth for Aboriginal and Torres Strait Islander males in Western Australia, South Australia and the Northern Territory is approximately 57 to 61 years.

Source: UN 1995.

of self-reliance and self determination' (NAHSWP 1989, p. x). Welfare can mean anything from the wellbeing of an individual or society to the system of welfare services and assistance (AIHW 1995d). Welfare services as set out in the *Australian Institute of Health and Welfare Act 1987* includes: aged care services, child care services, services for people with disabilities, housing assistance, child welfare services and other community services (AIHW 1995d). This report includes information on such welfare services as well as on income support, employment and educational attainment.

SCOPE

This report begins by examining a range of environmental and behavioural factors which may affect health and wellbeing. Smoking has been particularly emphasised because it impacts enormously on the health of Indigenous people, but its effects are often overlooked. Indigenous peoples' perceptions about health are then examined, followed by a discussion of access to and use of services by Indigenous people. Several indicators of health status are presented in the chapters on mothers and babies, ill health and mortality. The chapter on welfare includes information on such topics as child care, child welfare, aged care, disability, housing need, income, employment and education. Because separate information about Torres Strait Islander people is often difficult to obtain, a short chapter is included which presents some of the information that is available for this group. The report ends with a discussion of recent developments, data quality issues and future directions relating to health and welfare statistics about Indigenous peoples.

Many important underlying social and economic issues are not directly addressed in this report, either because of a lack of adequate information or because they are beyond the scope of this report. In addition, there is a lack of reliable and available data on many important aspects of health and welfare. Data from clinics and medical practitioners are not available beyond the local level, and very little information exists about illnesses and conditions which are not diagnosed or treated. The information that is presented in this report generally refers to single aspects or dimensions of health, and the load of multiple illnesses and conditions experienced by many Indigenous people is obscured by such data.

DATA QUALITY

This report draws attention to a number of deficiencies in the data available and highlights where effort is needed to improve the quality and completeness of information. Amongst the most important issues of data quality are the identification of Aboriginal and Torres Strait Islander people, and how this is implemented in practice, issues in estimating the population of Indigenous Australians, and difficulties which arise in self-reported health status information collected in national surveys which complicate the analysis and interpretation of comparisons with non-Indigenous Australians. All of these issues are being actively investigated by the Aboriginal and Torres Strait Islander Health and Welfare Information Unit.

The problems and health risks faced by Indigenous people are not uniform and affect people of different age groups and living in different areas in different ways. This report tries to capture some of the wide variety of experiences and situations within the Indigenous population. This is only possible in so far as the completeness and availability of the data allow. Where possible, comparisons are made between Indigenous and non-Indigenous Australians.

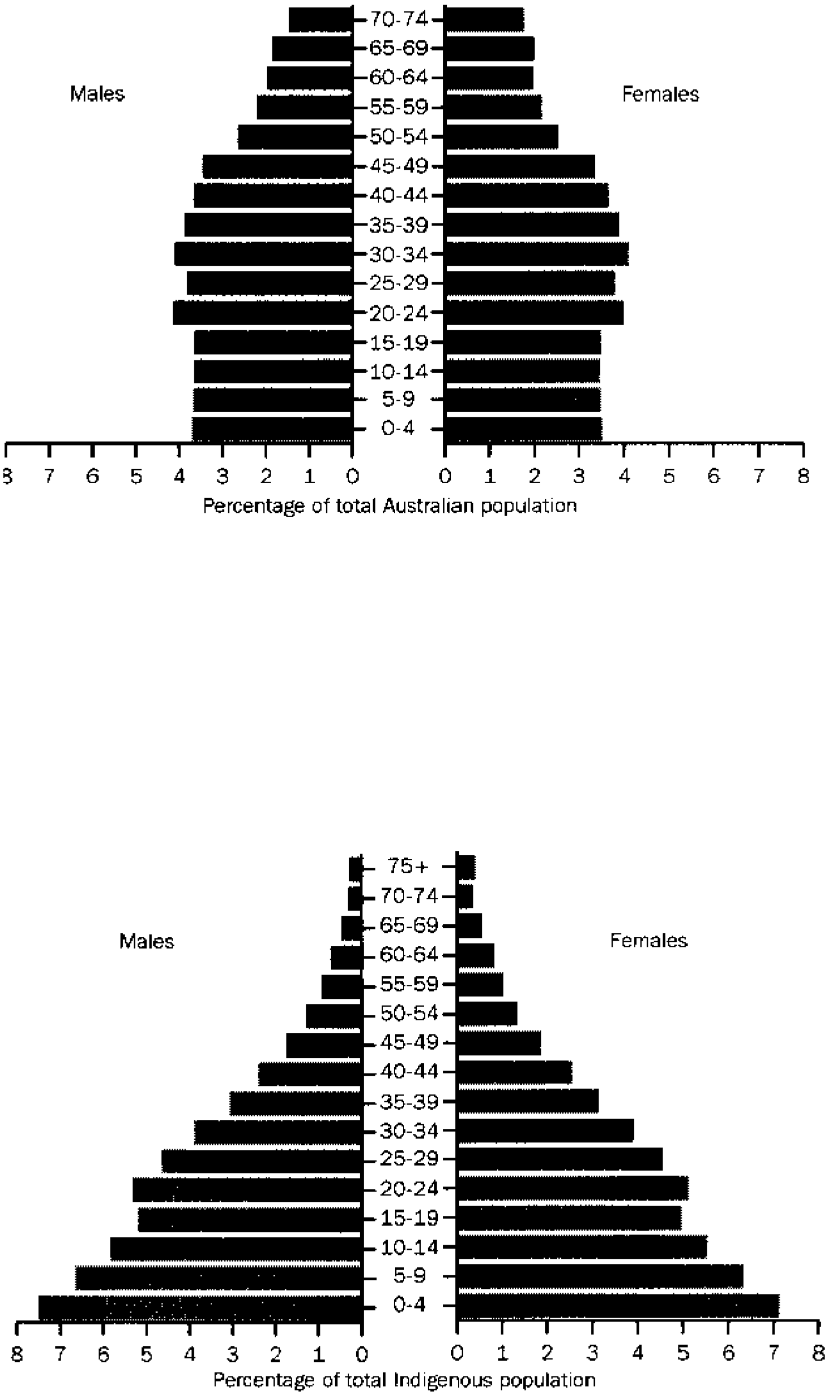
DEMOGRAPHICS

Australia's Indigenous population comprised 1.6% of the total Australian population in 1991. Based on the consistent propensity of Indigenous people to identify as such, the Indigenous population is projected to increase from 283,600 in 1991 to between 352,200 and 360,100 in 2001, with an average annual estimated growth rate of between 2.0% and 2.5%. In comparison, the total Australian population is projected to experience average annual rates of growth of between 1.0% and 1.1% over the corresponding period (ABS 1996a). More information on population projections and the assumptions used in collecting them is presented in chapter 12.

The Indigenous and the non-Indigenous populations have very different age structures (graph 1.2). As age is an important factor in health, age standardisation has been used where appropriate to enable comparisons between the two populations to be made. More details on age standardisation are presented in inset 9.1.

Approximately 1 in 3 Indigenous people live in non-urban areas while only about 1 in 7 non-Indigenous people live in non-urban areas (ABS 1991 Census, unpublished data). While Indigenous people comprise a large proportion of the population of northern and Central Australia, the majority of Indigenous people live in the south-east (see table 1.3). National figures may obscure regional differences by grouping together people with varied experiences. Where possible in this report, regional estimates are provided.

1.2 INDIGENOUS AND TOTAL AUSTRALIAN AGE PYRAMIDS, 1994



Source: Anderson et al. 1996.

1.3 INDIGENOUS POPULATION, By Region(a)

	1994 Indigenous population estimates(b)		*1991 Indigenous population*
ATSIC region	no.	% of total Australian Indigenous population	% of total regional/State population
New South Wales	80440	26.5	1.2
Queanbeyan(c)	6 910	2.3	1.1
Bourke	6 780	2.2	10.4
Coffs Harbour	18 760	6.2	1.4
Sydney	25 340	8.4	0.6
Tamworth	9 780	3.2	4.1
Wagga Wagga	14 630	4.8	2.5
Victoria	19 180	6.3	0.4
Wangaratta	9 370	3.1	0.3
Ballarat	10 040	3.3	0.5
Queensland	79 840	26.3	2.4
Brisbane	18 800	6.2	0.9
Cairns	12 630	4.2	6.4
Mount Isa	6 600	2.2	17.1
Cooktown	6 370	2.1	42.4
Rockhampton	9 380	3.1	2.4
Roma	7 130	2.4	2.3
Townsville	12 750	4.2	3.9
Torres Strait Area	6 300	2.1	77.4
South Australia	18 430	6.1	1.2
Adelaide	11 020	3.6	0.7
Ceduna	1 740	0.6	4.2
Port Augusta	5 810	1.9	6.1
Western Australia	47 250	15.6	2.6
Perth	14 100	4.6	1.0
Broome	3 470	1.1	28.4
Kununurra	4 210	1.4	35.0
Warburton	2 400	0.8	24.2
Narrogin	6 080	2.0	2.5
South Hedland	4 650	1.5	10.1
Derby	4 300	1.4	48.7
Kalgoorlie	2 940	1.0	5.3
Geraldton	4 950	1.6	7.3
Tasmania	10 140	3.3	2.0
Hobart	10 140	3.3	2.0
Northern Territory	46 040	15.2	22.7
Alice Springs	4 570	1.5	15.4
Jabiru	8 490	2.8	59.7
Katherine	7 160	2.4	35.6
Aputula	6 910	2.3	59.7
Nhulunbuy	6 920	2.3	51.5
Tennant Creek	3 490	1.2	43.0
Darwin	8 140	2.7	8.0
Australia	**303 260**	**100.0**	**1.6**

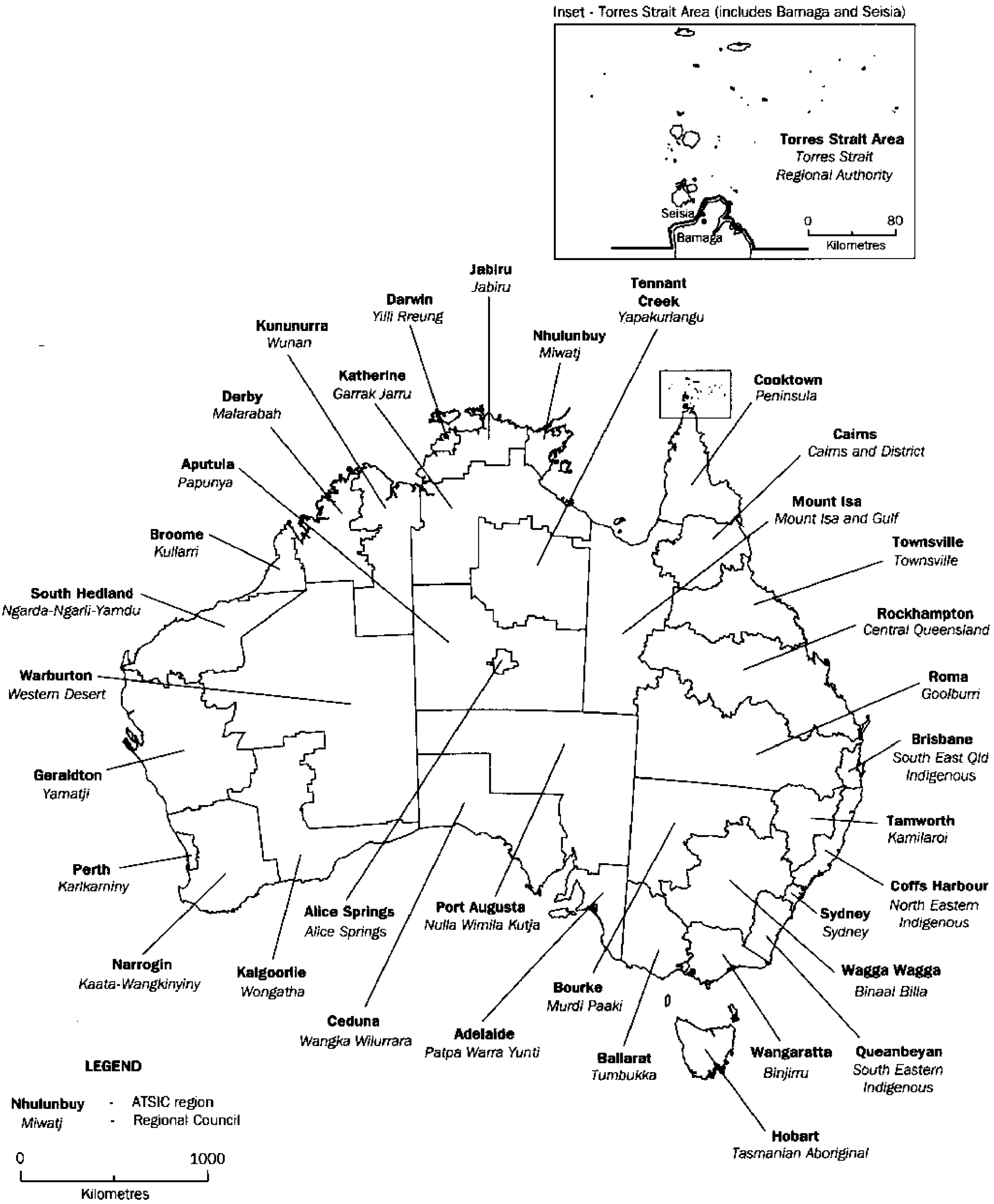
(a) See map 1.4 for location of regions.

(b) Due to the assumptions used in preparing these estimates, minor discrepancies can exist between State totals and the sum of component regions. Numbers have been rounded to the nearest 10.

(c) Includes the Australian Capital Territory.

Source: ABS 1996f, 1991 Census, unpublished data.

1.4 ATSIC REGIONS AND THE TORRES STRAIT AREA



CHAPTER 2

HOUSING AND ENVIRONMENTAL HEALTH INFRASTRUCTURE

INTRODUCTION

Adequate housing, access to clean water, and the removal of refuse and human waste are important factors in achieving and maintaining good health. The absence of any of these factors can result in a variety of infectious and parasitic diseases (Cairncross & Feachem 1983; Benenson 1990; see also inset 2.1). Among these are infections of the respiratory system, eyes, ears, skin, heart, kidneys and liver, as well as diarrhoeal diseases. In turn, such infections may lead to malnutrition, rheumatic heart disease, hearing loss, liver cancer and other long-term health problems (MSHR 1994).

The purpose of this chapter is to provide recent information about the living conditions of Indigenous people using sources such as the 1991 Census, the 1992 National Housing and Community Infrastructure Needs Survey (HCINS) and the 1994 National Aboriginal and Torres Strait Islander Survey (NATSIS). More information about these sources is available in the explanatory notes.

Topics explored in this chapter include crowding (which promotes cross-infection), water quality, and the provision and breakdown of basic household utilities such as running water and electricity. More information about housing tenure and housing need is presented in chapter 10.

HOUSING SATISFACTION

In the 1994 NATSIS, a responsible member of the household was asked whether the dwelling met the needs of the people living there. This subjective measure of housing need is useful as a relative measure for comparison across areas of the country, and for exploring relationships with other variables.

Nationally, about 66% of Indigenous people were estimated to be living in private dwellings that were reported as being satisfactory, that is, that met the needs of the people living there (ABS 1996b). National figures can obscure extremes however— and there was a wide range of housing satisfaction levels across regions to consider. For example, in the Jabiru Aboriginal and Torres Strait Islander Commission (ATSIC) region, only one out of five people were living in dwellings reported to be satisfactory (ABS 1997a). People living in the Northern Territory, and the north of both Western Australia and Queensland, were the least likely to report that their housing met their needs. Map 2.2 shows the relative satisfaction levels of Indigenous households by ATSIC region across Australia. Although satisfaction was measured differently in the Australian Housing Survey, only 3% of non-Indigenous households reported that they were not satisfied with their dwellings (ABS 1996b).

In the NATSIS, only 57% of people in rural areas were reported to be living in dwellings which were reported as satisfying their needs, compared to 74% in urban areas (ABS unpublished data).

Satisfaction varied according to the size of the dwelling and the number of household members. Only about one in two people living in one-bedroom dwellings were said to be living in satisfactory dwellings, compared to 90% in dwellings with five or more bedrooms. Only about a third of people living in households of nine or more members were reported to be living in satisfactory accommodation (ABS unpublished data).

The most commonly mentioned problems with dwellings were a shortage of bedrooms, insufficient living area and a need for repair.

Of those people who reported suffering a breakdown of household utilities in the four weeks prior to the survey, less than 40% were living in dwellings that were reported to meet the needs of the household, compared to about 74% for those whose utilities had not broken down (ABS unpublished data).

2.1 HOUSING AND HEALTH IN REMOTE COMMUNITIES

A list of nine healthy living practices, originally identified as part of an environmental health review on the Anangu Pitjantjatjara Freehold Lands of South Australia, (see map 6.9) are described in the report *Housing for Health* (Pholeros et al. 1993). The practices were given priority in order of their likely importance in improving health status:

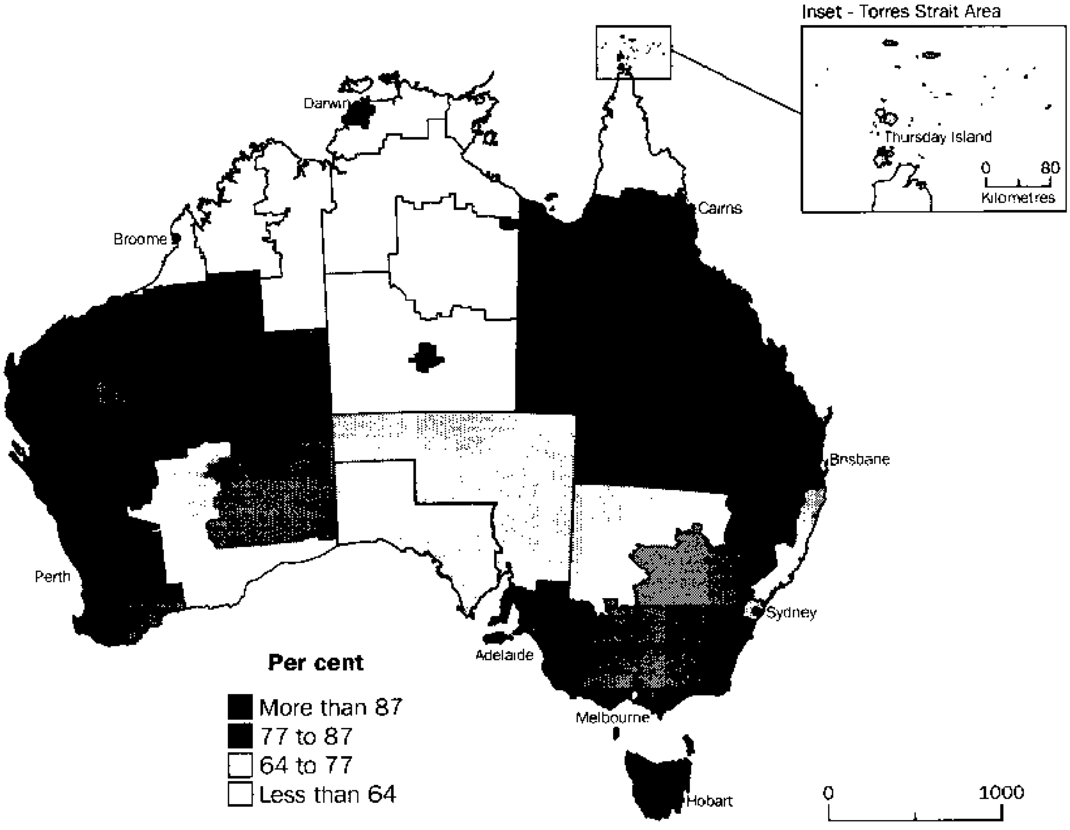
- washing people;
- washing clothes and bedding;
- removing waste;
- improving nutrition;
- reducing crowding;
- separating dogs and children;
- controlling dust;
- temperature control; and
- reducing trauma.

Nine strategies were developed to target each of the nine practices in order to improve the health status of the Anangu people. The strategies were applied in a second study, the Pipalyatjara Project in 1992–93. The particular focus of the project was on maintenance and the development of durable and sustainable health infrastructure (called 'health hardware' in the report). Over a period of 12 months, four detailed surveys were undertaken to assess the existing health hardware in the dwellings in the community as well as their maintenance requirements. The survey team used a 'look, test, record, fix and report' methodology (Pholeros et al. 1993, p. 17).

Some of the findings of the study were that improved health hardware in remote communities was likely to lead to improved health, particularly in children, that health hardware usually broke down because it was poorly constructed in the first place, not because it had been overused or vandalised, that it was not enough to provide capital infrastructure if there was no accompanying ongoing maintenance system, that the costs of a sustainable maintenance system need not be exorbitant, and that any design and planning of health hardware for these communities needed to take into account the high mobility of the population within the community (Pholeros et al. 1993, p. xi).

The project team recommended, among other things, the creation of environmental health worker positions, monitoring of electrical, water and waste services; the provision of 'fail-safe' drainage; the provision of pit toilets as a supplement to flush toilets; the planning of appropriate yard areas around the house to reduce crowding; and the monitoring by health service deliverers of diseases that are likely to be linked to poor living conditions (Pholeros et al. 1993, p. 118).

2.2 DWELLINGS REPORTED AS MEETING THE NEEDS OF INDIGENOUS HOUSEHOLDS



Source: ABS 1997a.

HOUSEHOLD UTILITIES

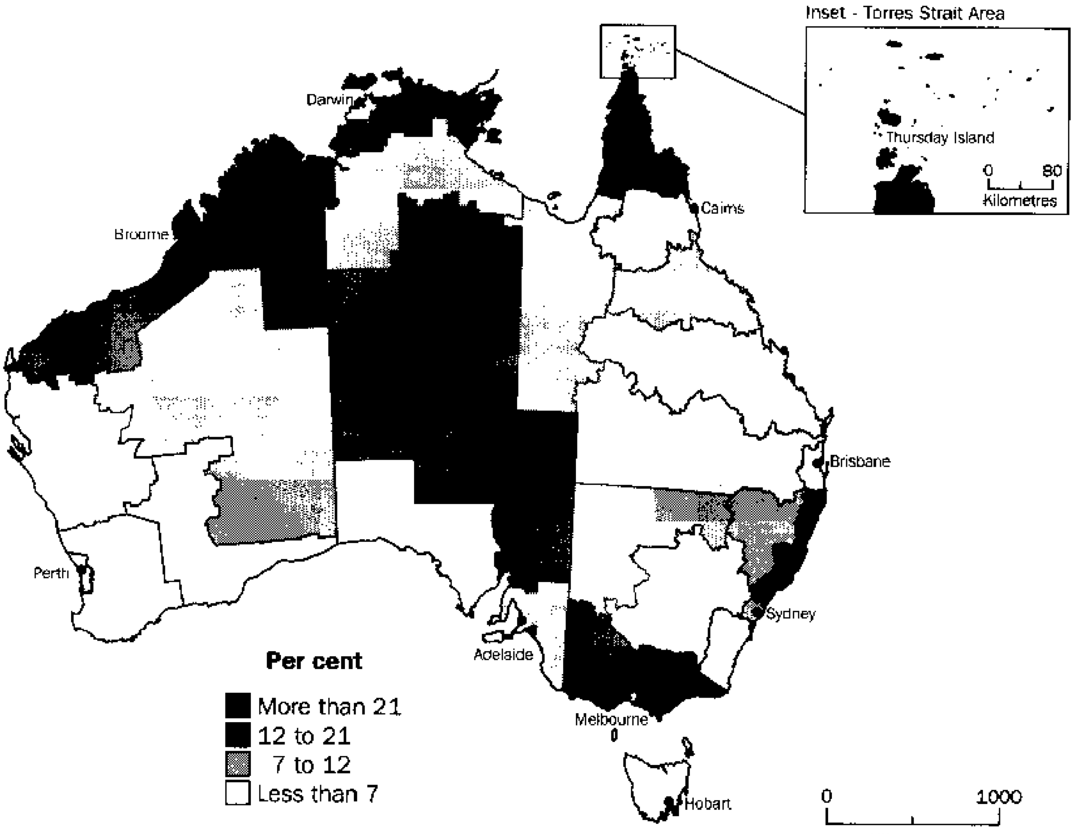
From the NATSIS, it was estimated that 96% of Indigenous households had running water connected. About 6% of Indigenous households in the Northern Territory and 4% in Western Australia were without running water (ABS 1996b).

Improvised dwellings were not included in these figures or in those reported below, and it is therefore likely that they represent an underestimate of the number of broken down or missing utilities.

In the four weeks preceding the survey, just over 9% of households had been affected by the breakdown of one or more utilities — water, toilet, electricity or gas. Households in the Northern Territory were the most affected at 16%. Tasmanian households had been least affected (4%) (ABS 1996b). There were also many variations across ATSIC regions, as can be seen in map 2.3. The most affected areas were in northern and Central Australia.

Rural households were the most likely to be affected by missing or non-functioning utilities. Based on the survey, an estimated 9% of Indigenous households in rural areas did not have a toilet in the dwelling, 7% did not have electricity or gas connected, 7% did not have running water connected, and 6% had neither a bath or shower nor access to a communal bathroom. Some 13% of households in rural areas had been affected by the breakdown of a household utility (ABS 1996b). No comparable data are available for non-Indigenous households.

2.3 INDIGENOUS HOUSEHOLDS AFFECTED BY UTILITY BREAKDOWN



Source: ABS 1997a.

People affected

The estimates from the survey show that nationally, about one in 10 Indigenous people were affected by the breakdown in household utilities at some time during the preceding four weeks. Indigenous people living in community housing in rural areas were the most likely group to report experiencing a breakdown in facilities, with over one in five affected (see graph 2.4) (ABS 1996b).

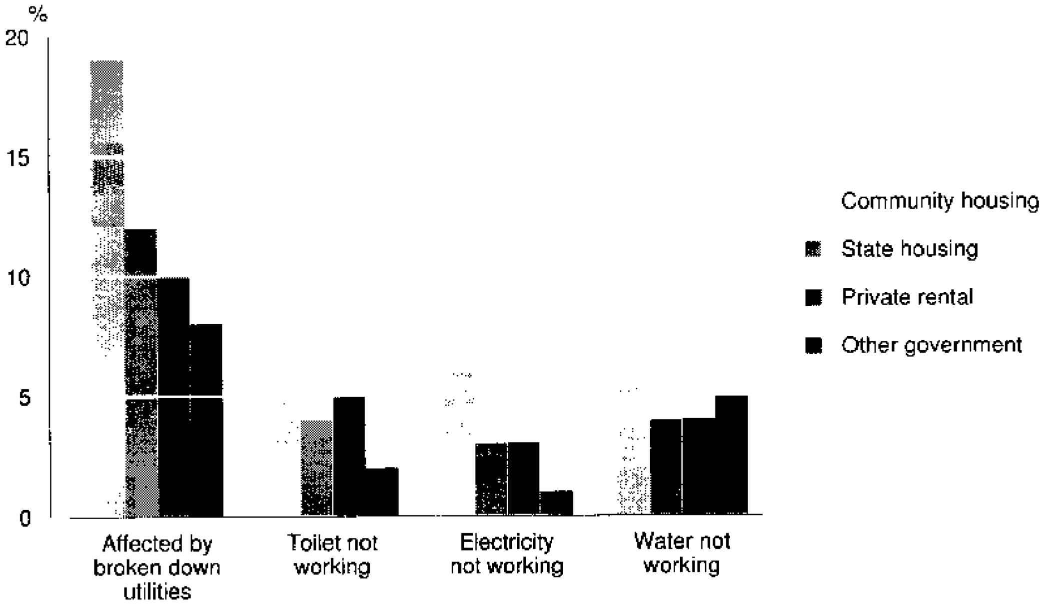
Some possible reasons for this higher level of breakdown are that poor or inappropriate utilities may be installed in the dwelling making them more susceptible to breakdown, utilities may be under stress in overcrowded dwellings, or there may be a lack of knowledge and/or resources for preventative maintenance and repair combined with the problems of distance.

HOUSEHOLD SIZE

The average number of persons per household is often used as an indicator of crowding. It is useful for making comparisons at the broad level such as at the State or national level or across urban and rural areas of Australia.

In the NATSIS, the average number of persons per Indigenous household was estimated at 4.1 (ABS 1996b), notably higher than the average from the 1991 Census for non-Indigenous households of 2.6 (ABS 1993a). Broad level data may of course obscure extremes of circumstances. In the Nhulunbuy ATSIC region, there were on average 8.5 persons per household (ABS 1997a). Average household sizes for ATSIC regions are shown in map 2.5.

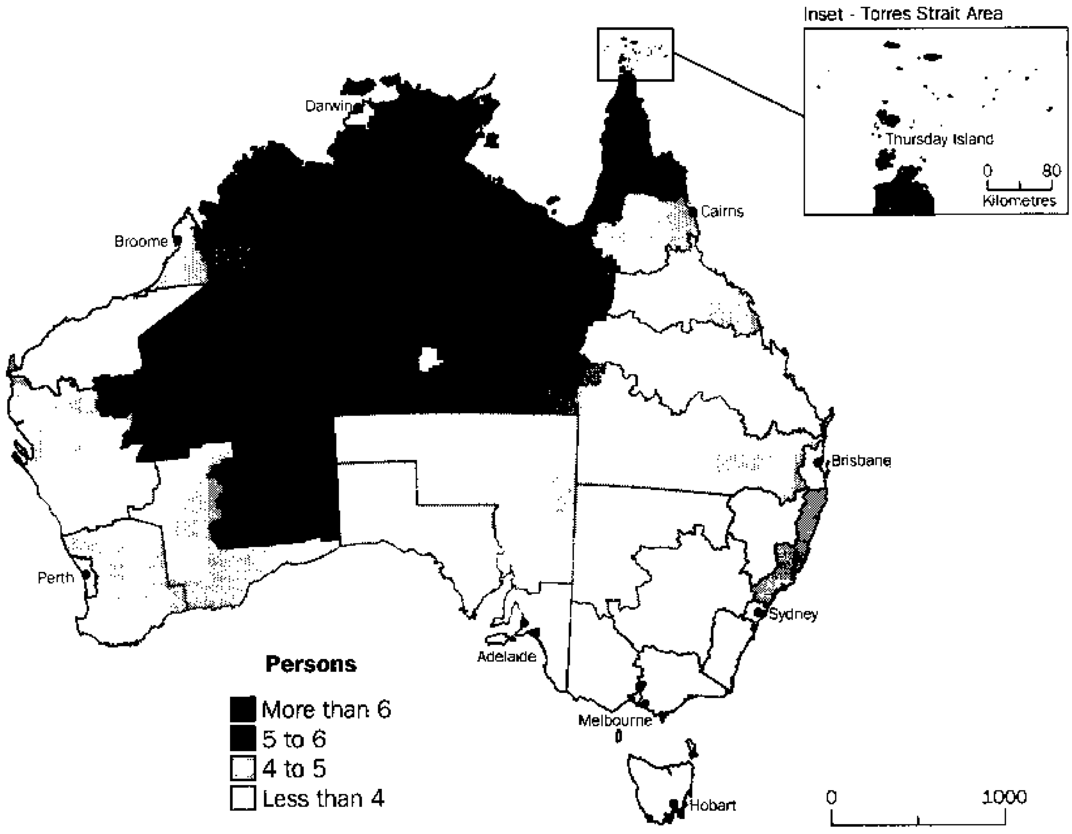
2.4 UTILITY BREAKDOWN, By Type of Landlord(a)



(a) Refers to Indigenous persons living in rented private dwellings affected by the breakdown of at least one utility.

Source: ABS 1996b.

2.5 AVERAGE PERSONS PER INDIGENOUS HOUSEHOLD



Source: ABS 1997a.

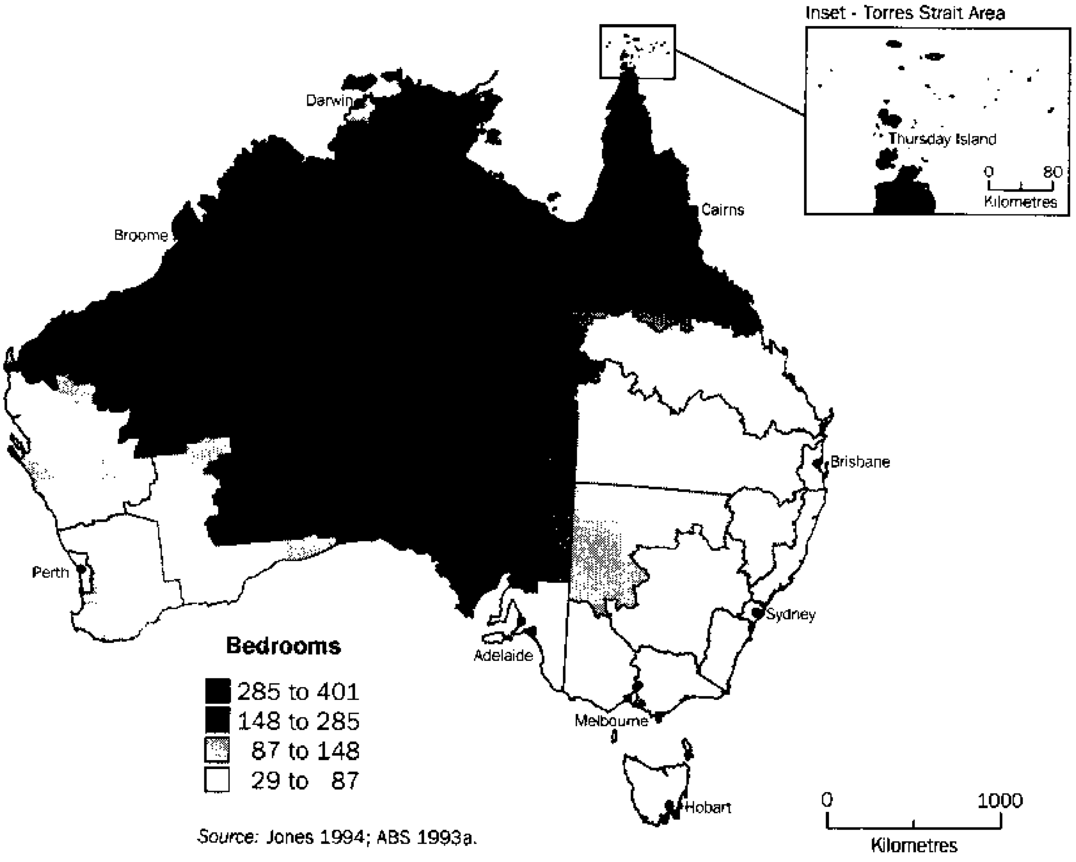
Although dwelling size varied little from region to region, Indigenous households were larger in rural areas (4.9 persons per household) than in other urban areas (4.0) and in capital cities (3.5) (ABS 1996b). In rural areas, where more Indigenous people live traditional lifestyles, cultural factors such as kinship obligations and deaths in the family, as well as seasonal variations in population mobility may be contributing factors to differences in and changes to household size and levels of crowding. For example, in the wet season in certain parts of northern Australia, people may move from outstations into nearby towns to avoid being cut off from services by inaccessible roads thereby causing pressure on town dwellings and households. In the dry season, the situation may ease (Burns, 1995).

The extent of crowding suffered by Indigenous families was estimated by Roger Jones (1994) using 1991 Census data (see explanatory notes) as part of phase 2 of the ATSIC HCINS (see explanatory notes).

Jones used the following criteria to estimate the number of additional bedrooms required to relieve Indigenous families and other adults from overcrowding:

- parents are eligible for a separate bedroom which is shared with a partner, if any;
- non-dependent children and other adult household members are eligible for a separate bedroom (unless married in which case it is shared); and
- a maximum of two dependent children should share a bedroom (Jones 1994).

2.6 ADDITIONAL BEDROOMS REQUIRED PER 1,000 INDIGENOUS PEOPLE



Source: Jones 1994; ABS 1993a.

Map 2.6 shows the results of Jones' calculations for each ATSIC region for 1991, divided by the estimated Indigenous population for the same year. The greatest level of need per population was experienced in the Warburton ATSIC region in Western Australia where approximately 400 additional bedrooms per 1,000 Indigenous people were required. The Nhulunbuy, Aputula and Jabiru ATSIC regions in the Northern Territory were all estimated to require over 2,000 bedrooms each, a figure which represents 350–385 bedrooms per 1,000 Indigenous people.

Seven ATSIC regions, all of them situated in the Northern Territory and northern Queensland, accounted for 40% of the additional bedroom requirements (in terms of absolute numbers) based on Jones' calculations. In table 2.7, it can be seen that for these same seven regions, the average number of persons per household as estimated in the 1994 NATSIS was high compared to the national average. In addition, in five of the regions, people were more likely than the national Indigneous average to indicate that their dwelling did not meet their needs in 1994. More information about housing need is presented in chapter 10.

2.7 COMPARISON OF SURVEY DATA FOR SEVEN ATSIC REGIONS

	Additional bedrooms required 1991(a)	*Bedrooms required per 1 000 Indigenous population 1991 (a)(b)*	*Average persons per household 1994(c)*	*Satisfaction with dwelling 1994(c)*
ATSIC region	no.	no.	no.	%
Jabiru	2 545	351	7.9	22
Nhulunbuy	2 284	385	8.5	35
Aputula	2 223	364	5.8	27
Katherine	1 857	299	6.3	46
Townsville	1 736	155	4.5	80
Cairns	1 640	148	4.9	88
Cooktown	1 633	285	5.5	28
Australia(d)	35 203	133	4.1	70

(a) *Source:* Jones 1994.

(b) *Source:* ABS 1993a.

(c) *Source:* ABS 1997a.

(d) Total for all 35 ATSIC regions and the Torres Strait Area.

ENVIRONMENTAL HEALTH INFRASTRUCTURE AT THE COMMUNITY LEVEL

A failure in the health infrastructure system has the potential to affect whole communities not just individual households (see inset 2.8). The 1992 HCINS (see explanatory notes) is an important source of information about the health infrastructure situation in communities across Australia in 1992. The results are several years old, and it is not possible to estimate the extent to which the situation has changed. Nevertheless, the survey provides the latest available information, and the figures present an insight into living conditions of Indigenous people in the 1990s. Comparable data about the living conditions of non-Indigenous people are not available.

As part of the HCINS, water in communities was tested according to National Health and Medical Research Council (NHMRC) guidelines to determine whether the water was fit for human consumption. Only data for Western Australia, the Northern Territory, Queensland and South Australia are presented in the following section as coverage in the other States was not sufficiently extensive to enable discussion of their water quality. In New South Wales, only about half the Indigenous dwellings that were identified in the 1991 Census were covered by the HCINS (Jones 1994). Coverage in Victoria was more extensive; however, only one centre — out of the 24 centres surveyed — included information on the variables that related to environmental health infrastructure. Very little data were available for Tasmania or the Australian Capital Territory.

Some 80,080 Indigenous people were living in the 838 discrete communities and outstations/homelands covered by the survey in Western Australia, the Northern Territory, Queensland and South Australia. Water in 306 of these centres was found to be unfit for human consumption, affecting an Indigenous population of 14,510 (ATSIC 1992). Over half of those affected lived in the Northern Territory, which may be due in part to the more extensive coverage of centres in the Northern Territory than in other States. One in five affected people lived in the Nhulunbuy ATSIC region, about 16% lived in the Aputula region, and a further 10% (about 1,500 people) lived in each of the ATSIC regions of Jabiru (Northern Territory) and Mt. Isa (Queensland) and the Torres Strait Area (ATSIC 1992).

Over 30,000 Indigenous people in 276 centres had been affected by water restrictions in the 12 months prior to the survey. Of these, 72% had experienced water restrictions for one or more weeks. Most of the problems were encountered in Queensland and the Northern Territory. The most common reason for water restrictions was equipment breakdown. Lack of storage was also a common problem in the Northern Territory (ATSIC 1992).

About 4% of the 80,080 Indigenous people covered in the survey had no sewage disposal system and nearly 11% had no electricity supply while 6% had no garbage collection service (ATSIC 1992).

2.8 HEPATITIS A AND WATER SUPPLY IN THE TORRES STRAIT AREA

In a study of hospital records for Torres Strait Islanders living in the Torres Strait area over the period 1984–94, Henderson and colleagues (1995) concluded that hepatitis A was endemic in the area (Henderson et al. 1995) and was a particular problem in the dry season months of May to November when water supplies are low.

Hepatitis A is more easily passed on in conditions of poor water supply, poor sanitation, poor hygiene and overcrowding. The condition is often not easy to detect with some cases being asymptomatic so the true incidence of the disease is unknown. The annual observed incidence of hepatitis A was found to be 17 times higher than the Queensland rate for the period 1984–93 (Henderson et al. 1995).

An inspection of water supply and water supply systems in the area in 1993 revealed that many of them were in poor condition and that water supplies during the dry season were 'totally inadequate and good personal hygiene (was) difficult to maintain, particularly with such a young population' (Henderson et al. p.54). The authors found a negative association between the incidence of hepatitis A and rainfall: a higher incidence of hepatitis A was associated with low rainfall. They recommended that the water supply situation be treated as urgent and that accompanying preventative measures such as provision of proper sewage disposal and good housing be implemented. In addition they recommended that there be a focus on hygiene behaviour (Henderson et al. 1995).

SUMMARY

On a range of indicators of environmental health, such as the breakdown of utilities, crowding and the availability of suitable water, Indigenous people have high levels of disadvantage and these are likely to impact on their health and wellbeing in a negative way.

CHAPTER 3 HEALTH RISK FACTORS

INTRODUCTION

Various behavioural factors are recognised as having significant effects on a person's health. An example of a behavioural factor that has a positive influence on health is breastfeeding, which occurs at relatively high rates among Indigenous mothers. However, for the other health risk factors considered in this chapter, those of smoking, alcohol consumption, use of illicit drugs, exposure to violence, relative weight and nutrition, Indigenous people are at greater risk of ill health than their non-Indigenous counterparts. Other factors of potential importance such as exercise are not considered in this chapter because little information is available beyond the local or regional level.

While the effect of a risk factor may be well known and well documented, some people's perceptions of the effect of that risk factor on their own health may be at odds with the evidence. For example, in Indigenous communities, many people do not perceive smoking to be harmful (CDHSH 1996). More information on the perceptions of Indigenous people related to health is presented in chapter 5.

The NATSIS and the National Drug Strategy Household Survey (NDS) are two recent sources of information about health risk factors at the national level (see explanatory notes for survey details). Results from the two surveys are discussed in this chapter and compared where possible. Other data sources referred to in this chapter include a study of alcohol consumption in the Kimberley region of Western Australia (inset 3.16), and national hospital separations data on injury.

BREASTFEEDING

Breastfeeding has nutritional and immunological advantages for the developing child and is associated with reduced infant and child mortality. Breastfeeding also circumvents the problem of keeping infant feeding bottles clean.

In the NATSIS, questions on breastfeeding history were asked about children under 13 years old. Breastfeeding was most common in the Northern Territory, where it was reported that about 90% of children under the age of 13 had been, or were currently being breastfed. By contrast, it was reported that over a third of children in New South Wales, Victoria and South Australia had not been breastfed (table 3.1). Breastfeeding was more commonly reported in rural areas than in urban areas (ABS 1996d).

Over 70% of Indigenous babies in the Northern Territory were breastfed for six months or more, which is much higher than in the other States. Indigenous babies in rural areas were more likely to be breastfed for longer than six months than those in urban areas (ABS 1996d).

3.1 BREASTFEEDING OF INDIGENOUS CHILDREN UNDER 13 YEARS OF AGE

Whether breastfed	*New South Wales*	*Victoria*	*Queensland*	*South Australia*	*Western Australia*	*Tasmania*	*Northern Territory*	*Australia*
				PROPORTION (%)				
Males								
Currently	**2.6	**7.1	**1.3	**5.8	6.3	**2.2	9.1	4.3
Was breastfed	56.8	53.6	70.5	54.1	71.4	69.6	80.5	66.3
Not breastfed	38.2	34.5	26.4	35.6	21.0	26.5	9.7	27.3
Do not know/not stated	**2.4	**4.8	**1.8	**4.5	**1.2	**1.7	**0.7	2.0
				NUMBER				
Males	14 700	3 400	14 400	3 300	8 700	1 800	7 800	54 400
				PROPORTION (%)				
Females								
Currently	**1.5	**9.8	**2.6	**4.6	8.0	**3.2	**5.6	4.2
Was breastfed	59.1	52.6	69.7	55.8	66.9	66.5	84.3	66.5
Not breastfed	38.7	36.3	27.0	34.2	23.5	30.1	9.4	28.2
Do not know/not stated	**0.7	**1.4	**0.7	**5.4	**1.6	**0.2	**0.8	1.2
				NUMBER				
Females	13 800	3 300	13 400	3 200	8 300	1 700	7 400	51 400

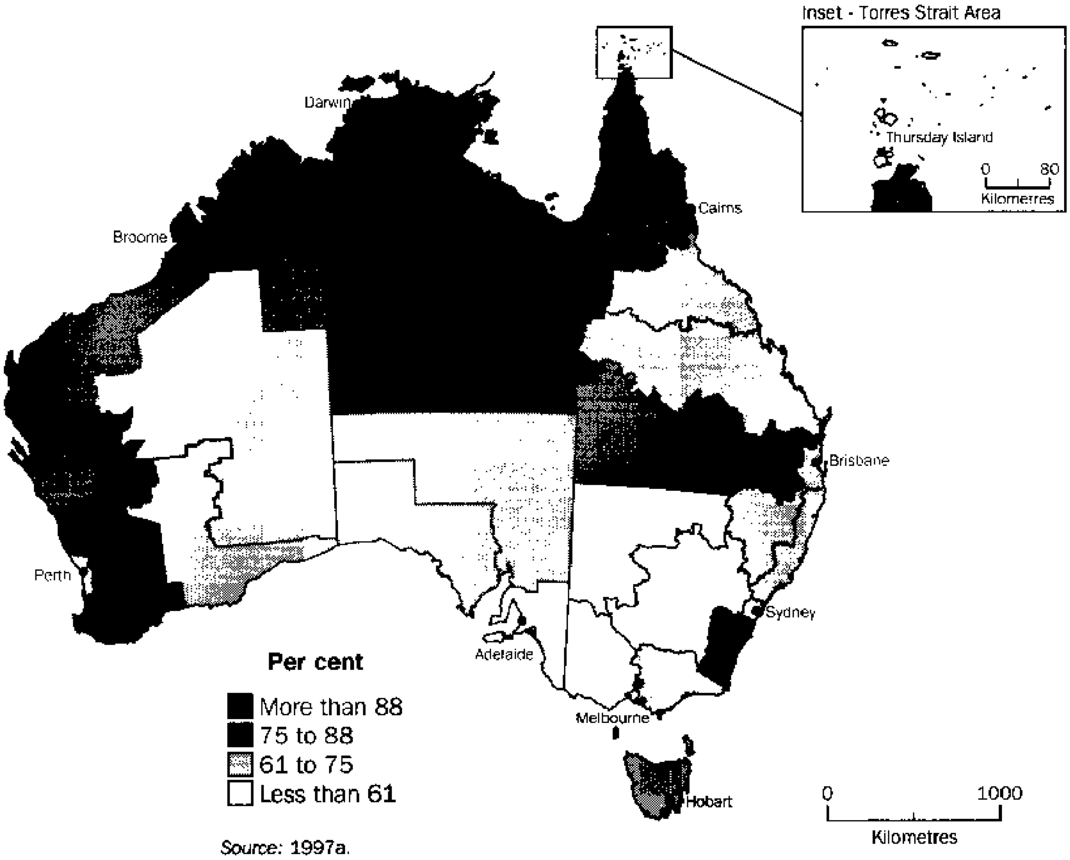
** subject to high sampling variability.

