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Executive Summary

This is the first report against the Aboriginal and Torres Strait Islander Health Performance Framework (HPF). The HPF has been developed under the auspice of the Australian Health Ministers' Advisory Council to provide the basis for measuring the impact of the National Strategic Framework for Aboriginal and Torres Strait Islander Health (NSFATSIH) and inform policy analysis, planning and program implementation. The goal of the NSFATSIH is to ensure 'that Aboriginal and Torres Strait Islander peoples enjoy a healthy life equal to that of the general population that is enriched by a strong living culture, dignity and justice.'

This report finds that there have been improvements in some important aspects of health for Aboriginal and Torres Strait Islander peoples while some areas remain unchanged and others are worsening. These results can be used to review current commitments under the NSFATSIH and guide further comprehensive and coordinated effort.

The health status of Aboriginal and Torres Strait Islander peoples

As identified in many other reports, this report finds significant disparities in health status between Aboriginal and Torres Strait Islander peoples and other Australians. These disparities are evident across the life cycle: from lower birthweight, much higher occurrence of a wide range of illnesses, higher prevalence of many stressors impacting on social and emotional well-being, higher death rates and lower life expectancy.

This report presents trends over time showing improvements in several important measures of the health of Aboriginal and Torres Strait Islander peoples. In particular:

- *Mortality.* All-cause mortality rates in the four jurisdictions for which there is good data decreased by 16% between 1991 and 2003, more so for females than males (24% compared with 6%).
- *Infant mortality* declined by 44% and perinatal mortality by around 55% over the same period.
- *Sudden Infant Death Syndrome* declined by 60% over the period 1997-99 to 2000-03.
- *Deaths caused by circulatory disease,* the most common cause of death for Aboriginal and Torres Strait Islander peoples, declined at a faster rate for Aboriginal and Torres Strait Islander than other Australians, and the gap has narrowed.
- *Hospitalisation for pneumonia* declined at a faster rate than for other Australians, and the gap has narrowed. This decline was also found for children aged 0-4 years.

Unfortunately there are areas of continuing concern:

- *Deaths caused by chronic diseases* other than cardiovascular disease.
- *Hospitalisation for injury and poisoning* is more than twice as common.
- *End stage kidney disease.* Registrations more than tripled over the last decade.
- *Low birthweight.* This is twice as common for Aboriginal and Torres Strait Islander babies than other Australian babies.
- *Chronic ear disease.* Rates of ear disease and hearing problems are 2 or 3 times those of the non-Indigenous population.
- *Oral health.* Aboriginal and Torres Strait Islander children have more decayed than filled teeth, indicating a large unmet need for dental care.
- *Sexually transmissible infections.* Chlamydia and gonorrhoea have increased between 1994 and 2004.

Although the health status of Aboriginal and Torres Strait Islander people is improving, large disparities between Indigenous and non-Indigenous Australians persist. In fact, the relative gap between the two populations for many measures is widening because the rate of improvement for some issues has been greater for other Australians than for Aboriginal and Torres Strait Islander peoples over recent years.

The progress of recent years demonstrates that sustained and increased effort can be achieved; government investment, particularly in primary health care, is beginning to pay dividends in some areas.

Health Determinants

Health services are not the sole answer to the health problems of Aboriginal and Torres Strait Islander peoples. Improvements in the living conditions and economic and social circumstances of Aboriginal and Torres Strait Islander peoples will be necessary to ensure significant progress. There have been improvements in several key health determinants in recent years including:

- *Education.* Literacy and numeracy levels have improved at years 3, 5 and 7, particularly for reading and writing. The gap between Aboriginal and Torres Strait Islander students and other students is reducing for these areas. School retention rates at years 10 and 12 have improved over the last 5 years.

- *Unemployment*. While unemployment rates remain high, one data source indicates that unemployment rates fell from 30% in 1994 to 20% in 2002. Another data source shows a small decline in unemployment rates between 2001 and 2004-05.

Issues for which trends show little or no improvement include:

- Access to *safe water supply, sewerage and electricity* in remote communities.
- *Overcrowding in housing*, which is also exacerbated in remote regions.
- *Low income and the distribution of income*. Forty two per cent of Aboriginal and Torres Strait Islander people are in the bottom 20% of incomes.
- *Exposure to violence, child abuse and neglect, and contact with the criminal justice system*, *including imprisonment*, are more likely to be experienced by Aboriginal and Torres Strait Islander peoples than other Australians. Trends in these areas are not encouraging and suggest these problems may have become worse over the last decade.

Health Behaviours

Significant improvements in the health of Aboriginal and Torres Strait Islander peoples can also be achieved through addressing the key behaviours impacting on health - smoking, physical activity, nutrition, alcohol consumption and substance use. The evidence presented in this report suggests there have been few improvements in these measures. In particular:

- *Smoking.* Around half of Aboriginal and Torres Strait Islander adults smoke and this rate has not changed in a decade.
- *Risky alcohol consumption*. Approximately twice as many Aboriginal and Torres Strait Islander adults do not drink as other Australians. Of those that do drink, the main excess risky drinking is short term risky/high risk drinking at least once per week (19%). Nationally, long term risky/high risk drinking levels were similar to other Australians.
- *Physical activity.* In 2004-05, 47% of Aboriginal and Torres Strait Islander adults report a sedentary level of physical activity. This has increased from 37% in 2001.
- *Nutrition.* Aboriginal and Torres Strait Islander peoples report lower than usual daily levels of intake of vegetables and fruit, particularly those living in remote regions.
- *Overweight and obesity* has increased steadily in the last decade.