Source: ABS 1996d.

Indigenous babies in households with $25,000 or more annual income were more likely to have been breastfed, and for longer periods, than were those from lower income households. Similarly, Indigenous babies from households with one or more persons working were more likely to have been breastfed for longer than were those in households where no-one was working (ABS 1996d). Various studies have shown that women of higher socioeconomic status are more likely to breastfeed and to do so for longer (Jain 1996).

Map 3.2 shows, for each ATSIC region and the Torres Strait area, the proportion of children under 13 years of age who were reported as having been breastfed. The proportions were highest across northern Australia and the west coast, and lowest in much of the south-east.

3.2 WHETHER EVER BREASTFED, Indigenous Children Under 13 Years



Source: 1997a.

NUTRITION

Good nutrition is important for good health. Diet is associated with a range of conditions and diseases such as diabetes, heart disease, stroke, high blood pressure, anaemia and some cancers, as well as increased susceptibility to infection (Lester 1994). Many of these illnesses and conditions are more common among Indigenous Australians than among non-Indigenous Australians.

The consumption of healthy foods depends not only on personal choice, but also on the availability and affordability of such foods and on factors related to appropriate food storage and preparation, such as clean water, refrigeration, and functional cooking appliances. Limited availability of nutritious foods is often a problem in remote areas for Indigenous and non-Indigenous people alike (Lester 1994), but Indigenous people are more likely to be affected because they are more likely than non-Indigenous people to live in non-urban areas (see chapter 1). Affordability is another potential problem in remote areas because food is more expensive there than in capital cities (Lester 1994), but lack of affordable nutritious food is not limited to remote areas. The economic disadvantage of Indigenous Australians (see chapter 10) means that many Indigenous people throughout Australia can not always afford to make healthy food choices.

Basic food security is a concern for many Indigenous Australians. When asked in the NATSIS, about 29% of Indigenous people aged 15 years or over said they 'worried' or 'sometimes worried' about going without food. People were more likely to say they worried about going without food if they lived in rural areas or had less than a year 10 education, or if they lived in a household with annual income less than $25,000, with dependent children, or with no-one working (ABS 1995b). No comparable data is available for non-Indigenous Australians.

BODY WEIGHT

Relative body weight is important both as a consequence of past and current health and as a predictor of future health. For example, being underweight may reflect poor nutrition or illness, while obesity is a risk factor for diabetes.

Body mass index (BMI — see glossary) was calculated for people in the NATSIS who were aged 18 years and over, and who agreed to be measured by the interviewer. About 26% of people aged 18 years and over were not measured (ABS 1996d). Classification into relative weight categories (i.e. underweight, acceptable weight, overweight and obese) was based on guidelines of the NHMRC (NHMRC 1984 and 1985).

Among those who were measured, about 60% of males and about 57% of females could be classified as overweight or obese. Only about one-third of the males and females measured were of acceptable weight (ABS 1996d). In comparison, about half of all adults aged 18 years and over who reported weight and height measurements in the 1989–90 National Health Survey of the general population were of acceptable weight, with about 38% overweight or obese (ABS 1996d).

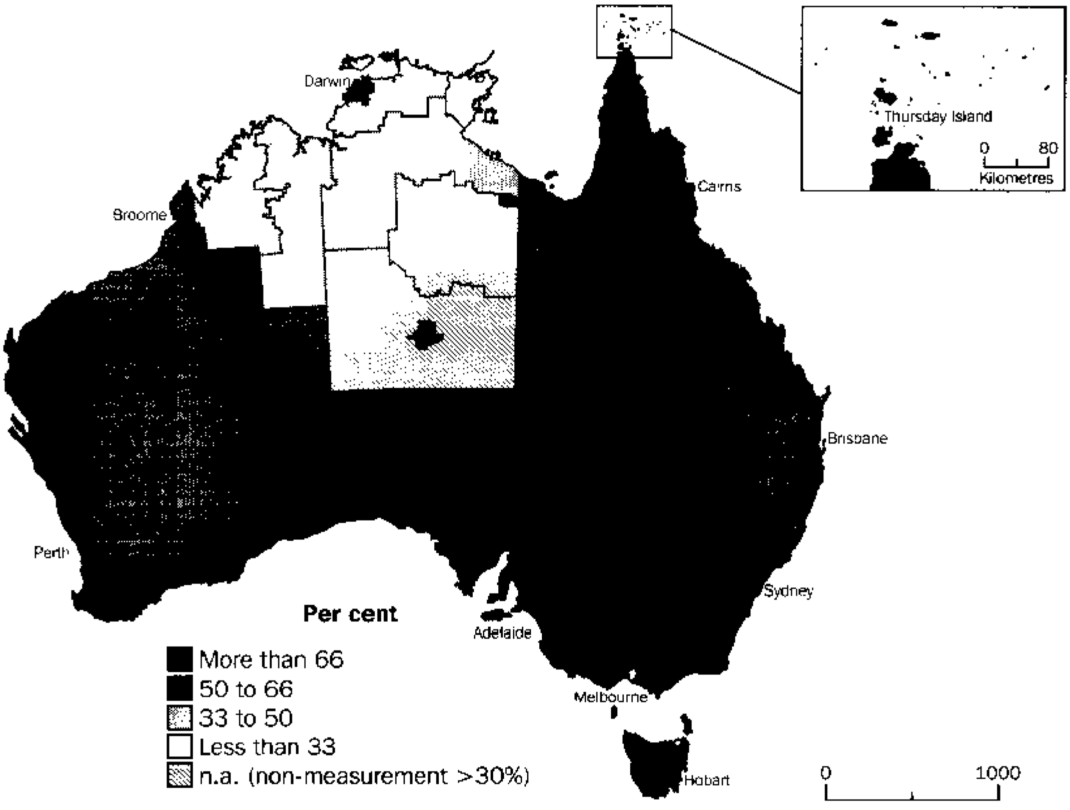
Among females who were measured in the NATSIS, the proportion who were overweight or obese was similar in capital cities (57%), other urban (58%) and rural areas (56%). The proportion of males in the overweight or obese category was slightly higher in capital cities (62% of those measured) and other urban areas (61% of those measured) than in rural areas (55% of those measured) (ABS 1996d).

Males and females aged 18–24 years were the most likely to be of acceptable weight, but about 45% of those measured in this age group were overweight or obese. Almost three-quarters of males and females aged 45–54 years who were measured were overweight or obese (ABS 1996d).

Among males, more than half of those measured were overweight or obese in all parts of the country except some areas of northern Western Australia and the Northern Territory. There was more variation among females, as maps 3.3 and 3.4 show.

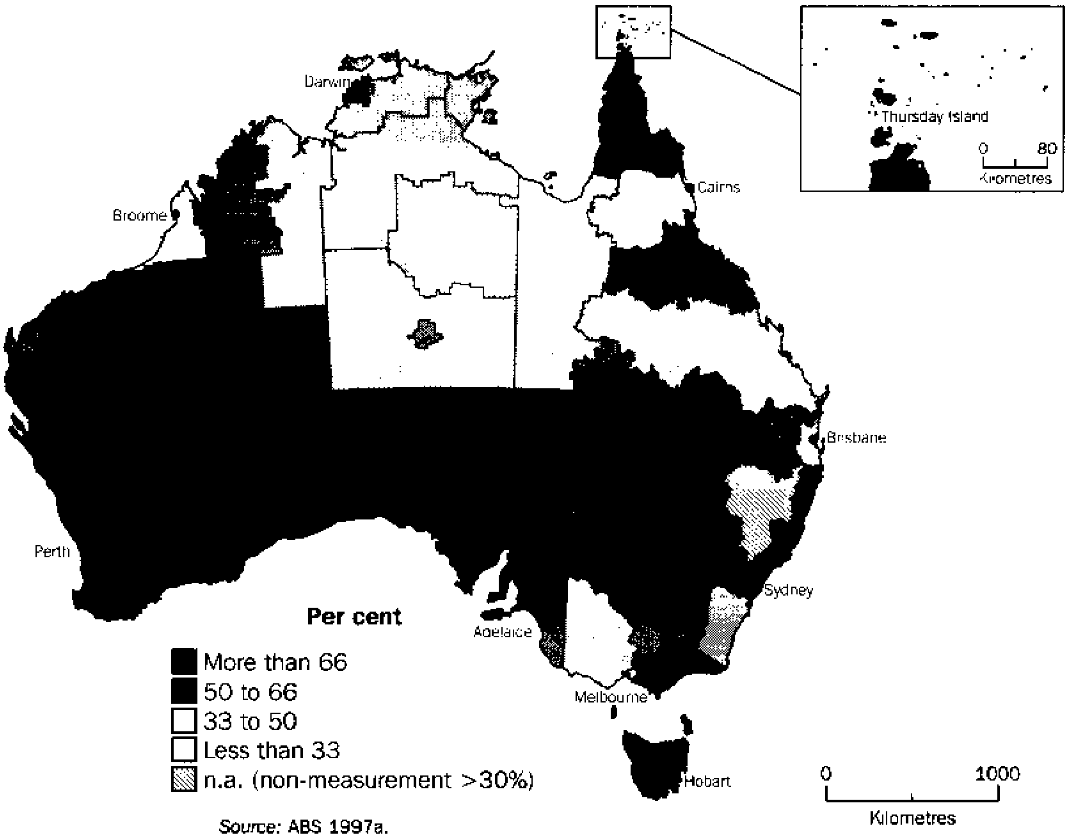
Being underweight was much less common than being overweight, with about 9% of females and 6% of males categorised as underweight. Males in rural areas were more likely to be underweight than those in capital cities or other urban areas, but the opposite was true for females (ABS 1996d).

3.3 OVERWEIGHT OR OBESE INDIGENOUS MALES, 18 Years and Over



Source: ABS 1997a.

3.4 OVERWEIGHT OR OBESE INDIGENOUS FEMALES, 18 Years and Over



Source: ABS 1997a.

SMOKING

In addition to the greater risk of various forms of cancer, cigarette smoking has also been found to be associated with numerous other conditions such as heart disease, stroke and low birthweight (English et al. 1995).

Nationally, about 50% of Indigenous people over the age of 13 years reported that they smoked in 1994 (ABS 1996d). A number of other sources have documented the high rates of smoking among Indigenous Australians (Unwin et al. 1994; ABS 1996d).

The proportion of smokers in each State varied for males and females, and there was greater variation among females than among males (table 3.5). Victoria was the only State in which the proportion of females who said they smoked was higher than that of males. The difference between males and females was most pronounced in the Northern Territory (ABS 1996d).

3.5 SMOKING STATUS AMONG INDIGENOUS PEOPLE AGED 13 YEARS AND OVER

Whether smoked	*New South Wales*	*Victoria*	*Queensland*	*South Australia*	*Western Australia*	*Tasmania*	*Northern Territory*	*Australia*
				PROPORTION (%)				
Males								
Smoked	52.0	52.9	52.7	59.8	51.1	49.0	59.4	53.6
Did not smoke	48.0	45.5	46.7	40.2	48.8	51.0	39.9	46.0
				NUMBER				
Males(a)	25 600	6 200	25 700	5 900	15 100	3 400	15 300	98 000
				PROPORTION (%)				
Females								
Smoked	49.6	61.2	44.2	51.6	45.4	42.7	35.5	45.8
Did not smoke	50.1	38.8	54.7	48.4	54.5	57.3	64.5	53.8
				NUMBER				
Females(a)	26 300	6 300	26 400	6 000	15 200	3 200	15 600	99 500

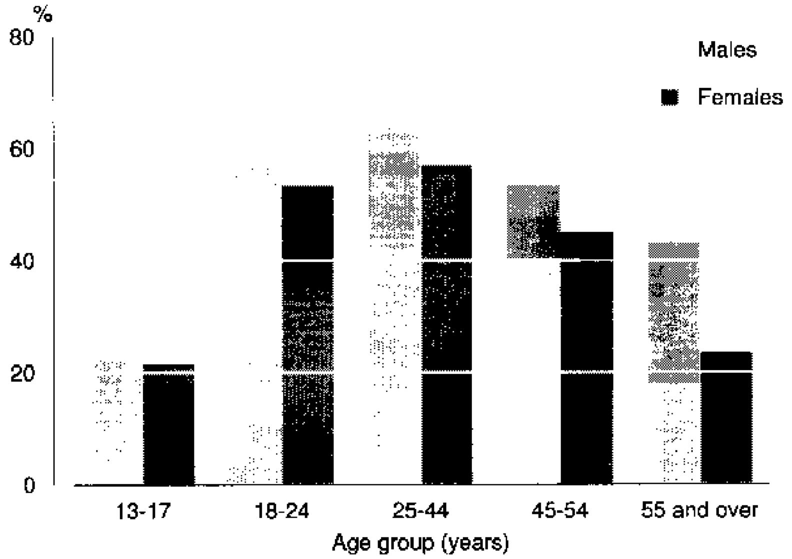
(a) Totals include a small number of 'not stated' responses.

Source: ABS 1996d.

In capital cities, 52% of both males and females said they smoked. In rural areas however, a higher proportion of males (56%) reported smoking than did females (41%). For both males and females, smoking was most commonly reported for people aged 25–44 years (graph 3.6; ABS 1996d).

A comparison of data from the NATSIS and the NDS: Urban Aboriginal and Torres Strait Islander Peoples Supplement is presented in table 3.7 for Indigenous people aged 14 and over living in urban areas. Although caution should always be exercised when comparing the results of surveys which use different survey instruments, it can be seen that the findings on the prevalence of smoking in urban areas are quite similar for the two surveys, with both estimates considerably higher than for the general urban population.

3.6 SMOKING AMONG INDIGENOUS PEOPLE AGED 13 AND OVER



Source: ABS 1996d.

3.7 SMOKING IN URBAN AREAS, Survey Comparison(a)

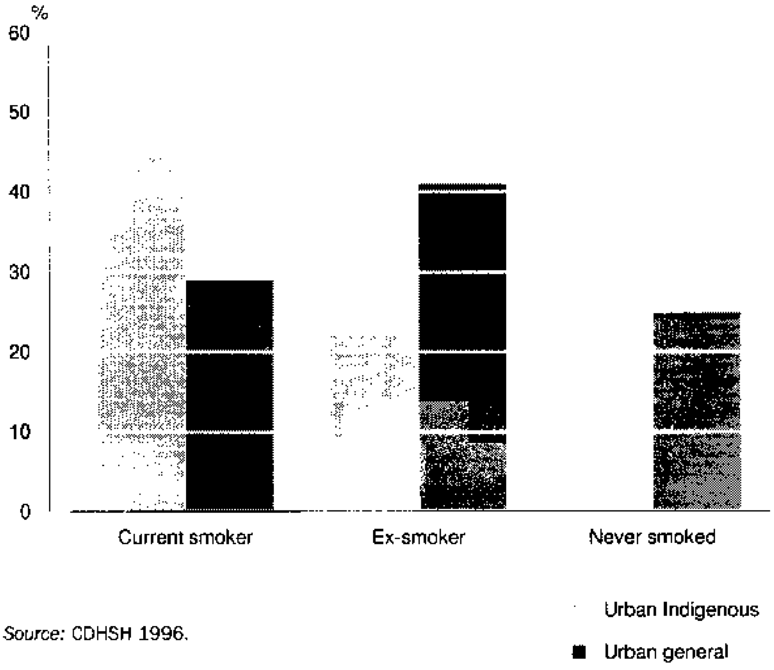
	1994 NDS (urban Indigenous population)	*1994 NATSIS (urban Indigenous population)*	*1993 NDS (urban general population)*
	%	%	%
Current smokers	54	51	29
Current smokers — males	58	54	n.a.
Current smokers — females	50	49	n.a.

(a) People aged 14 years and over. See explanatory notes for more information about these surveys.

Source: NATSIS unpublished data; CDHSH 1996.

Although the proportion of people who had never smoked was similar for Indigenous people and for the general population in urban areas, Indigenous people were more likely to be current smokers and less likely to be ex-smokers (graph 3.8). That is, Indigenous people who had ever started smoking were less likely to have given it up. However, among regular smokers in urban areas, Indigenous smokers tended to report smoking fewer cigarettes per day than did smokers from the general population (CDHSH 1996). More information about smoking is presented in chapter 4.

3.8 SMOKING IN URBAN AREAS



Source: CDHSH 1996.

ILLICIT DRUG USE

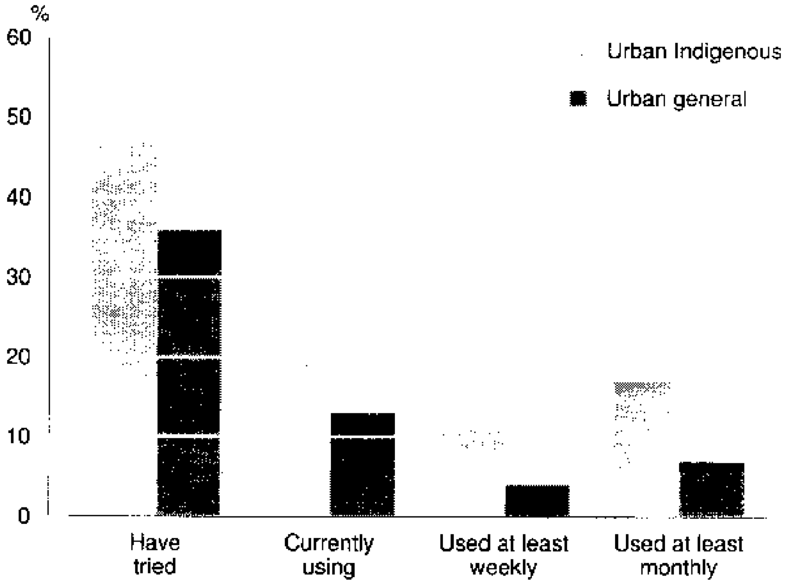
The proportion of people who had tried a 'hard' drug was the same in both populations (12%), with the level of current users of these drugs being similar at around 3%–4% (CDHSH 1996).

Differences between the general population and the Indigenous population emerged with respect to illicit drug use from the NDS survey (see explanatory notes for survey details). Some 51% of the urban Indigenous population reported that they had tried at least one illicit drug compared to 38% of the general population. Marijuana was by far the most commonly tried illicit drug among Indigenous people, with almost half of those aged 14 or more reporting that they had tried it at some time and about one in five currently using it (graph 3.9). About 24% of the Indigenous population were current users of an illicit drug compared to 15% of the general population.

As with the general population, Indigenous males were more likely to have tried an illicit drug and to be current users than were Indigenous females. The only exception to this was for prescription drugs for which females were either as likely or more likely to be current users (CDHSH 1996).

Current use of an illicit drug was highest among the 20–24 year old group (34%) although the 14–19 year old group were not far behind at 31%. If marijuana is excluded, illicit drug use was highest for the latter group with 10% using at least one illicit drug other than marijuana (CDHSH 1996).

3.9 MARIJUANA USE IN URBAN AREAS



Source: CDHSH 1996.

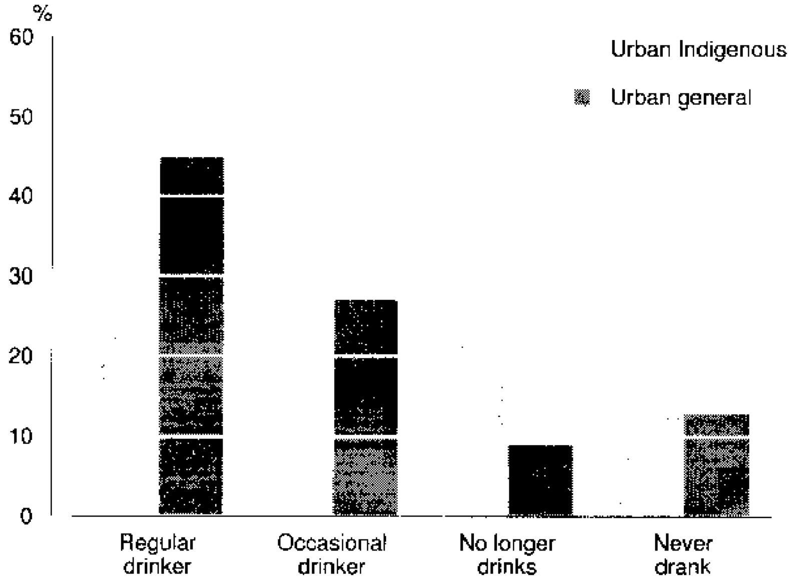
ALCOHOL

The excess consumption of alcohol is a major health risk factor (see glossary for the NHMRC guidelines for alcohol consumption). Alcohol consumption has been linked to numerous health conditions such as road injuries, cirrhosis of the liver, suicide and stroke (Unwin et al. 1994) as well as social problems. In a study of alcohol consumption in the Kimberley area of Western Australia (inset 3.16), the authors write that 'there is a consensus that alcohol has had a major, and generally damaging impact on Aboriginal traditional life, family structure, health and capacity for self-determination' (Hunter et al. 1991, p. 5).

In Western Australia for the period 1983–91, it was estimated that Indigenous males were five times more likely to die from alcohol-related conditions than their non-Indigenous counterparts and over nine times as likely to be hospitalised for these conditions. Indigenous females were estimated to die at almost four times the rate of non-Indigenous females and to be hospitalised almost 13 times as often for alcohol-related conditions (Unwin et al. 1994, p. 31).

Contrary to popular belief, however, a higher proportion of non-Indigenous people than Indigenous people in urban areas are drinkers and drink alcohol on a regular basis (graph 3.10 and table 3.11). In the NDS surveys of 1993 and 1994, it was found that there was a lower proportion of Indigenous current regular drinkers (33%) than in the general population (45%). Over twice as many urban Indigenous people said they no longer drank alcohol than did their counterparts in the general population (22% versus 9%) (CDHSH 1996). In the NATSIS, a large proportion of Indigenous people across Australia — 19% of males and 34% of females — reported that they had never drunk alcohol. This varied from about 9% in Tasmania to 30% in the Northern Territory for males and from about 15% in Victoria to over 60% in the Northern Territory for females (maps 3.12 and 3.13; ABS 1996d).

3.10 ALCOHOL CONSUMPTION IN URBAN AREAS



Source: CDHSH 1996.

Males (25%) and females (48%) in rural areas were most likely to say that they had never drunk alcohol, while those in capital cities were most likely to say they had drunk in the previous week (ABS 1996d).

The large proportion of abstainers amongst the Indigenous population has been observed in the past. In a survey conducted in the Kimberley region in 1989–90 (inset 3.16), about half of the sample were found to be drinkers and the other half had either never drunk or had given up alcohol (Hunter et al. 1991). Data from the NDS and the NATSIS for Indigenous people aged 14 and over living in urban areas showed similar patterns of consumption in the two surveys (table 3.11).

3.11 ALCOHOL CONSUMPTION IN URBAN AREAS, Comparison of Surveys(a)

	1994 NDS (urban Indigenous population) %	*1994 NATSIS (urban Indigenous population)* %	*1993 NDS (general urban population)* %
Current drinkers	62	69	72
Current drinkers — males	71	77	n.a.
Current drinkers — females	55	61	n.a.
Whether drank alcohol within last week	45	43	n.a.
Whether drank alcohol within last month	56	55	n.a.

(a) People aged 14 years and over. See explanatory notes for more information about these surveys.

Source: NATSIS unpublished data; CDHSH 1996.

Of those drinkers in the NDS survey who reported drinking at least weekly, 79% were found to be consuming alcohol at harmful levels based on NHMRC guidelines (see glossary) compared to 12% in the general community. The higher quantities of alcohol consumed mean that Indigenous drinkers face much higher health risks from alcohol than drinkers in the general population (CDHSH 1996).

Indigenous males generally start drinking earlier, and consume at hazardous levels more frequently, than Indigenous females. This is also the case in the general population (CDHSH 1996).

Among Indigenous males, hazardous and harmful drinking patterns peaked at age 25–34, while in the general male population, such patterns were observed among 14–24 year olds. On the other hand, Indigenous females had a pattern more similar to the general female population with the highest consumption patterns occurring at age 14–24 and then decreasing with age (CDHSH 1996).

About 59% of all Indigenous drinkers reported that they had attempted to reduce their levels of alcohol consumption in the last year (CDHSH 1996).

3.16 ALCOHOL CONSUMPTION IN THE KIMBERLEY REGION OF WESTERN AUSTRALIA

The survey was conducted in 1988–89 amongst a stratified random sample of 516 Aboriginal people aged 15 years and over resident in the Kimberley (see map 6.9). There were the same number of males and females in the sample and the mean age was 44.8 years. About half of the sample lived in Aboriginal communities, 44% lived in towns and the other 7% lived on pastoral stations or elsewhere. Face-to-face interviews were conducted over a 19-month period. Information was sought about demographic and social characteristics, patterns of alcohol use, personal consequences of alcohol use and personal and social problems such as psychiatric symptoms, self-harming behaviour and incarceration.

Estimates were made for the prevalence of drinking for the whole of the Kimberley Aboriginal population which showed that there was a clear majority of drinkers (61%) in the population. About 76% of males were drinkers compared to 46% of females.

The proportion who drank declined with age among both men and women. Non-drinkers were more likely to be older, with female non-drinkers more likely to be lifetime abstainers and male non-drinkers more likely to be ex-drinkers.

Location affected the availability of alcohol and the pattern of drinking, but not the tendency to drink. Drinkers who drank most days were more likely to live in a town and less likely to live in an Aboriginal community than intermittent drinkers (who drank a few days every week or fortnight) or episodic drinkers (who drank only occasionally although usually heavily).

Severe psychological symptoms were more likely to be reported by persons who drank heavily.

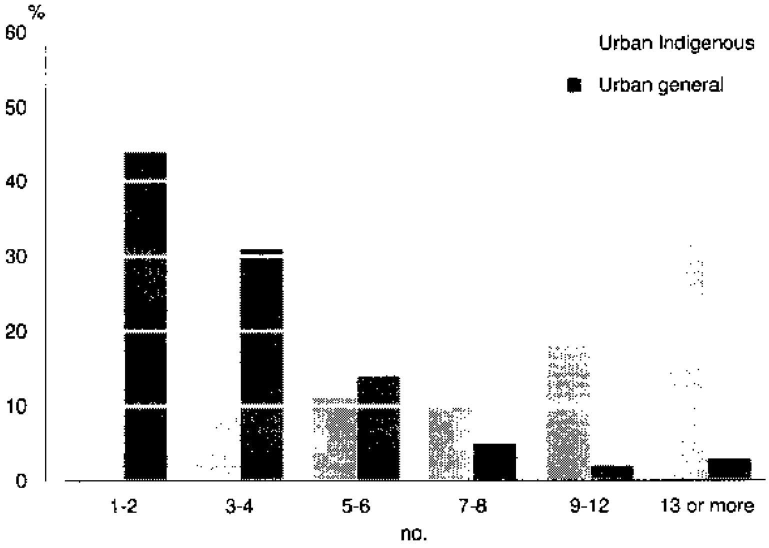
The rates for incarceration in a police lockup were very high, particularly among young men. The frequency with which a person was incarcerated in a police lock-up was strongly related to the frequency with which that person drank, and to the quantity that they consumed when they drank.

There was a widespread perception among men and women of all ages that alcohol was a community problem in the Kimberley. See chapter 5 for more detail on perceptions of health problems and concerns.

Source: Hunter, Hall & Spargo 1991.

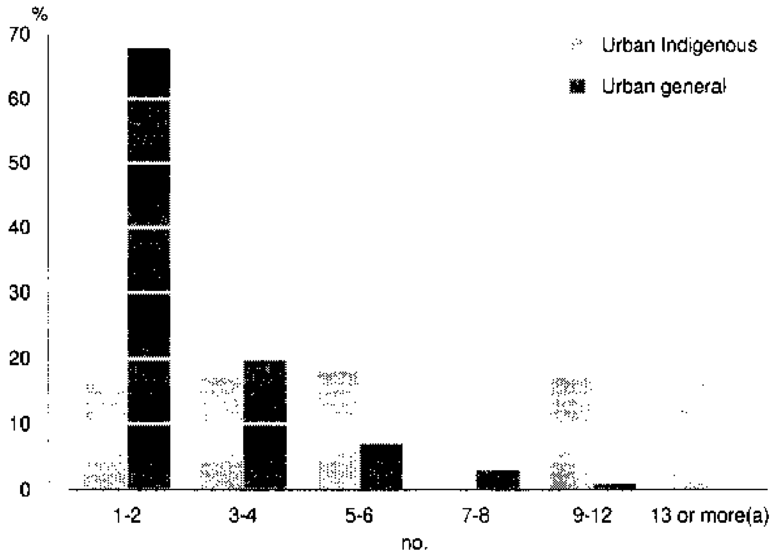
Although a smaller proportion of Indigenous people drink alcohol than do their counterparts in the general population, those Indigenous people who do drink are more likely to drink at higher levels (graphs 3.14 and 3.15). Both the NDS and the Kimberley studies found that Indigenous current drinkers frequently consumed alcohol in harmful quantities (see glossary for NHMRC guidelines). In the Kimberley population, it was found that 83% of drinkers were consuming alcohol in harmful quantities (Hunter et al. 1991).

3.14 DRINKS USUALLY CONSUMED PER EPISODE, Male Current Drinkers



Source: CDHSH 1996.

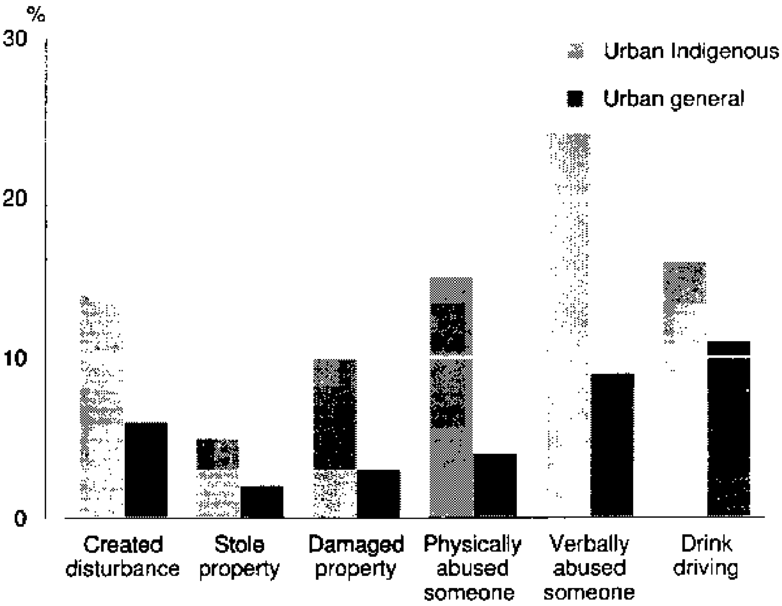
3.15 DRINKS USUALLY CONSUMED PER EPISODE, Female Current Drinkers



(a) The value for the general urban population is zero.

Source: CDHSH 1996.

3.18 INVOLVEMENT IN ALCOHOL-RELATED CRIME, In Past 12 Months



Source: CDHSH 1996.

EXPOSURE TO VIOLENCE

Violence is a health risk factor that is at times overlooked. It can result in injury, psychological trauma and even death.

In the NATSIS, people aged 13 and over were asked whether they had been verbally threatened or physically attacked in the last year. About 14% of Indigenous males and 12% of Indigenous females said they had been. Almost 8% of Indigenous males and almost 6% of Indigenous females said that they had been threatened or attacked and that the most recent incident had included a physical attack (ABS 1996d).

These figures suggest that the problem of violence-related injury is not a minor one and this is supported by data on the rates of hospitalisation experienced by Indigenous people as a result of interpersonal violence (see the section on injury in chapter 8 for more details on all types of injury).

It was reported by Moller and colleagues (1996) that Indigenous people of all ages had a much higher rate of hospital separation from interpersonal violence injuries than did the non-Indigenous population (graph 3.19). In 1991–92, the age-adjusted rate of hospitalisation resulting from interpersonal violence among Indigenous people (1,388 per 100,000) was 17 times higher than that of the non-Indigenous population (81 per 100,000). (Data from the Northern Territory were not included in these figures because hospitalisation data were not complete for 1991–92.)

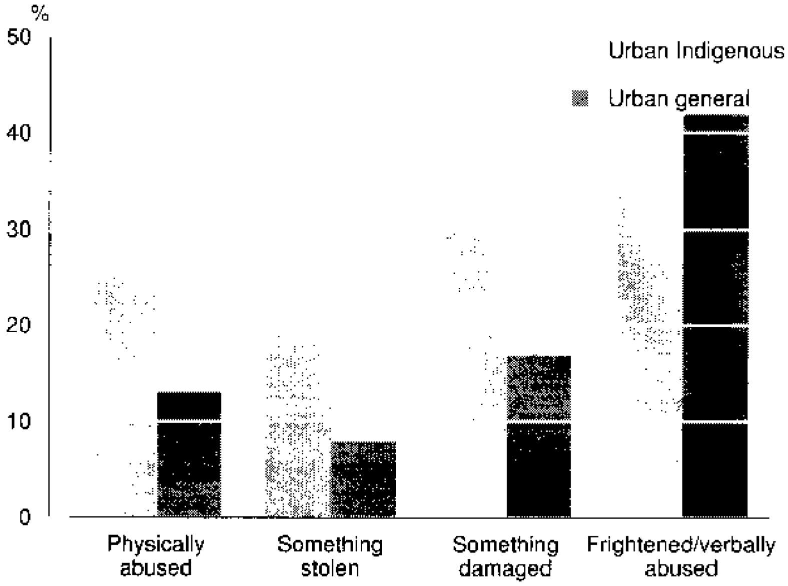
Under-identification of Indigenous people would have led to an under-estimation of their rates of hospitalisation. On the other hand, interpersonal violence among non-Indigenous women is believed to be under-reported (Moller 1996) so comparisons of Indigenous and non-Indigenous females should be treated with caution.

ALCOHOL-RELATED CRIME

The negative effects of alcohol abuse include the higher risk of being either a victim of or involved in alcohol-related crime.

The NDS results showed that those most likely to report being victims of alcohol-related crime were Indigenous males and regular drinkers. For all categories of victimisation except verbal abuse/being put in fear, experience of alcohol-related crime was almost twice as likely to be reported in the urban Indigenous population as it was in the general urban community (graph 3.17; CDHSH 1996).

3.17 EXPOSURE TO ALCOHOL-RELATED CRIME IN URBAN AREAS



Source: CDHSH 1996.

People were also asked about their involvement in alcohol-related crime in the past 12 months. Indigenous people were more likely to report having been involved in such an incident than were people in the general population (graph 3.18).

CHAPTER 4 SMOKING

WHY A SEPARATE CHAPTER ON SMOKING?

In this chapter, the focus is on tobacco smoking. Although there is information on smoking and its health effects in other chapters, it is important that 'the smoking story' be told in its entirety. Smoking is perhaps the most important preventable cause of ill health and death in Indigenous and non-Indigenous people alike. In 1992, smoking was estimated to be responsible for about 1 in 7 deaths and $672 million in health care costs in Australia (AIHW 1996b).

SMOKING PREVALENCE

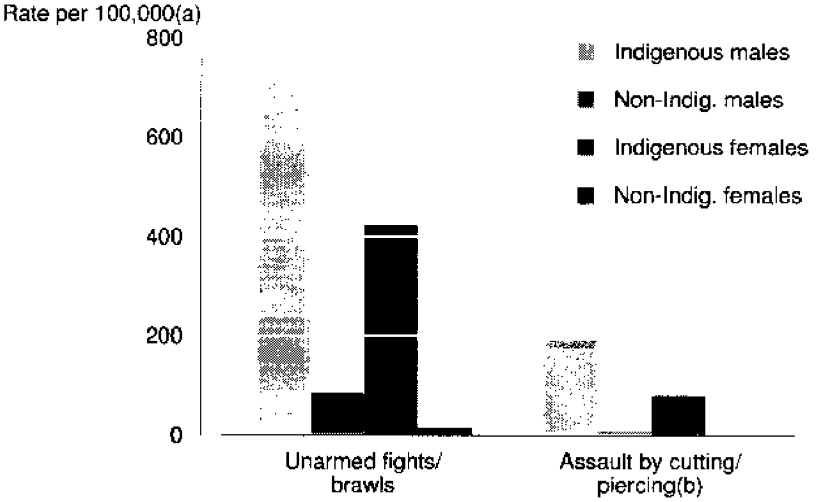
Smoking is an especially important health risk factor for Indigenous Australians because a very high proportion of Indigenous people smoke (see also chapter 3). In the NATSIS of 1994, 54% of males and 46% of females aged 13 years or more reported that they smoked (ABS 1996d). Similarly, in the NDS Household Survey of Urban Aboriginal and Torres Strait Islander people, also conducted in 1994, 54% of people aged 14 years or more said they were currently smoking (CDHSH 1996). This can be compared with all-Australian smoking figures of 28% for males and 22% for females aged 18 years and over in 1994–95 (AIHW 1996b). That is, the proportion of Indigenous people who smoke is about twice the national average.

A similar disparity in the prevalence of smoking between indigenous and non-indigenous people exists in New Zealand and Canada. While only about 21% of European/Pakeha adults (aged 15 or more) in New Zealand smoked in 1992–93, almost half (47%) of Maori adults smoked (Statistics NZ and Ministry of Health 1993). In Canada, about 26–35% of males and females from 20–64 years reported smoking in 1990 (Health and Welfare Canada 1993 as cited in AIHW 1996b), but over half of indigenous Canadians aged 15 years or more said they smoked daily (45%) or occasionally (12%) in 1991 (Statistics Canada 1993).

Although indigenous people in the United States are also more likely to smoke than their non-indigenous counterparts, the differential is not as great as it is in Australia, New Zealand or Canada. In the United States, about 39% of Native Americans/Alaska Natives smoke, compared to about 25% of white Americans and 26% of black Americans (CDC 1994).

The proportion of Indigenous Australians who said they smoked varied considerably from region to region, from 39% to 80% for males and from 17% to 69% for females (maps 4.1 and 4.2; ABS 1997a). Even in the 'low' smoking regions, however, the prevalence of smoking was generally much higher than the national average. More information on smoking by age and region is presented in chapter 3.

3.19 HOSPITALISATION FOR INJURY FROM INTERPERSONAL VIOLENCE



(a) Age-adjusted; excludes Northern Territory.

(b) The value for non-Indigenous females was 2 per 100,000.

Source: Moller et al.1996.

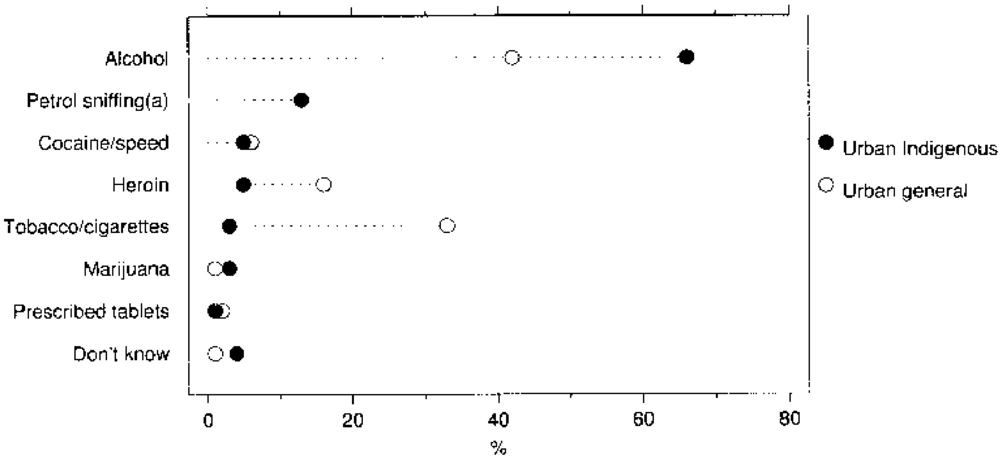
SUMMARY

Indigenous people are at greater risk of ill health than non-Indigenous people due to higher rates of smoking, alcohol abuse, injury from violence and being overweight or obese. Higher levels of breastfeeding among Indigenous women, however, are likely to have beneficial health effects for their children.

PERCEPTIONS ABOUT SMOKING

Despite widespread recognition of the adverse health effects of smoking in the community at large, there is evidence from the NDS (CDHSH 1996) that Indigenous Australians generally underestimate the risks of tobacco smoking. About a third of respondents said they thought it was safe to smoke a pack or more of cigarettes a day. When asked which substances they thought caused the most deaths of Indigenous people, about two-thirds (66%) named alcohol, while only 3% said tobacco. Petrol sniffing, cocaine and heroin were all named by more people than tobacco was. This is in sharp contrast to a similar survey of the general population, in which about a third of all respondents named tobacco as the substance which caused the most deaths (graph 4.3; CDHSH 1996).

4.3 PERCEIVED CAUSE OF THE MOST DEATHS, By Substance

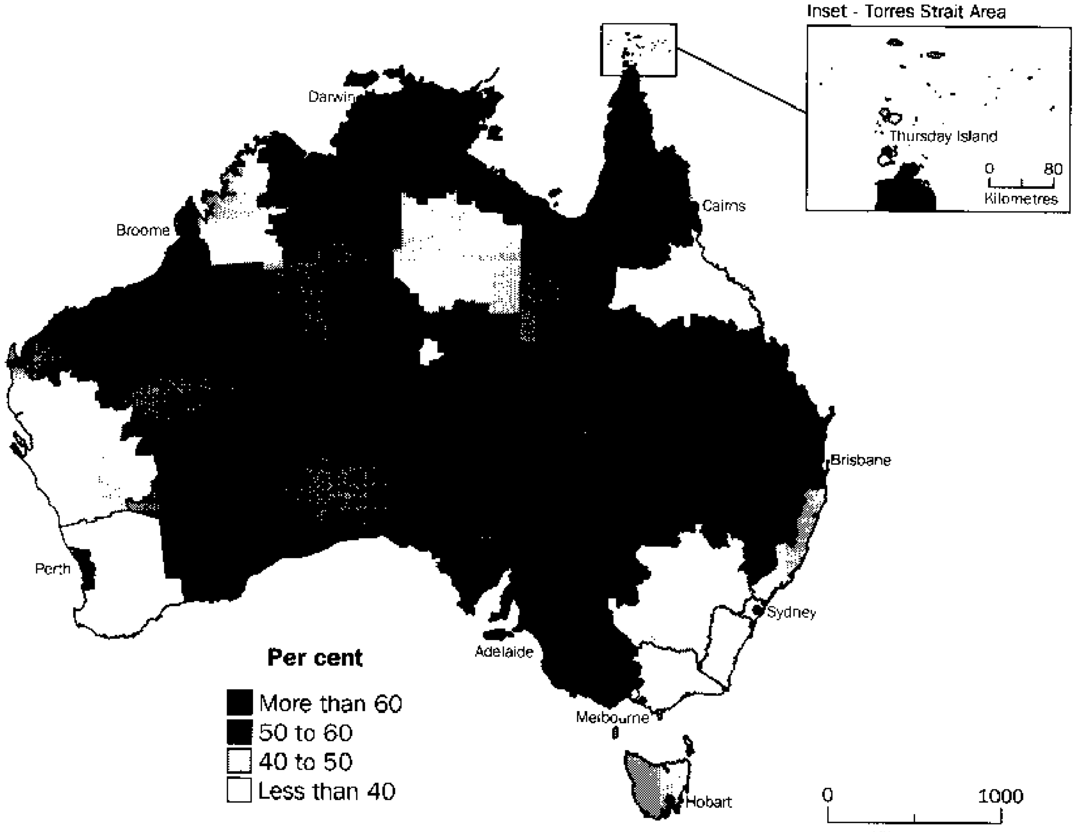


(a) Petrol sniffing was not included on the list in the urban general population survey.
Source: CDHSH 1996.

In a recent study in Western Australia, smoking was estimated to cause more deaths than alcohol, among Indigenous and non-Indigenous people alike. After adjusting for age, the death rate for Indigenous males in 1989–91 was 271 per 100,000 for smoking-related deaths, compared with 152 per 100,000 for alcohol-related deaths. Among Indigenous females, there were an estimated 118 deaths per 100,000 related to smoking and 56 per 100,000 related to alcohol. The rates of hospitalisation were higher for alcohol-related conditions than for smoking-related conditions, however. Deaths and hospital separations (see inset 8.1) from both smoking and alcohol consumption occurred at much higher rates among Indigenous people than non-Indigenous people (Unwin et al. 1994).

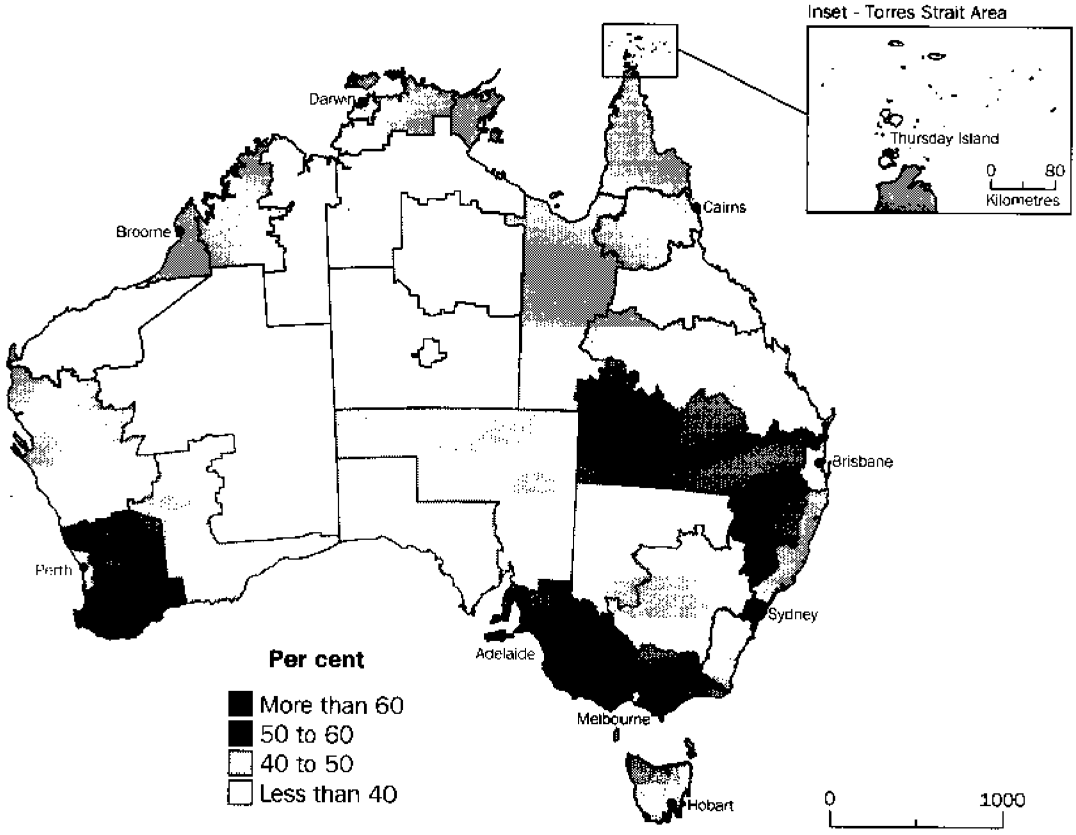
Despite the apparent lack of awareness of the risks of smoking, Indigenous people were about as likely as non-Indigenous people to support tobacco-related policy initiatives, such as stricter enforcement of laws against supplying cigarettes to children and banning smoking in the workplace (CDHSH 1996; see also chapter 5).

4.1 SMOKING, Indigenous Males 13 Years and Over



Source: ABS 1997a.

4.2 SMOKING, Indigenous Females 13 years and Over



Source: ABS 1997a.

4.4 AGE-STANDARDISED HOSPITAL SEPARATION RATIOS(a)(b)

Type of condition	*Male*	*Female*
Cancer	0.7	1.1
Circulatory disease	2.3	3.5
Respiratory disease	3.1	3.6

(a) Age-standardised hospital separation ratio is equal to observed Indigenous public hospital separations divided by expected public hospital separations, based on all-Australian sex-, age- and cause-specific rates of public hospital separations for the same year. See chapter 8 for more details.

(b) Data from 1992–93 for Queensland, South Australia, Western Australia and the Northern Territory combined.

Source: AIHW hospital separations database.

It is possible to estimate the probability that a 'smoking-related' illness or death is actually due to smoking (English et al. 1995). In an analysis of hospitalisations and deaths in 1989–91 in Western Australia in which such probabilities were calculated, it was estimated that Indigenous males died from tobacco-related causes at a rate 2.4 times that of non-Indigenous males, while their rate of hospitalisation was 2.6 times higher. For Indigenous females, the rates of death and of hospitalisation for tobacco-related causes were estimated to be 3.7 and 4.7 times greater, respectively, than for their non-Indigenous counterparts (Unwin et al. 1994).

SUMMARY

Smoking is clearly an important factor in the heavy burden of chronic disease and premature death suffered by Indigenous Australians. Other factors such as infectious disease and poor nutrition may interact with smoking to increase the risks of poor health. There is a lack of understanding of the health risks of smoking among Indigenous people, which suggests that appropriate health education is needed. Because some of the health effects of smoking may remain hidden for many years, the consequences of today's high smoking rates will continue to be felt for years to come. On the other hand, smoking cessation can result in a number of health benefits almost immediately. If changes in the smoking rates of Indigenous Australians fail to keep up with decreasing rates seen in the Australian population as a whole (AIHW 1996b), it is likely that the gaps between Indigenous and non-Indigenous people in health and life expectancy could not only fail to narrow, but could actually increase.

HEALTH RISKS OF SMOKING

Smoking is associated with such diseases as lung cancer, emphysema, chronic bronchitis, heart disease, stroke, and other cancers (US DHHS; English et al. 1996). Mothers who smoke are more likely to have low birth weight babies, and some studies have shown an increased risk of Sudden Infant Death Syndrome (SIDS, also known as 'cot death') in babies exposed to their parents' smoking (US DHHS 1989; US EPA 1992).

People who smoke tend to be those already at risk of poor health, including the poor, the less educated, and the unemployed (AIHW 1996b), and smoking may act to worsen their risk of illness and early death.

HOSPITALISATION AND DEATH FROM SMOKING-RELATED CAUSES

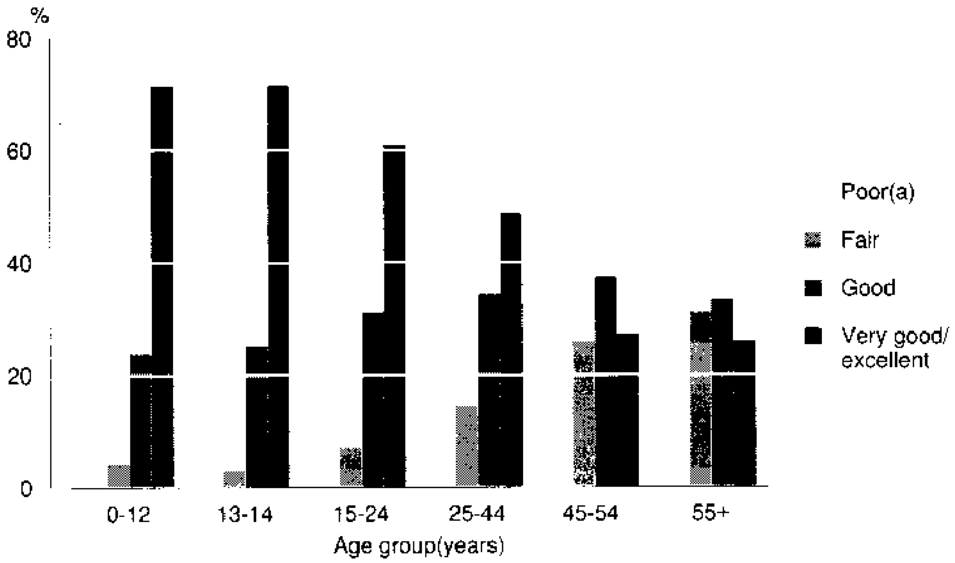
Although some cases of 'smoking-related' diseases occur in non-smokers and are not caused by smoking, it is useful to look at the rates of these diseases as a marker of the effects of smoking in a population.

Circulatory diseases (heart disease and stroke), respiratory diseases (such as emphysema, chronic bronchitis and pneumonia) and cancer were major causes of death for both Indigenous and non-Indigenous people (see chapter 8). Deaths from these causes occurred at much higher rates in Indigenous people, however. Compared to the number of deaths which would have been expected if Indigenous people had the same rates of death as non-Indigenous people, there were 3–4 times more deaths than expected from circulatory diseases, 7–8 times more for respiratory diseases and up to 2 times as many deaths from cancer among Indigenous people (Anderson et al. 1996).

Compared to what would have been expected if Indigenous people had the same rates of hospitalisation as Australians overall, after adjusting for age, there were 2–4 times more hospital admissions for circulatory disease, and 3–4 times more admissions for respiratory disease, for Indigenous males and females in Queensland, South Australia, Western Australia and the Northern Territory combined in 1992–93 (table 4.4; AIHW hospital separations database). There was no apparent excess in the number of hospital admissions for cancer, despite the presumed higher need for services, based on the higher rates of death from cancer among Indigenous people (see chapter 8). It is important to remember that hospitalisation is a function of both need and access, and insufficient access may masquerade as reduced need. More details on hospitalisation data are presented in chapter 8.

The apparent inconsistency between relatively high levels of perceived health status and the evidence of poor health presented in later chapters of this report could result from low expectations of personal health or different interpretations of 'health' by respondents.

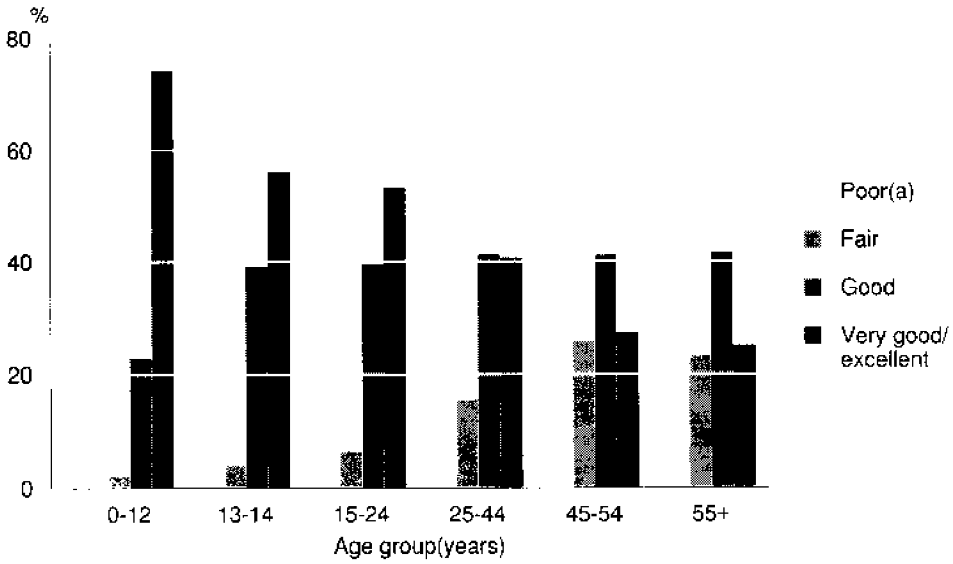
5.1 SELF-ASSESSED HEALTH STATUS, By Age—Indigenous Males



(a) Values in the first three age groupings have either zero or very small values.

Source: ABS 1996d.

5.2 SELF-ASSESSED HEALTH STATUS, By Age—Indigenous Females



(a) Values in the first three age groupings have either zero or very small values.

Source: ABS 1996d.

CHAPTER 5 PERCEPTIONS ABOUT HEALTH

INTRODUCTION

This chapter focuses on the concerns and perceptions Indigenous people have about health. The information presented is from the NATSIS, and the NDS Household Survey's Urban Aboriginal and Torres Strait Islander Peoples Supplement as well as other regional studies (see explanatory notes for descriptions of the surveys and studies). Data on people's perceptions can indicate knowledge, understanding and level of concern about various issues. Such information can be used by health policy makers to determine where education and dissemination of information needs to be given priority.

People may have different expectations and standards, and therefore perceive problems differently and express different levels of concern. The way in which people are asked about topics and by whom may also affect their responses and therefore such data must be interpreted with caution.

An example of differing perceptions comes from a study conducted in the Kimberley region of Western Australia. 'It took a while to recognise that what Aboriginal people thought we meant by the word "health" was what went on in a clinic — doctor visits, medicine and getting help when people got hurt.' (Smith & Smith 1995, p. 28). Upon delving deeper into the question however, they concluded that 'to an Aboriginal person strength and worthiness are drawn from being free in one's own country and what is health beyond strength and worthiness?' (Smith & Smith 1995, p. 28).

PERCEIVED HEALTH STATUS

In the NATSIS, people aged 13 years and over were asked to indicate whether they thought their health status was excellent, very good, good, fair or poor. For children under 13 years of age, a parent or responsible adult was asked to assess the child's health status.

Nationally, only about 2% of Indigenous Australians described their health status as poor, despite evidence of poor health status such as that presented in chapters 8 and 9. The majority tended to class their health as either good (32%), very good (32%) or excellent (24%). Similar distributions were found in every State and the Northern Territory. About 80%–90% of respondents assessed their health status in the range between good and excellent, while approximately 1%–3% said they were in poor health. In capital cities, people were slightly more likely to say they were in fair or poor health than were those in other urban or rural areas. Nationally, the patterns of perceived health status were similar for males and females, although males were slightly more likely to report being in excellent or very good health (ABS 1996d).

Nationally, 0–12 year olds were reported by a parent or other responsible adult to have the best health, with over 36% said to be in excellent health and a further 37% in very good health. The reporting of very good to excellent health decreased with increasing age (graphs 5.1 and 5.2). Around 10% of people aged 45 years and over reported being in excellent health. Less than 1% of 0–24 year olds were reported to be in poor health, increasing to about 9% in those aged 55 years and over (ABS 1996d).

Importance of Indigenous involvement in health services

In the NATSIS, over three-quarters of people aged 13 years and over said that they felt it was important for Aboriginal and Torres Strait Islander people to be involved in the provision of their health services. This ranged from 60% in Tasmania to 89% in the Northern Territory (ABS 1996d).

People in rural areas were more likely than those in capital cities or other urban areas to say they thought that Indigenous involvement in local health services was important. A slightly higher percentage of females than males said they believed that Indigenous involvement was important (ABS 1996d).

PERCEIVED HEALTH PROBLEMS

In the NATSIS, Indigenous people aged 13 and over were asked what they considered to be the main health problems for Indigenous people in their local area. Nationally, alcohol was seen as one of the main health problems by about 58% of Indigenous Australians (table 5.3). Alcohol was the most commonly perceived health problem in every State and the Northern Territory, in capital cities, other urban and rural areas, by males and females, and by people of all ages (ABS 1996d). The proportion of people who perceived alcohol as the main health problem in their area varied from region to region but was high in most areas (map 5.4).

Drug problems were the second most commonly reported perceived health problem in capital cities and other urban areas, while diabetes and diet/nutrition were slightly more commonly reported than drugs in rural areas. Concern with diabetes generally rose with age, peaking at 31% among 45–54 year olds. Males and females were similar with respect to reporting alcohol and drugs as perceived health problems in their local area, but females were more likely to report medical conditions as problems than were males (ABS 1996d).

A large proportion of people in each State reported that they did not know what the main health problems in their local area were. People in capital cities were more likely than those in other urban or rural areas to say that they did not know. Almost 50% of 13–14 year olds said that they did not know what the main health problems were (ABS 1996d).

HEALTH SERVICES

Perceptions people have about health services are important because they may affect whether and how people use those services. Although some information is available about people's perceptions of and problems with health services, the data from different sources conflict with one another.

Happiness with health services

In the NATSIS, people were asked 'Are you happy with the local health services?' This question is open to interpretation, and the fact that the majority of people in all States and the Northern Territory reported that they were happy should be interpreted with caution. In every State and the Northern Territory less than 10% of people said they were not happy. A small proportion of the population (3%–10%) in each State/Territory except Tasmania reported having no contact with their local health service. In Tasmania, 22% of people reported having no contact with the local health service and almost 10% of people reported that they were not happy (ABS 1996d).

Reported happiness with local health services was high in all areas and for both sexes. The proportion of people who reported that they had no contact with the local health service was higher overall for males than females and decreased with age (ABS 1996d).

Problems with health services

In the NATSIS, the majority of people across all States and the Northern Territory reported having no problems with local health services. Of those problems that were reported, the most common was having to wait too long. Other reported problems included inadequate hours of operation and inadequate facilities or staffing. The proportion of people who reported that they had no problems with their local health services was similar in capital cities, other urban and rural areas. Inadequate facilities/staffing were more frequently mentioned as problems in rural areas than in urban areas (ABS 1996d).

Data from other sources, such as community consultations conducted in preparation for a review of Northern Territory government health services in Central Australia (Menzies School of Health Research 1996) and a report from Maningrida, also in the Northern Territory (Burns 1995), contrast with the information from the NATSIS concerning happiness with local health services. People in these studies itemised many difficulties with current health services. In Central Australia these included the lack of sufficient health infrastructure, information, training, numbers of professionals, specialised services and transport. Problems with lack of community control and the need to gain a higher status and a better defined role for Aboriginal Health Workers within the health system were also stressed (Menzies School of Health Research 1996).

Community consultation in Maningrida revealed that people there also had many concerns with the local health services including poor access, prevalence of ill health, the need for resident doctors in Maningrida and for doctors to visit outstations, staffing and training and the lack of specialised care areas such as women's health and environmental health (Burns 1995).

PERCEIVED SUBSTANCE USE PROBLEMS

Information on perceived substance use problems is available from both the NATSIS and the NDS. In the NATSIS, when people were asked specifically about substance use, about 75% said that they considered alcohol use to be a problem in their area (table 5.5). Alcohol was the most commonly selected substance use problem in all States and the Northern Territory and was generally followed by marijuana, except in the Northern Territory where petrol sniffing was of similar concern (ABS 1996d). People were not asked to indicate the relative importance of the substance problems. Smoking was not included in the list of substances from which people were asked to choose in the NATSIS.

5.5 PERCEIVED SUBSTANCE USE PROBLEMS(a)(b)

	Capital city	*Other urban*	*Rural*	*Total*
	PROPORTION (%)			
Alcohol	62.9	82.2	75.7	74.9
Marijuana	46.9	63.6	41.0	52.1
Other drugs	28.6	25.2	11.2	21.8
Petrol sniffing	12.2	17.3	13.8	14.9
Glue sniffing	14.4	14.3	6.1	11.8
Other dangerous substances	12.7	16.8	9.7	13.5
Not stated	**0.4	**0.2	**0.8	0.5
	NUMBER			
Persons	53 600	82 700	61 200	197 500

(a) Persons may have reported more than one problem.

(b) Persons aged 13 years and over.

** subject to high sampling variability.

Source: ABS 1996d.

In the NDS, slightly different questions were asked and tobacco was included as a possible response, but the results were largely consistent with those from the NATSIS, highlighting the importance of alcohol as a substance of concern. When asked about drugs associated with a 'drug problem' most people gave marijuana (61%) as their first response, followed by alcohol (17%). Although marijuana was most frequently mentioned, it was not regarded as a 'serious' problem (CDHSH 1996).

People were also asked which drugs they thought caused the most deaths among Indigenous people and alcohol ranked the highest at 66%. This was considerably higher than was observed in a 1993 survey of the general population in which 42% named alcohol as the substance which caused the most deaths of the general population living in the urban area (CDHSH 1996). The higher level of concern about alcohol among Indigenous people is supported by recent data from Western Australia, where it was estimated that Indigenous males were about five times more likely to die of alcohol-related causes, and Indigenous females almost four times more likely, compared with their non-Indigenous counterparts (Unwin et al. 1994). However, the importance of smoking as a cause of death appeared to be greatly underestimated by Indigenous people (see chapter 4).

5.3 PERCEIVED HEALTH PROBLEMS(a)(b)

	Capital city	*Other urban*	*Rural*	*Total*
	PROPORTION (%)			
Alcohol	47.8	64.1	58.2	57.9
Drugs	28.9	35.4	22.6	29.7
Other substances	7.3	4.8	4.8	5.5
Diabetes	12.3	23.8	26.8	21.6
Diet/nutrition	13.3	19.0	24.8	19.3
Heart problems	6.7	14.6	18.6	13.7
Skin problems	4.9	7.3	17.1	9.7
Other medical condition	4.3	4.5	3.5	4.1
Other	5.8	3.3	5.1	4.5
Do not know	37.8	25.1	26.8	29.1
Not stated	**0.3	**0.3	**0.8	0.4
	NUMBER			
Persons	53 600	82 700	61 200	197 500

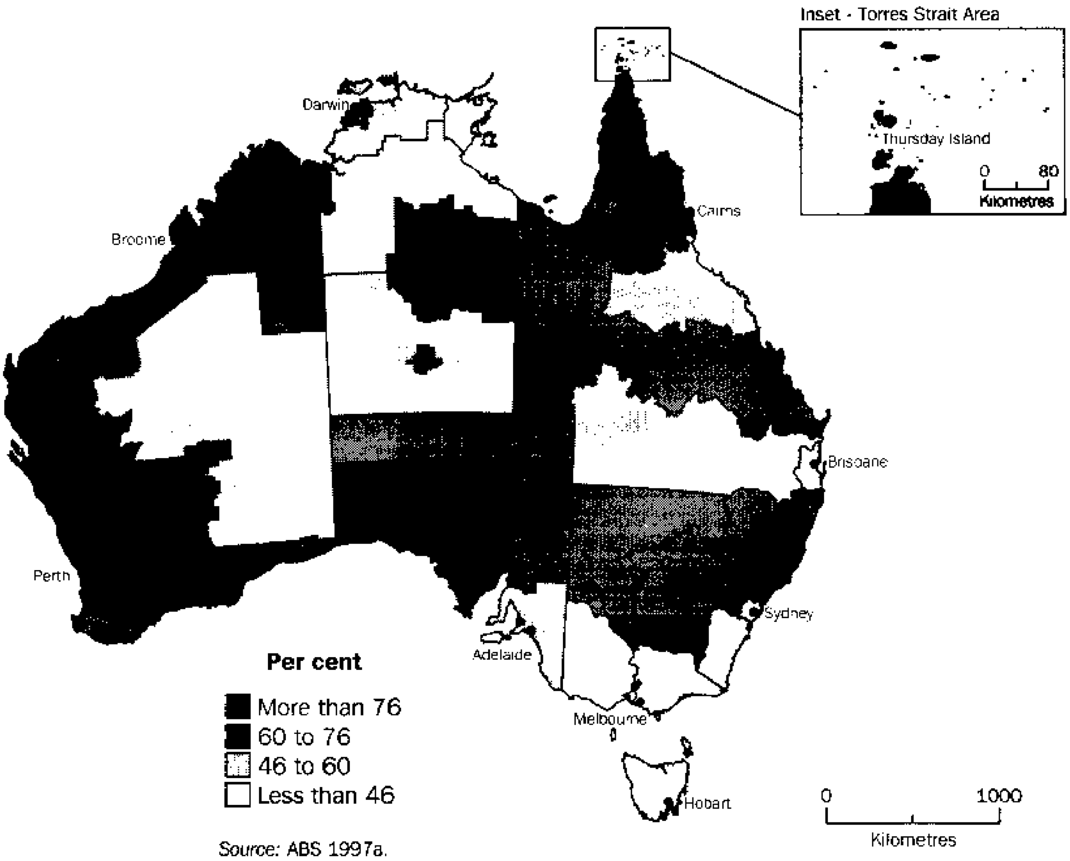
(a) Persons may have reported more than one problem.

(b) Persons aged 13 years and over.

** subject to high sampling variability.

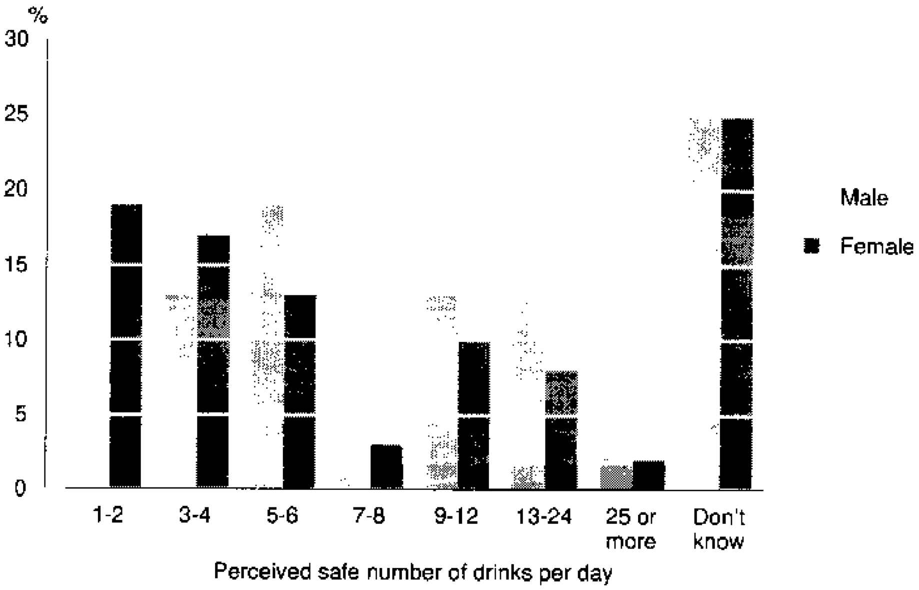
Source: ABS 1996d.

5.4 ALCOHOL PERCEIVED AS A MAIN HEALTH PROBLEM BY INDIGENOUS PEOPLE



Source: ABS 1997a.

5.7 PERCEPTION OF HEALTH RISKS FROM ALCOHOL



Source: CDHSH 1996.

PERCEIVED SOCIAL PROBLEMS AND ISSUES

A list of social issues was presented to each respondent in the NDS survey, and for each issue, the respondent was asked whether he or she thought it was a serious problem. Alcohol (95%) and alcohol-related violence (93%) were considered to be serious problems (graph 5.8), with few respondents (under 5% for each problem) disagreeing that they were serious. In contrast, tobacco was only named as a serious problem by 65% of respondents, and 26% disagreed that it was a serious problem.

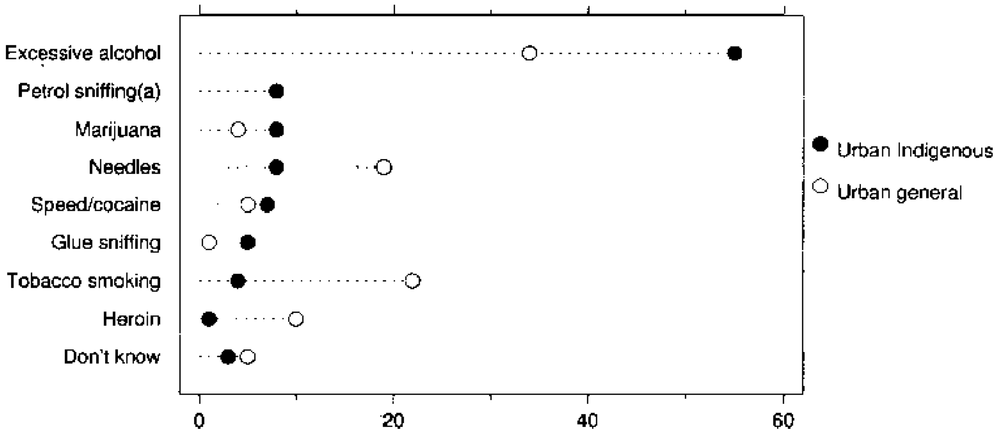
Using the same list, respondents were asked to choose what they considered to be the most serious and the second most serious issues. Alcohol and alcohol-related violence were ranked as the two most serious issues, followed by high unemployment and illegal drugs. Racism, poverty and deaths in custody all elicited higher levels of concern than tobacco (CDHSH 1996).

Different groups gave different responses when asked what the most serious problems were. For example, alcohol-related violence was of greater concern for females, younger people and drinkers than for the rest of the Indigenous community. Alcohol and unemployment were listed more frequently for those living outside the capital city area (CDHSH 1996).

When asked whether they thought that regular use of certain drugs (alcohol, tobacco, marijuana, inhalants, and speed) by an adult was acceptable, 29% said that none of the drugs listed were acceptable and 70% said that none of the illicit drugs were acceptable. There were few differences observed between the Indigenous population and the general population (graph 5.9) except for tobacco which had a much higher level of acceptance among Indigenous people (59% compared to 36%) and alcohol, which had a lower level of acceptance (54% compared to 64%) (CDHSH 1996).

The same pattern of concern about alcohol emerged when Indigenous people were asked to select from a list the drug or behaviour which caused the most serious concern or worry to Indigenous people generally. The highest response by far was for excessive drinking of alcohol (55%; graph 5.6). Of those respondents who selected excessive drinking of alcohol, 30% reported that this was of concern due to violence or fights which resulted.

5.6 DRUGS OF MOST CONCERN TO THE COMMUNITY



(a) Petrol sniffing was not included on the list of choices in the urban general population survey.
Source: CDHSH 1996.

PERCEPTION OF 'SAFE' ALCOHOL CONSUMPTION LEVELS

In the NDS survey, participants were asked to indicate the level of alcohol consumption they considered to be safe. According to NHMRC guidelines, safe drinking limits are no more than two standard drinks per day for females and no more than four standard drinks per day for males (CDHSH 1996; see explanatory notes for more details). As graph 5.7 shows, a large proportion of Indigenous people perceived much higher alcohol consumption levels as 'safe'. Less than 20% of females and less than 30% of males had indicated 'safe' levels of alcohol consumption at or below those of the NHMRC guidelines. A few people reported that they believed 25 or more drinks are able to be consumed per day before health is affected (CDHSH 1996).

People were more likely to say they were opposed to increasing the price of alcohol and banning smoking in pubs and clubs, with opposition greater among Indigenous people than in the general population. Although Indigenous people were less likely to view smoking as a health risk factor than people in the general population, support for banning smoking in the workplace was similar for Indigenous people (77%) and the general population (79%). In both groups, about 70% of people supported the banning of smoking in shopping centres (CDHSH 1996).

Urban Indigenous people and urban people in the general community reported fairly similar attitudes regarding the legalisation of illicit drugs and penalties for their use (table 5.10).

5.10 SUPPORT FOR DRUG LEGALISATION OR PENALTIES

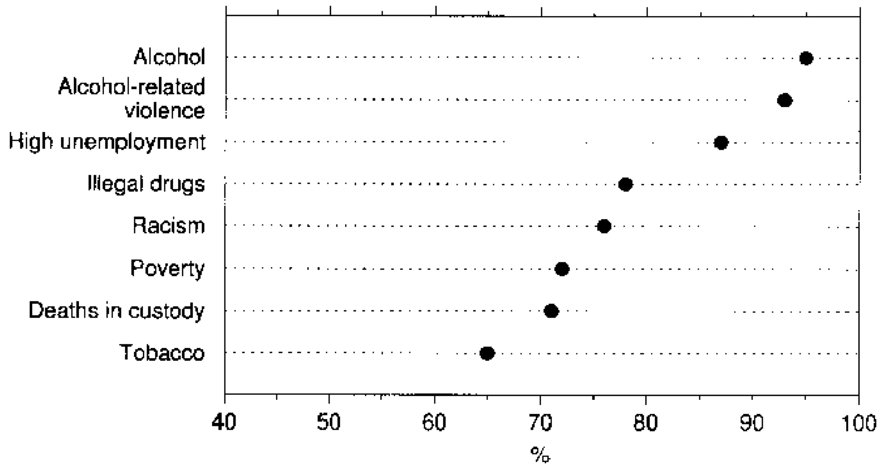
	Marijuana	*Heroin*	*Speed*	*Cocaine*
	%	%	%	%
LEGALISATION				
Urban Indigenous (1994)				
Support	35.0	3.0	3.0	3.0
Oppose	56.0	93.0	93.0	93.0
Uncertain	9.0	4.0	4.0	4.0
Urban general population (1993)				
Support	26.0	8.0	6.0	6.0
Oppose	n.a.	n.a.	n.a.	n.a.
Uncertain	n.a.	n.a.	n.a.	n.a.
INCREASED PENALTIES				
Urban Indigenous (1994)				
Support	64.0	91.0	91.0	91.0
Oppose	30.0	7.0	7.0	7.0
Uncertain	6.0	2.0	2.0	2.0
Urban general population (1993)				
Support	64.0	87.0	86.0	87.0
Oppose	n.a.	n.a.	n.a.	n.a.
Uncertain	n.a.	n.a.	n.a.	n.a.

Source: CDHSH 1996.

SUMMARY

Although Indigenous people in the NATSIS did not report many problems regarding health status or health services, a variety of concerns have been raised in other studies. Indigenous people see both alcohol and alcohol-related violence as major problems in their communities, but they are less likely than non-Indigenous people to perceive smoking as a health risk factor.

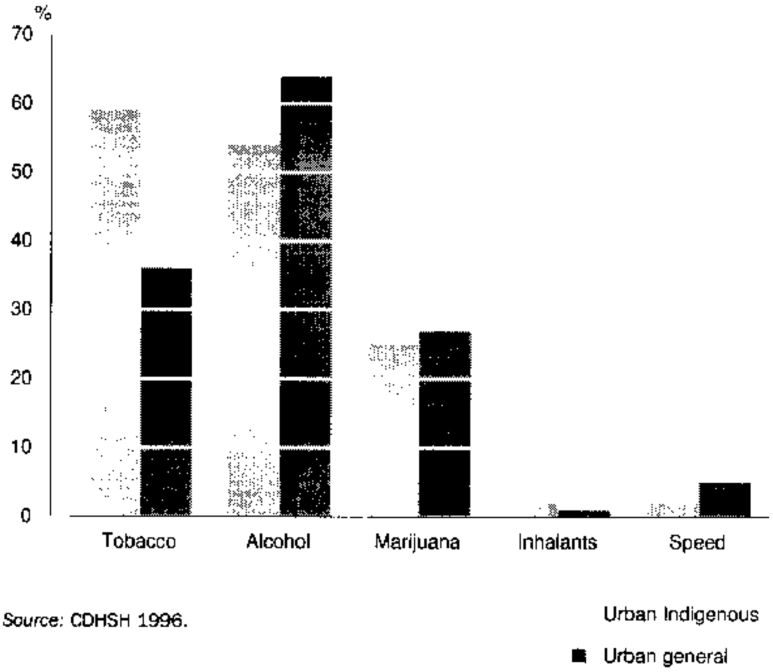
5.8 SOCIAL ISSUES, Whether Perceived as Serious(a)



(a) Urban Indigenous adults.

Source: CDHSH 1996.

5.9 ACCEPTANCE OF REGULAR DRUG USE, By Adults



Source: CDHSH 1996.

ATTITUDES TO DRUG POLICY INITIATIVES

Alcohol and/or tobacco-related policies that targeted children were likely to have the support of both the Indigenous and the general populations. Policies which received support from over 90% of people asked included more education on the effects of alcohol through community groups and schools and stricter enforcement of the laws against serving alcohol or supplying cigarettes to those who are under age (CDHSH 1996).

CHAPTER 6 ACCESS TO AND USE OF HEALTH SERVICES

INTRODUCTION

Equitable access to health services is essential for all Australians and is of major concern for improving the health of Indigenous Australians. The goal of 'equal access to equal care appropriate to need' was among those espoused by the National Aboriginal Health Strategy (NAHS 1989), which was endorsed by Australian governments. An evaluation of the NAHS in 1994 reaffirmed this goal, and identified the considerable inequities that still exist in the provision of health services to Indigenous people (NAHS Evaluation Committee 1994).

Some of the many factors that may affect the likelihood of an Indigenous person attending a facility or using a service when needed include distance from the service, the degree of Indigenous involvement in the facility, whether Indigenous staff are available, the level of awareness of issues which impact on Indigenous health by non-Indigenous health professionals and, in places without permanent services, the frequency with which health professionals visit. Perceptions about the quality and importance of certain services can also be influential. Information about the perceptions of Indigenous people about various health services is presented in chapter 5.

This chapter presents broad level information about access and use of services from the NATSIS and other sources. Distance to services is used as the primary measure of access in this chapter, but another type of measure is discussed in inset 6.1. Although the provision of visiting professionals can ease some of the problems of distance, it is evident from the data that Indigenous people living in rural areas are at a marked disadvantage compared to Indigenous people living in urban areas.

In very remote areas, factors affecting access come down to daily practicalities such as having telephone or radio contact with services to arrange emergency and non-emergency treatment, the availability of roadworthy vehicles to travel into the nearest community or resource centre to attend clinics, the condition of roads and the condition and proximity of airstrips (Smith & Smith 1995). In some areas, such as the Torres Strait, availability of transport across water can influence access. This chapter includes a look at the difficulties of outstation life in a remote part of Western Australia (inset 6.7) and a remote community in the Northern Territory (inset 6.8).

USE OF SERVICES

There are few objective sources of information about use of services by Indigenous people other than hospital separations data (see chapter 8) and localised clinic information.

Results from the 1994 NATSIS (see explanatory notes for survey details) provide some insight into use of services through self-reported information about recent health-related actions, taken in the two weeks prior to the survey. Although it is possible that the two-week time frame caused difficulty for some people (perhaps resulting in an overestimate of actions), questions about actions taken are generally easier to answer than those which require a knowledge or understanding of health conditions or a prior diagnosis of a health condition.

An estimated 19% of Indigenous people reported that they had consulted a doctor in the two weeks prior to the survey (table 6.2). Consulting a doctor was more commonly reported in capital cities than in other urban and rural areas, while the opposite was true for consulting a nurse or an Aboriginal Health Worker (AHW) (ABS 1996d).

6.1 QUANTIFYING ACCESS TO HOSPITALS

It is difficult to quantify access to medical services and facilities such as those provided by hospitals. In practice, hospital utilisation is often used as a surrogate for hospital access. In a recent study, McDermott, Plant and Mooney (1996) used a ratio of hospital utilisation to estimated hospital need to calculate an 'index of access' to hospitals for Indigenous males and females in the Northern Territory between 1979 and 1988. Their index of access is actually a ratio of ratios. The numerator, called the 'access ratio', is the age-standardised hospital separation rate for Indigenous people divided by the age-standardised hospital separation rate for non-Indigenous people. Similarly, the denominator, the 'need ratio', is made up of the age-standardised mortality rate for Indigenous people divided by the age-standardised mortality rate for non-Indigenous people (McDermott, Plant & Mooney 1996). This ratio of ratios accounts for the idea that groups of people with different levels of need require different levels of access. An index of access equal to 1 would mean that access (or, in this case, utilisation) is the same in the two populations for a given level of need (in this case, death) after adjusting for differences in age distributions. An index of less than 1 would represent lower access among Indigenous people, and an index of greater than 1 would indicate higher access.

Using figures for 1992–93 public hospital separations and 1993 deaths from South Australia, Western Australia and the Northern Territory (the only jurisdictions with reliable death figures for Indigenous people for that year), indices of access have been calculated in a manner similar to that of McDermott and colleagues (1996). Hospital separation rates and death rates were directly age-standardised using the World Standard Population as the reference population.

For males, the index of access was 1.26 for South Australia, 1.09 for Western Australia and 0.69 for the Northern Territory. Among females, the index was 2.15 for South Australia, 1.68 for Western Australia and 0.73 for the Northern Territory (see explanatory notes for more details). This suggests that, for a given level of need, access to public hospitals may be better in South Australia than in the Northern Territory, with Western Australia occupying an intermediate position.

One factor which represents a potentially important difference with respect to access is distance. In 1994, about 43% of Indigenous people in South Australia lived in the capital city statistical division, compared with 28% in Western Australia and only 14% in the Northern Territory (ABS 1995b). This may explain some of the differences in the indices of access from jurisdiction to jurisdiction.

The availability of private hospitals would also affect the ratio if Indigenous people and non-Indigenous people differed in their use of private hospitals. So, for example, if non-Indigenous people are more likely to use private hospitals, then an index based only on public hospital separations would be higher because a greater proportion of non-Indigenous hospital separations would not be included in the calculation. It is worth noting that the lowest ratios observed in this analysis were for the Northern Territory, which has only one small private hospital. No information about private hospital separations was available for 1992–93, but this information should be considered in future analyses as soon as it is possible to distinguish between Indigenous and non-Indigenous private hospital separations.

It would also be useful to examine whether the index of access differed for adults and for children, or for particular causes of morbidity and mortality, such as circulatory diseases, respiratory disease, cancer and injury. Access indices incorporating information on length of hospital stay would also be worth investigation.

Much more work is needed in developing methods to quantify need, access and the relationship between the two, but the index proposed by McDermott and colleagues (1996) is a promising first step.

6.2 REPORTED HEALTH ACTIONS—In the Last Two Weeks

	Capital city	*Other urban*	*Rural*	*Total*
	PROPORTION (%)			
Took an action(a)	53.0	42.1	39.8	44.4
Type of action taken(b)				
Visited emergency/outpatients clinic	5.8	8.5	8.8	7.8
Admitted to hospital	1.8	2.4	3.1	2.5
Consulted doctor	26.3	17.9	13.1	18.8
Consulted Aboriginal Health Worker	2.7	4.8	10.6	6.0
Consulted nurse	3.5	4.1	8.6	5.3
	NUMBER			
Total Indigenous population	82 500	129 700	91 000	303 300

(a) Also includes use of medications and bush medicines and reduction of daily activities.

(b) Persons may have reported more than one type of action.

Source: ABS 1996d.

After the age of 5 years, the reporting of health-related actions increased with age. About 12% of people aged 55 years and over reported visiting a hospital emergency department or outpatients clinic compared to 8% for all ages (ABS 1996d).

INVOLVEMENT OF INDIGENOUS PEOPLE IN PROVISION OF HEALTH SERVICES

Little statistical information is available about the extent of involvement of Indigenous people in the health professions. However, figures from the 1991 Census show that, at that time, very few Indigenous people listed their occupation as health professional or paraprofessional. Under 1% of Indigenous people aged 15 and over reported working in various health-related occupations, compared to just over 2% of non-Indigenous people (table 6.3; ABS unpublished data). According to a recent estimate, there are about 1,100 Aboriginal and Torres Strait Islander Health Workers currently employed in Indigenous communities (NHMRC 1996).

Allowing for expected employment growth, the 1991 Census results for the Northern Territory (table 6.3) are broadly consistent with a 1996 assessment of Aboriginal employment by Territory Health Services. This assessment indicated that at least 260 Aboriginal people were employed by Territory Health Services in health activities (excluding administrative/clerical and physical grades), of whom more than 180 were AHWs (Territory Health Services unpublished data). Figures from the Commonwealth Department of Health and Family Services Office for Aboriginal and Torres Strait Islander Health Services (OATSIHS) indicate that another 100 Aboriginal Health Workers were employed by OATSIHS-funded community-controlled health services in the Northern Territory (OATSIHS unpublished data). Approximately 50 more AHWs may be employed by Grant-in-Aid community-controlled clinics throughout the Northern Territory. Aboriginal and Torres Strait Islander employment strategies are currently being developed by OATSIHS and most State and Territory health departments.

6.3 INVOLVEMENT IN HEALTH-RELATED OCCUPATIONS(a)(b)

	New South Wales	*Victoria*	*Queensland*	*South Australia*	*Western Australia*	*Tasmania*	*Northern Territory*	*Australian Capital Territory*	***Australia***
					NUMBER				
Indigenous									
People in health-related occupations	355	112	299	84	203	51	241	3	**1348**
Population aged 15 and over	42 174	10 301	42 048	9 881	24 784	5 200	24 235	1 082	**159 705**
					PROPORTION (%)				
Indigenous adults in health occupations	0.8	1.1	0.7	0.9	0.8	1.0	1.0	0.3	**0.8**
					NUMBER				
Non-Indigenous									
People in health-related occupations	88 553	74 847	45 037	26 952	25 306	8 412	2 500	4 363	**275 970**
Population aged 15 and over	4 426 690	3 298 823	2 261 589	1 093 750	1 188 124	340 189	105 257	211 525	**12 925 947**
					PROPORTION (%)				
Non-Indigenous adults in health occupations	2.0	2.3	2.0	2.5	2.2	2.5	2.4	2.1	**2.1**

(a) Aged 15 years and over.

(b) Includes general and specialist medical practitioners, dental practitioners, pharmacists, occupational therapists, optometrists, physiotherapists, speech pathologists, chiropractors and osteopaths, podiatrists, radiographers, health diagnostic and treatment practitioners, psychologists, registered nurses, enrolled nurses, dental nurses. Enrolled nurses included Aboriginal Health Workers in the 1991 Census. In the 1996 Census, these will be separately identified.

Source: ABS unpublished data, 1991 Census.

Enrolment in health-related higher education courses

In 1996, about 1.4% of students enrolled in health and health-related subjects at higher education level identified as being of Aboriginal or Torres Strait Islander origin. This figure does not include Aboriginal Health Worker training. Enrolments of Indigenous students in these subjects have nearly doubled, from 385 in 1992 to 718 in 1996, although some of the increase may have been due to more students identifying as Indigenous and to better administrative procedures. Most of the increase was in the areas of general health and health support subjects such as health administration. The numbers of Indigenous students enrolled in medicine and nursing have changed little since 1992, from 263 in 1992 to 264 in 1996. General health and health support subjects have also become more popular with non-Indigenous students since 1992, but a decrease in enrolments was recorded for medicine and nursing (DEETYA unpublished data).

Greater numbers of Indigenous and non-Indigenous students are completing health courses. The number of Indigenous students completing their higher education health courses increased by 44%, from 54 in 1991 to 78 in 1995. However, of all students completing health courses, the proportion of those who identified as Indigenous has remained unchanged at about 0.5% for 1991 and 1995. This is despite the fact that a greater proportion of Indigenous students are enrolling in health courses and suggests that Indigenous students are less likely to complete their health courses within a given time period than are non-Indigenous students (DEETYA unpublished data).

DISTANCE TO HEALTH PROFESSIONALS, SERVICES AND FACILITIES

Information on distance to professionals, services and facilities for people living in private households is available from the NATSIS and was collected by interviewers from organisations and contacts in the community. This may have led to some reporting difficulties; for example, in some cases, people providing the information may not have had adequate knowledge of the various services available.

As a measure of access, distance has some limitations. For example, a certain distance may pose varying degrees of difficulty to different people depending on whether they have adequate transport. Distance is certainly a factor for people living on outstations but so is the condition of the road and the type of vehicle they have, if any (inset 6.7). In urban areas, the availability of public transportation may affect the ease of access to services.

Health professionals

At the national level, a large proportion of the Indigenous population was estimated to live in close proximity to the services of health professionals that they might require. However, this varied greatly with geographic location and for different types of health professionals.

The availability of health professionals varied according to the State or Territory of location and the type of health professional. In each State, fewer than 10% of people did not have a doctor, either permanent or visiting, within 25 kilometres. Similar results were recorded for the availability of nurses. AHWs were available on a permanent or visiting basis within 25 kilometres of at least 80% of people in the Northern Territory and in all States except for New South Wales (78%) and Tasmania (53%) (ABS 1996d).

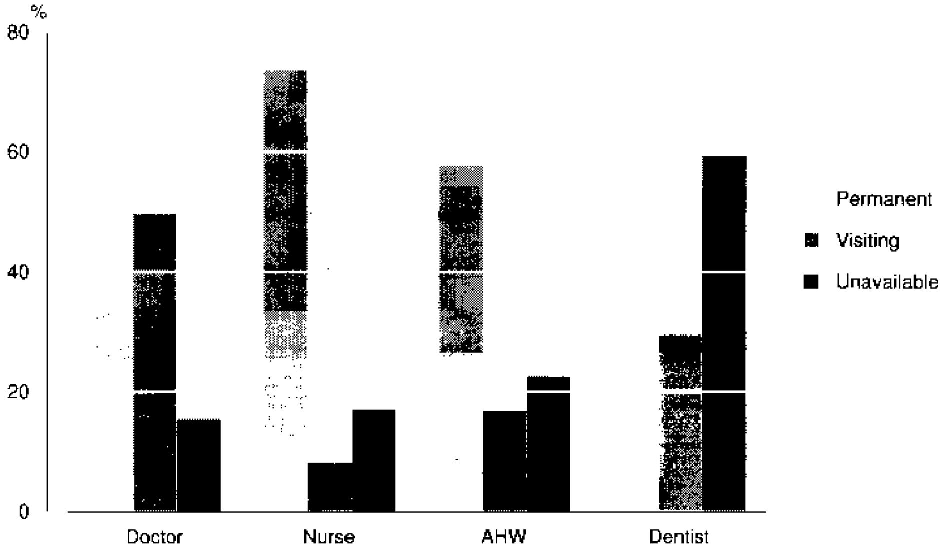
In New South Wales, Victoria, Tasmania and South Australia, dentists were available on a permanent or visiting basis within 25 kilometres of about 80% of people. In Western Australia, Queensland and the Northern Territory, however, dentists were not as commonly available, within 25 kilometres for 74%, 68% and 57% of people respectively (ABS 1996d).

Indigenous people in rural areas were less likely to live within 25 kilometres of services and facilities than their urban counterparts. In many cases, services in rural areas are provided by visiting professionals (graph 6.4). Nevertheless, three out of five Indigenous people in rural areas were reported to have no dental service, one in five did not have an AHW, and about one in seven did not have a doctor or nurse available within 25 kilometres of their community on either a permanent or visiting basis (ABS 1996d). This limited availability of health services and facilities was also experienced by many non-Indigenous people living in rural and remote areas.

Health services

Compared with Indigenous people in urban areas, Indigenous people living in rural areas were also at the greatest disadvantage with respect to availability of health services such as mental health, health promotion, antenatal care, diabetic services, women's health, baby health and sexually transmitted disease clinics (graph 6.5).

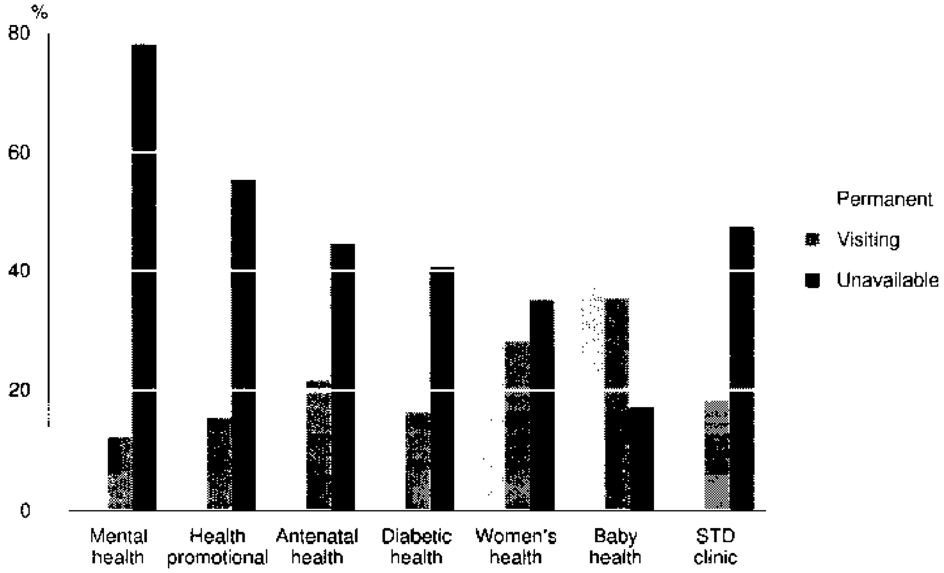
6.4 HEALTH PROFESSIONALS—Rural Area(a)



(a) Within 25 km of private dwellings. Excludes 'not stated' responses.

Source: ABS 1996d.

6.5 HEALTH SERVICES—Rural Area(a)



(a) Within 25 km of private dwellings. Excludes 'not stated' responses.

Source: ABS 1996d.

Health facilities

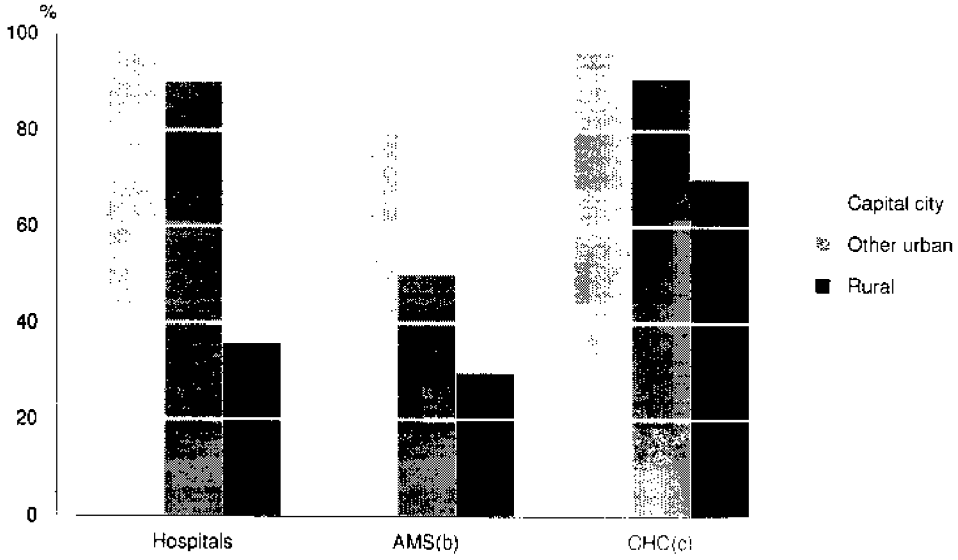
Hospitals tend to be located in high population density centres, and distance to travel to the nearest hospital will very much depend on one's place of residence. This was reflected in the NATSIS, with large differences in distance to hospitals from State to State and region to region being reported for Indigenous people living in private dwellings. About 95% of Indigenous Victorians were reported to be living within 25 kilometres of the nearest hospital but over half of Indigenous people in the Northern Territory were said to have to travel more than 100 kilometres (ABS 1996d).

Over half of all Indigenous people living in rural areas had to travel more than 50 kilometres to hospital, while this was true for only a small proportion of people living in capital city and other urban areas (ABS 1996d).

In the Northern Territory and Victoria, about 95% of people were reported to be living within 25 kilometres of a community health centre. For the other States, the figures ranged from 80% to 90%. People living in capital cities and other urban areas were more likely to live in close proximity to a community health centre than were those living in rural areas (graph 6.6). Over 10% of people living in rural areas were reported to be more than 100 kilometres from the nearest health centre (ABS 1996d).

Aboriginal Medical Services were less likely than community health centres to be located nearby. The proportion of people who were reported to live within 25 kilometres of an Aboriginal Medical Service varied from about 45% in Tasmania and New South Wales, to about 78% in South Australia. Almost 80% of people in capital cities were reported to live within 25 kilometres of an Aboriginal Medical Service compared with about 50% of those in other urban areas and only about 30% of those in rural areas (ABS 1996d).

6.6 HEALTH FACILITIES WITHIN 25 KM OF PRIVATE DWELLINGS(a)



(a) Excludes 'not stated' responses.

(b) Aboriginal Medical Service.

(c) Community Health Centre.

Source: ABS 1996d.

6.7 ACCESS IN REMOTE AREAS: THE OUTSTATION IMPACT PROJECT

The project was recently carried out in the Kimberley region of Western Australia (see map 6.9) and aimed to determine the impact of the growth of outstations on the region, in particular, on the planning and delivery of health services (Smith & Smith 1995). The project involved extensive consultation with residents of 110 outstations.

Although the report was confined to the Kimberley region, the growth of outstations around communities and resource centres is not unique to the region. Similar clustering can be found elsewhere such as in the area around Maningrida (inset 6.8). Therefore, the problems experienced by the Kimberley outstation people are very likely to be applicable to other remote areas. The outstation movement represents a challenge to the providers of health and other services. The report stresses the dynamic nature of the outstation movement and notes that in 1994, about a quarter of the Kimberley population was living in outstations. By the year 2000, this figure is expected to double.

Access to emergency and some routine health services for people who live on outstations is dependent on telephone or radio contact, availability of roadworthy vehicles, degree of remoteness, condition of roads and condition and proximity of airstrips. In the Kimberley, at the time of writing the report, up to 50% of outstations in some shires did not have telephone or radio facilities. Their isolation is apparent, with the average distance (by unsealed road) to an outstation from the nearest large community ranging from 36 kilometres in Broome Shire to 109 kilometres in Derby Shire.

Not enough clinic visits was the deficiency most frequently identified by residents of outstations when they were asked to state their priorities for action on health. Community health nurses were aware of the need for services to the outstations but there was a lack of resources to provide them. Only three in 10 outstations received some form of regular clinical service and only one in four outstations had at least one resident with some experience or training in clinical health matters. Dental services are available once or twice a year through visits by a dentist to community clinics.

Retrieval is usually the only option when it comes to specialist medical services. However, not all outstations have access to airstrips and ambulance services are often reluctant to commit a vehicle to a remote location.

(*Source:* Smith, D. & Smith, P. 1995.)

6.8 ACCESS TO HEALTH SERVICES AND FACILITIES IN MANINGRIDA

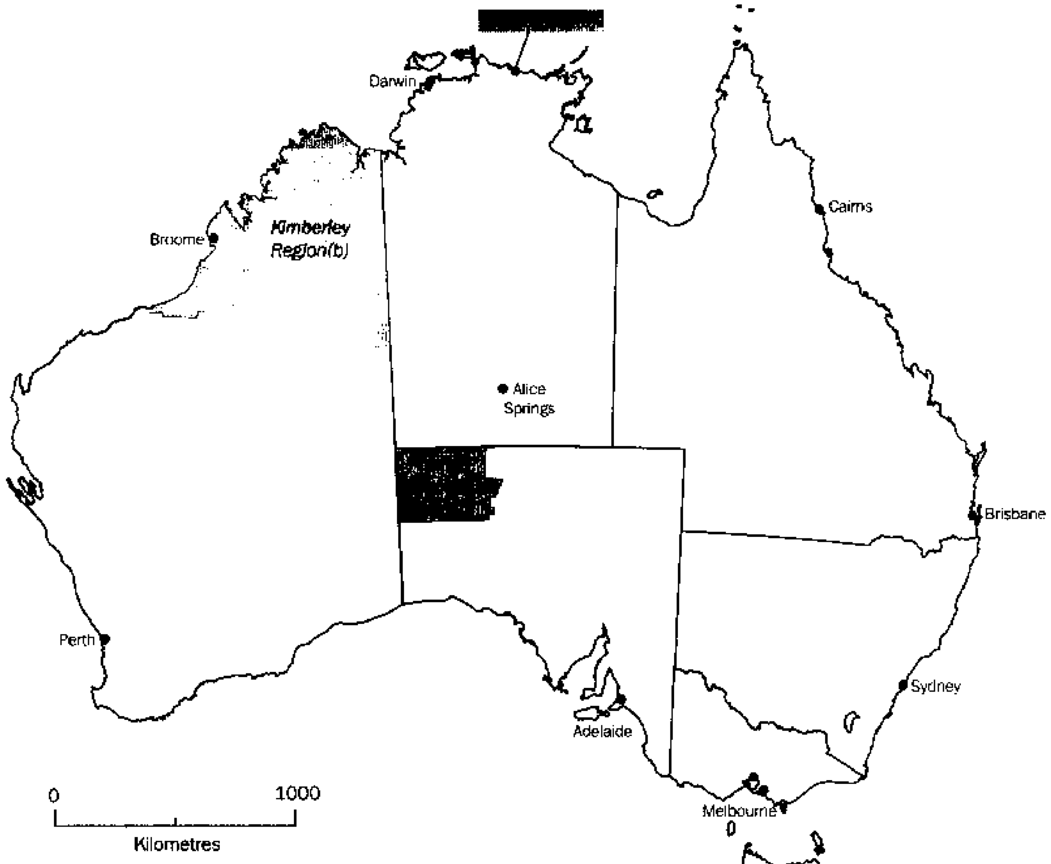
Maningrida is located in Arnhemland about 300 kilometres by air east of Darwin (or 550 kilometres by road which is not able to be used for three to four months of the year). Maningrida and its surrounding outstations (see map 6.9) have one of the largest remote Aboriginal populations in Australia. The factors of remoteness, population mobility and physical access, particularly in the wet season, contribute to the difficulties of providing health services to a large outstation population.

At the time of an evaluation in 1995, Maningrida was serviced by one visiting District Medical Officer (DMO) two days per week. Due to an already heavy workload, the DMO did not have time to visit outstations (estimated population of outstations is 750). Health service visits to outstations are scheduled on a monthly basis but usually only occur three-monthly because of staff shortages. Outstation service visits are conducted either by road or air, depending on the season, and most visits take a whole day to complete.

A lack of trained staff to work in most health areas was noted, including women's health, antenatal care, the school screening program, the sexually transmitted disease program, and the aged care program. There was also a problem with the level of Aboriginal Health Worker (AHW) staffing. This seemed to result from a combination of factors such as the heavy workload that AHWs have to carry, the lack of staff housing for AHWs, insufficient training and a perceived lack of support and commitment from the community. A need for more training locally and for training of outstation people in first aid and health worker skills were among the needs that people in the area identified.

Source: Burns 1995.

6.9 MANINGRIDA, KIMBERLEY REGION AND ANANGU-PITJANTJATJARA LANDS



(a) see inset 6.8
(b) see insets 3.16, 5.6 and 6.7
(c) see inset 2.1

SUMMARY

The distance Indigenous people live from a range of health professionals and services varied greatly according to geographic location, with Indigenous people living in rural areas less likely to live within 25 kilometres of a range of services and facilities than their urban counterparts. Another factor affecting the access and use of health services and facilities is likely to be the extent of Indigenous involvement in them. Census figures from 1991 show that the proportion of Indigenous people working in the health field was only half that observed for non-Indigenous Australians.

CHAPTER 7 MOTHERS AND BABIES

PERINATAL STATISTICS

This chapter presents information about Indigenous mothers and their babies. The two main sources of information about births in Australia are the perinatal collections (often called the Midwives Collections; see inset 7.1) and the birth registrations data from the Registrars of Births, Deaths and Marriages. All States and Territories have perinatal collections, and the same core of basic information is collected in all jurisdictions as part of a national minimum dataset agreement. Perinatal data collection forms, which differ slightly among the States and Territories, are filled in by midwives or sometimes by medical practitioners. Midwives attending births outside hospitals, such as homebirths, are also required to complete such forms although it is likely that some of these births may not be included. Births are also required to be registered with the appropriate Registrar of Births, Deaths and Marriages. Some parents may report births straight to the Registrar without them being recorded on a perinatal form. Therefore some discrepancies can occur between figures from these different sources.

On the perinatal collection forms, information is only collected about mothers and their babies. Therefore it is not possible to identify babies who may have a non-Indigenous mother and an Indigenous father. However, paternal characteristics are recorded through the Registrar of Births, Deaths and Marriages in each State and Territory, and it is becoming more common to link these registrations with the information from the perinatal forms. As a result, in the future, more accurate information about the number of Indigenous babies (as opposed to the number of babies of Indigenous mothers) should become available.

In most States and Territories, data from the Midwives Collection are cross-checked with data from other sources such as the hospital morbidity system and the Registrar's office to assist with the ascertainment of perinatal deaths.

The most recently available information from New South Wales, Victoria, Queensland, South Australia, Western Australia, the Northern Territory and the Australian Capital Territory is presented below. Information from Tasmania is not included here as, until 1996, the perinatal collection form for that State did not include a specific data item on Indigenous status. Since January 1996, a new form has been introduced which includes a question on Aboriginality and data should become available in the future. Queensland is the only State to record Aboriginal mothers and Torres Strait Islander mothers separately (see chapter 11).

7.1 QUALITY OF IDENTIFICATION IN PERINATAL COLLECTIONS

No information has been reported about how the answer to the question on Indigenous identification is obtained except from a study in Victoria (Robertson 1994). The 54 midwives who took part in the study were asked how they actually filled in a perinatal form and whether they had any difficulty with the question on Indigenous identification.

One of the findings was that midwives did not ask the question of every mother. They would usually only ask if they thought the woman looked Aboriginal or Torres Strait Islander or if she had an Aboriginal person with her or had an Aboriginal name. Often the question was not asked because the midwives did not know why they were asking women the question. The question made the midwives feel uncomfortable and they felt that it would make the women in their care uncomfortable.

When asked why the identification question made them feel uncomfortable, responses included feeling that women, both Aboriginal and non-Aboriginal, might be offended and fears that it might have an adverse effect on their relationship with the women. The midwives also expressed concern that Aboriginal people are stereotyped as 'generally drunk or in jail' and as receiving more government payments than non-Aboriginal people (Robertson 1994, p. 5). Some felt fear that they would be verbally or physically abused and others said they felt stupid having to ask all women, particularly those who looked Asian or Northern European. Some midwives felt annoyed that they had to make a case for Aboriginal services, or felt that Aboriginal people should assimilate.

An exception was in one hospital where the midwives knew that Aboriginal people living in the area were generally proud to be identified as Aboriginal. The midwives in that hospital said they felt comfortable asking the question of all women.

The report's recommendations included in-service education for midwives on the reasons for and importance of the Indigenous identification question and the inclusion of midwives in cross-cultural training.

Source: Robertson 1994.

Mothers

In 1993, Indigenous women made up 2.8% of all confinements in Australia. The proportion of Indigenous confinements was highest in the Northern Territory (35% of all Northern Territory confinements), although more Indigenous women were actually confined in Queensland (2,234; 5% of confinements in Queensland), New South Wales (1,456; 2% of all confinements in New South Wales) and Western Australia (1,442; 6% of confinements in Western Australia) than in the Northern Territory (1,221) (Lancaster et al. 1996).

Indigenous mothers were more likely than non-Indigenous mothers to be teenagers, whereas non-Indigenous mothers were more likely than Indigenous mothers to be over 34 years old (graph 7.3). The distribution of births by the age of the mother is shown in table 7.2 using the most recently available data for each State and Territory.

7.2 MATERNAL AGE, By Indigenous Status(a)

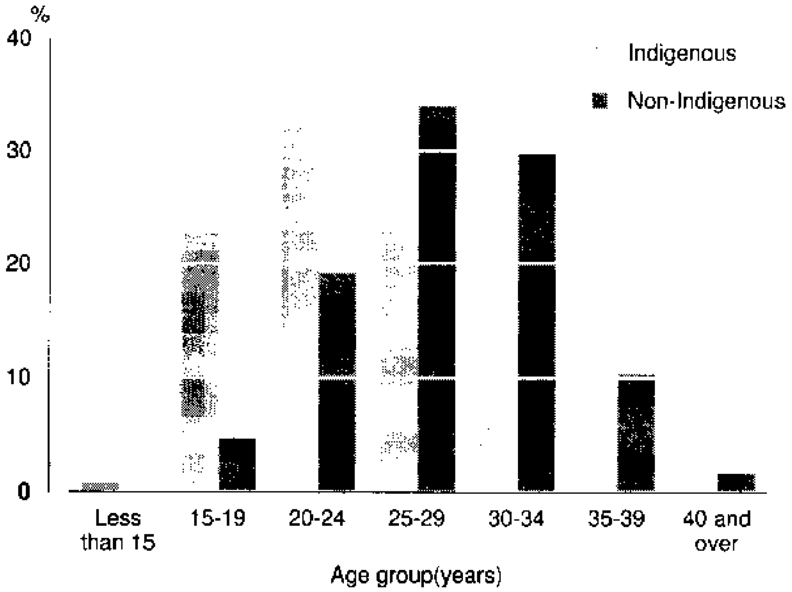
	Under 20..........		*20–34*.............		*Over 34*..............		*Total(b)*.............	
State or Territory	no.	%	no.	%	no.	%	no.	%
NSW								
Indigenous mothers	348	22.7	1 099	71.8	74	4.8	1 531	100.0
Non-Indigenous mothers	3 995	4.7	69 387	81.7	11 241	13.2	84 917	100.0
Vic.								
Indigenous mothers	43	9.5	381	84.3	28	6.2	452	100.0
Non-Indigenous mothers	2 128	3.4	52 963	83.6	8 252	13.0	63 343	100.0
Qld								
Indigenous mothers	463	20.7	1 669	74.7	102	4.6	2 234	100.0
Non-Indigenous mothers	2 711	6.1	37 115	83.3	4 704	10.6	44 530	100.0
SA								
Indigenous mothers	83	21.1	295	75.1	15	3.8	393	100
Non-Indigenous mothers	960	5.0	15 918	83.2	2 248	11.8	19 126	100.0
WA								
Indigenous mothers	405	28.3	979	68.5	46	3.2	1 430	100.0
Non-Indigenous mothers	1 179	5.0	19 489	82.7	2 902	12.3	23 570	100.0
NT								
Indigenous mothers	378	31.0	785	64.3	58	4.8	1 221	100.0
Non-Indigenous mothers	130	5.8	1 857	82.2	273	12.1	2 260	100.0
ACT								
Indigenous mothers	3	6.3	41	85.4	4	8.3	48	100.0
Non-Indigenous mothers	196	4.2	3 855	81.8	609	12.9	4 712	100.0

(a) Data are taken from the most recent State and Territory reports or from the 1993 report *Australia's Mothers and Babies*, (Lancaster et al. 1996), whichever was later.

(b) Total includes a number of 'not stated' responses.

Source: NSW: 1994 New South Wales Midwives Data Collection (NSW Health Department 1995). Vic., Qld and ACT: 1993 *Australia's Mothers and Babies* (Lancaster et al. 1996). SA: 1994 South Australia Perinatal Collection (Chan et al. 1995). WA: 1994 Western Australia Midwives Notification System (Gee 1995). NT: 1994 Northern Territory Midwives Collection (Markey et al. 1996). Tas.: not available.

7.3 MATERNAL AGE, By Indigenous Status—1993(a)



(a) Excludes Tasmania and 'age not stated'. There were no recorded confinements of non-Indigenous mothers under 15 years of age.

Source: Lancaster et al. 1996.

Babies

Babies born to Indigenous women were more likely than babies of non-Indigenous women to be of low birthweight (under 2,500 grams; table 7.4). Victoria was the only State where this difference was not apparent.

Trend information in Western Australia for the years 1985 to 1994 shows that the proportion of low birthweight babies in the general population in that State has changed little. The proportion of low birthweight babies born to Indigenous women has remained at about twice that of babies born to non-Indigenous women (Gee 1995).

7.4 BIRTHS, By Birthweight and Mother's Indigenous Status(a)

	Low birthweight (under 2 500g)..		*Normal or high birthweight (2 500g or more)..............*		*Total(b)..................*	
State or Territory	no.	%	no.	%	no.	%
NSW						
Babies of Indigenous mothers	180	11.7	1 361	88.2	1 543	100.0
Babies of non-Indigenous mothers	4 911	5.7	81 144	94.2	86 147	100.0
Vic.						
Babies of Indigenous mothers	31	6.8	424	93.2	455	100.0
Babies of non-Indigenous mothers	3 993	6.2	60 247	93.7	64 282	100.0
Qld						
Babies of Indigenous mothers	255	11.3	2 002	88.4	2 264	100.0
Babies of non-Indigenous mothers	2 924	6.5	42 152	93.3	45 184	100.0
SA						
Babies of Indigenous mothers	64	16.0	335	84.0	399	100.0
Babies of non-Indigenous mothers	1 261	6.5	18 141	93.5	19 402	100.0
WA						
Babies of Indigenous mothers	197	13.6	1 249	86.4	1 446	100.0
Babies of non-Indigenous mothers	1 366	5.7	22 529	94.3	23 895	100.0
NT						
Babies of Indigenous mothers	178	14.4	1 057	85.6	1 235	100.0
Babies of non-Indigenous mothers	152	6.6	2 141	93.4	2 293	100.0
ACT						
Babies of Indigenous mothers	6	12.2	43	87.8	49	100.0
Babies of non-Indigenous mothers	288	6.1	4 391	92.6	4 742	100.0

(a) Data are taken from the most recent State and Territory reports or from the 1993 report *Australia's Mothers and Babies*, (Lancaster et al. 1996), whichever was later.

(b) Total includes a number of 'not stated' responses.

Source: NSW: 1994 New South Wales Midwives Data Collection (NSW Health Department (1995). Vic., Qld and ACT: 1993 Australia's Mothers and Babies (Lancaster et al. 1996). SA: 1994 South Australian Health Commission, unpublished data. WA: 1994 Western Australia Midwives Notification System (Gee 1995). NT: 1994 Northern Territory Midwives Collection (Markey et al. 1996). Tas.: Not available.

Perinatal mortality

In all States and Territories except Victoria, the perinatal mortality rate was much higher for babies of Indigenous mothers than for babies of non-Indigenous mothers (table 7.5). This disparity was most pronounced in South Australia.

In Western Australia, the perinatal death rate for babies of Indigenous mothers declined from 21.7 per 1,000 births in 1985 to 16.6 in 1994 but still remained twice that of the non-Indigenous rate in 1994 (Gee 1995). Similarly, in the Northern Territory, Indigenous perinatal mortality rates declined between 1981 (47.5 per 1,000) and 1994 (34.0 per 1,000) (Markey et al. 1996). Despite this drop, these rates remained among the highest in Australia. More information from the Northern Territory is presented in inset 7.6.

7.5 PERINATAL MORTALITY, By Mother's Indigenous Status

	Stillbirths		*Neonatal mortality*		*Perinatal mortality(a)*	
State or Territory	no.	rate	no.	rate	no.	rate
NSW						
Babies of Indigenous mothers	14	9.2	8	5.2	22	14.4
Babies of non-Indigenous mothers	474	5.5	279	3.3	753	8.8
Vic.(b)						
Babies of Indigenous mothers	n.a.	11.8	n.a.	3.8	n.a.	15.7
Babies of non-Indigenous mothers	n.a.	7.4	n.a.	4.8	n.a.	12.2
Qld						
Babies of Indigenous mothers	31	12.9	22	9.3	53	22.1
Babies of non-Indigenous mothers	273	6.2	209	4.7	482	10.9
SA						
Babies of Indigenous mothers	10	25.1	4	10.3	14	35.1
Babies of non-Indigenous mothers	118	6.1	62	3.2	180	9.3
WA						
Babies of Indigenous mothers	n.a.	13.1	n.a.	3.5	n.a.	16.6
Babies of non-Indigenous mothers	n.a.	4.7	n.a.	2.6	n.a.	7.3
NT						
Babies of Indigenous mothers	18	14.6	24	19.7	42	34.0
Babies of non-Indigenous mothers	19	8.3	9	4.0	28	12.2

(a) Perinatal deaths include stillbirths and neonatal deaths. For definition of other terms, see glossary.

(b) Perinatal mortality data for Victoria have been pooled for the 10-year period from 1983–92 due to very small numbers of Indigenous stillbirths and neonatal deaths.

Source: NSW: 1994 New South Wales Midwives Data Collection (NSW Health Department 1995). Vic.: 1983–92 Victoria Perinatal Data Collection (Perinatal Data Collection Unit 1994). Qld.: 1992 Queensland Perinatal Data Collection (Epidemiology and Health Information Branch 1995). SA: 1994 South Australia Perinatal Collection (Chan et al. 1995). WA: 1994 Western Australia Midwives Notification System (Gee 1995). NT: 1994 Northern Territory Midwives Collection (Markey et al. 1996). ACT, Tas.: Not available.

7.6 NORTHERN TERRITORY PERINATAL DATA

Perhaps due to the high proportion of Indigenous confinements in the Northern Territory, more detailed information has been published about Indigenous mothers and their babies in the Northern Territory than in other States or Territories. In 1994, just over 35% of confinements were of Indigenous women. The information below is taken from the 1994 Northern Territory Midwives Collection report (Markey et al. 1996).

- Some 4.4% of Indigenous mothers and 0.3% of non-Indigenous mothers had no antenatal care.
- Nearly half of all Indigenous mothers had a medical condition complicating their pregnancy compared to 17% of non-Indigenous mothers.
- Indigenous mothers were more likely to deliver pre-term. Just over 13% of Indigenous mothers delivered at less than 37 weeks compared to 6.5% for non-Indigenous mothers.
- Nearly 30% of Indigenous mothers had to travel away from their home location for their confinement. This is mainly due to the remoteness of the population, and has financial, social and cultural implications for the mothers and their families.
- Some 5% of Indigenous mothers did not deliver in a hospital. About half of these delivered in community health centres. Less than 1% of non-Indigenous mothers delivered outside hospital. Again the remoteness of many Indigenous communities and outstations can determine the place of delivery.
- The crude rate of congenital malformations per 1,000 births was 31.6 for babies of Indigenous mothers and 20.9 for babies of non-Indigenous mothers.
- For babies of low birthweight, the perinatal mortality rate was similar for babies of Indigenous and non-Indigenous mothers but for babies of normal birthweight, the perinatal mortality rate for babies of Indigenous mothers was more than 20 times that of babies of non-Indigenous mothers.

Source: Markey et al. 1996.

SUMMARY

Indigenous mothers tend to be younger than their non-Indigenous counterparts and their babies to be of lower birthweight. The babies of Indigenous mothers have a higher perinatal mortality rate and although this has been declining in some jurisdictions, the rates remain higher than for babies of non-Indigenous mothers.

CHAPTER 8 ILL HEALTH

INTRODUCTION

This chapter draws on data from a wide range of health-related collections to provide a picture of the health status of Indigenous Australians. Included is information on the illnesses and conditions for which Indigenous people are admitted to hospital, as well as information on cancer, injury, mental health and dental health. While some information is available about each of these topics, the quantity, quality and completeness of the data vary from topic to topic and often from State to State. As a result, the information presented in this chapter should be interpreted with caution.

HOSPITALISATION

Information on hospitalisation can be a useful indicator of the state of health of a population (see inset 8.1). Of interest are both the overall rate at which people are admitted to hospital and the diseases and conditions responsible for those admissions.

8.1 HOSPITAL SEPARATIONS

Hospitals collect both clinical and administrative information concerning people who are admitted to hospital. Although most people think in terms of admissions to hospital, statistics about hospitalisation are generally based on hospital separations. A hospital separation occurs when a patient is discharged, is transferred to another facility or dies. Much more information is available at the end of a patient's stay in hospital than at the beginning, such as diagnosis, length of stay, procedures and operations, etc.

Data are collected for all hospitals, but the availability of such data has been varied. Until recently, for example, it was difficult to obtain information about private hospitals. Information on public and private hospital separations is collected by State and Territory health departments and then provided to the Australian Institute of Health and Welfare which maintains a national collection. The Indigenous status of patients in private hospitals has not been available to date and although this information is available for public hospitals, the quality of identification is variable.

Hospital separation data also include the age and sex of the patient as well as the principal diagnosis and any other diagnoses. All diagnoses are coded according to the International Classification of Diseases (ICD)(WHO 1977). The clinical modification of the ninth revision of this system (referred to as ICD-9-CM) is currently in use in Australia.

While hospitalisation statistics can provide an indicator of health, they are not a measure of the prevalence of disease. The figures represent episodes of hospitalisation rather than people. An individual may have been admitted to hospital on more than one occasion during the year, and each separate hospital admission would be included in the figures presented here. In addition, each hospital admission represents a mixture of need, access and demand. Low rates of hospitalisation may represent lower levels of need (i.e. a healthier population), or they may mean existing needs are not being met (e.g. a sick population with poor access). Conversely, a rising rate of hospitalisation could mean either a worsening of health status or an improvement in access.

Furthermore, hospital admission policies vary from hospital to hospital and State to State, as does the availability of outpatient care services. A person with a particular condition may be admitted to hospital in one area but treated as a day patient or outpatient or at a doctor's surgery in another area.

Assessments of Indigenous health based on hospital statistics are further complicated by the lack of complete identification of Indigenous people in hospital records, which results in an underestimate of hospitalisation of Indigenous people, the extent of which is likely to vary from State to State and perhaps from disease to disease as well as over time. Work has been undertaken by the Koori Health Unit of the Victorian Department of Health and Community Services to assess formally the completeness and quality of identification in hospital data collections and to develop strategies to improve the completeness of identification (HCSV 1994). Other assessments have been made at local or regional levels (ABS 1997b). The ABS conducted a workshop in November 1996 entitled 'Indigenous identification in administrative data collections: best practice and quality assurance' (ABS 1997b). The outcomes of the workshop included the creation of a high level, broad-based working group to promote and oversee initiatives to improve the completeness of identification in health statistics and eventually in a range of other welfare statistics, as well as a commitment from States and Territories to assess the quality of identification in their collections.

The most recent public hospital separations data available at the national level at the time of this report are from the financial year 1992–93 (see explanatory notes for more details). The quality of Indigenous identification in hospital separations data has not yet been formally assessed nationally, but in New South Wales, Victoria, and Tasmania, the proportion of patients identified as 'unknown' greatly exceeds the proportion identified as Indigenous. This is not the case for Western Australia, the Northern Territory, South Australia and Queensland, although the records for Queensland and South Australia do include a number of people for whom Indigenous status is recorded as 'unknown'. Data for these four jurisdictions are presented below. It must be noted that, even in these four areas, it is likely that there is under-identification of Indigenous people, and the observed rates of hospital separations therefore represent an underestimate of the true rate among Indigenous people.

Data for Queensland, South Australia, Western Australia and the Northern Territory have been combined to present a quasi-national picture, but it is not clear how well the figures represent the experience of Indigenous people in other areas.

All-Australian public hospital separation rates were used for comparison. Cause and age-specific rates were not available for private hospitals for 1992–93 but will be available for future years. As a result, the hospital separation ratios presented below are likely to be overestimates but any overestimation must be weighed against the sources of underestimation described above (see explanatory notes).

Despite problems in data quality such as those described above and in the explanatory notes, it is still useful to look at the results. The figures should be interpreted with caution and the focus should be on general patterns rather than on specific numbers.

The age-standardised hospital separation ratios give an indication of the types of illnesses and conditions for which Indigenous people are more (or less) likely than all Australians to be hospitalised.

Among Indigenous males, injuries and respiratory diseases together accounted for about a third of all hospital separations in 1992–93 (table 8.2). These same two categories were important among females, but they were overshadowed by hospital separations related to pregnancy and childbirth. Together, injuries, respiratory diseases, pregnancy and childbirth accounted for about four in 10 hospital separations among Indigenous females.

The age-standardised hospital separation ratios in table 8.2 compare the number of hospital separations recorded as Indigenous (that is, 'observed' separations) to the number which would have been expected if the all-Australian age-, sex- and cause-specific public hospital separation rates had applied to the Indigenous population (that is, the 'expected' separations; see inset 9.1). As can be seen in the table, most of the figures are between 2 and 5. That is, for most categories of disease or condition, actual separations (those identified as Indigenous) were between 2 and 5 times the number of hospital separations expected, based on all-Australian rates. For all causes combined, there were 2.5 times more separations than expected for Indigenous males and 2.7 times more for Indigenous females. Despite the data quality concerns discussed above and in the explanatory notes, it is clear that Indigenous people suffer a greater burden of illnesses and conditions which result in hospitalisation than do their non-Indigenous counterparts.

8.2 INDIGENOUS HOSPITAL SEPARATIONS, By Cause—1992–93(a)

	AGE-STANDARDISED HOSPITAL SEPARATION RATIO(b)		PROPORTION OF TOTAL SEPARATIONS	
	Males	*Females*	*Males*	*Females*
	ratio	ratio	%	%
Infectious and parasitic diseases	4.3	5.3	6.1	4.5
Neoplasms	0.7	1.1	1.0	1.5
Endocrine, nutritional and metabolic diseases & immunity disorders	4.8	5.4	2.3	2.1
Diseases of the blood and blood forming organs	1.1	2.1	0.6	0.7
Mental disorders	2.9	2.6	4.8	2.6
Diseases of the nervous system	2.9	2.7	5.8	3.7
Diseases of the circulatory system	2.3	3.5	5.0	4.0
Diseases of the respiratory system	3.1	3.6	16.3	10.7
Diseases of the digestive system	2.0	1.8	8.6	5.5
Diseases of the genitourinary system	2.3	2.3	3.7	6.9
Complications of pregnancy, childbirth and the puerperium	..	2.1	..	20.2
Diseases of the skin and subcutaneous tissue	6.1	7.5	5.7	4.0
Diseases of the musculoskeletal system, connective tissue	1.8	2.0	2.7	2.0
Congential anomalies	0.9	0.9	0.8	0.4
Certain conditions originating in the perinatal period	1.2	1.3	2.3	1.4
Symptoms, signs and ill-defined conditions	2.8	2.7	7.1	5.5
Injury and poisoning	2.9	4.1	18.1	10.6
Other reasons for contact with health services	1.7	3.6	9.0	13.6
All causes	2.5	2.7	100.0	100.0

(a) Includes data from public hospitals in Western Australia, the Northern Territory, South Australia and Queensland only.

(b) Age-standardised hospital separation ratio = observed Indigenous hospital separations divided by expected separations, based on all-Australian rates. See inset 9.1 for more

Source: AIHW hospital separations database.

Some variation was observed from State to State (table 8.3). Possible reasons for such differences include differences in the quality of Indigenous identification, in hospital admission practices, in the use of private hospitals and in the prevalence of different diseases and conditions. The extent to which these and other factors contribute to the observed differences is unknown.

8.3 INDIGENOUS HOSPITAL SEPARATIONS BY STATE, All Causes(a)

	AGE-STANDARDISED HOSPITAL SEPARATION RATIO		TOTAL OBSERVED SEPARATIONS		TOTAL EXCESS SEPARATIONS(b)	
	Males	*Females*	*Males*	*Females*	*Males*	*Females*
State/Territory	ratio	ratio	no.	no.	no.	no.
Western Australia	3.4	3.7	10 583	13 497	7 482	9 800
Northern Territory	1.7	1.8	5 021	6 698	2 084	3 073
Queensland	2.3	2.6	11 639	16 055	6 597	9 834
South Australia	2.6	3.2	3 030	4 711	1 868	3 256

(a) Public hospitals only, 1992–93.

(b) Excess separations = observed – expected separations. See inset 9.1 for more details.

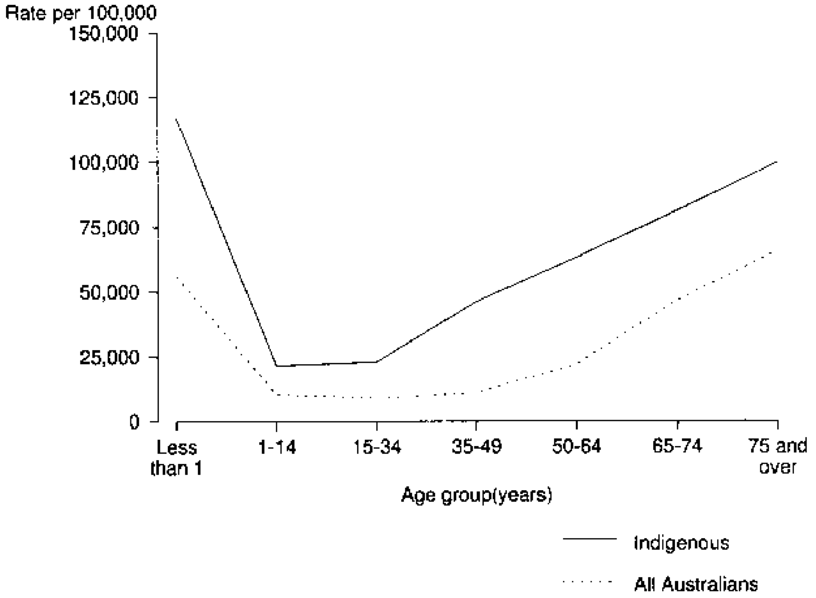
Source: AIHW hospital separations database.

Age-specific hospital separation rates

Public hospital separation rates for Indigenous males and females exceeded those of their all-Australian counterparts at all ages (graphs 8.4 and 8.5). For both males and females, for all causes combined, the differences were smallest among children aged one to 14 years and largest among infants and older people.

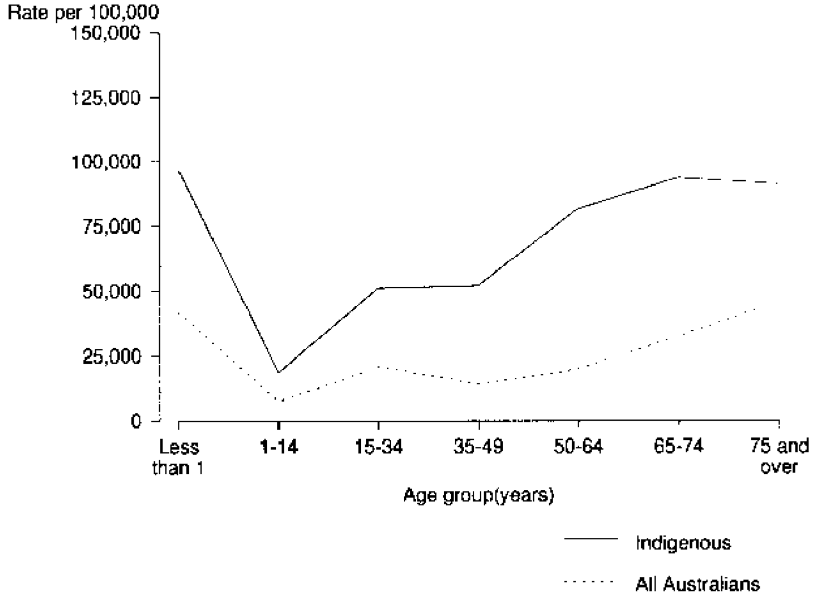
The age-specific rates for injuries and respiratory diseases, two of the most important categories of causes, were quite different from one another in their patterns. For respiratory diseases (graphs 8.6 and 8.7), rates of hospital separation for Indigenous people were highest by far for children under one year old. After a period of relatively low rates during later childhood and early adulthood, the rates increased again after about age 50. For injuries (graphs 8.8 and 8.9), on the other hand, the peak age groups with respect to hospital separations were 15–34 years and 35–49 years, after which they remained high.

8.4 HOSPITAL SEPARATIONS, All Causes—Males



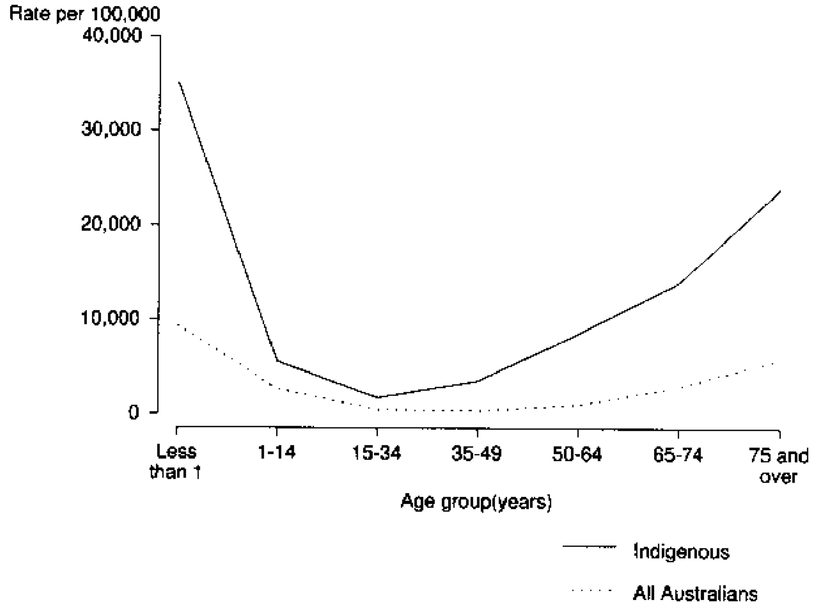
Source: AIHW hospital separations database, unpublished data. Indigenous data from Queensland, South Australia, Western Australia and the Northern Territory.

8.5 HOSPITAL SEPARATIONS, All Causes—Females



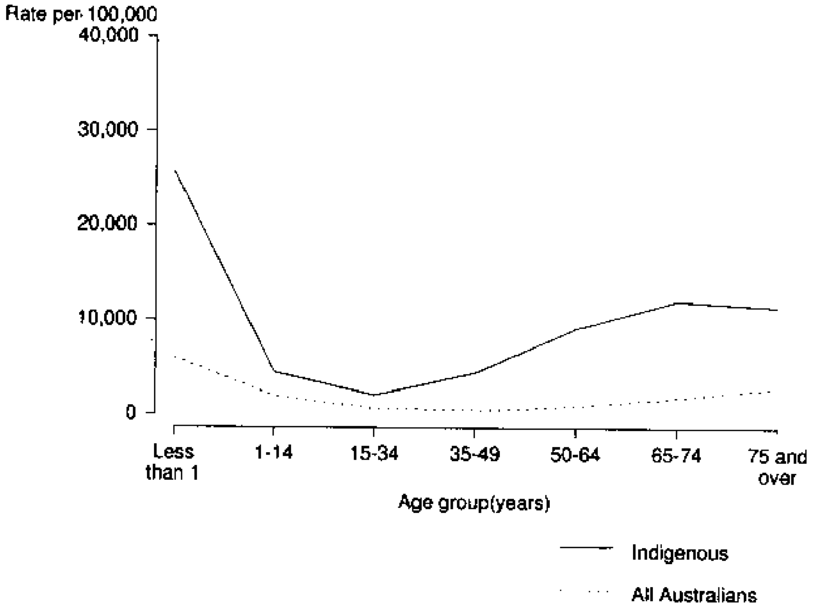
Source: AIHW hospital separations database, unpublished data. Indigenous data from Queensland, South Australia, Western Australia and the Northern Territory.

8.6 HOSPITAL SEPARATIONS, Respiratory Diseases—Males



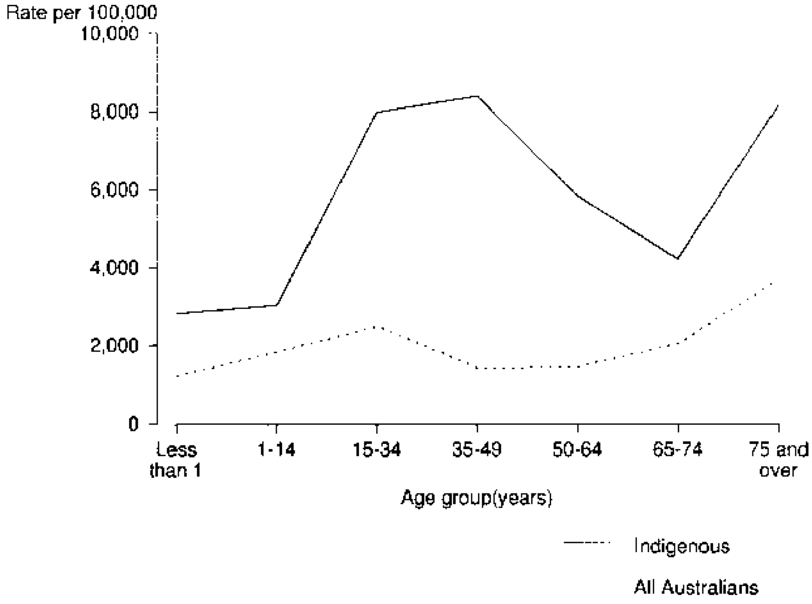
Source: AIHW hospital separations database, unpublished data. Indigenous data from Queensland, South Australia, Western Australia and the Northern Territory.

8.7 HOSPITAL SEPARATIONS, Respiratory Diseases—Females



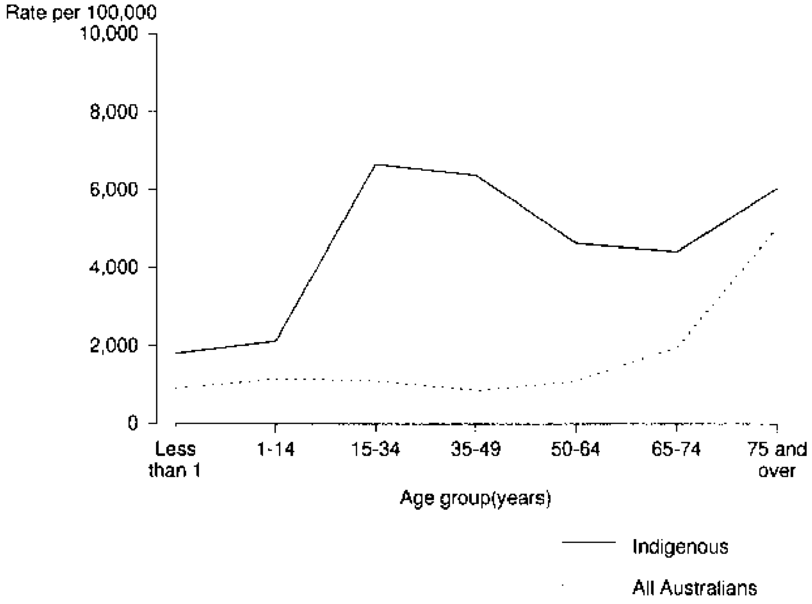
Source: AIHW hospital separations database, unpublished data. Indigenous data from Queensland, South Australia, Western Australia and the Northern Territory.

8.8 HOSPITAL SEPARATIONS, Injury and Poisoning—Males



Source: AIHW hospital separations database, unpublished data. Indigenous data from Queensland, South Australia, Western Australia and the Northern Territory.

8.9 HOSPITAL SEPARATIONS, Injury and Poisoning—Females



Source: AIHW hospital separations database, unpublished data. Indigenous data from Queensland, South Australia, Western Australia and the Northern Territory.

INJURY

Detailed information about hospital separations related to injury is available for 1991–92 for all of Australia except the Northern Territory (Moller et al. 1996), and, as presented above, for 1992–93 for Western Australia, the Northern Territory, Queensland and South Australia (AIHW hospital separations database). These data are summarised below. More information on death from injury is provided in chapter 9.

All-Australia (except Northern Territory), 1991–92

Overall in 1991–92, the rate of injury-related hospital separation was about three times higher for males and females who were identified as Indigenous than for their non-Indigenous counterparts. This figure represents an underestimate because not all Indigenous people would have been identified as such (Moller et al. 1996).

Among those identified as Indigenous, intentional injury inflicted by another person ('interpersonal violence') accounted for 24% of injury-related hospital separations among males and 31% among females. Falls were responsible for the second highest proportion, accounting for 20% and 21% of separations among males and females, respectively. The third most common cause of injury-related hospitalisations was transport accidents, with 10% for males and 7% for females (Moller et al. 1996).

The rate of hospital separation was higher for Indigenous males and females for every category of cause of injury with the exception of drowning among males (graphs 8.10 and 8.11). For both males and females, the largest differences between Indigenous and non-Indigenous rates were for hospitalisations resulting from interpersonal violence. Some of this difference, especially among women, may be due to under-reporting of interpersonal violence involving non-Indigenous people (Moller et al. 1996).

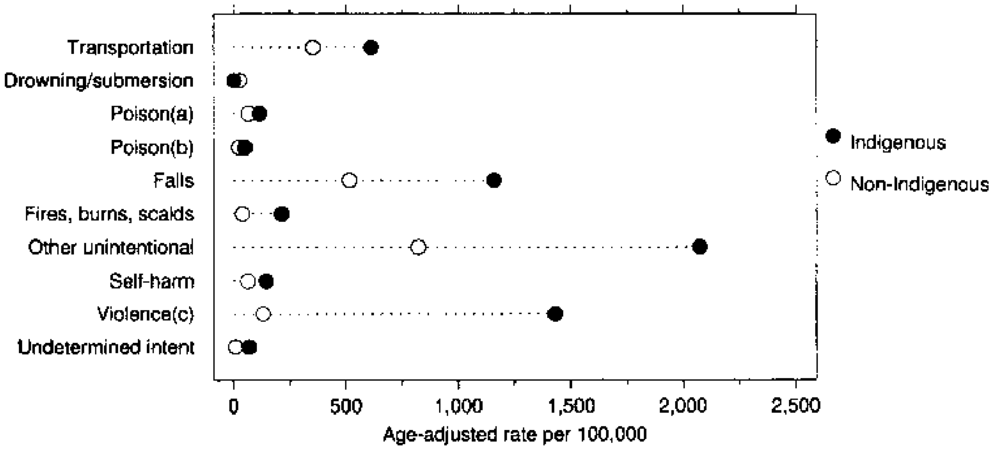
The rates of hospitalisation reported as being due to interpersonal violence peaked among Indigenous people in their 20s, but was considerably higher than for non-Indigenous people for all age groups over 14 years (graph 8.12; Moller et al. 1996).

The rate of hospitalisation for accidental falls was also higher for Indigenous people than for non-Indigenous people after the age of 14 years (graph 8.13). The steep rise in the rate of hospitalisations from accidental falls which occurs among older people appeared to begin up to 20 years earlier among Indigenous people (Moller et al. 1996).

Western Australia, Northern Territory, Queensland and South Australia, 1992–93

In 1992–93 in Western Australia, the Northern Territory, Queensland and South Australia, injury accounted for about 18% of all hospital separations among Indigenous males and 11% of separations among Indigenous females (table 8.2). In that year, there were almost 10,000 hospital separations for injury among people identified as Indigenous in those States and Territories. About 20% of all excess separations among Indigenous males and 13% of excess separations among Indigenous females were due to injury (see explanatory notes). Although there were differences in the rates of injury-related hospital separations from State to State, it is not certain whether these differences reflect differences in the incidence of injury or result from differences in the completeness of identification of Indigenous people in hospital records, differences in admission practices, or other factors.

8.10 HOSPITAL SEPARATIONS, By Cause of Injury—Males



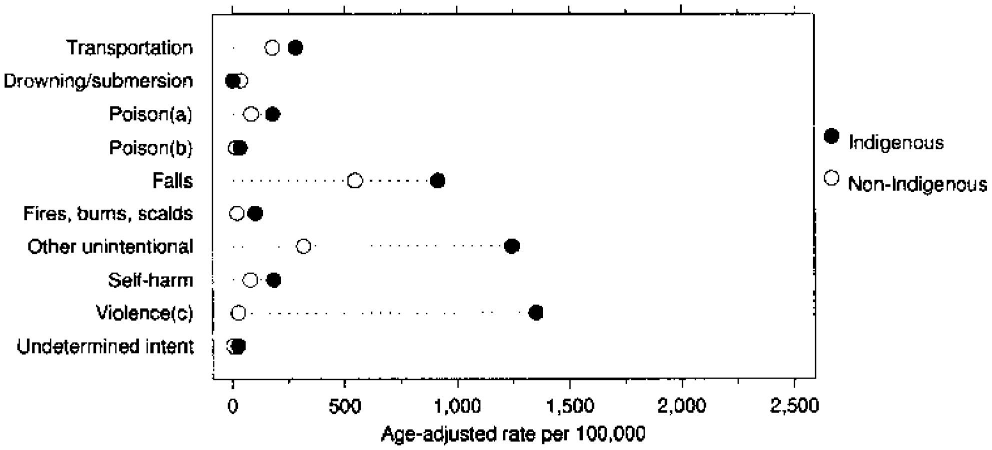
(a) Pharmaceutical.

(b) Non-pharmaceutical.

(c) Interpersonal.

Source: Moller et al. 1996. Data excludes the Northern Territory.

8.11 HOSPITAL SEPARATIONS, By Cause of Injury—Females



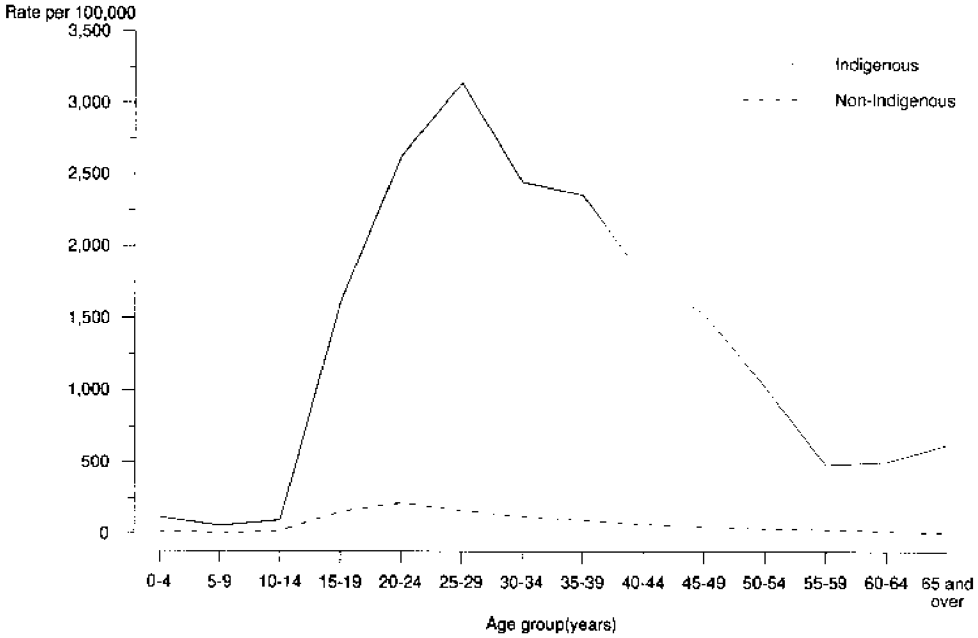
(a) Pharmaceutical.

(b) Non-pharmaceutical.

(c) Interpersonal.

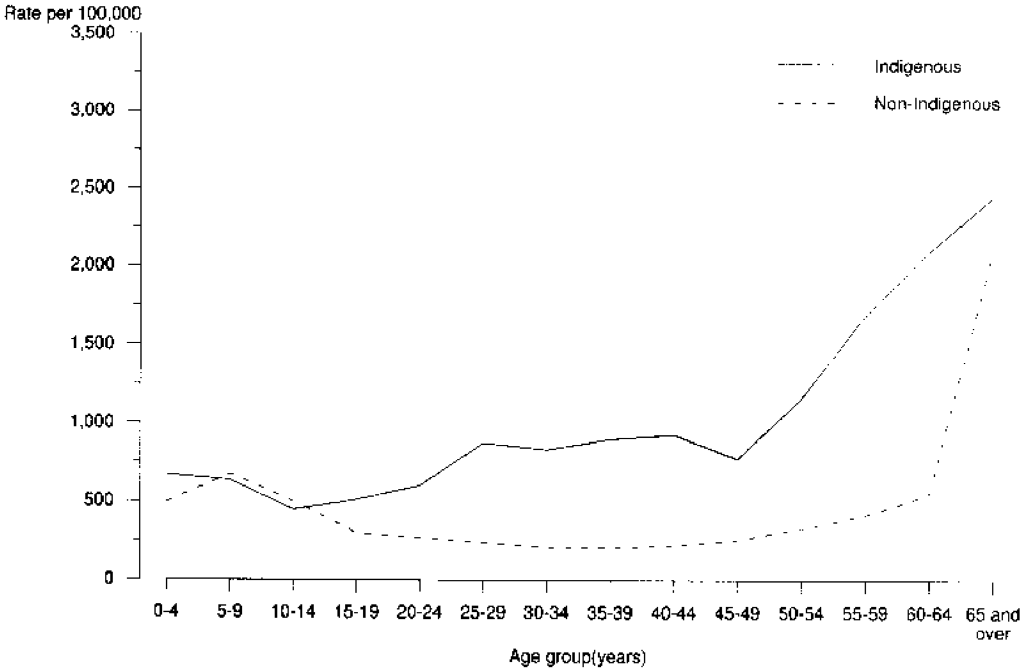
Source: Moller et al. 1996. Data excludes the Northern Territory.

8.12 HOSPITAL SEPARATIONS, Interpersonal Violence



Source: Moller et al. 1996. Data excludes the Northern Territory.

8.13 HOSPITAL SEPARATIONS, Accidental Falls



Source: Moller et al. 1996. Data excludes the Northern Territory.

CANCER

Cancer is an important cause of illness and death for Indigenous and non-Indigenous people alike. There were about 40%–80% more deaths than expected from cancer among Indigenous people in Western Australia, South Australia and the Northern Territory in 1992–94 (see chapter 9). Information on the incidence of cancer among Indigenous people is severely limited by lack of identification in most States' cancer registries. In this section, data from Western Australia and the Northern Territory are presented. Although data on cancer in Indigenous people have been published by both jurisdictions, it is likely that there is still some underestimation of cancer incidence and death among Indigenous people in those areas. Because of differences in circumstances from region to region, it is not clear whether these data are indicative of the experience of Indigenous people in other parts of Australia.

Western Australia

Cancer registrations in Western Australia generally do not include information on Indigenous identification, but some information on cancer incidence is available by linking cancer registration data with data from hospitals and death registrations, both of which include identification of Indigenous people (Threlfall et al. 1996). Although the information on cancer deaths (table 8.14) is likely to be reasonably good, the figures for cancer incidence represent an underestimate for Indigenous people since only those who had been hospitalised for or died from cancer would be identified as Indigenous.

Cancer diagnosis in Western Australia occurred at a younger age and was more likely to be fatal in people identified as Indigenous based on linkages with hospital and death data. For both males and females identified as Indigenous, the median age at diagnosis was 55 years. This was 11 years younger than for non-Indigenous males and eight years younger than for non-Indigenous females (Threlfall et al. 1996).

Northern Territory

The Northern Territory has perhaps the most complete identification of Indigenous people in cancer incidence data, although there remain some errors and inconsistencies. Notification of cases to the Northern Territory Cancer Registry was not mandatory until 1991, and figures from before that time may have underestimated the number of new cases in the Northern Territory (d'Espaignet et al. 1996).

In 1987–93, age-standardised incidence rates for all cancers combined were similar for Indigenous and non-Indigenous males and females in the Northern Territory, with rates for both groups slightly lower than all-Australian figures. There is evidence that cancer was more likely to be fatal among Indigenous people, however (table 8.14), with age-standardised death rates 30%–80% higher than for all Australian males and females (d'Espaignet et al. 1996). This may be attributable to later presentation for diagnosis and treatment or poorer access to health services. Among the major types of cancer, Indigenous people in the Northern Territory had a greater risk of developing and dying from lung, liver and cervical cancer and a lower risk of incidence of and death from breast, prostate and colorectal cancer compared to their all-Australian counterparts (d'Espaignet et al. 1996).

8.14 CANCER DEATHS, Western Australia and the Northern Territory

	Western Australia 1992–94		*Northern Territory 1987–93*	
	no.	age standardised death rate per 100 000(a)	no.	age standardised death rate per 100 000(a)
Indigenous				
Males	54	166	135	209
Females	54	144	136	184
Non-Indigenous				
Males	4 582	150	346	139
Females	3 577	101	190	84

(a) Directly age-standardised using the World Standard Population.
Source: Threlfall et al. 1996; d'Espaignet et al. 1996.

NOTIFIABLE COMMUNICABLE DISEASES

Many of the diseases responsible for hospital separations and mortality are communicable (that is, they can be spread to others), but in this section, the focus is on diseases and infections which are notifiable to health authorities. Not all such diseases or infections will result in a hospital separation or death, so it is important to have alternative sources of information. Notification to health authorities of cases of communicable disease is an important public health tool in preventing and managing epidemics. However, little information is available beyond the local level about the incidence of such important but non-reportable diseases as pneumonia, rheumatic fever, acute nephritis, impetigo, and otitis media.

In 1994, there were 41 diseases or disease groups which were reportable in at least some States and Territories. These included tuberculosis, various types of hepatitis, malaria, leprosy, measles, *Haemophilus influenzae* type b, syphilis, gonococcal infection, arbovirus infections (such as Ross River fever), chlamydial infection, meningococcal infection, mumps, pertussis, rubella, salmonellosis, and other diseases. Health authorities from States and Territories forward information about disease notifications to the National Notifiable Diseases Surveillance System (NNDSS), which reports regularly. The completeness of notifications to State/Territory health authorities (and therefore the NNDSS) is unknown and is likely to vary from disease to disease and from State to State (Hargreaves et al. 1995).

For diseases and infections which are reported and forwarded to the NNDSS, Indigenous status can be recorded, but again this information is believed to vary in completeness for different diseases and different States and Territories. The likelihood of testing for infection and of notification of positive test results may differ for Indigenous and non-Indigenous people, but the extent of any such difference is unknown. Overall, Indigenous status was reported for just under a third of all notifications in Australia in 1994 (Hargreaves et al. 1995).

Table 8.15 presents information on notification rates for some diseases and infections in some jurisdictions in 1994. Information is limited to areas and diseases where most of the notifications were reported to have Indigenous status recorded. No information on notifications for Indigenous people was published for 1995. The accuracy of what was recorded has not been assessed, so the figures should be interpreted with caution. It should also be noted that the rates provided in the NNDSS annual report are crude rates which do not take into account differences in the age structure of the Indigenous and non-Indigenous (or all-Australian) populations. Thus diseases and infections which are more common in children and young people would be expected to have higher crude rates in the Indigenous population than in the non-Indigenous population even if there were no differences in the age-specific rates.

8.15 COMMUNICABLE DISEASE NOTIFICATIONS—1994(a)

Disease	*Indigenous status reported for most cases in*	*Reported rates per 100,000*
Tuberculosis	NSW, NT, Qld, SA, WA	12.5 for Indigenous people in these areas; 5.7 for all-Australian
Meningococcal infection	NSW, SA, WA	13.0 for Indigenous people in these areas; 2.2 for all-Australian
Salmonellosis	WA, SA, NT	rates in these areas 2–5 times higher for Indigenous people than for State/Territory overall; all-Australian rate was 29.6
Shigellosis	NT, SA, WA	199 for Indigenous people in these areas; 6.1 for all-Australian
Chlamydial infection	SA, WA, NT	rates in these areas from 2–8 times higher for Indigenous people than for State/Territory overall; all-Australian rate was 55.3
Donovanosis	NT, WA	81 of 87 cases reported in these areas were identified as being Indigenous people
Gonococcal infection	WA, NT, SA	rates in Indigenous people reported to be 1 416 in WA; 1 145 in NT; 495 in SA; all-Australian rate was 16.7
Syphilis	NT, SA, NSW, WA, Qld	notification rates in Indigenous people reported to be 913 in NT; 217 in SA; 154 in NSW; 114 in WA and Qld; all-Australian rate was 13.0

(a) Includes only those diseases and States/Territories for which Indigenous status was recorded for most notifications. The accuracy of what was recorded has not been assessed.

Source: Hargreaves et al. 1995.

Despite the major shortcomings in the quality of data mentioned above, it is apparent that Indigenous people suffer a greater burden of infectious disease than do non-Indigenous people. However, considerable improvements in the quality of Indigenous identification in these collections are necessary before trends in incidence over time can be assessed.

In addition to the limited data on the incidence of infectious disease, there is good evidence of higher rates of hospitalisation and death from such causes among Indigenous people. In 1992–93 in Western Australia, the Northern Territory, Queensland and South Australia combined, there were 4–5 times more hospital separations than expected for the category known as 'infectious and parasitic diseases' (table 8.2). In 1992–94 in Western Australia, the Northern Territory and South Australia combined, there were 15–18 times more deaths than expected from this category of diseases among Indigenous people (Anderson et al. 1996).

HIV/AIDS

Notifications of HIV infection were not included in the NNDSS, but information is available from an evaluation of the National HIV/AIDS (Feachem 1995). Based on available surveillance data, the observed rates of HIV infection were similar for Indigenous and non-Indigenous people in 1992–94. The quality of identification is unknown, so the figures should be interpreted with caution. The high rates of sexually transmitted diseases (table 8.15) may increase the likelihood of transmission, and it appears that the rates of new HIV infection among Indigenous people have been rising while those of the all-Australian population have been falling (Feachem 1995).

DENTAL HEALTH

Dental health is sometimes overlooked among the many serious health problems experienced by Indigenous people. However, the consequences of poor oral health may include pain, infection, impaired speech, interference with proper eating function which may necessitate a change in diet, embarrassment about one's appearance, and financial burden incurred when dental intervention is necessary.

Barriers to receiving adequate dental care include possible financial difficulties, lack of accessible services, lack of recognition of the need for dental care and treatment, and the previous experiences of and levels of satisfaction with dental care received (AIHW 1995b).

Data pertaining to the dental health of Indigenous Australians are generally only available from public services. As most dental care in Australia, particularly for adults, is provided by private dentists it is not possible to obtain a complete picture of the dental health of Indigenous people. The information presented in this section is based on data from the School Dental Service and the former Commonwealth Dental Health Program, both of which are public-funded services.

Children

Much of the available information on children's dental health is from the Child Dental Health Survey (see explanatory notes), in which children using the School Dental Service throughout Australia were examined. In many States, however, information on Indigenous status was not recorded. In the Northern Territory, this information was recorded and some of the results are presented below. The extent to which these results are representative of the experience of children in other parts of Australia is unknown.

In the Northern Territory in 1994, Indigenous children were less likely than non-Indigenous children to be free of decayed, missing or filled teeth. This was true for both deciduous and permanent teeth and for almost all age groups. Indigenous children were more likely than non-Indigenous children to have decayed teeth at the time of the examination, and the 'd' (decayed) component was a larger proportion of the dmft (and DFMT) index among Indigenous children (see explanatory notes). That is, among children with any caries experience, non-Indigenous children were more likely than Indigenous children to have had their decayed teeth filled (AIHW 1995a).

The observed differences between Indigenous and non-Indigenous children may have been underestimated due to the absence of information from private dental services. This could occur if children with better dental health were more likely to be seen privately and if non-Indigenous children in the Northern Territory were more likely than Indigenous children to use private dental care.

Adults

Limited information about the dental health of Indigenous adults is available from the Commonwealth Dental Health Program (CDHP). The CDHP was introduced in 1994 to supplement existing State programs, and was abolished in 1996. It was directed at holders of government health concession cards and aimed at reducing the barriers to dental care for low income earners. While the information is representative of the people who used the program, it is not representative of the whole adult population.

Edentulism (the loss of all one's natural teeth) was found to be more common among people using the program than for the general population. Edentulism is a result of failure to receive appropriate preventive and/or restorative treatment. The higher proportion of CDHP users who have lost all their teeth indicates a high level of unmet need for dental care amongst low income groups, including many Indigenous people (AIHW 1995b).

Compared to non-Indigenous users of the CDHP, Indigenous people using the service were more likely to attend a clinic for an emergency rather than for non-emergency care. About 53% of Indigenous CDHP patients received emergency care, compared to about 40% of non-Indigenous patients. The difference was more apparent among people over the age of 25 (AIHW 1995c).

Among dentate patients (i.e. those who had any teeth), tooth extraction was more commonly performed for Indigenous people than for non-Indigenous people. During non-emergency visits, about 22% of Indigenous patients had teeth extracted, compared to about 7% of non-Indigenous patients. A similar pattern was observed for emergency visits, with about 44% of Indigenous patients and 25% of non-Indigenous patients having teeth extracted (AIHW 1995c).

When decayed teeth are present, fillings can be used to provide restorative care and avoid the need for extraction if treatment is obtained in time. The proportion of Indigenous CDHP patients who received fillings generally decreased with increasing age. For non-Indigenous patients, however, the proportion who received fillings remained fairly steady (AIHW 1995c). This may reflect the fact that Indigenous people in the older age groups (age 45 or more) are more likely to have had extractions, and therefore have fewer remaining teeth to fill.

MENTAL HEALTH

Mental health encompasses a wide range of factors and concerns not only mental illness but also notions of general wellbeing. Very little information is available about the mental health of Indigenous people, and what exists is primarily concerned with mental illness rather than mental and emotional wellbeing. Although the importance of an holistic approach to mental health (inset 8.16) has been recognised (see for example Swan & Raphael 1995), there does not appear to be agreement at present as to what constitutes wellbeing for Indigenous people or how to measure it.

It has recently been recognised that the approaches of the proposed National Mental Health Survey are not appropriate for measuring many aspects of Indigenous mental health. As a result, a National Indigenous Mental Health Data Workshop was held in November 1996, at which it was concluded that there is still considerable uncertainty about how best to measure and capture quantitative information about all aspects of the mental health of Indigenous people, or whether this is even possible.

Some information is available on a number of factors related to mental health, such as self-harm and suicide, substance abuse and violence, and these are discussed below.

8.16 A HOLISTIC DEFINITION OF MENTAL HEALTH

In keeping with the National Aboriginal Health Strategy Working Party's holistic definition of health (NAHSWP 1989; see chapter 1), the New South Wales Aboriginal Mental Health Report (NSW 1992) adopted the following definitions:

'Mental health is the capacity of the individual, the groups and the environment to interact with one another in ways which promote subjective well-being, the optimal development and use of mental abilities (cognitive, affective (or emotional) and relational), the achievements of the individual and collective goals consistent with the attainment and presentation of conditions of fundamental equality' (NSW 1992).

'A mental health problem is a disruption of the interactions between the individual and the environment producing a diminished state of mental health' (NSW 1992).

In their report *Ways Forward, The National Consultancy Report on Aboriginal and Torres Strait Islander Mental Health*, Swan & Raphael (1995) put forward a number of key principles that should guide the development of an Aboriginal and Torres Strait Islander Mental Health Strategy and Plan including: the concept of health as holistic; the impact of history in trauma and loss; the right to self-determination; and recognition of the centrality of kinship.

Prevalence of mental health problems

During the compilation of their report *Ways Forward — The National Consultancy Report on Aboriginal and Torres Strait Islander Mental Health*, Swan and Raphael (1995) found high levels of unmet need in relation to mental health. While the data were generally considered inadequate they suggested that Aboriginal people 'suffer mental health problems such as depression at a very high rate, compared to non-Aboriginal people, that rates of self-harm and suicide are higher and that substance abuse, domestic violence, child abuse and disadvantage are contributing additional risk factors. Trauma and grief were seen as overwhelming problems' (Swan & Raphael 1995, p. 1). Indigenous people perceived mainstream health services as failing them and perceived a need for services that take into account the holistic value of health and their spiritual and cultural beliefs (Swan & Raphael 1995, p. 1).

In 1992–93, there were about three times more public hospital separations than expected for mental disorders among Indigenous people in Western Australia, the Northern Territory, Queensland and South Australia combined (table 8.2). This category includes a number of alcohol- and drug-related conditions, including abuse and dependence. The figures must be treated with caution since they do not include psychiatric hospitals. In addition, the diagnosis and categorisation of mental disorders may vary from place to place and across cultures.

A recent survey of Aboriginal admissions to Bloomfield Hospital in New South Wales (Prusiak 1995) showed high rates of dual diagnosis of alcohol use and psychiatric morbidity. Hunter's (1991) Kimberley study (inset 3.16) also indicated that the quantity of alcohol consumed is related to severe psychological reactions, that constant drinking is related to self-harm impulses, and that frequency of drinking is associated with suicide attempts. Hunter also found that hallucinations, paranoid ideas and reactions of panic were associated with drinking.

In an analysis of mortality in 1992–94 for South Australia, Western Australia and the Northern Territory, it was estimated that there were almost six times more deaths from mental disorders among Indigenous people than expected, based on non-Indigenous rates. Alcohol dependence syndrome was considered to be a factor in many of these deaths (Anderson et al. 1996).

Self-harm

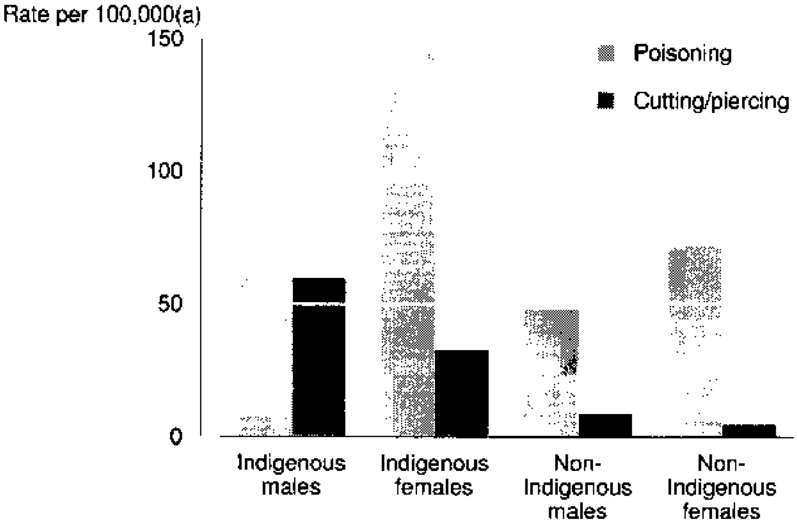
Data on self-harm resulting in hospitalisation were recently reported for the year 1991–92 by the National Injury Surveillance Unit (Moller et al. 1996). Self-harm injury hospitalisations include injuries in suicide and attempted suicide and other intentionally self-inflicted injuries, such as those inflicted by poisoning, hanging, firearms or by a cutting or piercing instrument. Criteria for assigning injuries to self-harm categories vary from State to State, and as with any hospital separation data, there is likely to be incomplete identification of Indigenous people. Therefore the figures should be considered an approximation.

Among Indigenous and non-Indigenous people alike, females were more likely than males to be hospitalised for self-inflicted injury, with the highest proportion of these due to poisoning (graph 8.17). The age-adjusted rate of hospitalisation for poisoning was higher among Indigenous people for both males and females, but the difference was much larger among females. The rates of hospitalisation for self-inflicted cutting or piercing was about six times higher for Indigenous people than for non-Indigenous people, and this difference was apparent for both males and females (Moller et al. 1996).

There were marked differences in the rates of self-inflicted injury hospitalisation for different age groups. Among non-Indigenous people, the rate of hospitalisations for self-harm peaked in the 15–19 year old age group (154.1 per 100,000) and then dropped throughout life. Among Indigenous people, the rate of self-harm rose markedly during the 15–19 year age group but did not peak until the 30–34 year age group (424.7 per 100,000). Although the rates subsequently fell, they did not drop to non-Indigenous levels until after age 45 (Moller et al. 1996).

Self-harm from firearms and hanging are more likely to lead to death rather than hospitalisation and as a result are uncommon reasons for hospitalisation among both Indigenous and non-Indigenous people (Moller et al. 1996). In 1992–94 in South Australia, Western Australia and the Northern Territory combined, there were about twice as many deaths from suicide among Indigenous males as would have been expected based on non-Indigenous rates. The rates were similar for Indigenous and non-Indigenous females, however (Anderson et al. 1996).

8.17 HOSPITAL SEPARATIONS, Self-harm



(a) Age-adjusted.

Source: Moller et al. 1996. Data excludes the Northern Territory.

Substance abuse

Substance abuse is considered a significant problem in its own right as well as because of its high co-morbidity with a variety of mental health problems. Brady (1994, as cited in Swan & Raphael 1995) wrote that 'as with other segments of the population, alcohol and other drug use both masks and is exacerbated by, existing mental health problems.' Brady (1991) also indicated that 'substance abuse may be both a result of despair and a cause of further despair.' Indigenous people are more likely to drink alcohol at dangerous levels than non-Indigenous people and have higher rates of usage of marijuana than the non-Indigenous population (CDHSH 1996). Further information on substance abuse is included in chapter 3.

Violence

Violence may be both a risk factor for and an indicator of mental health problems and mental disorders. The strong association of family violence and mental health has been identified in the New South Wales Aboriginal Mental Health Report (NSW 1992), and in repeated reports to the National Aboriginal Mental Health Conference 1993 (as reported in Swan & Raphael 1995). In the NATSIS, up to 15% of people aged 20–44 years reported that they had been verbally attacked or physically threatened in the previous 12 months (ABS 1995b). More information on violence is presented in chapter 3 and in inset 8.18.

8.18 SOCIAL HEALTH AMONG URBAN ABORIGINAL PEOPLE

Radford and colleagues (1991) conducted a study in Adelaide in the late 1980s in which they examined stress and self-destructive behaviours among Aboriginal heads of households in Adelaide. The authors suggested 'that in traditional Aboriginal societies, while violence was certainly present, suicide was virtually unknown' (Radford et al. 1991, p. 21). A random sample of those in greatest socioeconomic need were interviewed for their study.

Over 50% of this group had been assaulted or bashed, two-thirds of these on many occasions. One-third of respondents reported having serious thoughts of suicide. Destructive behaviours were associated with reported 'powerlessness, isolation, high levels of poverty, low perceptions of self, and apparently less effective use of existing resources' (Radford et al. 1991, p. 24).

SUMMARY

Despite limitations in the data, which are likely to result in underestimation of the rates, Indigenous people suffer from a much greater burden of ill-health than non-Indigenous people. There is also a large burden of co-morbidity, with many Indigenous people presenting with multiple health problems and risk factors, although this is difficult to quantify. The high rates of illness are reflected in higher death rates as can be seen in chapter 9.

CHAPTER 9 MORTALITY

AVAILABILITY OF DATA

Truly national statistics on deaths of Indigenous people are not available because of incomplete recording of Indigenous status in the death records of some jurisdictions. That is, some Indigenous people are not identified as such on their death records, and the proportion of people affected varies from place to place (see chapter 12). This means that the number of deaths observed is an underestimate of the number of deaths which actually occurred among Indigenous people. Although the total number of deaths in Australia (or in a particular State) is not changed, the categorisation of these deaths as 'Indigenous' or 'non-Indigenous' is affected. This can dramatically change our interpretation of the mortality experience of Indigenous people.

As of 1994, Western Australia, South Australia and the Northern Territory were deemed to have adequate identification of Indigenous people to allow for reporting. The Australian Capital Territory was also believed to have good identification in 1994, but there were very few deaths of Indigenous people in the Australian Capital Territory and they will not be considered further here (Anderson et al. 1996). In the following pages, deaths from Western Australia, South Australia and the Northern Territory have been combined to represent a quasi-national picture. About 37% of Australia's Indigenous people lived in one of these three jurisdictions in 1991 (ABS 1996a), and it is not clear how well the experience of these three areas represents what happened elsewhere.

9.1 WAYS OF LOOKING AT DEATHS

There are a number of ways to quantify the mortality experience of a population. The simplest way is to count the number of deaths, but this does not take into account the size of that population. The Indigenous population is very small compared to the non-Indigenous population. Dividing the number of deaths by the population gives us a 'crude death rate', which is often expressed as deaths per 100,000 population. Death is strongly related to age, however, and as was discussed in chapter 1, the age structure of the Indigenous population is very different to that of the non-Indigenous population. It is important to take this difference into account.

A death rate which has been adjusted for differences in age distributions is called an 'age-standardised death rate'. This represents the theoretical death rate which would have been observed if the population of interest had the same age structure as a particular reference population (the standard population used in the following pages is the 1991 mid-year Australian population). By using the same reference population, we can compare the age-standardised death rates for different populations, such as Indigenous and non-Indigenous populations. A ratio of the age-standardised death rates in two populations is a 'standardised rate ratio'.

Another way of adjusting for differences in age is to calculate the number of deaths expected in a population, based on its age structure, if it had the same mortality experience (i.e. the same age-, sex- and cause-specific death rates) as a particular reference population. The number of deaths observed is then divided by the number of deaths expected, resulting in a 'standardised mortality ratio', which is often abbreviated as SMR. If the ratio is greater than one, then there were more deaths than would have been expected; if the ratio is less than one, than there were fewer than the expected number of deaths. For example, an SMR of 3.5 indicates that there were 3.5 times as many deaths as would have been expected, based on the death rates observed in the reference population and the age structure of the population of interest. The same rates and ratios can be calculated for hospitalisation by using separations rather than deaths.

IMPORTANT CAUSES OF DEATH, 1992–94

Because the Indigenous population is relatively small, death rates can fluctuate from year to year. In order to get a more accurate picture, deaths from 1992 to 1994 have been combined.

In 1992–94, about three out of every four deaths among Indigenous people were caused by one of the following: diseases of the circulatory system (e.g. heart attacks and strokes); injury and poisoning (e.g. road crashes, suicide, and murder); respiratory diseases (e.g. pneumonia, asthma, and emphysema); neoplasms (i.e. cancers); and endocrine, nutritional and metabolic disorders (e.g. diabetes). There were more deaths than expected among Indigenous people for each of these causes of death (table 9.2). For all causes of death combined, there were 3.5 times more deaths than expected among Indigenous males and 4 times more deaths than expected among Indigenous females in 1992–94 (Anderson et al. 1996).

Age-standardised death rates for Indigenous people exceeded those for non-Indigenous people for virtually all causes. In 1992–94, there were fewer than expected numbers of deaths only for breast cancer and suicide in Indigenous females, and prostate cancer in Indigenous males (Anderson et al. 1996). More information on suicide and self-harm is presented in chapter 8, and more information about deaths of Torres Strait Islanders is presented in chapter 11.

9.2 DEATHS FROM SELECTED CAUSES—1992–94(a)

	Males............		*Females*..........	
Type of condition	no.	SMR(b)	no.	SMR(b)
Circulatory	386	3.1	333	3.6
Respiratory	202	7.9	115	7.3
Injury and poisoning	291	3.6	118	4.4
Neoplasms	141	1.4	145	1.8
Endocrine/metabolic	87	7.2	106	12.8
Digestive	57	5.2	51	6.2
Infectious/parasitic	46	14.7	32	17.6
Nervous system	37	4.0	20	2.4
Mental disorders	36	5.5	29	5.5
Genitourinary	25	7.7	45	14.1
Ill-defined conditions	53	7.6	37	8.5
All causes	**1 437**	**3.5**	**1 110**	**4.0**

(a) Data from Western Australia, South Australia and the Northern Territory combined.

(b) Standardised mortality ratio = observed deaths divided by expected deaths, based on non-Indigenous age-, sex- and cause-specific rates.

Source: Anderson et al. 1996 and AIHW mortality database.

Death rates were higher for Indigenous people than for non-Indigenous people in every age group, but the difference was largest among those between 25 and 55 years of age (table 9.3).

Over one-quarter of excess deaths among Indigenous males and females were due to diseases of the circulatory system (table 9.4). Injury, respiratory diseases and endocrine diseases were also important causes of excess deaths.

9.3 AGE-SPECIFIC DEATH RATES AND RATE RATIOS (RR)—1992–94

	MALE			FEMALE		
	Indigenous	*Non-Indigenous*		*Indigenous*	*Non-Indigenous*	
Age group (years)	rate(a)	rate(a)	RR	rate(a)	rate(a)	RR
<1	2 264	567	4.0	2 050	463	4.4
1–4	178	35	5.1	94	31	3.0
5–14	55	18	3.1	39	13	3.0
15–24	288	104	2.8	134	38	3.5
25–34	657	120	5.5	281	46	6.1
35–44	1 170	148	7.9	686	84	8.2
45–54	2 237	337	6.6	1 331	211	6.3
55–64	4 377	1 057	4.1	3 384	562	6.0
65–74	6 254	2 968	2.1	6 698	1 576	4.2
75+	14 685	9 465	1.6	12 853	7 056	1.8

(a) Per 100 000.

Source: Anderson et al. 1996 and AIHW mortality database. Data from Western Australia, South Australia and the Northern Territory combined.

9.4 MAIN CAUSES OF EXCESS DEATHS(a)—1992–94

MALES		*FEMALES*	
	Proportion of excess		Proportion of excess
Disease category	%	Disease category	%
Circulatory	25	Circulatory	29
Injury and poisoning	20	Respiratory	12
Respiratory	17	Endocrine/metabolic	12
Endocrine/metabolic	7	Injury/poisoning	11

(a) Excess deaths = observed deaths – expected deaths (based on non-Indigenous age-, sex- and cause-specific rates).

Source: AIHW mortality database; Anderson et al. 1996. Data from Western Australia, South Australia and the Northern Territory combined.

TRENDS IN DEATH RATES, 1985–94

Between 1985 and 1994, there was very little improvement in the mortality experience of Indigenous Australians. Although the death rates for Indigenous males fell by an estimated 1.5% per year (graph 9.5), this was only enough to keep pace with non-Indigenous males. That is, the gap between Indigenous and non-Indigenous males was not narrowed, and there were still 3.5 times more deaths than expected. For

Indigenous females, there was no drop in death rates over the 10-year period (graph 9.6), and the ratio of observed to expected deaths remained at four (Anderson et al. 1996).

Death rates from circulatory diseases declined by about 2% per year for Indigenous males (graph 9.7), but this was matched by an increase of a similar size among Indigenous females (graph 9.8). For females, death rates from cerebrovascular disease ('stroke') increased by an estimated 8.5% per year, more than doubling over the 10-year period. No significant trend in death rates from this cause was observed for Indigenous males. Death rates from chronic rheumatic heart disease decreased substantially, especially for Indigenous females. Although the gap between observed and expected deaths among females was reduced by almost half as a result, there were still 10 times more deaths than expected in 1992–94 (Anderson et al. 1996).

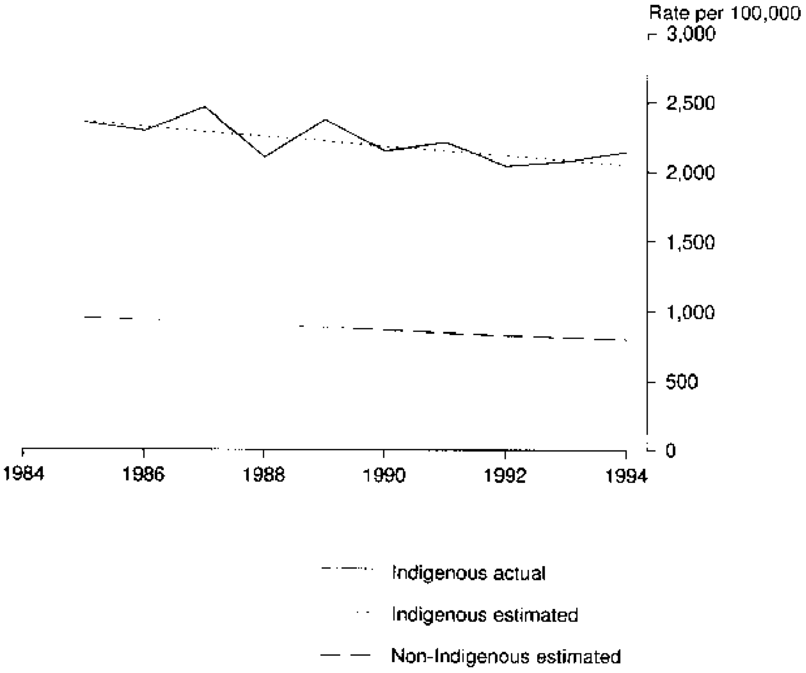
There were large increases in the death rates from diabetes mellitus between 1985 and 1994 for both Indigenous males (an estimated 9.6% per year; graph 9.9) and Indigenous females (5.4% per year; graph 9.10). Some of the increase may have been due to changes over time in the coding of cause of death for people with diabetes. By 1992–94, there were about 12 times more deaths than expected from diabetes in Indigenous males and over 17 times more than expected among Indigenous females (Anderson et al. 1996).

Cancer death rates appeared to be rising over the period for both males and females, although the apparent trend was not statistically significant and may have been due to chance. The ratio of observed to expected deaths did not change (Anderson et al. 1996).

Death rates from respiratory disease appeared to decline, especially for females, but the trends were not statistically significant. Rates of death from infectious and parasitic diseases declined for males but not for females, but the rates also declined among non-Indigenous males, and there was no change in the ratio of observed to expected deaths (Anderson et al. 1996).

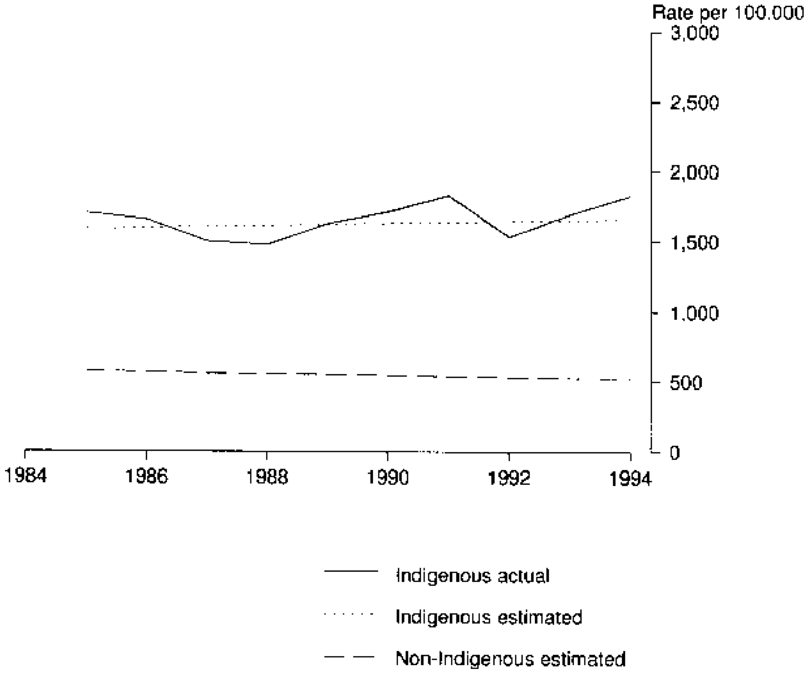
Although Indigenous females have historically been over-represented with respect to maternal death, there were no deaths categorised as being due to complications of pregnancy or childbirth from 1991 to 1994 in Western Australia, South Australia or the Northern Territory among women who were identified as Indigenous (Anderson et al. 1996).

9.5 AGE-STANDARDISED DEATH RATES, All Causes—Males



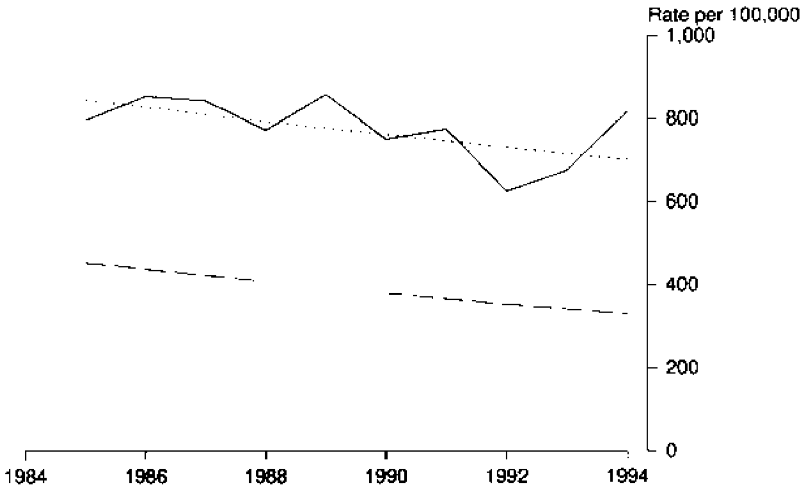
Source: Anderson et al. 1996. Data from Western Australia and the Northern Territory (1985–94); Western Australia, Northern Territory and South Australia (1988–94).

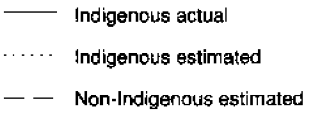
9.6 AGE-STANDARDISED DEATH RATES, All Causes—Females



Source: Anderson et al. 1996. Data from Western Australia and the Northern Territory (1985–94); Western Australia, Northern Territory and South Australia (1988–94).

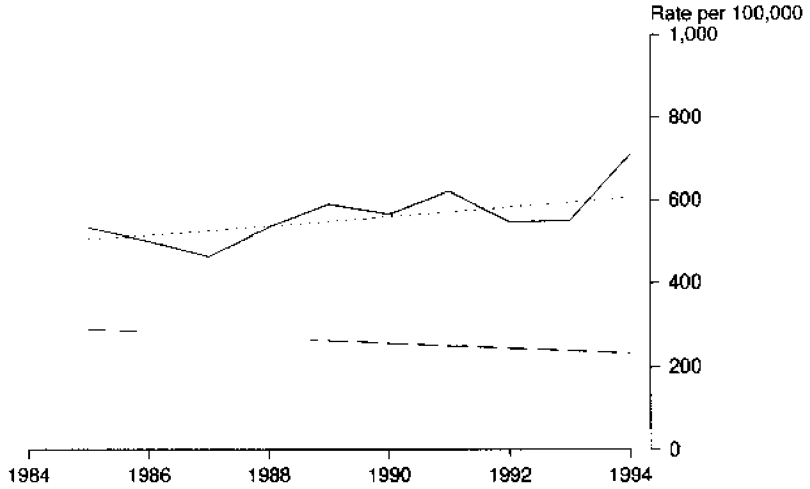
9.7 AGE-STANDARDISED DEATH RATES, Circulatory Diseases—Males

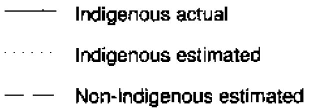




Source: Anderson et al. 1996. Data from Western Australia and the Northern Territory (1985–94); Western Australia, Northern Territory and South Australia (1988–94).

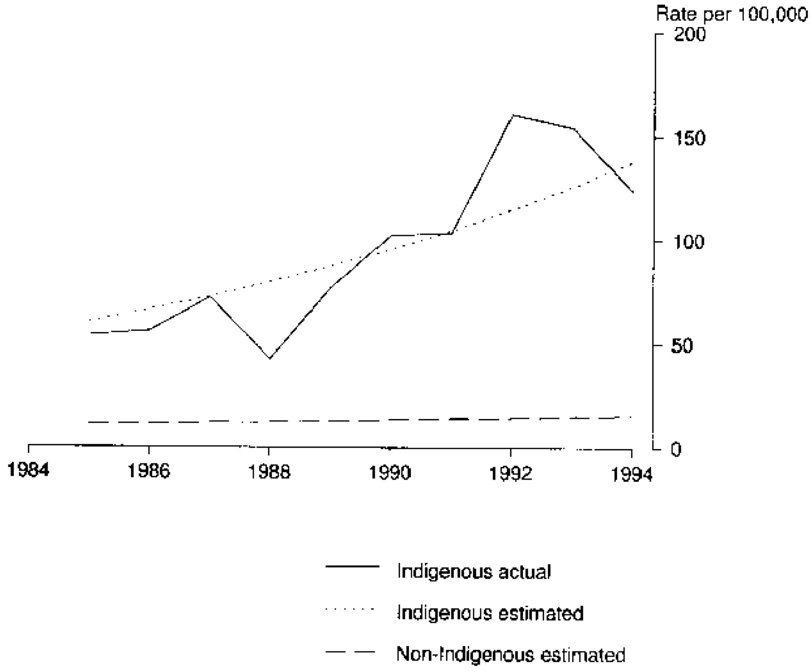
9.8 AGE-STANDARDISED DEATH RATES, Circulatory Diseases—Females





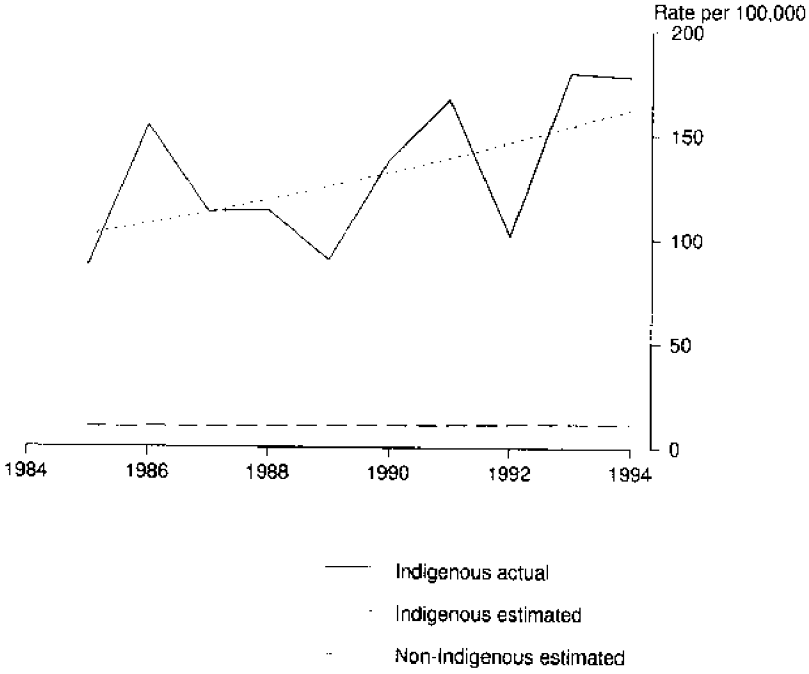
Source: Anderson et al. 1996. Data from Western Australia and the Northern Territory (1985–94); Western Australia, Northern Territory and South Australia (1988–94).

9.9 AGE-STANDARDISED DEATH RATES, Diabetes—Males



Source: Anderson et al. 1996. Data from Western Australia and the Northern Territory (1985–94); Western Australia, Northern Territory and South Australia (1988–94).

9.10 AGE-STANDARDISED DEATH RATES, Diabetes—Females



Source: Anderson et al. 1996. Data from Western Australia and the Northern Territory (1985–94); Western Australia, Northern Territory and South Australia (1988–94).

LIFE EXPECTANCY AT BIRTH

Life expectancy at birth represents the average number of years a newborn baby could expect to live if the mortality rates of today were to continue throughout that baby's life. In the period 1992–94, life expectancy at birth among non-Indigenous people was 74.9 years for males and 80.6 years for females. Although there were small differences from State to State, life expectancy at birth was 15 to 20 years lower for Indigenous people in Western Australia, South Australia and the Northern Territory than for their non-Indigenous counterparts (Anderson et al. 1996). Table 9.11 presents estimated life expectancy at birth at two time periods for Indigenous people in each of these jurisdictions.

9.11 INDIGENOUS LIFE EXPECTANCY AT BIRTH

	Males	*Females*
	years	years
South Australia		
1988–89	55.0	66.8
1992–94	61.0	64.6
Western Australia		
1987–88	58.3	65.7
1992–94	57.3	63.7
Northern Territory		
1985	53.2	61.6
1992–94	56.7	61.1

Source: Anderson et al. 1996 (1992–94 data); Thomson & Briscoe 1991 (other years).

SUMMARY

Indigenous people are dying at a greater rate and at younger ages than non-Indigenous people in Western Australia, South Australia and the Northern Territory, and there has been little improvement in the last 10 years. The quality of Indigenous identification in the death records of other States has not been sufficient to allow for reporting. After adjusting for age, death rates are higher for Indigenous people than for non-Indigenous people for almost all causes of death, but circulatory diseases, respiratory diseases, injury, endocrine diseases and cancer are responsible for the greatest number of deaths.

CHAPTER 10

WELFARE

This chapter presents information about a variety of welfare-related topics, such as child care, child protection, adoption, aged care, disability, housing assistance, income support and educational attainment, as well as the employment and training of Indigenous people in welfare-related fields. Welfare is a complex area involving many different portfolios and the amount of information available at a national level is limited by the quality of identification of Indigenous people in administrative collections. The quality of the data in relation to Indigenous people varies from collection to collection. Welfare in its widest sense concerns the wellbeing of the whole community and is more than the provision of services. In addition many relevant services may be provided either formally or informally. Informal assistance, such as occurs in extended family and community networks, is likely to be extensive but is difficult to quantify.

CHILD CARE

In the NATSIS, only one in eight families with children under 13 years old reported that they currently used formal child care, either solely (4%) or in addition to family or friends (8%). About 39% of families reported that they did not use any child care, and about 45% of families said they used family or friends only (ABS 1995b). Furthermore, 82% of families indicated that they had not wanted to use any formal child care in the preceding four weeks (table 10.1).

10.1 CHILD CARE INDIGENOUS FAMILIES WOULD HAVE LIKED TO USE(a)(b)

Type of care(c)	%
Before/after school care	5
Occasional care centre	4
Family day care	4
Long day care centre	3
Pre-school/kindergarten	3
Other formal care	2
Did not want formal care	82
Not stated	1

(a) Families with children aged under 13 years.

(b) In the last four weeks.

(c) More than one answer may have been given, so percentages do not add to 100%.

Source: ABS 1995b.

These stated preferences are also reflected in other sources of information. In 1992–93, Indigenous children represented 1.8% of children attending formal child care services funded by the Commonwealth Government (including long day care centres, family day care, outside school hours care), although comprising about 3% of children aged 0–11 years (AIHW 1995). The under-representation of Indigenous children may also be due in part to possible lack of awareness about available programs and lack of day care places in their area, as well as the lower rates of employment among Indigenous adults (AIHW 1995). Other reasons may include a greater use of informal arrangements and the lack of culturally appropriate services.

Although the lack of paid employment may reduce the need for formal child care, family responsibilities may also prohibit the participation of Indigenous parents in the labour force. Among people aged 15 years and over who were not in the labour force, about 11% said they would like to work but that their main reason for not looking was child care/family responsibilities (ABS 1995b). Among females who said they wanted to work but were not looking, about a third of 15–24 year olds and two thirds of 25–44 year olds said this was because of child care and family responsibilities (ABS 1996e).

CHILD ABUSE AND NEGLECT

Reports of abuse and neglect are generally made to, and investigated by, State and Territory welfare authorities (although sometimes the police are also involved). The data below refer only to those reports which have been classified as 'substantiated'. Although there are differences in interpretation from State to State, a notification is generally considered to be substantiated if there is 'reasonable cause to believe that the child has been, or is being, abused or neglected and/or is in need of protection'. (AIHW 1996c, p.1).

In all States and Territories in 1995–96, Aboriginal and Torres Strait Islander children had higher rates of reported and substantiated child abuse and neglect than did non-Indigenous children (table 10.2; AIHW 1996c). Higher rates were also observed for Indigenous children in 1993–94 (Angus & Woodward 1995) and 1994–95 (Angus & Hall 1996). The identification of Aboriginal and Torres Strait Islander children is likely to be good given the nature of the issue and the extent of investigation involved.

10.2 SUBSTANTIATED NOTIFICATIONS OF CHILD ABUSE OR NEGLECT(a)(b)

	Indigenous	*Non-Indigenous*
State	Rate per 1 000	Rate per 1 000
New South Wales	30.1	7.5
Victoria	32.0	5.8
Queensland	15.1	3.5
South Australia	24.7	5.6
Western Australia	9.2	1.8
Tasmania	(c)2.6	1.8
Northern Territory	5.6	3.6
Australian Capital Territory	(c)47.6	4.4

(a) Children 0–16 years, 1995–96.

(b) Preliminary data. Note that due to changes in definitions, these figures may not be directly comparable to figures for other years. Figures may include more than one substantiated notification per child.

(c) Rate based on fewer than 50 notifications.

Source: AIHW 1996c and AIHW unpublished data.

Rates varied widely from State to State for both Indigenous and non-Indigenous children. Some of the differences from State to State may be due to differences in legislation and policy, as well as different reporting and investigation attitudes and practices (see for example Zabar & Angus 1994). In addition, child rearing practices differ from culture to culture, and different groups may have different perceptions of what constitutes abuse or neglect. The data should therefore be interpreted with caution.

Nationally, about 28% of all (both Indigenous and non-Indigenous) substantiated notifications in 1995–96 were for physical abuse, 31% were for emotional abuse, 16% were for sexual abuse and 24% were for neglect (AIHW 1996c). In the same year, the ratio of Indigenous to non-Indigenous rates was higher for neglect than for any other category (table 10.3). While there were 2–3 times as many substantiated cases of physical, emotional and sexual abuse per 1,000 children, there were over six times as many substantiated cases of neglect per 1,000 among Indigenous children compared to their non-Indigenous counterparts (Broadbent & Bentley 1997).

10.3 SUBSTANTIATED NOTIFICATIONS OF ABUSE AND NEGLECT(a)

	Physical abuse	*Emotional abuse*	*Sexual abuse*	*Neglect*
	RATE PER 1 000			
Indigenous	4.5	4.7	1.9	6.9
Non-Indigenous	1.6	1.7	1.0	1.1
	RATIO			
Rate ratio(b)	2.8	2.8	1.9	6.3

(a) Children 0–16 years, 1995–96, per 1 000.

(b) Rate ratio= Indigenous rate divided by non-Indigenous rate.

Source: Broadbent & Bentley 1997 (forthcoming).

CHILDREN UNDER CARE AND PROTECTION ORDERS AND OUT OF HOME PLACEMENTS

'A child is deemed to be in need of care and protection if the child is being, or is likely to be, abused or neglected; if the child has been abandoned; if adequate provision is not being made for the child's care; or if there is an irretrievable breakdown in the relationship between the child and the child's parents' (AIHW 1995). Each State and Territory has legislation which defines the term ' in need of care and protection'.

Indigenous children were more likely to be under care and protection orders (including guardianship and non-guardianship orders) and/or out of home placements than were non-Indigenous children (table 10.4; AIHW 1996c).

10.4 CARE AND PROTECTION ORDERS AND OUT OF HOME PLACEMENTS(a)(b)

	CARE AND PROTECTION ORDERS..		OUT OF HOME PLACEMENTS......	
	Indigenous	*Non-Indigenous*	*Indigenous*	*Non-Indigenous*
State	rate per 1 000	rate per 1 000	rate per 1 000	rate per 1 000
NSW	17.3	2.6	33.1	2.8
Vic.	16.2	2.7	35.7	2.7
Qld	19.0	2.5	13.3	1.9
SA	n.a.	n.a.	18.9	2.6
WA	8.0	1.3	16.2	1.9
Tas.	(c)7.8	3.2	(c)9.1	3.8
NT	(c)2.0	(c)1.2	(c)2.2	(c)1.2
ACT	(c)26.2	2.8	(c)27.3	2.0

(a) Preliminary data. Note that due to changes in definitions, these figures may not be directly comparable to figures for other years. Care and protection orders and out of home placements are not mutually exclusive, and children may appear in both categories.

(b) Children 0–17 years as at 30 June 1996.

(c) Rate based on fewer than 50 notifications.

Source: AIHW 1996c and AIHW unpublished data.

ADOPTIONS

In 1994–95, 12 children identified as Aboriginal and Torres Strait Islander were formally adopted in Australia, with seven of these adopted by Indigenous people (Angus & Golley 1996). Most States and Territories have specific policies and/or legislation in which Indigenous people are given preference as adoptive parents of Indigenous children wherever possible (Angus & Golley 1996).

AGED CARE

The reduced life expectancy of Indigenous people (see chapter 9) and the higher burden of illness (chapter 8) mean that the need for aged care may begin at younger ages for Indigenous people than for their non-Indigenous counterparts. Indeed, the Commonwealth Department of Health and Family Services has explicitly acknowledged this, and planning for the provision of services is made using the number of Indigenous people aged 50 years or older, rather than the usual figures of 65 years or more or 70 years or more (CDHHCS 1991).

Data on the use of aged-care services by Indigenous people are limited by the poor quality of identification in administrative collections. For example, information about Indigenous status is missing for about 26% of nursing home patients and over half (58%) of hostel residents. Despite such problems with data quality, some information has been published (Mathur 1996).

About 38% of nursing home residents who were identified as Indigenous were aged 85 years or more, compared to about 47% of those identified as non-Indigenous. Indigenous residents were more likely than their non-Indigenous counterparts to be younger, with 13% of Indigenous residents aged less than 65, compared to only 4% of non-Indigenous residents (Mathur 1996).

The higher proportion of younger residents was even more pronounced for hostels, with about 32% of residents identified as Indigenous being less than 65 years old, compared to only about 3% of those identified as non-Indigenous. While about 44% of non-Indigenous hostel residents were 85 years or more, this was true for only about 20% of Indigenous residents (Mathur 1996).

A higher proportion of Indigenous people live in rural and remote areas than do their non-Indigenous counterparts, and this may result in reduced accessibility to aged care services. Although care of the aged by family members may be preferred in many instances, there may be few acceptable options for people living away from major urban areas who need residential care but do not wish to be taken away from the areas in which they live, especially if they live in their traditional homelands.

A discussion of possible trends in the need for aged care services is presented in inset 10.5.

10.5 POPULATION GROWTH AND THE NEED FOR FUTURE AGED CARE SERVICES

The potential need for aged care services in the future can be estimated by looking at projections of population growth over time. While not all people of a certain age will require residential services, it is important to understand demographic trends in order to estimate future need accurately. The proportion of Indigenous people aged 65 years or more is projected to increase only marginally (from about 2.5% to 2.7%). However, assuming that Indigenous people's propensity to identify as such remains similar to that observed in the 1991 Census, it is estimated that there will be about 2,500 more Indigenous people in this age group in 2001 than there were in 1991. More substantial growth is projected for the 45–64 year age group, with about 11% of the Indigenous population projected to be in this age group in 2001, compared with about 9% in 1991. There are projected to be almost 16,000 more Indigenous people aged 45 years or more in 2001 than in 1991, with over half the increase expected to be in New South Wales and Queensland, with another quarter contributed by Western Australia and the Northern Territory. Over a third of the increase in the aged 65 or more category is expected to be in New South Wales alone (ABS 1996a).

The projections discussed above are based on a series of assumptions, such as the expected rates of death. If these assumptions do not hold true, then the projections will differ from actual future population figures. For example, if there were a reduction in death rates faster than has been assumed in the projections, then in the future there would be more Indigenous people than projected in older age groups, some of whom would require aged-care services.

DISABILITY

Little information is available concerning the levels of disability and handicap among Indigenous people, although some information is available concerning specific diseases and conditions that may cause disability or handicaps (see for example the section on hospitalisation in chapter 8). No provision was made for the identification of Indigenous people in the Australia-wide surveys of disability and handicap conducted by the ABS in 1981 and 1988. Provision was made for identification in the ABS 1993 survey, but because of small numbers of Indigenous people in the survey, the results were not considered sufficiently reliable to report.

A small survey of disability was conducted in the Taree area in New South Wales, and some of the results are presented in inset 10.6.

10.6 THE TAREE STUDY

A census of disability and handicap among Aboriginal people living in the Taree area of New South Wales was conducted by Thomson and Snow (1994). Of the 907 usual Aboriginal residents of the Taree area, 227 (25%) were identified as having one or more disabilities, 124 (13.7%) as being handicapped by their disability and 46 (5.1%) as being severely handicapped.

When adjustments were made for the differences in the age structures of the two populations, Aboriginal males were 2.5 times more likely to have a disability than were all Australian males, 1.7 times more likely to be handicapped and 2.4 times more likely to have a severe handicap. Similar differences were noted when comparing Aboriginal females with all Australian females (Thomson & Snow 1994).

The most frequently reported group of disabilities among Aboriginal people in Taree were those resulting from disorders of the sense organs, followed by disorders of the musculoskeletal system and connective tissue. The most commonly reported specific disabilities were related to hearing loss, asthma, slowness at learning/specific delays in development, and heart disease, but a range of other disabilities were found. Difficulty in mobility was the most frequently reported type of handicap while the next most frequently reported areas of difficulty were employment and education (Thomson & Snow 1994).

Severe or profound handicap

Results from the NATSIS indicate that 3% of Indigenous people over five years of age reported having a severe or profound handicap, that is, a need for assistance with either mobility, self-care or communication, resulting from a condition or disability (inset 10.7). This was more commonly reported by people living in capital cities than those in other urban or rural areas. About one in eight (13%) people aged 55 and over indicated they had a severe or profound handicap resulting from a disability or condition, which is similar to the level reported for all Australians aged 55 or over in the 1993 Disability, Ageing and Carers Survey (ABS 1996d).

In both surveys, the proportion of people who indicated a severe/profound handicap increased after age 45, but this increase appeared earlier for Indigenous people. Almost 8% of Indigenous people aged 45–54 years reported a severe or profound handicap, while this was so for only about 4% of people in the general population (ABS 1996d). The two surveys used different instruments and methods, however, and caution should be used when making comparisons (see inset 10.7). Differences may also have arisen because people's perception of their need for assistance is used to assess the extent of handicap.

Disability services

Very little statistical information is available about the use of disability services by Indigenous people. People applying for pensions and benefits through the Department of Social Security are apparently not always asked to indicate whether or not they are Indigenous, so the number of Indigenous people receiving benefits relating to disability cannot be determined. However, the Department is currently developing strategies to improve the accuracy of this information.

10.7 DEFINITIONS AND CONCEPTS OF DISABILITY

In the ABS' 1993 Disability, Ageing and Carers Survey, disability was defined as the presence of one or more of a number of listed limitations, restrictions or impairments which had lasted, or was likely to last, for a period of six months or more. The list related to sight, hearing, speech, blackouts, learning and understanding, use of arms, fingers, feet or legs, nerves or emotional conditions, restrictions in physical activity, disfigurement or deformity, need for help due to mental illness, head injury or brain damage, treatment or medication for a long-term condition or ailment or a long-term condition resulting in a restriction (ABS 1993b).

A handicap was considered to be present if a person had a limitation or restriction in performing certain specific tasks associated with daily living, such as self care (e.g. showering and eating), mobility (e.g. moving around inside and outside the home), verbal communication (e.g. difficulties understanding/being understood), education (e.g. inability to attend school, time off school) and employment (e.g. unable to work, restricted work/ time off work) (ABS 1993b).

Severity of handicap was classified as either profound (personal help or supervision always required), severe (personal help or supervision sometimes required), moderate (no help but some difficulty experienced) or mild (no difficulty but uses an aid) (ABS 1993b).

In the 1994 NATSIS, the broad scope of the survey meant that only a few questions could be asked about impairment, disability and handicap. In the NATSIS, people were asked whether they had a health problem or illness or a physical or mental condition or disability. Those who responded positively were then asked whether it was expected to last for six months or more. If so, they were asked whether they needed help with 'moving around at home or outside', 'daily activities like bathing, dressing, eating, using the toilet' and 'talking with and understanding others'. A person was considered to have a severe or profound handicap if he or she reported a condition, illness or disability lasting or expected to last six months or more, and for which he or she needed assistance with at least one of the types of activities listed (NATSIS unpublished data).

Although these definitions are based broadly on international recommendations, they differ from those used elsewhere in Australia. For example, the New South Wales State Government has defined a disability as something attributable to an impairment, which is likely to be permanent and which results in reduced capacity in one or more major life areas and in the need for support (Gething 1994). The need for greater consistency of concepts and relatable definitions has become apparent in recent years. Work is currently being carried out by the AIHW to assist in refining the existing International Classification of Impairments, Disabilities and Handicaps. Other work will be aimed at promoting greater harmonisation of the various Australian disability data collections. As part of this process, the AIHW has established an Australian Disability Data Reference and Advisory Group. Appropriate handling of issues related to the impact of disability on the Indigenous community is an important consideration in the work of this group.

HOUSING AFFORDABILITY, ADEQUACY AND ASSISTANCE

Adequate and affordable housing is one of the most basic requirements for personal and social well-being. A number of programs exist in Australia to assist with short-term and/or long-term housing need. As is the case for non-Indigenous Australians, the housing needs of Indigenous people may be served under programs of the Commonwealth-State Housing Agreement, the Supported Accommodation Assistance Program, the Crisis Accommodation Program, the Department of Social Security and the Department of Veterans Affairs.

In addition, Indigenous people are eligible to receive assistance from a number of special programs, including the Aboriginal and Torres Strait Islander Rental Housing Program, ATSIC's Community Housing and Infrastructure Program and home ownership loan program, and the hostels funded by Aboriginal Hostels Limited. More information about these programs has been presented elsewhere (AIHW 1995).

A recent AIHW study (inset 10.8) identified 17% of all Australian households as either having unaffordable housing or living in overcrowded housing (or both). By contrast, about 38% of Indigenous Australian households were estimated to be in these situations, over half of whom (20% of all Indigenous households) had incomes too low to allow payment of any housing costs (AIHW 1995).

10.8 IDENTIFYING HOUSEHOLDS REQUIRING HOUSING ASSISTANCE

The examination of those households that require housing assistance is complex. In Australia, specific measures include:

- the 1974 Henderson Poverty Line, measuring poverty before and after housing costs (Commission of Inquiry into Poverty 1975);
- the 1991 National Housing Strategy which employed an affordability ratio (% of income spent on housing) (NHS 1991); and
- the 1995 AIHW analysis on the need for housing assistance (AIHW 1995).

These approaches use different assumptions and are likely to produce different estimates of those requiring housing assistance. In this report, the AIHW analysis is presented as it provides information on Indigenous households.

The AIHW analysis estimated whether households were living in unaffordable or inadequate (overcrowded) housing based on household size: composition and location; household income; housing cost as a proportion of household income; and whether after-housing income was above or below an estimated poverty line (AIHW 1995).

This AIHW analysis used 1991 Population Census data, an update and extension of the Henderson Poverty Line and the Canadian National Occupancy Standard to identify those requiring housing assistance. The assumptions and methods behind both the Henderson Poverty Line and the Canadian National Occupancy Standard are subject to debate. Results from the use of these techniques are, therefore, indicative only of the number requiring assistance.

Some of the greater need identified among Indigenous households is reflected in data on the use of services for homeless people provided under the Supported Accommodation Assistance Program (SAAP). In November of 1994, approximately 14% of people accessing SAAP services were Indigenous (AIHW 1995).

Home ownership provides the most secure housing tenure and is a common goal for many Australians. Although the absolute number of Indigenous home owners was estimated to increase between 1971 and 1991, there was no marked increase in the proportion of Indigenous households living in dwellings owned or being purchased by their occupants (AIHW 1995). In 1994, among households in private dwellings (98% of Indigenous households; see glossary for definitions), more than two-thirds (69%) were reported to be renting their dwellings, with 12% of dwellings being purchased and another 12% already owned by the occupants (table 10.9; ABS 1996b). By contrast, about 71% of non-Indigenous households were reported to be living in dwellings owned or being purchased by their occupants, with only about 27% of households renting their dwellings (ABS 1996b).

10.9 NATURE OF OCCUPANCY OF INDIGENOUS HOUSEHOLDS

	Capital city	*Other urban*	*Rural*	*Total*
	%	%	%	%
Renters	63.8	76.6	62.5	69.0
Purchasers	20.5	9.3	7.0	12.4
Owners	13.4	11.4	13.4	12.5
Other/not stated	2.4	2.7	17.1	6.0
Total	100.0	100.0	100.0	100.0

Source: ABS 1996b.

Public housing is an important source of long-term accommodation for Indigenous people. Almost 43% of dwellings rented by Indigenous households were rented from State or Territory housing authorities and another 21% were rented from community organisations (table 10.10). Renter households in rural areas were much more likely to rent from community organisations than those in capital city or other urban areas, while the opposite was true for those renting from private landlords (ABS 1996b).

10.10 TYPE OF LANDLORD(a)

	Capital city	*Other urban*	*Rural*	*Total*
	%	%	%	%
Private	42.0	21.2	14.3	26.1
Community	4.6	15.1	57.4	20.9
State housing	47.2	53.7	11.0	42.5
Other government	3.6	2.6	7.3	3.9
Other(b)	**2.7	7.3	10.1	6.5
Total	100.0	100.0	100.0	100.0

(a) Indigenous households in rented dwellings.

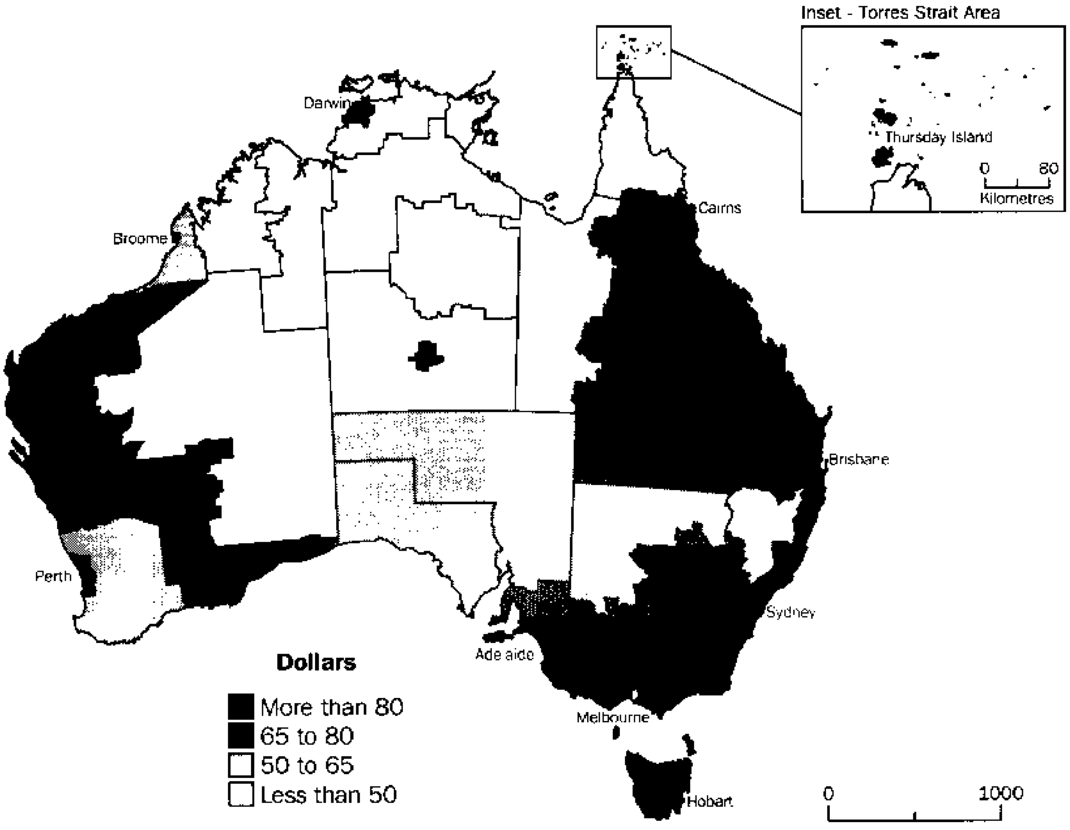
(b) Includes employer provided housing and not stated.

** subject to high sampling variability.

Source: ABS 1996b.

Reported rents for Indigenous households were relatively low, with an average weekly rent of $76. About 60% of Indigenous households were reported to be paying less than $77 a week in rent. Average weekly rent for Indigenous households varied from region to region (map 10.11), and households in rural areas and those with a government authority or a community organisation as landlord paid less rent on average than those in urban areas or with private landlords (table 10.12; ABS 1996b).

10.11 AVERAGE WEEKLY RENT, Indigenous Households



Source: ABS 1997a.

10.12 AVERAGE WEEKLY RENTS, Indigenous Households

Type of landlord	*Capital city* $	*Other urban* $	*Rural* $	*Total* $
Private	133	109	73	117
Community	73	61	34	46
State housing	68	68	53	67
Australia	97	76	44	76

Source: ABS 1996b.

Non-Indigenous households were less likely to be living in public housing than Indigenous households. Among those in rented dwellings, about 70% of non-Indigenous households were renting from private landlords in 1994. This was reflected in the higher average weekly rent of $118 (ABS 1996b), which was similar to the average rent for Indigneous households renting from private landlords. Only about 27% of non-Indigenous households in rented dwellings were reported to be paying less than $78 a week in rent (ABS 1996b).

Among Indigenous households, there appears to be a tension between the affordability and adequacy of housing. Dwellings in parts of northern and Central Australia were most likely to have average weekly rents of less than $50 (map 10.11), but many of these same regions had high proportions of dwellings reported as not satisfying the needs of the household (map 2.2). Although dwellings in rural areas and those rented from community or government landlords cost less to rent, such dwellings were more likely to be reported as not meeting the needs of the household, with need for repair the most commonly named problem, followed by not enough bedrooms or living area. About 24% of dwellings rented by Indigenous households were reported to be unsatisfactory, compared to only 7% of those owned or being purchased. Among rented dwellings, 14% of those rented from private landlords, 26% of those rented from government authorities and 38% of those rented from community organisations were reported as not meeting the needs of the household (ABS 1996b).

ANNUAL INCOME

In 1994, over half (59%) of Indigenous people aged 15 years or more reported that they had annual personal incomes of $12,000 or less. Only 11% said they had an income of more than $25,000 per year (ABS 1995b). A comparison of Indigenous and non-Indigenous annual personal income, based on data from the 1991 Census, is presented in table 10.13.

10.13 ANNUAL PERSONAL INCOME(a)

	<$12 000	$12 000 –$25 000	>$25 000	Not stated	Total
	%	%	%	%	%
Indigenous	55.7	24.8	7.1	12.4	100.0
Non-Indigenous	41.0	26.9	22.8	9.4	100.0

(a) Persons aged 15 years or more.

Source: ABS 1991 Census, unpublished data.

About one in five Indigenous households reported an annual household income of $16,000 or less in 1994, with another 40% between $16,001 and $40,000. Some 22% of households were reported to have incomes of over $40,000 per year. Annual household income could not be calculated for another 18% of Indigenous households because of missing information from one or more household members (ABS 1995b).

GOVERNMENT PAYMENTS

Government payments are a major component of social and welfare policy and can provide an important 'safety net' for people in need. Government payments were reported to be the main source of income for 55% of Indigenous people aged 15 and over in 1994. Earned income from government-funded CDEP scheme employment was the main source for another 9%. Non-CDEP employment was the main source of income for about 24% of Indigenous people aged 15 and over in 1994 (ABS 1995b).

About three-quarters of females and half of males aged 15 or more reported that they received government payments of some kind (table 10.14). About half of females reported that they received a family payment (ABS 1995b). It is important to note that the figures in table 10.14 are based on self-reported information. People may not have known the name of the program from which they received money, so the figures may not match actual payments made and should be interpreted with caution. On the other hand, an advantage of such self-reported data is that it does not rely on the accuracy of identification of Indigenous people in government administrative records.

10.14 GOVERNMENT PAYMENTS REPORTED BY INDIGENOUS ADULTS(a)

	Males		*Females*		*Persons*	
Government payments	'000	%	'000	%	'000	%
Disability support pension	6.3	7.1	5.2	5.6	11.0	6.3
Age pension	3.8	4.3	7.4	8.0	11.0	6.2
Sole parent pension	1.4	1.6	17.0	18.3	18.0	10.1
Sickness allowance	1.2	1.4	1.4	1.5	3.0	1.4
Newstart allowance	13.9	15.7	6.5	7.0	20.0	11.2
Jobsearch allowance	10.3	11.6	6.3	6.8	17.0	9.1
Family payment	4.3	4.8	46.0	49.5	50.0	27.7
Rent assistance	8.1	9.2	15.4	16.6	24.0	12.9
Any(b)	44.4	50.2	71.6	77.1	116.0	63.9
Total persons	88.5	—	92.9	—	181.5	—

(a) Aged 15 years or more.

(b) Includes other types of payments.

Source: ABS 1995b.

CDEP EMPLOYMENT

In 1994, 32% of Indigenous males aged 15 years and over said they were employed in non-CDEP jobs, 13% were in CDEP scheme jobs, 27% were unemployed, and 28% were not in the labour force. Among females, 22% were employed in non-CDEP jobs, 6% in CDEP, 17% were unemployed, and over half (56%) were not in the labour force. Males and females in rural areas were more likely to be in CDEP scheme jobs (map 10.15) or not in the labour force and less likely to be in mainstream employment than their counterparts in capital cities (ABS 1996e).

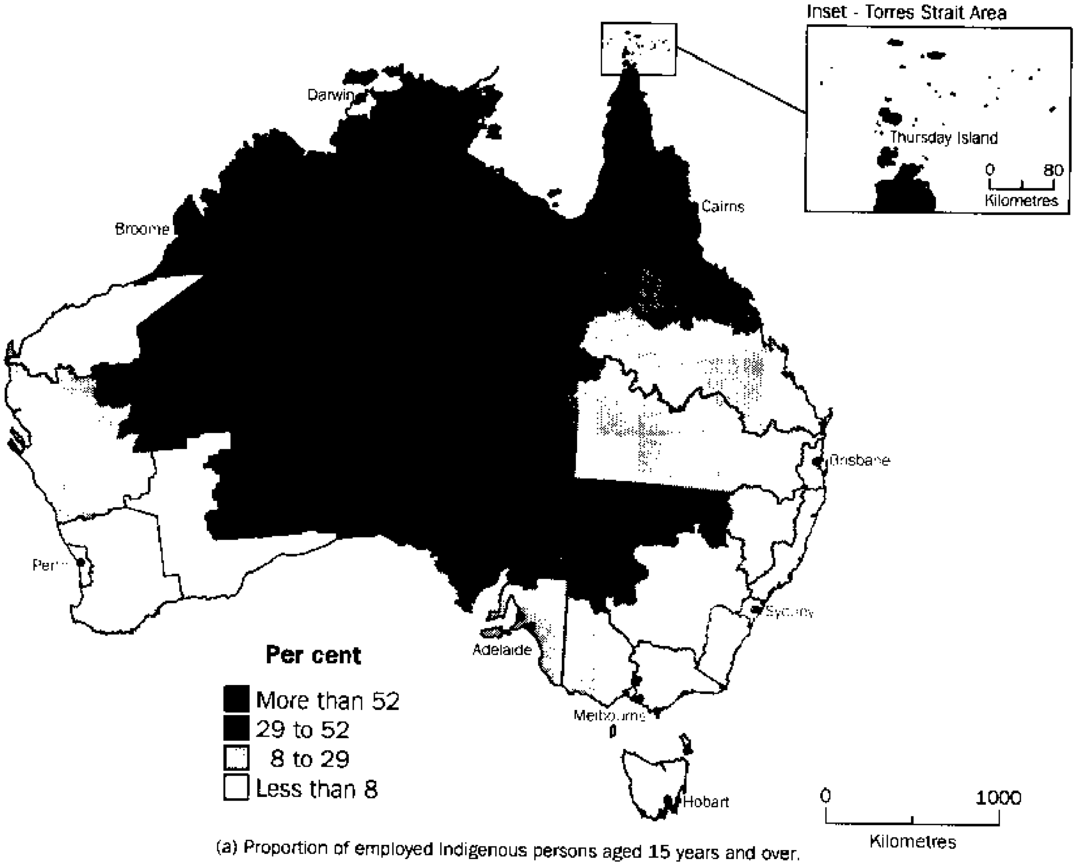
The CDEP scheme is 'designed to create employment for Indigenous people at the community level as one means of achieving broader community development aims and income support for participants' (ABS 1996e, p.15). It is sometimes referred to as 'work for the dole'. In many communities workers in CDEP scheme employment assist in the provision of community infrastructure and in the delivery of services such as health, training and education (ATSIC 1996).

In 1994, it was estimated that about 26% of employed Indigenous people worked in CDEP scheme jobs. Participation in the CDEP scheme grew rapidly from about 4,000 people in 38 communities in 1986 to 18,000 in 170 communities in 1991 and 25,000 in 235 communities in 1995 (ATSIC CDEP section, personal communication, as cited in ABS

1996e). Increases in the employment of Indigenous people between 1991 and 1994 were largely the result of this growth in CDEP (ABS 1996c).

Much of the growth in CDEP scheme employment has taken place in rural areas, where alternative employment options are severely limited (ABS 1996e). Only about 5% of CDEP workers were living in capital cities, while about 68% lived in rural areas. Up to half of the jobs in rural areas were CDEP scheme jobs (map 10.15). 'This pattern of employment derived from the CDEP scheme reflects a combination of a shift from welfare dependence to some form of community-sanctioned work, and an administrative response to a perceived lack of mainstream labour market opportunities, mostly in rural areas' (ABS 1996e, p.25).

10.15 CDEP SCHEME EMPLOYMENT(a)



(a) Proportion of employed Indigenous persons aged 15 years and over.

Source: ABS 1996e.

EDUCATIONAL ATTAINMENT AND QUALIFICATIONS

The level of educational attainment and the possession of post-school qualifications are important factors in the employment prospects of Indigenous people (ABS 1996e). In 1994, however, about 50% of Indigenous males and about 48% of Indigenous females aged 15 years or over reported that they had not completed year 10. Only about 8% of males and 9% of females had completed year 12. Although Indigenous adults living in capital cities were more likely than those in other urban or rural areas to complete year 10 or more, only about one in nine Indigenous males and females in capital cities had completed year 12 (ABS 1996e).

In 1991 (the most recent year for which data are available for Indigenous and non-Indigenous people), Indigenous adults were much less likely than non-Indigenous adults to have a post-secondary school qualification (table 10.16). While more than one in four non-Indigenous adults reported a post-school qualification, this was true for fewer than one in 12 Indigenous adults (ABS 1993a).

10.16 POST-SECONDARY SCHOOL QUALIFICATIONS(a)

	Indigenous		*Non-Indigenous*	
	no.	%	no.	%
Degree or higher	1 307	0.8	994 842	7.7
Diploma	2 285	1.4	680 809	5.3
Trade qualifications	5 865	3.7	1 339 425	10.4
Basic qualifications	2 848	1.8	427 733	3.3
Inadequately described	20 097	12.6	1 612 423	12.5
No qualifications	127 303	79.7	7 869 536	60.9
Total	**159 705**	**100.0**	**12 924 768**	**100.0**

(a) People aged 15 years or more.

Source: ABS 1993a.

INDIGENOUS COMMUNITY SERVICE WORKERS

At the time of the 1991 Census, Indigenous people were more likely than non-Indigenous people to be employed as community service workers, a category which includes social workers, counsellors, welfare paraprofessionals, child care co-ordinators, child care or refuge and related workers, pre-primary school teachers, special education teachers, home companions and aides (table 10.17). About 2% of Indigenous adults were employed in these types of jobs, compared with just under 1% of non-Indigenous adults. Among Indigenous adults, the proportion employed as community service workers was highest in South Australia, Western Australia and the Northern Territory, and lowest in Tasmania. The higher proportion of Indigenous people employed in community services, in contrast to the health services (table 6.3), has been reported elsewhere (Daly 1995) and reflects the particular concentration by industry of Indigenous employment (Taylor 1992).

10.17 COMMUNITY SERVICE WORKERS(a)(b)

	New South Wales	*Victoria*		*South Australia*	*Western Australia*	*Tasmania*	*Northern Territory*	*Australian Capital Territory*	***Australia***
					NUMBER				
Indigenous									
Community Service Workers	725	251	601	322	718	61	708	22	**3 408**
Population aged 15 and over	42 174	10 301	42 048	9 881	24 784	5 200	24 235	1 082	**159 705**
					PROPORTION (%)				
Adults employed as Community Service Workers	1.7	2.4	1.4	3.2	2.9	1.2	2.9	2.0	**2.1**
					NUMBER				
Non-Indigenous									
Community Service Workers	35 280	33 012	16 612	11 694	10 214	3 229	1 520	3 197	**114 758**
Population aged 15 and over	4 426 690	3 298 823	2 261 589	1 093 750	1 188 124	340 189	105 257	211 525	**12 925 947**
					PROPORTION (%)				
Adults employed as Community Service Workers	0.8	1.0	0.7	1.1	0.8	0.9	1.4	1.5	**0.9**

(a) Aged 15 years and over.

(b) Includes pre-primary school teachers, special education teachers, social workers, counsellors, welfare paraprofessionals, child care co-ordinators, child care or refuge and related workers, home companions and aides.

Source: ABS 1991 Census, unpublished data.

Enrolment in welfare-related higher education courses

The participation of Indigenous students in higher education courses in the welfare field, such as social work, welfare studies, and teacher education is relatively high, but participation rates have declined in recent years. Enrolments of new and continuing Indigenous students in welfare-related courses have decreased from 441 (3.8% of students enrolling in these courses) in 1993 to 288 (just over 2%) in 1996. Early childhood teacher education maintained Indigenous student numbers more successfully than other areas such as social work, which experienced a drop of 28% (DEETYA, unpublished data).

The numbers of Indigenous students completing their courses in welfare-related areas also declined. In 1992, some 81 Indigenous students around Australia completed courses in the welfare field, representing 3% of all students completing studies in this field. By 1995, the number of Indigenous students completing such courses had dropped to 45, just 1.8% of all students completing welfare-related courses (DEETYA, unpublished data).

Among non-Indigenous students, on the other hand, the number of completions has changed little over the same period while enrolments have experienced a small increase (DEETYA, unpublished data).

SUMMARY

Indigenous Australians are disadvantaged relative to non-Indigenous Australians on a range of welfare indicators. Indigenous people are more likely to be in need of housing assistance and income support than their non-Indigenous counterparts. Indigenous children are more likely to be the subjects of substantiated cases of abuse and neglect and more likely to be under care and protection orders than non-Indigenous children. Information on other aspects of welfare, such as disability and aged care, is limited by the incomplete identification of Indigenous people in national collections.

CHAPTER 11 HEALTH OF TORRES STRAIT ISLANDERS

INTRODUCTION

Few health data sets identify Torres Strait Islanders separately from Aboriginal people. One of the few which does and which is sufficiently large and reliable enough to allow statistics for Torres Strait Islanders to be derived is the NATSIS. Even this data set is not without problems with respect to Torres Strait Islander data and consequently only data for Torres Strait Islanders from Queensland are sufficiently reliable to present here. This includes about two-thirds of the estimated number of all Torres Strait Islander people according to the 1991 Census (ABS 1997c).

It is useful to divide Queensland's Torres Strait Islanders into two groups, those resident in areas administered by the Torres Strait Regional Authority (this includes the two Cape York communities of Bamaga and Seisia; see map 1.4) and those resident in other areas of mainland Queensland. The majority of the latter group live in the coastal towns of north Queensland.

SELF-ASSESSED HEALTH STATUS

Mainland Islanders had a similar view of their health status to that of the whole Indigenous population whereas Islanders from the Strait perceived themselves to be in slightly better health (table 11.1). This result is consistent with the differing prevalence of reported health conditions and illnesses for these two groups (ABS 1997c).

RISK FACTORS

Torres Strait Islanders aged 13 years and over, whether from the Strait or the mainland, were less likely to report being smokers (42%) than Aboriginal people (50%). This contrasts with the proportion of people aged 13 years and over who reported drinking alcohol in the past year, which was lower for Torres Strait Islanders in the Strait (44%) than on the mainland (60%). The latter group had a similar proportion of drinkers to the whole Indigenous population aged 13 and over (62%) (ABS 1997c).

Obesity is a major risk factor amongst Torres Strait Islanders and it may be an even greater problem for Islanders in the Strait compared to mainland Islanders. This is illustrated in graph 11.2 where the total Indigenous and total Australian figures are also presented.

PERCEIVED HEALTH PROBLEMS

Respondents in the NATSIS were asked which of a number of named conditions and issues were major health problems in their area. Similar issues were nominated as important by Strait and mainland Islanders. However, for every single health issue considered, a higher proportion of Islanders from the Strait nominated them as important than did mainland Islanders. Most striking was the much greater awareness of the importance of diabetes, heart conditions and nutritional issues amongst Torres Strait Islanders still living in the Strait. By contrast, mainland Islanders had perceptions similar to the whole Indigenous population about health issues.

The much greater awareness of health issues amongst Islanders from the Torres Strait (table 11.3) contrasts with the lower rates of self-reported health conditions in table 11.1.

11.1 SELF-ASSESSED HEALTH STATUS(a)

Health status measure	*Torres Strait Islanders in Torres Strait*	*Mainland Torres Strait Islanders*	*Australian Indigenous*
	PROPORTION (%)		
Self-assessed health status			
Very good or excellent	62	56	59
Fair or good	37	42	40
Poor or not stated	**1	**2	**1
Total	*100*	*100*	*100*
Whether has a specified current health condition(b)			
Has a condition	26	35	41
Does not have a condition	74	65	59
Total	*100*	*100*	*100*
Whether has a specified long term health condition(b)			
Has a condition	18	30	35
Has no condition or not stated	82	70	65
Total	*100*	*100*	*100*
	NUMBER		
Persons	6 400	9 300	303 300

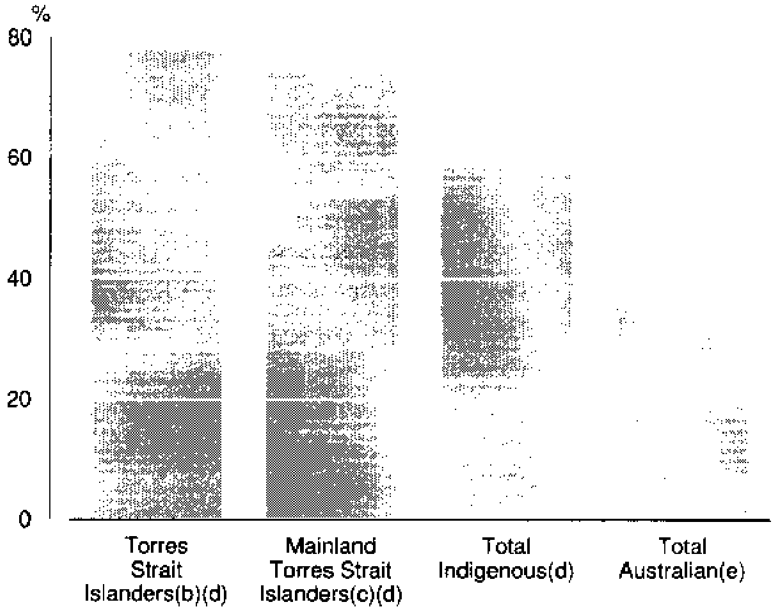
(a) For persons under 13 years health status was assessed by a responsible adult (e.g. parent).

(b) Includes asthma, diabetes, heart problems, chest problems, skin problems, high blood pressure, ear or hearing problems, eye problems and kidney problems.

** subject to high sampling variability.

Source: ABS 1997c.

11.2 OVERWEIGHT OR OBESE ADULTS (BMI >25)(a)



(a) People aged 18 years and over. See glossary regarding the calculation of BMI.

(b) Resident in areas administered by the Torres Strait Regional Authority (see map 1.4).

(c) Resident in areas of mainland Queensland, other than those administered by the Torres Strait Regional Authority.

(d) *Source:* NATSIS 1994, unpublished data based on those whose height and weight were measured. Approximately 25% of adults were not measured in the NATSIS.

(e) *Source:* NHS 1989–90, unpublished data, based on self-reported data.

11.3 PERCEIVED MAIN HEALTH PROBLEMS(a)

Perceived problem(b)	*Torres Strait Islanders(c)*	*Mainland Torres Strait Islanders(c)*	*Australian Indigenous(d)*
PROPORTION (%)			
Diabetes	81	31	22
Alcohol	79	60	58
Nutrition	72	31	19
Heart conditions	70	19	14
Drugs	69	32	30
Skin problems	39	15	10
Other substances, other medical conditions or other	27	16	14
Did not know or not stated	15	25	29
NUMBER			
Persons	4 300	5 900	197 500

(a) Persons aged 13 years and over.

(b) More than one answer may have been given.

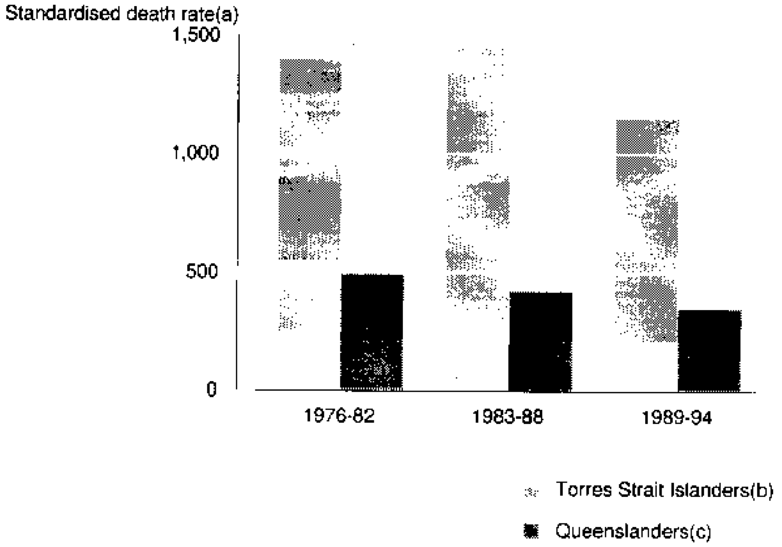
(c) *Source:* ABS 1997c.

(d) *Source:* ABS 1996d.

MORTALITY

Prior to 1996, Indigenous people had not been identified as such in death registrations in Queensland. Direct calculation of death rates for Torres Strait Islanders was therefore not possible. Estimated mortality rates for Torres Strait Islanders living in the Torres Strait area were much higher than those for all Queenslanders over the period 1976–94 (unpublished data, Health Information Centre, Queensland Health). Although the mortality rates for Torres Strait Islanders living in the Strait have declined since 1983, the mortality rate for all Queenslanders has also declined slightly, meaning that the differential between mortality rates for the two groups remained large (see graph 11.4). Although caution should be used when making comparisons of standardised rates from different studies, the death rates estimated for Torres Strait Islanders were lower than those observed in 1992–94 for Indigenous people in Western Australia, the Northern Territory and South Australia combined (Anderson et al. 1996; see also chapter 9).

11.4 ESTIMATED ADULT (20–69) MORTALITY, Torres Strait Area



(a) Directly standardised death rates (per 100,000) were calculated using the 1991 all-Australian population.

(b) Resident in areas administered by the Torres Strait Regional Authority (see map 1.4).

(c) All Queensland.

Source: Unpublished data, Health Information Centre, Queensland Health.

The main causes of excess deaths in the Torres Strait area for the period 1989–94 were diabetes and heart disease (table 11.5; unpublished data, Health Information Centre, Queensland Health). This may explain the relatively high level of awareness of these conditions and contributing factors as health problems in the Islanders resident in the Strait (table 11.3).

11.5 MAIN CAUSES OF EXCESS DEATHS, All Ages—1989–94

Health condition	*Torres Strait Islanders* %
Diabetes	33
Heart disease	19
Perinatal	13
Pneumonia	12
Bronchitis, emphysema, asthma	12
Cancer	11

Source: Unpublished data, Health Information Centre, Queensland Health.

PERINATAL MORTALITY

The perinatal mortality rate for babies born to mothers of Aboriginal or Torres Strait Islander origin living in the Strait (the vast majority will be Torres Strait Islanders) has declined considerably since 1987 but still remained higher than that for all Queensland babies (unpublished data, Health Information Centre, Queensland Health). As the number of births and deaths of babies born each year to mothers of Aboriginal or Torres Strait Islander origin in the Torres Strait are small, perinatal mortality rates for this group tend to fluctuate considerably from one year to the next (see table 11.6).

11.6 INDIGENOUS(a) BIRTHS AND PERINATAL DEATHS(b)

	Births	*Perinatal deaths(c)*	
Year	no.	no.	rate(d)
1987	165	10	60.6
1988	167	6	35.9
1989	229	12	52.4
1990	236	11	46.6
1991	245	9	36.7
1992	221	2	9.0
1993(e)	207	6	29.0
1994(e)	215	6	27.9
1995(e)	210	3	14.3

(a) Mother's 'ethnic' origin is specified as Aboriginal or Torres Strait Islander. Mother's usual place of residence is the Torres Strait area.

(b) Torres Strait Area 1987–95

(c) Based on year of registration not year of death.

(d) Per 1 000 births.

(e) Preliminary figures.

Source: Unpublished data, Health Information Centre, Queensland Health.

CHAPTER 12

RECENT DEVELOPMENTS IN THE COLLECTION OF INDIGENOUS STATISTICS ...

QUALITY OF INDIGENOUS HEALTH DATA

In recent years there have been some notable improvements in the range and quality of available health statistics about Indigenous people. For example, there have been slow but sure improvements in the quality of vital statistics for Indigenous people, and a number of major national health-related surveys of special relevance to Indigenous people have been conducted for the first time over the last five years. Nevertheless, the quality and availability of health statistics for Australia's Indigenous population are not nearly as good as they are for the whole Australian population. If Australia is to effectively monitor and evaluate its efforts to improve the poor state of Indigenous health, considerable improvement of Indigenous health statistics is needed.

The need for improved Indigenous health statistics was well recognised by the National Health Information Forum, a major workshop of the country's leading health professionals and information experts held in 1994. The forum reviewed the issues of greatest and most urgent need in health information for Australia. The highest health information priority for Australia nominated by forum participants concerned the need for a systematic approach to Indigenous health information (AIHW & AHMAC 1995). This has resulted in the Australian Health Ministers' Advisory Council commissioning the development of a National Aboriginal and Torres Strait Islander Health Information Plan, to be prepared for mid-1997.

There are four basic areas of difficulty in producing high quality Indigenous health statistics, each of which must be addressed to achieve significant and sustained improvement. These areas are:

- the implementation of standard methods and procedures for identifying Indigenous people;
- the changing propensity for Indigenous people to identify themselves, which has a major impact on our ability to estimate the size of the Indigenous population;
- the completeness with which Indigenous people are recorded as such in government administrative collections; and
- the validity and reliability of self-reported data relating to Indigenous peoples' health recorded from surveys.

IDENTIFICATION OF ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLE

Aboriginal people and Torres Strait Islander people are identified in data collections using a variety of questions and methods. Most fall into one of the following four broad methods:

- an interviewer or recording clerk ticking a box on the basis of his or her own observations or knowledge;
- an interviewer asking a specific precisely worded question and recording an entry as one of a number of predetermined allowable responses;

- a respondent recording his or her own answer without the intervention of the interviewer; and
- an entry being transferred from one data collection record to another without the recorder having contact or communication with the subject.

The specific question and the set of allowable responses also vary from one collection to another. The questioning approach and the form of the question can influence whether some people are recorded as Indigenous or not. Despite the variety of possible approaches to establishing a person's Indigenous status, the ABS Census has used the same question and questioning approach for the last two decades. For most people this is based on the third of the above approaches (i.e. a self-completed form) but for many remote area Indigenous people the approach is the second of the above (i.e. an interviewer-administered question). Nevertheless, it was not until 1996 that a standard classification system for Indigenous status was formally adopted within the ABS.

According to Nettheim (1993), 'No uniform definition of "Aborigine" or of "Aboriginal descent" has been adopted by legislatures throughout Australia'. It is widely, but not universally (see *Gibbs v. Capewell* 128 ALR 577) accepted that the definition of an Indigenous Australian is that which was endorsed by the Federal Cabinet in 1978 (Constitutional Section, DAA 1981) and by the High Court in 1983 in its judgment in the case of *Commonwealth v. Tasmania* (46 ALR 625). This definition, sometimes referred to as the Commonwealth working definition because of its widespread use throughout Commonwealth agencies, states that an Aboriginal person or Torres Strait Islander person is someone who:

- is of Aboriginal or Torres Strait Islander descent;
- identifies as an Aboriginal or Torres Strait Islander person; and
- is accepted as an Aboriginal or Torres Strait Islander by the community in which he or she lives.

In Australia, many collections record people as Aboriginal and/or Torres Strait Islander, based on a question designed to capture information about the first of these three criteria. This is broadly the approach the ABS has adopted in recent decades, including in the 1981, 1986 and 1991 Censuses. The question, based on biological descent, was:

> Is the person of Aboriginal or Torres Strait Islander origin?
>
> (*For persons of mixed origin, indicate the one to which they consider themselves to belong*)
>
> No..☐
>
> Yes, Aboriginal.......................................☐
>
> Yes, Torres Strait Islander......................☐

In the 1994 National Aboriginal and Torres Strait Islander Survey (NATSIS), a similar question was asked, but with an important difference. Interviewers were instructed to mark both 'yes' boxes if appropriate. This was continued in the 1996 Census, with the following question:

Is the person of Aboriginal or Torres Strait Islander origin?

(For persons of both Aboriginal and Torres Strait Islander origin, mark both 'yes' boxes)

No..☐

Yes, Aboriginal..☐

Yes, Torres Strait Islander........................☐

The formal standard for capturing and recording people's Indigenous status which was adopted by the ABS in 1996 (referred to as the 'Interim Standard for Indigenous Status') was based on the NATSIS question and was combined with specific instructions for applying the question in different circumstances. Because this standard question was used in the August 1996 Census, all ABS population estimates for Indigenous people until at least the year 2001 will be based on this approach to ascertaining Indigenous status.

This same standard approach for identifying Indigenous people has been adopted by Registrars-General throughout Australia and by the National Health Information Management Group for use in the National Health Data Dictionary Version 6. This is a major advance as it ensures that population estimates and records of births, deaths and health events should all be moving towards the use of a common approach to identifying Indigenous people.

The precise form of question(s) used to record and classify Indigenous people in data collections is a matter of considerable interest both to those involved in government policy and to Indigenous people themselves. The form of the question(s) is also an extremely important statistical issue. There is a need for consistency over time in the method of identification for valid time series and, perhaps even more importantly, consistency from one collection to another at the same point in time in order to produce valid rate and ratio statistics.

This is not a trivial issue, as is well illustrated by an example from New Zealand's 1991 Census, in which people could be recorded as 'Maori' through two different questions, one concerned with racial origin/ancestry and the other with ethnic identity. Research indicated that people understood the distinction between these questions. The number of people reporting Maori ancestry was 511,947. This compares with 431,223 who stated they identified as Maori with or without other ethnic identities being claimed. Only 321,396 people stated they identified solely as Maori (Gould 1992). The extent of possible biases in rate and ratio statistics, in which the denominator and numerator are derived from collections which use different classification approaches, is evident.

POPULATION ESTIMATES AND PROJECTIONS

The quality of Indigenous health statistics depends as much on the quality of the estimate of the numbers of Indigenous people and the demographic structure of the population as it does on estimates of the number of people who have various health conditions.

Population estimates for the total Australian population are derived from the most recently available census counts using well established procedures (ABS 1995c). These methods first adjust census counts for the estimated amount of underenumeration at census time. The adjusted figures are then 'grown' on to the date for which the estimates or projections are required. This entails adjustments for expected numbers of births, deaths and migration into and out of Australia (or a State or Territory for population estimates at this level).

Estimating the size and demographic structure of the Indigenous population is much more problematic and prone to uncertainty (ABS 1994a; ABS 1996a). For this reason the ABS estimates and projections of the Indigenous population are referred to as 'experimental'. Besides complications caused by small numbers and inaccuracies in the classification of Indigenous people, additional difficulties arise because more and more people with Aboriginal and/or Torres Strait Islander origin are choosing to record this at each of the recent censuses. Intermarriage between Indigenous and non-Indigenous people increases the number of children born who are of Aboriginal or Torres Strait Islander origin at a greater rate than if no intermarriage occurs. Again, this can have a major but not fully predictable impact on population growth and composition. Despite these considerable difficulties the best available estimates and projections of the Indigenous population by age and sex for each State and Territory are the experimental projections of the Aboriginal and Torres Strait Islander population from 1991 to 2001 produced by the ABS (1996a). These population estimates are based on 1991 Census counts adjusted for underenumeration of the Aboriginal and Torres Strait Islander population as at August 1991. They take account of the expected birth and death rates and estimated level of intermarriage but assume no interstate migration and no change in Indigenous people's willingness to identify as such.

The projections are not intended as predictions or forecasts, but are illustrations of the growth and change in the population which would occur if the assumptions (which include constant propensity to identify) about future demographic trends prevail over the projection period. There is no certainty that the assumptions will be realised and no assessment can be made until 1996 Census results are available. Care must be taken when comparing experimental population estimates presented here with those produced at other times because estimation procedures and assumptions will continue to be refined and modified as new information becomes available.

The ABS uses the cohort-component method of population projections. This begins with a base population for each sex by single year of age which is then advanced year by year by applying assumptions regarding future mortality and migration. Age-specific fertility rates estimated from the latest available information are applied to the female population of child bearing age, and estimated Indigenous male fertility rates (where the mother is non-Indigenous) are also applied to the Indigenous population to provide the new cohort of births. The procedure is repeated for each year in the projection period for each State and Territory and for Australia.

For easy reference, some population estimates and projections covering the period 1986–2001 have been included in table 12.1. A more detailed breakdown is included for 1996 showing the Indigenous and total Australian populations by State/Territory, sex and age groups (tables 12.2 and 12.3).

12.1 PROJECTIONS OF INDIGENOUS POPULATION(a)

Year	*New South Wales*	*Victoria*	*Queensland*	*South Australia*	*Western Australia*	*Tasmania*	*Northern Territory*	*Australian Capital Territory*	*Australia*
				MALES					
1986	33 410	7 910	33 310	7 680	19 760	4 240	19 620	690	126 690
1987	34 220	8 090	34 030	7 860	20 230	4 350	20 080	710	129 660
1988	35 080	8 300	34 780	8 050	20 740	4 470	20 570	740	132 820
1989	35 940	8 520	35 560	8 240	21 250	4 590	21 000	760	135 960
1990	36 890	8 760	36 430	8 450	21 780	4 710	21 400	780	139 280
1991	37 820	8 980	37 300	8 640	22 340	4 840	22 000	810	142 830
1992	38 640	9 210	38 200	8 860	22 910	4 950	22 470	850	146 190
1993	39 470	9 460	39 120	9 080	23 490	5 070	22 950	890	149 630
1994	40 320	9 710	40 070	9 300	24 090	5 190	23 430	930	153 140
1995	41 170	9 960	41 030	9 530	24 700	5 310	23 920	970	156 700
1996	42 040	10 220	42 010	9 760	25 310	5 430	24 410	1 010	160 310
1997	42 910	10 480	43 000	9 990	25 940	5 560	24 910	1 050	163 960
1998	43 790	10 750	44 010	10 220	26 570	5 690	25 410	1 100	167 670
1999	44 680	11 020	45 030	10 460	27 220	5 830	25 920	1 140	171 430
2000	45 580	11 290	46 070	10 710	27 880	5 970	26 440	1 180	175 250
2001	46 490	11 560	47 130	10 950	28 550	6 110	26 980	1 230	179 120
				FEMALES					
1986	32 630	7 860	32 620	7 650	19 240	4 010	19 270	700	124 050
1987	33 490	8 050	33 390	7 830	19 740	4 120	19 760	720	127 180
1988	34 410	8 250	34 210	8 030	20 270	4 240	20 230	740	130 450
1989	35 330	8 450	35 070	8 210	20 780	4 370	20 680	760	133 720
1990	36 290	8 680	36 000	8 410	21 310	4 500	21 120	780	137 160
1991	37 200	8 910	36 920	8 600	21 840	4 620	21 760	810	140 730
1992	38 020	9 160	37 860	8 830	22 440	4 740	22 250	860	144 240
1993	38 870	9 420	38 830	9 060	23 050	4 860	22 750	900	147 820
1994	39 730	9 680	39 820	9 300	23 680	4 980	23 250	950	151 460
1995	40 600	9 940	40 830	9 540	24 310	5 100	23 760	990	155 160
1996	41 470	10 210	41 840	9 780	24 960	5 230	24 270	1 040	158 900
1997	42 360	10 490	42 870	10 030	25 610	5 370	24 790	1 090	162 690
1998	43 260	10 760	43 920	10 280	26 280	5 500	25 310	1 140	166 530
1999	44 160	11 040	44 980	10 540	26 950	5 640	25 840	1 180	170 430
2000	45 070	11 320	46 050	10 800	27 640	5 780	26 380	1 230	174 380
2001	45 990	11 610	47 140	11 060	28 350	5 930	26 920	1 280	178 380

(a) Based on adjusted 1991 Census counts. Rounded to the nearest 10 people.

Source: ABS 1994a; ABS 1996a.

12.2 PROJECTIONS OF INDIGENOUS POPULATION BY AGE—June 1996(a)

Age (years)	*New South Wales*	*Victoria*	*Queensland*	*South Australia*	*Western Australia*	*Tasmania*	*Northern Territory*	*Australian Capital Territory*	*Australia*
				MALES					
0–4	6 050	1 520	6 120	1 330	3 940	740	3 430	140	23 300
5-9	5 620	1 350	5 520	1 270	3 560	720	3 290	140	21 470
10–14	4 890	1 090	4 940	1 200	2 960	650	2 930	130	18 800
15–19	4 170	950	4 530	960	2 560	630	2 470	90	16 370
20–24	4 120	1 010	4 250	950	2 410	570	2 390	120	15 810
25–29	3 880	970	3 950	940	2 340	470	2 440	100	15 090
30–34	3 340	820	3 190	800	1 980	370	1 970	80	12 560
35–39	2 720	710	2 560	670	1 490	350	1 550	70	10 130
40–44	2 090	550	2 110	480	1 200	260	1 170	60	7 920
45–49	1 640	440	1 540	330	820	230	800	50	5 860
50–54	1 180	290	1 050	270	590	150	630	20	4 170
55–59	870	170	740	210	460	100	480	10	3 050
60–64	610	110	600	130	370	80	350	10	2 250
65–69	390	100	400	100	270	50	230	10	1 550
70–74	240	70	260	60	160	30	140	0	970
75+	240	70	250	70	220	30	140	0	1 030
Total	*42 040*	*10 220*	*42 010*	*9 760*	*25 310*	*5 430*	*24 410*	*1 010*	*160 310*
				FEMALES					
0–4	5 750	1 460	5 820	1 280	3 760	710	3 270	130	22 180
5–9	5 360	1 310	5 360	1 230	3 250	640	3 080	130	20 360
10–14	4 560	1 060	4 730	1 150	2 860	630	2 890	120	18 010
15–19	3 990	920	4 220	920	2 510	610	2 300	100	15 600
20–24	3 970	990	4 090	930	2 240	540	2 260	90	15 110
25–29	3 770	950	3 850	930	2 310	450	2 410	100	14 770
30–34	3 320	810	3 200	800	2 000	370	2 000	90	12 600
35–39	2 760	700	2 630	690	1 560	370	1 600	80	10 390
40–44	2 180	570	2 220	500	1 280	270	1 260	60	8 350
45–49	1 770	460	1 650	390	910	200	950	70	6 410
50–54	1 240	290	1 200	290	620	130	680	30	4 490
55–59	940	200	910	230	490	90	510	10	3 380
60–64	680	160	710	150	400	70	420	10	2 600
65–69	510	140	540	110	310	60	290	0	1 960
70–74	300	80	340	60	190	50	170	0	1 200
75+	380	140	370	120	270	50	180	10	1 510
Total	*41 470*	*10 210*	*41 840*	*9 780*	*24 960*	*5 230*	*24 270*	*1 040*	*158 900*

(a) Figures are rounded to the nearest 10 people.

Source: ABS unpublished data.

12.3 PROJECTIONS OF TOTAL AUSTRALIAN POPULATION BY AGE—June 1996(a)

Age (years)	*New South Wales*	*Victoria*	*Queensland*	*South Australia*	*Western Australia*	*Tasmania*	*Northern Territory*	*Australian Capital Territory*	*Australia*
				MALES					
0–4	228 800	165 300	124 100	49 500	64 500	17 400	8 900	11 900	670 600
5–9	222 500	161 400	123 100	51 700	67 000	18 300	8 200	11 500	663 600
10–14	219 500	159 100	127 500	52 700	67 900	18 900	7 600	11 300	664 600
15–19	216 000	160 100	124 800	49 900	64 600	17 600	7 000	12 500	652 500
20–24	235 600	176 000	136 100	55 000	68 800	17 300	8 200	17 000	713 900
25–29	232 300	178 600	129 800	57 700	69 100	17 400	8 300	14 600	707 800
30–34	241 100	176 200	127 300	57 700	68 000	17 600	8 600	13 400	710 000
35–39	243 100	178 500	128 500	59 000	70 800	18 900	7 900	12 800	719 500
40–44	223 900	164 100	120 800	54 700	67 300	17 700	7 200	11 600	667 200
45–49	219 500	159 300	119 200	53 600	65 800	17 200	6 700	12 200	653 500
50–54	178 000	127 800	95 400	41 800	50 000	13 400	4 900	8 800	520 000
55–59	145 600	105 300	76 300	34 400	39 800	11 400	3 400	6 200	422 300
60–64	121 300	88 500	62 000	29 600	31 900	9 300	2 000	4 400	349 000
65–69	117 700	84 900	58 700	30 200	29 300	9 100	1 400	3 600	335 000
70–74	98 000	69 800	48 200	25 900	23 300	7 600	900	2 900	276 700
75+	121 600	87 800	61 200	33 300	29 000	9 500	700	3 200	346 600
Total	*3 064 700*	*2 242 800*	*1 663 100*	*736 600*	*877 100*	*238 800*	*91 700*	*157 900*	*9 072 700*
				FEMALES					
0–4	217 700	156 500	117 300	47 100	61 600	16 700	8 500	11 400	636 800
5–9	213 000	153 600	115 900	48 400	63 100	17 500	7 800	10 900	630 300
10–14	209 900	151 300	119 900	50 100	64 000	18 100	7 300	10 600	631 300
15–19	203 200	151 200	117 600	47 800	61 600	16 900	6 200	12 300	616 700
20–24	225 300	171 500	129 200	52 000	66 500	16 400	7 600	16 000	684 500
25–29	232 000	180 600	127 900	55 100	66 900	16 800	8 900	14 000	702 100
30–34	241 300	180 400	128 400	56 900	68 600	18 100	8 300	13 000	715 000
35–39	243 200	180 700	130 300	59 100	70 700	19 400	7 600	12 800	723 700
40–44	223 300	167 000	120 900	54 700	67 700	17 800	6 700	12 100	670 100
45–49	213 900	159 800	115 500	53 100	62 500	16 700	5 800	12 100	639 400
50–54	170 600	124 700	91 000	41 400	46 200	13 100	4 000	8 400	499 300
55–59	141 400	103 000	71 900	34 300	37 900	11 100	2 500	5 900	408 000
60–64	122 600	89 500	60 800	30 400	31 400	9 600	1 600	4 300	350 100
65–69	125 900	90 800	60 800	32 000	30 100	9 500	1 200	3 800	354 000
70–74	116 300	84 000	54 200	30 700	26 300	9 100	700	3 600	325 000
75+	201 100	146 300	94 300	54 200	46 200	15 700	900	5 300	564 200
Total	*3 100 700*	*2 290 800*	*1 655 800*	*747 400*	*871 500*	*242 600*	*85 400*	*156 500*	*9 150 600*

(a) Figures are rounded to the nearest 100 people.

Source: ABS 1994b series D.

ADMINISTRATIVE DATA SOURCES

Information about the identification of Indigenous people in administrative data sets of most relevance to health is presented in tables 12.4 and 12.5.

12.4 ADMINISTRATIVE DATA SETS RELEVANT TO INDIGENOUS HEALTH

	DATE OF FIRST COLLECTION(a)							
Type of collection	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
Birth notification forms	1986	1987	1996	1986	1991	1988	1988	1984
Death notification forms	1986	1987	1996	1986	1985	1988	1988	1984
Medical certificates Cause of death	No	1987	1996	In place	1983	No	1988	No
Medical certificates Cause of perinatal deaths	No	1995	1996	In place	1983	No	1988	No
Hospital separations	1979	1986	(b)1993	1984	1981	(c)1997	1976	1981
Maternal/perinatal collections	1986	1982	1987	1981	1980	1996	1986	1989
Cancer registrations	1992	1982	1988	1977	1981	1991	1981	1992
Communicable diseases notification forms	1991	No	In place	In place	1988	In place	Before 1980	1991

(a) If date of first collection is unknown, current status is shown.

(b) Partial in 1988.

(c) Proposed for end 1997.

Source: Information provided by State and Territory health departments and Registrars.

12.5 FORM OF INDIGENOUS IDENTIFIER QUESTION AND COMMENTS ON DATA QUALITY

Collection and national holding agency	*State*	*Question type**	*Allowable responses and comments on form*	*Comment on quality †*
Birth notification form Registrar General Holding agency — ABS	NSW	i	For persons of mixed origin tick both yes boxes Since November 1996 completed by mother and father — previously only mother	Approaching reportable
	Vic.	iii	Yes/No, tick appropriate box	Approaching reportable
	Qld	i	If both Aboriginal and Torres Strait Islander origin tick both yes boxes	Improving
	SA	i	No/Yes Aboriginal/Yes Torres Strait Islander	Reportable
	WA	v	Yes/No, completed by mother and father	Reportable
	Tas.	vi	Self identification completed by mother and father	Approaching reportable
	NT	iv	Yes/No, tick appropriate box	Reportable
	ACT	ii	Yes/No, for each option, tick appropriate box	Reportable
Death notification form	NSW	a	For persons of mixed origin tick both yes boxes	Incomplete
Registrar General	Vic.	a	Text answer	Incomplete
Holding agency — ABS/AIHW	Qld	a	If of both Aboriginal and Torres Strait Islander origin tick both yes boxes	Improving
	SA	a	No/Yes Aboriginal/Yes Torres Strait Islander origin, tick appropriate box	Reportable
	WA	c	Yes/No, tick appropriate box	Reportable
	Tas.	d	Tick appropriate box	Poor quality
	NT	a	Yes/No, tick appropriate box	Reportable
	ACT	l	Yes/No, tick appropriate box	Reportable
Medical certificate	NSW	Not collected	—	—
Cause of Death (doctor)	Vic.	a	Text answer	Incomplete
Holding agency — ABS/AIHW	Qld	a	If both Aboriginal and Torres Strait Islander origin tick both yes boxes	Improving
	SA	b	No, Yes Aboriginal, Yes Torres Strait Islander, tick appropriate box	Reportable
	WA	c	Yes/No, tick appropriate box	Reportable
	Tas.	Not collected	—	—
	NT	a	Yes/No, tick appropriate box	Reportable
	ACT	Not collected	—	—
Perinatal collections	NSW	f	Tick appropriate box	Reportable
Holding agency — AIHW	Vic.	c	Tick appropriate box	Reportable
National Perinatal	Qld	e	Tick appropriate box	Reportable
Statistics Unit	SA	f	Tick appropriate box	Reportable
	WA	g	Tick appropriate box	Reportable
	Tas.	h	Tick appropriate box	Poor
	NT	j	Tick appropriate box	Reportable
	ACT	k	Self identification, tick appropriate box	Reportable

* Question types are as follows:

(i) Is the mother/father of Aboriginal or Torres Strait Islander origin?
(ii) Is the mother/father Aboriginal, Torres Strait Islander, both Aboriginal and Torres Strait Islander?
(iii) Is the child's mother/father of Aboriginal/Torres Strait Islander origin?
(iv) Is the child's mother/father of Australian Aboriginal/Torres Strait Islander origin?
(v) Aboriginal or Torres Strait Islander?
(vi) Origin: Australian Non-Aboriginal, Australian Aboriginal, European, Asian/Other (specify)?

a Was the deceased of Aboriginal or Torres Strait Islander origin?
b Of Aboriginal or Torres Strait Islander origin?
c Aboriginal?
d Origin: Australian Non-Aboriginal, Australian Aboriginal, European, Asian, Other (specify)?
e Ethnic origin: Caucasian, Aboriginal, Torres Strait Islander, Asian, Other?
f Race: Caucasian, Aboriginal, Asian, Other?
g Race: Caucasian, Aboriginal (Full or part), Other?
h Race: Aboriginal/Torres Strait Islander?
j Aboriginality: Aboriginal, Non-Aboriginal
k Aboriginal or non Aboriginal descent?
l Was the deceased an Australian Aboriginal or Torres Strait Islander?

† 'Reportable': quality of Indigenous identification sufficient for statistical analysis and dissemination as assessed by the holding agency.

Source: Information provided by State and Territory health departments and Registrars (current at January 1997).

As discussed above, an endorsed standard now exists for the collection of Indigenous status, but not all collections use this approach yet. Some collections will have considerable difficulties introducing the standard over and above the complications which accompany any change to an important variable in a collection system. For instance, information about fathers is needed in perinatal records, but it can be difficult for midwives to gain access to such details, unless this data set is linked to birth registration information, in which both maternal and paternal Indigenous identification are often available. A number of collections acquire their information about people's Indigenous status indirectly (e.g. cancer registries receive information from pathology reports or hospital patient records rather than from the client directly). These collections are thus dependent on what is collected and recorded by the source collection.

Completeness of Indigenous identification is a major issue for administrative health information collections in Australia. A workshop on best practice and quality assurance relating to Indigenous identification in administrative data collections was conducted in November 1996 (ABS 1997b). One outcome of the workshop was the creation of a broadly-based working group to oversee the creation and implementation of procedures to assess the completeness of identification in a variety of collections, including hospital separations data. The recommendations of the workshop were considered by AHMAC who supported the use of the standard method of identification as published in the National Health Data Dictionary Version 6. In the remainder of this section the completeness and quality of some of the more important collections are considered in more detail.

Births

Information about the year of commencement of the recording of Indigenous identification in birth registrations in the States and Territories has been published previously (Thomson & English 1993) and is updated in table 12.4. Details of Indigenous births are currently published by the ABS for Western Australia, the Northern Territory, South Australia and the Australian Capital Territory. Other States are not considered to have sufficiently complete recording of Indigenous status in their birth collections to justify publication, although most appear close to reaching the required standard. This is true even for Queensland, despite the fact that Queensland did not begin to register Indigenous status until 1996.

There are at least two possible approaches to assessing the completeness of the registration of Indigenous births. One approach, which does not appear to have been used to date, would entail the parents of the child being re-questioned about their Indigenous status. A second approach, which is much easier but depends on some assumptions, requires the number of registered births to be compared with the number expected, the latter being calculated from the preceding census-based projection of the size of the population aged less than one year at the appropriate time. Table 12.6 presents the ratio of registered births to those expected for the four-year period 1992–95 for each State and Territory.

The number of expected births in tables 12.6 and 12.7 (and the number of expected deaths in table 12.8) are estimated from Census-based population projections made by the ABS. More detailed investigations of the quality with which the births and deaths of Indigenous people are recorded have been undertaken previously, most notably in

South Australia in 1988 (ABS 1990), New South Wales in 1995 (unpublished) and Queensland in 1996 (unpublished).

12.6 RATIO OF REGISTERED TO EXPECTED BIRTHS

State	1992	1993	1994	1995
New South Wales	n.a.	0.54	0.83	0.96
Victoria	0.87	0.84	0.87	0.89
Queensland	n.a.	n.a.	n.a.	n.a.
South Australia	1.09	0.99	0.99	1.09
Western Australia	0.90	1.11	1.12	1.04
Tasmania	0.78	0.93	0.85	0.89
Northern Territory	1.20	1.21	1.18	1.17
Australian Capital Territory	0.27	0.80	1.07	0.91

Source: ABS unpublished data 1996.

It can be seen that the Northern Territory, Western Australia and South Australia consistently register at least as many births as are predicted. This also appears to be true for Queensland in 1996. The explanation for the recording of more births than predicted probably lies in failings in one or more of the assumptions underlying the population estimates and/or projections rather than in any real over-registration of Indigenous births. The ABS is prepared to make available information for all jurisdictions about births recorded as Indigenous with accompanying commentary on quality.

In addition to the two sources of data previously mentioned, i.e. projected births from estimates derived from census counts and births registered with Registrars of Births, Deaths and Marriages, the perinatal statistics collections (also called the midwives collections) provide a third source of data on Indigenous births (see chapter 7). The latest year for which data are available from all three sources is 1993. As can be seen in table 12.7, substantial discrepancies exist among the three data sets. These differences are due to the absence of information about father's Indigenous status in the midwives collections and to under-registration of Indigenous births in Registrars' and midwives collections. In addition, any unacknowledged under-recording of Indigenous babies at census time would affect the calculation of projected births.

12.7 INDIGENOUS BIRTH RECORDS—1993

			BIRTH REGISTRATIONS(a)				
State/Territories	*Projected births(b)*	*Midwives (perinatal) collection(c)*	*Mother and father both Indigenous*	*Mother Indigenous, father non-Indigenous*	*Mother Indigenous, paternity not recorded*	*Mother non-Indigenous, father Indigenous*	*Total Indigenous*
New South Wales	2 376	1 469	351	407	130	390	1 278
Victoria	589	455	96	191	51	155	493
Queensland	2 389	2 264	3	12	6	10	31
South Australia	524	400	180	163	72	104	519
Western Australia	1 553	1 456	729	242	332	232	1 535
Tasmania	285	6	21	99	18	126	264
Northern Territory	1 362	1 236	618	88	566	87	1 359
Australian Capital Territory	54	49	15	11	2	15	43

(a) ABS unpublished data.

(b) ABS 1996a.

(c) Lancaster et al. 1996.

Deaths

The collection of Indigenous identification in birth and death registrations commenced at similar dates in most States and Territories (table 12.4), but identification in death records is generally less complete than in birth records. Expected number of deaths can be calculated by projection in a similar manner to expected births from the prior census-based counts. The ratio of registered to expected deaths is displayed in table 12.8.

12.8 RATIO OF REGISTERED TO EXPECTED DEATHS

State/Territory	*1992*	*1993*	*1994*	*1995*
New South Wales	0.35	0.41	0.44	0.47
Victoria	0.51	0.48	0.48	0.48
South Australia	0.94	0.97	1.08	1.04
Western Australia	0.97	1.09	1.08	1.10
Tasmania	0.10	0.12	0.06	0.06
Queensland	n.a.	n.a.	n.a.	n.a.
Northern Territory	1.16	1.10	1.11	1.14
Australian Capital Territory	n.a.	1.13	1.25	1.13

Source: ABS unpublished data 1996.

The number of registered deaths failed to come sufficiently close to expectation in New South Wales, Victoria and Tasmania, and were unavailable in Queensland, and details about these States cannot therefore be published. This results in a major deficiency in our ability to monitor and report on Indigenous health outcomes. Achieving improvements in the completeness of recording of Indigenous deaths remains one of the highest priority issues for Indigenous statistics and one of the key issues for health information generally in Australia.

INDIGENOUS HEALTH INFORMATION FROM NATIONAL SURVEYS

There are a number of major national surveys which have direct or indirect relevance to Indigenous health (table 12.9 and explanatory notes). Perhaps the most important are the NATSIS conducted by the ABS in 1994, and the HCINS conducted for ATSIC in 1992. Other surveys include the National Health Surveys (1989–90 and 1995–96) and the 1994 NDS's Urban Aboriginal and Torres Strait Islander Peoples' Supplement to its household survey. Data from the NATSIS, HCINS and the NDS have been presented extensively in this report.

Data quality in interviewer-based surveys

The value of such surveys depends on the quality of the data collected in them, but little is known about this important area. The NDS survey, conducted under contract for the then Commonwealth Department of Human Services and Health, included in its survey report some consideration of the accuracy of the survey's findings. While the authors concluded that the results of their survey are valid (CDHSH 1996), these claims have not been independently assessed.

The 1992 HCINS data set was derived, in the main, from a census of discrete communities, with the main emphasis on remote areas. While the data set is now almost five years old, it is still an important source of data about housing and infrastructure in Indigenous remote communities throughout Australia. Some difficulties exist when making comparisons between States due in part to the use of different survey agents and unavoidable procedural differences in each State and Territory.

The 1989–90 National Health Survey included a sample of approximately 600 Indigenous people. The results from this sample were analysed in some considerable detail within the ABS with the intention of preparing a report for publication, but this was not done due in part to difficulties in obtaining reliable benchmarking of the survey's Indigenous sample to the whole Indigenous population.

The 1995–96 National Health Survey included an enhanced sample of Indigenous people, with approximately 2,300 Indigenous participants. The methodology and results have been the subject of considerable scrutiny in preparation for an intended publication in late 1997. Although this assessment is not yet complete, the initial results suggest that some elements of the data collection procedures may have resulted in incomplete, inconclusive or biased data for some questions when applied to Aboriginal people living traditional lifestyles in remote parts of northern Australia. However, not all NHS data from traditional Aboriginal people appears to be invalid and there is little evidence of similar difficulties among Indigenous people in urban areas.

The reliability and validity of the data from the NATSIS have only been partially assessed so far and will continue to be under investigation for a number of years to come. While the data are considered to be fairly reliable at the national and State/Territory level, they have limited reliability at the regional (ATSIC) level. No results are available for geographic localities below the level of ATSIC region.

As with all self-reported data, there exists some uncertainty about the validity of self-reported health status and health risk factor data for Indigenous people. This uncertainty causes greater difficulties when comparisons are made between different groups and/or across different data sources. Of particular concern are comparisons of data about Indigenous people (e.g. from the NATSIS) with information about non-Indigenous people (from non-NATSIS sources).

Three other areas of concern about the data collected in the NATSIS include the unexpectedly small number of visitors recorded in the survey, the lower than expected number of babies and young adults and the failure to sample Torres Strait Islanders adequately outside Queensland. While these problems do not have a major influence on health statistics which can be derived from the NATSIS, the only statistics for Torres Strait Islanders which can be reliably presented from the NATSIS are for mainland Queensland and for Torres Strait Islanders in the Torres Strait Regional Authority Area. Some of this information is presented in chapter 11.

Because of sample sizes and sampling difficulties on the mainland, it is difficult to obtain information solely on Torres Strait Islander people. Information is normally gathered and reported on 'Indigenous' people, a term which groups Aboriginal and Torres Strait Islander people together. This approach is necessary partly because the numbers of Torres Strait Islanders are expected to be small everywhere except in the Torres Strait and in parts of mainland Queensland.

Another difficulty is the absence of separate population estimates for Torres Strait Islanders. Previous censuses have shown population counts for Torres Strait Islanders to be unpredictably variable from one census to another, and as a consequence the ABS has not yet attempted to derive population estimates for Torres Strait Islanders. A further complication has been added with the change in the 1996 Census identification question to allow dual Aboriginal and Torres Strait Islander identification.

12.9 NATIONAL STATISTICAL COLLECTIONS RELEVANT TO INDIGENOUS HEALTH

Collection (sponsoring agency)	*Year*	*Status*	*Unit of analysis*	*Approx. intended sampling fraction*	*Comment*	*Coverage*
Census (ABS)	1991	Results reported.	All people	100%	Limited content: population, housing, income. Complete coverage of the population is an advantage.	All Indigenous and non-Indigenous people
	1996	Field work completed. First results July 1997.	All people	100%	As above	As above
National Aboriginal and Torres Strait Islander Survey (ABS)	1994	Initial results reported. Second survey proposed for 1999.	All Indigenous people	5%	Wide range of health and non-health topics, including stated housing need, perceived health problems, importance of Indigenous involvement in health services, self-assessed health status, conditions, health-related actions, disability, distances to treatment, health risk factors.	All Indigenous people
Housing and Community Infrastructure Needs Survey (ATSIC)	1992	Results reported. Second survey under consideration.	Discrete Indigenous communities	100% of sampled communities	Housing, environmental and health service infrastructure — includes garbage, roads, etc.	All remote and rural communities. Variable in major urban centres.
National Drug Strategy Household Survey: Urban Aboriginal and Torres Strait Islander Peoples' Supplement (DHSH)	1994	Results reported.	Indigenous people 14 years and over.	6%	Drug use and exposure, knowledge, attitudes and policy preferences, law enforcement indicators, campaign awareness and impact.	People 14 years or more in urban and metropolitan areas.
Disability, Ageing and Carers Survey (ABS)	1993	Indigenous results not sufficiently reliable for reporting.	All people	0.2%	Insufficient Indigenous sample.	All Indigenous and non-Indigenous people except remote areas.
Survey of Training and Education (ABS)	1993	Some Indigenous results reported.	People 15–64 years	0.2%	Education and training with focus on training.	All Indigenous and non-Indigenous people 15–64 years.
Survey of Education and Training (ABS)	1997	In progress. Some Indigenous results to be reported.	As above	As above	Education and training with focus on education.	All Indigenous and non-Indigenous people 15–64 years except in remote and sparsely settled areas.
Labour Force Survey (ABS)	1994	Results analysed, draft report being revised.	People 15 years and over.	0.4%	Labour force status.	All Indigenous and non-Indigenous people 15 years and over.
	1995	Not yet analysed.	As above	0.4%	As above	As above
	1996	Not yet analysed.	As above	0.4%	As above	As above
National Health Survey (ABS)	1989	Uncertainty about reliability of Indigenous results — not published.	All people	0.2%	Insurance, recent illness, disability, health-related actions, medication, long-term conditions, vaccinations, sunscreens, diet, alcohol and tobacco consumption, height and weight, women's health, etc.	All Indigenous and non-Indigenous people.
	1995	Reports on data quality and survey results planned.	All people	0.7%	As above	All Indigenous and non-Indigenous people.
Australian Housing Survey	1994	Results for Indigenous people not reported, reliability not assessed.	Dwellings	0.2%	Dwelling types, nature of occupancy, landlords, housing costs, bedrooms, characteristics, affordability, utilisation, access to work and services.	All dwellings of Indigenous and non-Indigenous people, except remote areas.

FUTURE DIRECTIONS IN INDIGENOUS HEALTH INFORMATION

Australian governments are committed to working towards improving the health of Aboriginal and Torres Strait Islander peoples. From the highest levels of government down, there is a strong emphasis on outcome-focused programs based on accurate assessments of need for, access to and use of appropriate health services. Progress in meeting the objectives of these programs must be monitored and evaluated using accurate and precisely defined statistics. Foremost among the many recent initiatives is the development, at the request of AHMAC, of performance indicators for monitoring each jurisdiction's progress in addressing Indigenous health issues. The indicators were developed by Heads of Aboriginal Health Units with assistance from the ABS and AIHW, with input from the National Aboriginal Community Controlled Health Organisation (NACCHO) and other agencies and experts. As mentioned previously, AHMAC has also commissioned the development of a national strategic plan for health information about Aboriginal and Torres Strait Islander people.

As a result of the focus on outcomes and performance indicators, there will be an increasing requirement for high quality data at national, State/Territory and regional levels which will allow the accurate measurement of changes in health status over a period of time. There will also be increasing demands to make accurate comparisons between Indigenous and non-Indigenous populations and between different groups within the Indigenous population.

To achieve these ends, much greater attention must be devoted in future years to assessing and improving the quality of Indigenous health data and to devising procedures for recording and presenting information on quality to both collectors and users of data. In some cases it will also be necessary to develop methods for adjusting statistics to remove biases where these are known to exist and their direction and magnitude can be estimated. Above all, the most urgent priorities must be to improve the quality of death statistics in those States which can not yet report on the mortality of their Indigenous populations and to assess and improve the quality of Indigenous identification in hospital separation data sets in all States and Territories.

All rate and ratio statistics are dependent on high quality population estimates for their denominators, and these estimates must be consistent with the numerator statistics. Continued attention must therefore be paid to ensuring that definitions used in health collections and population estimates are comparable, and that the most appropriate methodologies for deriving Indigenous estimates are used.

INDIGENOUS WELFARE INFORMATION

There is currently a more visible focus on addressing disadvantages relating to Indigenous health than to those relating to welfare. Perhaps as a result of this, more information is available about Indigenous health than about Indigenous welfare. In the recent past, however, this situation has necessarily begun to be addressed. The AIHW has published a report on national health and welfare data collections which include information about Indigenous status and non-English speaking background (AIHW 1996d), and in the near future the ABS National Centre for Aboriginal and Torres Strait Islander Statistics will be developing a complete catalogue of welfare-related collections of relevance to Indigenous peoples.

Among the recent initiatives to improve welfare statistics is the formation of a National Community Services Information Management Group (a parallel committee to the

National Health Information Management Group), which has been established under the National Community Services Information Agreement. Indigenous welfare information needs are already considered to be a potential priority area and will be considered by the National Community Services Information Management Group's Data Committee when it meets for the first time. In addition, the recently created Disability Data Reference Advisory Group has taken a keen interest in disability issues for Indigenous peoples.

As with health information, a central issue for Indigenous welfare statistics is the quality and completeness of recording of Indigenous status in welfare data collections, but little is known about this important area. The areas of greatest challenge for quality health statistics, namely the implementation of standard methods and procedures for identifying Indigenous people, the completeness with which Indigenous people are identified in government administrative collections, the validity and reliability of self-reported survey data and the calculation of accurate estimates of the Indigenous population, are also of major importance with respect to welfare information. Each of these areas will require attention in the future to ensure that the quality of information is sufficient to meet the needs of users.

EXPLANATORY NOTES

INTRODUCTION

1 Information in this publication is drawn from many sources, including the Census and a number of large surveys, conducted by the ABS or other organisations. A brief description of these is provided below. Additional sources referred to are referenced within the publication and readers should refer to the reference list at the back of this publication for a complete listing. For explanations of terms used in each survey, refer to the Glossary.

ATSIC NATIONAL HOUSING AND COMMUNITY INFRASTRUCTURE NEEDS SURVEY 1992 (HCINS)

2 The HCINS consisted of two stages. Stage 1 was a survey of Aboriginal and Torres Strait Islander communities, outstations and town camps in rural and remote Australia. In addition, some larger urban centres — where the Indigenous population was larger than 1,000 persons — were surveyed. Major urban and metropolitan centres were covered in Stage 2 of the project. A different methodology was used for Stage 2 which took the form of an analysis of ABS census housing data (see the discussion in chapter 2).

3 The aim of Stage 1 of the survey was to obtain nationally consistent data about existing housing and infrastructure. The survey included 108 questions covering topics such as the quality of housing stock, maintenance needs, population fluctuations, provision of and access to health and education services, water supply and sewerage facilities, garbage collection and electricity supply.

4 The information was collected from local Indigenous reference groups that were set up in each centre that was visited.

5 For further information about the HCINS, contact the National Centre for Aboriginal and Torres Strait Islander Statistics, ABS in Darwin, who manage the data on behalf of ATSIC.

CENSUS OF POPULATION AND HOUSING

6 The main objective of the Census of Population and Housing is to measure the number of people in Australia and their key characteristics at a given point in time. The Census is a count of the whole population. A reliable basis for making future estimates of the population of each State, Territory and local government area can then be obtained. These population estimates are used for the distribution of government funds and to determine the number of seats per State and Territory in the Federal Parliament. In addition, the knowledge of the characteristics of the population gained through the Census is used to support the planning, administration and policy development activities of governments, businesses and other users.

7 The Census is the largest statistical collection undertaken by the ABS and is conducted every five years. The thirteenth Census was carried out on 6 August 1996, with the first results expected to be available towards the end of September 1997.

8 For further information, see ABS 1996b.

CHILD DENTAL HEALTH SURVEY (CDHS)

9 This survey monitors the dental health of children enrolled in School Dental Services operated by the health departments or authorities of State and Territory Governments. These services provide dental care principally to primary school-aged children. The care includes dental examinations, preventative services and restorative treatment as required.

10 As not all jurisdictions collect data concerning a child's Indigenous status, only data for the Northern Territory (1994) are presented in the dental section in chapter 8.

11 The 1994 Northern Territory survey used a random sampling procedure selecting approximately one in two patients living in the Darwin area and all children from other areas. The weighting procedure was then corrected for the over-representation of people outside Darwin. The sample was considered a good representation of the children who present at the dental service, but it may not be representative of children outside areas in which the service operates.

12 It is likely that there was some under-representation of Indigenous children in the survey. Indigenous children were less likely to attend clinic and those who attended did not attend as regularly as non-Indigenous children. If those who did not attend had poorer dental health, then the rates of decayed, missing and filled teeth in Indigenous children may have been underestimated (AIHW 1995a).

NATIONAL ABORIGINAL AND TORRES STRAIT ISLANDER SURVEY 1994 (NATSIS)

13 This survey was the first national survey of Australia's Indigenous people and was part of the government response to recommendation number 49 by the Royal Commission into Aboriginal Deaths in Custody (RCIADIC 1991). It was designed primarily to provide information at the national level on the social, demographic, economic and health status of Indigenous people. The survey was conducted by the ABS in 1994.

14 Prior to and during the development stages of the survey, there was widespread consultation with Indigenous people and organisations to ensure that the information collected was relevant to Indigenous people and was collected in a culturally appropriate manner.

15 The survey was based on personal interviews with a sample of Indigenous people selected according to a methodologically sound random sampling design. Indigenous people were recruited to interview the 15,700 Indigenous people selected in the sample. For children under 13 years of age, information was provided by an adult responsible for the child, and children between 13 and 17 were interviewed with the parent's or guardian's consent. A subset of questions was asked of any non-Indigenous people, in the household. A sample of prisoners was included in the survey to ensure that estimates would reflect the characteristics and attitudes of all Indigenous people including those in prison.

16 The questionnaire covered the areas of family and culture, health, housing, education and training, employment and income, and law and justice.

17 More information on the survey is available in *National Aboriginal and Torres Strait Islander Survey 1994: Detailed Findings* (4190.0).

NATIONAL DRUG STRATEGY HOUSEHOLD SURVEY 1994 (NDS)

Urban Aboriginal and Torres Strait Islander Peoples Supplement

18 This survey, which is part of the series of National Drug Strategy household surveys, was conducted for the Commonwealth Department of Human Services and Health by AGB McNair and involved interviews with nearly 3,000 Aboriginal and Torres Strait Islander people aged 14 and over living in urban areas, defined as all centres with a total population of 1,000 or more. It was designed to supplement information gathered by the 1993 household survey of the general population.

19 Persons were regarded eligible to be included in the survey if they responded 'yes' to the question, 'Are you of Aboriginal or Torres Strait Islander origin?'

20 The survey involved face-to-face household-based interviews. A sealable self-completion form was used for more sensitive questions such as those on illicit drugs.

21 More information on the survey is available in the National Drug Strategy Household Survey 1994 — *Urban Aboriginal and Torres Strait Islander Peoples Supplement* (CDHSH 1996).

ESTIMATING RELATIVE MORBIDITY USING PUBLIC HOSPITAL SEPARATIONS DATA

22 The latest available hospital separations data at the time of this report are for the financial year 1992–93. In that year, no information on separations of Indigenous people from private hospitals was available, nor was it possible to obtain cause-specific information on private hospital separations regardless of Indigenous identification. Thus the analysis presented in chapter 8 is based only on public hospital separations. This means that the numbers and rates of hospital separations have been underestimated for both Indigenous people and for all Australians. The possible implications for the hospital separation rates and ratios shown in tables 4.4, 8.2 and 8.3 and graphs 8.4–8.9 are discussed below.

23 In 1992–93, approximately 29% of all hospital separations in Australia were from private acute or private psychiatric hospitals. This figure ranged from about 26% in New South Wales and the Australian Capital Territory combined and in Western Australia, to about 35% in Victoria (AIHW hospital separations database, unpublished data). (Note that data from the Northern Territory, which has only one private hospital, were combined with those of South Australia.)

24 These figures are for Indigenous and non-Indigenous Australians combined. It is likely that the estimates would be somewhat lower for Indigenous people, because they are less likely as a group to access private hospitals, for both geographic and financial reasons. Thus the underestimation of total hospital separation rates which occurs because of the exclusion of private hospital separations data is likely to be greater for all-Australian rates than for Indigenous rates. This would result in an underestimation of the expected numbers of hospital separations for Indigenous people (as these are calculated by applying the all-Australian rates to the Indigenous population) and therefore an overestimate of the age-standardised hospital separation ratio (which is calculated by dividing observed separations by expected separations). It must be remembered that any such overestimate is balanced to some degree by the sources of underestimation mentioned elsewhere, such as incomplete identification of Indigenous people in hospital data and missing data from the Northern Territory.

25 Although cause-specific data were not available for private hospital separations in 1992–93, information was available for that year for all causes combined (AIHW hospital separations database, unpublished data). It was therefore possible to compare age-standardised hospital separation ratios (SHRs) using public hospital data only (such as those presented in table 8.2) with those based on public plus private separations. The SHRs decreased by about 25% but still remained elevated. The size of such a decrease in the SHR would be larger for those conditions for which private hospitals contribute a larger than average proportion of total separations, and smaller for those causes which are more likely to be treated at public hospitals.

26 Cause-specific hospital separations data for 1991–92 have been published previously (Cook 1996). Using these figures, it is possible to estimate the proportion of all separations that were from private hospitals for a variety of categories of diseases or conditions. The results of such an analysis demonstrate a very wide range. For example, over 40% of hospital separations for 'dislocations, sprains and strains' were from private hospitals, as were separations for 'disorders of the eye and adnexa', 'diseases of the ear and mastoid process' and 'benign neoplasms'. In contrast, less than about 15% of separations for 'transport accidents', 'burns', 'intracranial and internal injuries', 'pneumonia and influenza', 'ischaemic heart disease' and 'cerebrovascular disease' were from private hospitals. Thus it appears that some conditions were much more likely to be treated at public rather than private hospitals.

27 Based on analysis of the 1991–92 data, it is likely that the bias in the SHRs would be bigger than average for the following categories: neoplasms; diseases of the nervous system and sense organs; diseases of the digestive system; diseases of the genitourinary system; diseases of the skin and subcutaneous system; and diseases of the musculoskeletal system and connective tissue. Categories of disease for which the bias in the SHRs would be expected to be smaller than average include such major causes as: infectious and parasitic diseases; endocrine, nutritional and metabolic diseases and immunity disorders; diseases of the circulatory system; diseases of the respiratory system; and injury and poisoning.

28 In other words, any bias resulting from reliance on public hospital data alone would tend to be relatively smaller for those causes which are responsible for the majority of hospital separations for Indigenous people and may be outweighed by the underestimation resulting from the incomplete identification of Indigenous people discussed above.

29 Information from one small hospital in the Northern Territory was not available for the first few months of 1992–93 due to a change in reporting systems. It is likely that this resulted in additional underestimation of the number of hospital admissions among Indigenous people in the Northern Territory by around 5%–10% for the year (Dr. J. Condon, Territory Health Services, personal communication).

ESTIMATING ACCESS

30 The figures presented in inset 6.1 and in the notes below were calculated using direct age-standardisation (see also inset 9.1). The age-standardised rates were calculated by applying the age- and sex-specific rates of the populations of interest (the Indigenous and non-Indigenous populations of South Australia, Western Australia and the Northern Territory) to the age distribution of the standard population, in this case the World Standard Population.

31 The 'index of access' ratios presented in inset 6.1 are based on the following figures.

32 In 1992–93, the age-standardised public hospital separation rates (per 100,000) in South Australia were 39,454 for Indigenous males, 16,521 for non-Indigenous males, 61,799 for Indigenous females, and 17,856 for non-Indigenous females. In Western Australia, the age-standardised public hospital separation rates were 53,282 for Indigenous males, 15,846 for non-Indigenous males, 65,083 for Indigenous females, and 17,195 for non-Indigenous females. In the Northern Territory, the rates were 24,250 for Indigenous males, 13,279 for non-Indigenous males, 30,410 for Indigenous females, and 15,559 for non-Indigenous females. Private hospital separations were not included, and rates for the Northern Territory are slight underestimates, as explained above in paragraph 30.

33 In 1993, the age-standardised mortality rates (per 100,000) in South Australia were 1,082 for Indigenous males, 572 for non-Indigenous males, 964 for

Indigenous females, and 406 for non-Indigenous females. In Western Australia, the figures were 1,704 for Indigenous males, 553 for non-Indigenous males, 1,261 for Indigenous females, and 376 for non-Indigenous females. In the Northern Territory, the rates were 1,592 for Indigenous males, 600 for non-Indigenous males, 1,336 for Indigenous females, and 345 for non-Indigenous females.

MAPPING METHODOLOGY

34 The data presented by maps are at the ATSIC region level which is the smallest geographic unit for which reliable data could be obtained from the NATSIS. Selecting appropriate class intervals for each map is a key aspect of representing statistical data and for these maps the 'natural break' method of data classification has been used. This method applies an algorithm to reflect the shape and distribution of the data and usually results in uneven class range values, e.g. more than 87, 77 to 87, 64 to 77, less than 64. Displaying the data using this method is more meaningful than utilising equal class intervals or numbers.

35 A large geographic region shaded on a map can appear to be more significant than another region of much smaller area but with a larger population. For example, the Warburton ATSIC Region of Western Australia covers 800,000 square kilometres of land and in 1994 had fewer than 2,500 Indigenous persons. Conversely, the Sydney ATSIC Region covers under 10,000 square kilometres and in 1994 had an Indigenous population of about 25,000. Although most of the maps presented here express the various characteristics as a percentage of the relevant population, users should be familiar with the patterns of residence of the Indigenous and non-Indigenous populations of Australia when analysing these data.

SYMBOLS

36 The following symbols used in tables or elsewhere mean:

n.a.	not available
. .	not applicable
**	subject to high sampling variability (relative standard error greater than or equal to 25%)

GLOSSARY

Where the definition is specific to a particular survey, the abbreviated survey name is included at the end of that definition.

Aboriginal	A person who identifies himself or herself to be of Aboriginal origin. In the NATSIS and the NDS collections this was ascertained by the asking of the question 'Are you of Aboriginal or Torres Strait Islander origin?' Persons who answered yes were then asked to indicate whether they were Aboriginal or Torres Strait Islander, or both Aboriginal and Torres Strait Islander. In the NATSIS persons aged 13 years and over were asked directly, whereas persons aged 12 years and under were identified by a responsible adult in the household, usually a parent. *See also* Indigenous.
Aboriginal Health Worker (AHW)	An Aboriginal member of the community who is a recognised health worker but does not have nursing or medical qualifications. He or she may or may not hold a health worker certificate. (NATSIS)
Aboriginal Medical Service (AMS)	An incorporated organisation which operates under direction of a board of Indigenous people. It may be based in one centre or provide services to a defined number of centres. People living in the Torres Strait Area were not asked questions about this service. (NATSIS)
Actions taken	Specific actions persons took with regard to their health in the two weeks prior to interview. (NATSIS)
Alcohol consumption	The National Health and Medical Research Council (NHRMC) provides the following guidelines for the 'safe' consumption of alcohol. Drinks refer to standard drinks. A standard drink contains 10 g of alcohol (*Source*: NHMRC 1992). Low level of risk: Two or fewer drinks per day for females; four or fewer drinks per day for males. Hazardous level of risk: More than two and up to four drinks per day for females; more than four and up to six drinks per day for males. Harmful level of risk: More than four drinks per day for females; more than six drinks per day for males. *See also* Current drinker, Current regular drinker, Current occasional drinker.
Availability of services and professionals	Refers to health services and professionals within 25 kilometres of where interviewed: ▪ *Permanent*—Available at least three days per week; ▪ *Visiting*—Available between two days per week and once a month; and ▪ *Not available*—Available less than once a month or not available at all. (NATSIS)
Before/after school care	Also known as Outside School Hours Care. Provides care for school-aged children before and/or after school during the school term.

Body Mass Index (BMI)	A person's weight in kilograms (kg) divided by the square of his or her height in metres (m), that is kg/m^2: ▪ *Underweight*—BMI less than 20; ▪ *Acceptable weight*—BMI between 20 and 25; ▪ *Overweight*—BMI greater than 25 but less than or equal to 30; and ▪ *Obese*—BMI greater than 30. (NATSIS)
Capital city	All State and Territory capital city Statistical Divisions. (NATSIS)
Centre	A place where Indigenous people live, including communities, outstations, towns and camps. (HCINS)
Community health centres	Centres which often provide a number of services, e.g. nursing, medical, dental, nutritional and may be active in preventative medicine e.g. advising on sexually transmitted diseases, immunisation and family planning. In more remote areas, services might be limited to nurses, doctors, and Aboriginal Health Workers. (NATSIS)
Community landlord	Refers to dwellings owned by community organisations, predominantly Aboriginal or Torres Strait Islander organisations, such as housing associations, land councils and community councils. (NATSIS)
Confinement	The period of childbirth.
Congenital malformation	Structural or anatomical abnormalities that are present at birth, usually resulting from abnormal development in the first three months of pregnancy.
Current drinker/smoker	Those people who reported that they had had an alcoholic drink/at least one full cigarette in the previous year and that they still drank/smoked at least once a year. This category includes regular and occasional drinkers/smokers (see below). (NDS)
Current regular drinker/smoker	Those people who reported drinking alcohol/smoking either daily or at least weekly. (NDS)
Current occasional drinker/smoker	Those people who reported drinking/smoking less often than weekly but at least once a year. (NDS)
Discrete community	A number of Indigenous people, not necessarily related, who reside in one geographic area. (HCINS)
DMFT	Used to measure the number of decayed, missing or filled permanent (adult) teeth. It is derived by adding the number of teeth which are decayed, missing or have been filled due to caries (i.e. tooth decay).
dmft	Used to measure the number of decayed, missing or filled deciduous (infant) teeth. It is derived by adding the number of teeth which are decayed, missing or have been filled due to caries (i.e. tooth decay).
Drinker	*See* Alcohol consumption and Current drinker.
Family day care	A network of care givers who provide care for children aged 1–12 years in the carers own home.
'Hard' illicit drugs	Defined as those drugs of particular concern for law enforcement agencies: speed (non-medical), cocaine, heroin, hallucinogens, designer drugs, and injecting of illegal drugs. (NDS)

HCINS	ATSIC National Housing and Community Infrastructure Needs Survey 1992 Refer to the Explanatory Notes for information about the survey.
Health promotional services	These include discussions and seminars presented by a professional on topics related to health, e.g. nutrition, smoking and alcohol. They may also be provided by a nurse or Aboriginal Health Worker. (NATSIS)
Hostels	Provide accommodation and care for older people who, because of their frailty are unable to stay in their own home and need some daily help.
Illicit drugs	The following drugs when used for non-medical purposes: speed, cocaine, sleeping pills/tranquillisers, marijuana, analgesics, heroin, petrol sniffing, other inhalants, hallucinogens, designer drugs, and injecting of any illegal drug. (NDS)
Indigenous	Persons aged 13 years and over who identified themselves to be of Aboriginal and/or Torres Strait Islander origin. In the NATSIS, persons aged 12 years and under were identified by a responsible adult in the household, usually a parent. *See also* Aboriginal and Torres Strait Islander.
Indigenous household	In the NATSIS a household was categorised as Indigenous if one or more members of the household identified as being of Aboriginal and/or Torres Strait Islander origin. This differs from the census definition, whereby a household is Indigenous only if the reference person (that is, the person who answers on behalf of the household) or his/her spouse is Indigenous.
Infant mortality	Deaths of children under one year of age.
Long day care centre	Open for at least eight hours a day and at least 48 weeks a year. Cater mostly for under school-age children whose parents are in the paid workforce or are looking for work or are in education or training.
Low birthweight	Under 2,500 grams.
Mental health services	Provide access to psychiatrists or psychologists who treat people suffering from emotional or mental conditions. (NATSIS)
NATSIS	National Aboriginal and Torres Strait Islander Survey 1994. Refer to the Explanatory Notes for information about the survey.
NDS	National Drug Strategy Household Survey (1993–94). Refer to the Explanatory Notes for information about the survey.
Neonatal death	Death of a liveborn infant within 28 days of birth.
Neonatal mortality rate	The number of neonatal deaths in a year per 1,000 live births in the same year.
No longer drinks/smokes	Those people who reported that they had had at least one full glass of alcohol/at least one full cigarette but that it was more than a year since their last drink/smoke or that they no longer drank/smoked. (NDS)
Nursing homes	Cater for people who are highly dependent and need a lot of daily help with personal care and ongoing nursing.
Occasional care	Provides care mainly for under school-age children. These services cater mainly for families who require short-term care for their children.

Other government landlord	Refers to dwellings owned by the Commonwealth Government and State, Territory and local governments, other than housing authorities and employer provided housing. (NATSIS)
Other urban	All centres with a total population of 1,000 and over, excluding capital cities.
Outstations/homelands	Small communities consisting of family groups, usually living on or near the land with which they have a traditional relationship. (HCINS)
Perinatal death	A stillbirth or neonatal death.
Perinatal mortality rate	The number of perinatal deaths in a year per 1,000 total births in the same year.
Pre-school/kindergarten	Provide programs to prepare children for their first year at school. Generally operate on a short day sessional basis and are closed during school holidays.
Private dwelling	The premises occupied by a household, including houses, flats, home units, garages, tents and improvised houses, but excluding hostels, hospitals, prisons and other institutional type accommodation. (NATSIS)
Private landlord/private renter	Refers to all privately-owned dwellings rented directly or through a real estate agent. (NATSIS)
Rural	Rural localities and towns with a total population of under 1,000 people. Most remote Aboriginal and Torres Strait Islander communities are included in this category. (NATSIS)
Satisfactory dwelling/dwelling that meets needs of household	Respondents were asked whether the dwelling met the needs of the people living there. If the answer was no, people were asked to identify specific problems with the dwelling. (NATSIS)
Smoker	*See* Current smoker.
Standard drink	A standard drink contains 10 g of alcohol. *See also* Alcohol consumption.
State housing/landlord	Refers to dwellings owned by State or Territory housing authorities. (NATSIS)
Stillbirth (foetal death)	Death of a foetus of at least 20 weeks gestation or 400 g birthweight (except in Western Australia, where the minimum figures are 500 g or 22 weeks).
Torres Strait Islander	A person who identifies himself or herself to be of Torres Strait Islander origin. In the NATSIS and the NDS this was ascertained by asking the question 'Are you of Aboriginal or Torres Strait Islander origin?' Persons who answered yes were then asked to indicate whether they were Aboriginal or Torres Strait Islander, or both Aboriginal and Torres Strait Islander. In the NATSIS persons aged 13 years and over were asked directly, whereas persons aged 12 years and under were identified by a responsible adult in the household, usually a parent. *See also* Indigenous.

REFERENCES

ABS	Australian Bureau of Statistics
AHMAC	Australian Health Ministers' Advisory Council
AIHW	Australian Institute of Health and Welfare
ATSIC	Aboriginal and Torres Strait Islander Commission
CDC	Centers for Disease Control
CDHHCS	Commonwealth Department of Health, Housing and Community Services
CDHSH	Commonwealth Department of Human Services and Health
DAA	Department of Aboriginal Affairs
DSRU	Dental Statistics and Research Unit
HCSV	Health and Community Services Victoria
MSHR	Menzies School of Health Research
NAHS	National Aboriginal Health Strategy
NAHSWP	National Aboriginal Health Strategy Working Party
NATSIS	National Aboriginal and Torres Strait Islander Survey
NDS	National Drug Strategy
NHMRC	National Health and Medical Research Council
NHS	National Housing Strategy
NSW	New South Wales
OATSIHS	Office for Aboriginal and Torres Strait Islander Health Services
RCIADIC	Royal Commission into Aboriginal Deaths in Custody
UN	United Nations
US DHHS	United States Department of Health and Human Services
US EPA	United States Environmental Protection Agency
WHO	World Health Organization

Aboriginal and Torres Strait Islander Commission 1992, *National Housing and Community Infrastructure Needs Survey Stage One,* Australian Construction Services.

Aboriginal and Torres Strait Islander Commission, 1996, *Annual Report,* Canberra.

Anderson, P., Bhatia, K. & Cunningham, J. 1996, *Occasional Paper: Mortality of Indigenous Australians,* Australian Bureau of Statistics & Australian Institute of Health and Welfare, Cat. no. 3315.0, ABS, Canberra.

Angus, G., Dunn, C. & Moyle, H. G. 1996, *Children under care and protection orders Australia 1994–95*, AIHW Child Welfare Series, no. 15, AIHW, Canberra.

Angus, G. & Golley, L. 1996, *Adoptions Australia 1994–95*, AIHW Child Welfare Series, no. 14, AIHW, Canberra.

Angus, G. & Hall, G. 1996, *Child abuse and neglect Australia 1994–95*, AIHW Child Welfare Series, no. 16, AIHW, Canberra.

Angus, G. & Woodward, S. 1995, *Child abuse and neglect Australia 1993–94*, AIHW Child Welfare Series, no. 13, AIHW, Canberra.

Australian Bureau of Statistics 1990, *Aboriginal Births and Deaths. Review of Data Quality and Statistical Summary, South Australia 1988*, Cat. no. 4104.4, ABS, Canberra.

Australian Bureau of Statistics 1993a, *Australia's Aboriginal and Torres Strait Islander Population, 1991 Census*, Cat. no. 2740.0, ABS, Canberra.

Australian Bureau of Statistics 1993b, *Disability, Ageing and Carers: User Guide*, Cat. no. 4431.0, ABS, Canberra.

Australian Bureau of Statistics 1994a, *Experimental Estimates of the Aboriginal and Torres Strait Islander Population, June 1986 to June 1991*, Cat. no. 3230.0, ABS, Canberra.

Australian Bureau of Statistics 1994b, *Projections of the Populations of Australia, States and Territories, 1993 to 2041*, Cat. no. 3222.0, ABS, Canberra.

Australian Bureau of Statistics 1995a, *Causes of Death, Australia, 1996*, Cat no. 3303.0, ABS, Canberra.

Australian Bureau of Statistics 1995b, *National Aboriginal and Torres Strait Islander Survey: Detailed Findings, 1994*, Cat. no. 4190.0, ABS, Canberra.

Australian Bureau of Statistics 1995c, *Information Paper: Population Estimates: Methods and Sources of Data, 1995*, Cat. no. 3228.0, ABS, Canberra.

Australian Bureau of Statistics 1996a, *Experimental Projections: Aboriginal and Torres Strait Islander Population*, Cat no. 3231.0, ABS, Canberra.

Australian Bureau of Statistics 1996b, *Housing Characteristics and Conditions, National Aboriginal and Torres Strait Islander Survey*, Cat. no. 4187.0, ABS, Canberra.

Australian Bureau of Statistics 1996c, *How Australia Takes a Census*, Cat. no. 2903.0, ABS, Canberra.

Australian Bureau of Statistics 1996d, *National Aboriginal and Torres Strait Islander Survey 1994: Health of Indigenous Australians*, Cat. no. 4395.0, ABS, Canberra.

Australian Bureau of Statistics 1996e, *National Aboriginal and Torres Strait Islander Survey 1994, Employment Outcomes for Indigenous Australians*, Cat. no. 4199.0, ABS, Canberra.

Australian Bureau of Statistics 1996f, *National Aboriginal and Torres Strait Islander Survey: Regional Statistics*, Cat no. 4196.0.00.037, ABS, Canberra.

Australian Bureau of Statistics 1997a, *1994 National Aboriginal and Torres Strait Islander Survey: Social Atlas*, Cat. no. 4155.0, ABS, Canberra.

Australian Bureau of Statistics 1997b, *Indigenous Identification in Administrative Data Collections. Best Practice and Quality Assurance. Report on Workshop Proceedings — November 1996*, ABS, Canberra.

Australian Bureau of Statistics 1997c, *National Aboriginal and Torres Strait Islander Survey: Torres Strait Islanders, Queensland*, Cat no. 4179.3, ABS, Canberra.

Australian Institute of Health and Welfare 1995. *Australia's Welfare Services and Assistance,* AGPS, Canberra.

Australian Institute of Health and Welfare Dental Statistics and Research Unit 1995a, *Child Dental Health Survey for the Northern Territory, 1994,* Adelaide, DSRU.

Australian Institute of Health and Welfare Dental Statistics and Research Unit 1995b, *Commonwealth Dental Health Program: Research report 1*, March 1995, University of Adelaide, Adelaide.

Australian Institute of Health and Welfare Dental Statistics and Research Unit 1995c, *Commonwealth Dental Health Program: Research report 2*, August 1995, University of Adelaide, Adelaide.

Australian Institute of Health and Welfare 1996a, *Australia's Health*, The Fifth Biennial Report of the Australian Institute of Health and Welfare, AGPS, Canberra.

Australian Institute of Health and Welfare 1996b, *Tobacco use and its health impact in Australia,* AIHW, Canberra.

Australian Institute of Health and Welfare 1996c, *Child welfare statistics news*, No. 2, December 1996, AIHW, Canberra.

Australian Institute of Health and Welfare 1996d, *Non-English speaking background and Indigenous status: Identification in national health and welfare data collections,* AIHW, Canberra.

Australian Institute of Health and Welfare & Australian Health Ministers' Advisory Council 1995, *National Health Information Development Plan*, AGPS, Canberra.

Benenson, A.S. (ed.) 1990, *Control of communicable diseases in man,* Fifteenth edition, American Public Health Association, Washington, D.C.

Broadbent, A. & Bentley, R. 1997 (forthcoming), Child Abuse and Neglect, Australia 95–96, Australian Institute of Health and Welfare, AGPS, Canberra.

Burns, C.B. 1995, *Feasibility Study and Service Plan of Health Services at Maningrida —final report*, Menzies School of Health Research, Darwin.

Cairncross, S. & Feachem, R. 1983, *Environmental health engineering in the tropics.* John Wiley & Sons Ltd., Chichester.

Campbell, T. & Moore, A. 1930, 'Adelaide University field anthropology', *Aust Dent J*, no. 34, pp. 123–27, Koonibba, South Australia.

Carlton, T. 1996, *Indigenous Fertility,* Paper presented to the Eighth National Conference of the Australian Population Association, Adelaide, December 1996.

Carlton, T. 1997, 'Measuring the coverage of Indigenous births and death registrations 1992–1996', *Indigenous Identification in Administrative Data Collections. Best*

Practice and Quality Assurance, Report Workshop Proceedings — November 1996, ABS, Canberra.

Centers for Disease Control 1994, Cigarette smoking among adults — United States, 1993, *Morbidity and Mortality Weekly Report,* no. 43, pp. 925–30.

Chan, A., Scott, J., McCaul, K. & Keane, R. 1995, *Pregnancy Outcome in South Australia 1994*, Pregnancy Outcome Unit, South Australian Health Commission, South Australia.

Commission of Inquiry into Poverty 1975, *Poverty in Australia, first main report (Prof. R.F. Henderson, Chairman)*, AGPS, Canberra.

Commonwealth Department of Health, Housing and Community Services 1991, *Aged Care Reform Strategy: Mid-term Review. 1990–91 papers,* AGPS, Canberra.

Commonwealth Department of Human Services and Health 1996, *National Drug Strategy Household Survey: Urban Aboriginal and Torres Strait Islander Peoples Supplement 1994*, AGPS, Canberra.

Constitutional Section, Department of Aboriginal Affairs 1981, Report on a review of the administration of the working definition of Aboriginal and Torres Strait Islander, Canberra, unpub.

Cook, M. *Hospital utilisation and costs study 1991-92, Volume 2. The use of acute hospitals-the national hospital morbidity report. 1996,* Health Services Series Number 6, Australian Institute of Health and Welfare, 1996, Canberra.

Daly, A 1995, *Occasional Paper: Aboriginal and Torres Strait Islander People in the Australian Labour Market 1986 and 1991*, Australian Bureau of Statistics, ABS Cat. no. 6253.0 ABS. Canberra.

d'Espaignet, E., Measey, M., Condon, J., Jelfs, P. & Dempsey, K. 1996, *Cancer in the Northern Territory 1987–1993*, Epidemiology Branch, Territory Health Services, Darwin.

d'Espaignet, E., van Ommeren, M., 'Differences in levels and types of disabilities', in Donovan, J., d'Espaignet, E., Merton, C., van Ommeren M, eds, 1992, *Immigrants in Australia: a health profile,* Australian Institute of Health and Welfare, Ethnic health Series, no 1, AGPS, Canberra.

English, D.R., Holman, C.D.J., Milne, E. & Winter, M.G., Hulse, G.K., Codde, J.P., Bower, C.I., Corti, B., de Klerk, N., Knuiman, M.W., Kurinczuk, J.J., Lewin, G.F. & Ryan G.A. 1995, *The quantification of drug caused morbidity and mortality in Australia,* 1995 edition, Commonwealth Department of Human Services and Health, Canberra.

Epidemiology and Health Information Branch, Queensland Health, 1995, *Perinatal Statistics, Queensland 1992,* Queensland Health Department, Brisbane.

Feachem, R.G.A. 1995, *Valuing the Past ... Investing in the future*, Evaluation of the National HIV/AIDS Strategy 1993–94 to 1995–96, AGPS, Canberra.

Gee, V. 1995, *Perinatal Statistics in Western Australia,* 12th Annual Report of the Western Australian Midwives' Notification System 1994, Health Department of Western Australia, Perth.

Gething, L. 'Aboriginality and Disability' *Aboriginal and Islander Health Worker Journal,* vol. 18, no. 3, May/June 1994, pp. 29–34.

Gould, J. D. 1992, "Maori' in the Population Census, 1971–1991', *Population Review,* no. 18, 1992, (1&2) pp. 35–67.

Hargreaves, J., Longbottom, H., Myint, H., Herceg, A., Oliver, G.,Curran, M. & Evans, D. Annual report of the National Notifiable Diseases Surveillance System, 1994, *Communicable Diseases Intelligence* 1995; 19 (22):542–574.

Health and Community Services Victoria, *Koori Health Counts. Illness in the Koori Community — Information from Hospital Admissions, September 94 94/0073,* Koori Health Unit, Public Health Branch, Health and Community Services.

Health and Welfare Canada, Stephens, T., and Fowler G. D. 1993, *Canada's Health Promotion Survey 1990: technical report,* Ottawa, Minister of Supply and Services, Canada.

Henderson, G., McKenna, P., Kingsley, A., Little, R., Sorby, A., Jacobson, G. & Fischer, G. 1995, 'Hepatitis A and water supply in the Torres Strait Area', *Aboriginal and Torres Strait Islander Health Information Bulletin,* no. 21, 1995, pp. 48–58.

Hunter, E., Hall, W & Spargo, R. 1991, *The Distribution and Correlates of Alcohol Consumption in a Remote Aboriginal Population,* Monograph No. 12, 1991 National Drug and Alcohol Research Centre, University of New South Wales, Sydney.

Hunter, E., Hall, W. & Spargo, R. 1992, 'Patterns of alcohol consumption in the Kimberley Aboriginal population', *The Medical Journal of Australia*, vol. 156, June 1, 1992.

Jain, S. K. 1996, *Breastfeeding in Australia,* Cat. no. 4394.0, ABS, Canberra.

Jones, R. 1994, *The Housing Need of Indigenous Australians, 1991*, Centre for Aboriginal Economic Research Policy, Australian National University, Research Monograph No. 8.

Kunitz, S. J. 1994, *Disease and Social Diversity: The European Impact on the Health of Non-Europeans,* Oxford University Press.

Lancaster, P., Huang, J. & Lin, M. 1996, *Australia's Mothers and Babies 1993*, Australian Institute of Health and Welfare.

Lester, I. H. 1994, *Australia's food and nutrition,* AGPS, Canberra.

Markey, P., McComb, J. & Woods, M. 1996, *Mothers and Babies 1994*, Northern Territory Midwives Collection.

Mathur, S. 1996, *Aged care services in Australia's States and Territories,* AIHW, Canberra.

McDermott, R., Plant, A. & Mooney G. 1996, 'Has access to hospital improved for Aborigines in the Northern Territory?' *Australian and New Zealand Journal of Public Health,* vol. 20, no.6., pp. 589–593.

Menzies School of Health Research 1994, *1993–94 Annual Report,* MSHR, Darwin.

Menzies School of Health Research 1996, *Review of NT Government Remote Health Services in Central Australia: Report of the first meeting with community representatives 14 and 15 March, 1996.*

Moller, J., Dolinis, J. & Cripps, R. 1996, *Aboriginal and Torres Strait Islander Peoples Injury-Related Hospitalisations 1991/2. A Comparative Overview,* Australian Institute of Health and Welfare, National Injury Surveillance Unit.

National Aboriginal Health Strategy Working Party 1989, *A National Aboriginal Health Strategy,* National Aboriginal Health Strategy Working Party.

National Aboriginal Health Strategy, An Evaluation, National Aboriginal Health Strategy Evaluation Committee,1994.

National Health and Medical Research Council 1984, Report of the ninety-eighth session, AGPS, Canberra.

National Health and Medical Research Council 1985, Report of the one hundredth session, AGPS, Canberra.

National Health and Medical Research Council 1992, *Is there a safe level of daily consumption of alcohol for men and women? Recommendations regarding responsible drinking behaviour,* AGPS, Canberra.

National Health and Medical Research Council, National Health Advisory Committee, Aboriginal and Torres Strait Islander Health Standing Committee 1996, *A National training and employment strategy for Aboriginal and Torres Strait Islander Health Workers working in Aboriginal and Torres Strait Islander Health,* NHMRC, Canberra.

National Housing Strategy 1991, *The affordability of Australian housing,* AGPS, Canberra.

Nettheim, G. 1993, 'Aborigines' in *The Laws of Australia,* Law Book Company, Sydney.

NSW Health Department 1995, *New South Wales Midwives Data Collection 1994.*

Perinatal Data Collection Unit 1994, *Births in Victoria 1983–1992,* The Consultative Council on Obstetric and Paediatric Mortality and Morbidity, Brisbane.

Pholeros, P., Rainow, S. & Torzillo, P. 1993, *Housing for Health, Towards a healthy living environment for Aboriginal Australia,* Health Habitat, Sydney.

Prusiak, B. 1995, Survey of Aboriginal Admissions to Bloomfield Hospital, NSW.

Radford, A.J., Harris, A.D., Brice, G.A., Van de Byl, M., Monten, H., Matters, D., Neeson, M., Bryan, L. & Hassan, R.J. 1991, Social health among urban Aboriginal heads of households in Adelaide with particular reference to suicide attempt, *Aboriginal Health Information Bulletin,* vol.15, pp. 20–25.

Robertson, H. 1994, *Koori Health Counts: How Midwives Identify Women as Aboriginal or Torres Strait Islanders*, Koori Health Section, Department of Health and Community Services, Melbourne.

Royal Commission into Aboriginal Deaths in Custody National Report - Overview and Recommendations, AGPS, Canberra, 1991.

Smith, D. & Smith, P. 1995, *Getting Strength from Country,* Report of the Outstation Impact Project — Concerning the delivery of health services to outstations in the Kimberley Region, Western Australia.

Statistics New Zealand & Ministry of Health 1993, *A picture of health*, Statistics New Zealand and Ministry of Health, Wellington.

Statistics Canada 1993, *Language, tradition, health, lifestyle and social issues, 1991 Aboriginal Peoples Survey*, Cat. no. 89–533, Statistics Canada, Ottawa.

Swan, P. & Raphael, B., 1995 Part 1 and 2, *Ways Forward National Consultancy Report on Aboriginal and Torres Strait Islander Mental Health*, National Mental Health Strategy.

Taylor, J. 1992, *Industry segregation among employed Aborigines and Torres Strait Islanders*, Centre for Aboriginal Economic Policy Research, Discussion Paper No.22/1992.

Thomson, N. & Briscoe, N. 1991, *'Overview of Aboriginal health status in South Australia*, Australian Institute of Health: Aboriginal and Torres Strait Islander Health Series No. 3, Canberra, AGPS.

Thomson, N. & English, B. 1993, 'Aboriginal health statistics and the Australian Institute of Health and Welfare', *Aboriginal Health Information Bulletin*, No. 18, Canberra, AIHW.

Thomson, N. & Snow, C. 1994, *Disability and Handicap among Aborigines of the Taree area of NSW*, Australian Institute of Health and Welfare.

Threlfall, T., Whitfort, M. & Thompson, J. 1996, *Cancer incidence and mortality in Western Australia, 1992 to 1994*, A Report of the Western Australian Cancer Registry, Health Department of Western Australia, Perth.

United Nations 1995, *1993 Demographic Yearbook*, United Nations, New York.

United States Department of Health and Human Services 1989, *Reducing the health consequences of smoking: 25 years of progress*, A report of the Surgeon General. DHHS Publication No. (CDC) 89–8411, US Department of Health and Human Services, Public Health Service, Centers for Disease Control, Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, D.C.

United States Environmental Protection Agency 1992, *Respiratory health effects of passive smoking: lung cancer and other disorders*, EPA/600/6-90/006F, US Environmental Protection Agency, Office of Research and Development, Office of Health and Environmental Assessment, Washington, D.C.

Unwin, E., Thomson, N. & Gracey, M. 1994, *The impact of tobacco smoking and alcohol consumption on Aboriginal mortality and hospitalisation in Western Australia: 1983–1991*, Health Department of Western Australia, Perth.

World Health Organization 1946, Constitution of the WHO, Reprinted in: Basic documents, 37th ed., WHO, Geneva.

World Health Organization 1977, *International classification of diseases*, Manual of international statistical classification of diseases, injuries and causes of death, 9th revision, WHO, Geneva.

Zabar, P. & Angus, G. 1994, 'Child abuse and neglect: Reporting and investigation procedures in Australia 1994', *AIHW Child Welfare Series*, no. 8, AIHW, Canberra.

For more information . . .

The ABS publishes a wide range of statistics and other information on Australia's economic and social conditions. Details of what is available in various publications and other products can be found in the ABS Catalogue of Publications and Products available from all ABS Offices.

ABS Products and Services

Many standard products are available from ABS bookshops located in each State and Territory. In addition to these products, information tailored to the needs of clients can be obtained on a wide range of media by contacting your nearest ABS Office. The ABS also provides a Subscription Service for standard products and some tailored information services.

National *Dial-a-Statistic* Line

0055 86 400

Steadycom P/L: premium rate 25c/20 secs.

This number gives 24-hour access, 365 days a year, for a range of important economic statistics including the CPI.

Internet

http://www.abs.gov.au

A wide range of ABS information is available via the Internet, with basic statistics available for each State, Territory and Australia. We also have Key National Indicators, ABS product release details and other information of general interest.

Sales and Inquiries

Keylink	STAT.INFO/ABS
X.400	(C:Australia,PUB:Telememo,O:ABS,FN:STAT,SN:INFO)
Internet	stat.info@abs.telememo.au

National Mail Order Service	(06) 252 5249
Subscription Service	1800 02 0608

	Information Inquiries	**Bookshop Sales**
SYDNEY	(02) 9268 4611	(02) 9268 4620
MELBOURNE	(03) 9615 7755	(03) 9615 7755
BRISBANE	(07) 3222 6351	(07) 3222 6350
PERTH	(09) 360 5140	(09) 360 5307
ADELAIDE	(08) 8237 7100	(08) 8237 7582
CANBERRA	(06) 252 6627	(06) 207 0326
HOBART	(03) 6222 5800	(03) 6222 5800
DARWIN	(08) 8943 2111	(08) 8943 2111

✉

Client Services, ABS, PO Box 10, Belconnen ACT 2616

Recommended retail price: $31.00

2470400001972
ISBN 0 642 23276 8