Child and maternal health services

Measures related to child and maternal health suggest that there have been some improvements in recent years. These include:

- *Infant mortality* declined by 44% and perinatal mortality by around 55% between 1991 and 2003.
- *Sudden Infant Death Syndrome* declined by 60% over the period 1997-99 to 2000-03.
- *Immunisation coverage* for children has improved and is close to the rates for other children.

Problems still persist in other areas of child and maternal health including:

- *Antenatal care.* Access to antenatal care is high for Aboriginal and Torres Strait Islander women, but occurs later and less frequently than for other women.
- *Low birthweight.* This is twice as common for Aboriginal and Torres Strait Islander babies than other Australian babies.
- *Smoking.* Around a half of Indigenous Australian women smoke during pregnancy, 3 times the rate of other pregnant women. An estimated 28% of Aboriginal and Torres Strait Islander children aged 0-14 years live in households with a smoker who smoked at home indoors compared with 9% of non-Indigenous children.
- *Chronic ear disease* and *Oral health*. As noted above, these measures show that problems persist.

Social and emotional well-being

The Social and Emotional Well-being Framework recognises the strengths, resilience and diversity of Aboriginal and Torres Strait Islander communities. Approximately 82% of Aboriginal and Torres Strait Islander people reported they had experienced at least one stressor in the last 12 months; one and a half times higher than for non-Indigenous Australian people. Key stressors include:

- *Physical violence.* Aboriginal and Torres Strait Islander peoples are far more likely to be confronted by the threat of physical violence.
- *Alcohol and substance abuse.*
- *Mental illness.*
- *Suicide.*

- *Premature death.* Half of all Aboriginal and Torres Strait Islander peoples who die are aged less than fifty years.
- *Financial stress.*

There are no reliable national trend data on most direct measures of the social and emotional well-being of Aboriginal and Torres Strait Islander peoples, so we do not know whether the stressors are reducing or increasing.

Health services have limited capacity to address the underlying social and economic difficulties that beset many Aboriginal and Torres Strait Islander families and communities. Until such time as the conditions that influence the social and emotional well-being of Aboriginal and Torres Strait Islander peoples improve, mental health services in particular will continue to face a large, and possibly increasing, demand for both primary and acute care.

Management of chronic illness

Chronic disease is a major cause of ill health and mortality for the Australian population, including Aboriginal and Torres Strait Islander peoples. Only one chronic disease – circulatory disease – has shown positive trends for Aboriginal and Torres Strait Islander peoples in recent years. Deaths rates for circulatory disease, and the gap in the rate of death from circulatory disease has closed between Aboriginal and Torres Strait Islander peoples and other Australians. However, other chronic illnesses continue to be problematic. Access to primary care services is a prerequisite to improved management of chronic illnesses and there are some positive signs in this respect. Good linkages to specialist care are required for some chronic illness, but little is known about the level of access to these services or trends in access.

In the long term, improved management of chronic illness outside hospitals will reduce the need for hospital admissions. In the short and medium term, governments should anticipate that hospitalisations will increase as unmet needs are uncovered through better detection of chronic illnesses.

Strong comprehensive primary health care

The NSFATSIH identifies comprehensive primary health care as an immediate priority for action. Comprehensive primary health care provides an opportunity to deliver a range of services required to meet the complex health needs of Aboriginal and Torres Strait Islander peoples. This includes working collaboratively with private GPs, governments, communities and Indigenous services. A nationwide network of Aboriginal and Torres Strait Islander primary health care services is supported by federal, state and territory direct funding and increasingly through revenue from the Medical Benefits Scheme. There has been expansion of the sector over the last decade, with increased funding, staff and services delivered. This report identifies several positive developments in primary health care:

- *Usual source of care:* Ninety-one per cent of Aboriginal and Torres Strait Islander peoples report that they usually went to the same GP or 'Aboriginal medical service'.
- *Increased availability of staff and number of services* delivered has occurred as a result of increased funding of Aboriginal and Torres Strait Islander primary health care services in recent years.
- *Access to prescription medicines* has improved through the section 100 arrangement for remote area Aboriginal and Torres Strait Islander primary health care services.

Nevertheless, many gaps in service provision still exist. Access to medical services continues to fall well short of levels expected given higher levels of illness and per person Medicare benefits for Indigenous people were 39% of the non-Indigenous average in 2001-02. Private general practice is a usual source of medical care for many Aboriginal and Torres Strait Islander peoples, but little is known about the appropriateness of these services.

While there are positive signs, efforts to further enhance the capacity of the primary health care sector to meet the needs of Aboriginal and Torres Strait Islander Australians are warranted.

The Aboriginal and Torres Strait Islander workforce

The Aboriginal and Torres Strait Islander Health Workforce National Strategic Framework recognises that a competent health workforce is integral to ensuring that the health system has the capacity to address the needs of Aboriginal and Torres Strait Islander peoples. Aboriginal and Torres Strait Islander peoples continue to be under-represented in health professions, and in training for various health professions. Another major challenge is the recruitment and retention of staff in Aboriginal and Torres Strait Islander health services and in mainstream services located in regions with significant Aboriginal and Torres Strait Islander populations. Improving participation by Indigenous Australians in training for health professions is a key priority across a broad range of disciplines including medicine, nursing, allied health, as well as for Aboriginal health workers.

Resources

Various estimates have been made of the level of expenditure that would be required to address Aboriginal and Torres Strait Islander peoples need for health services, for example, between 3 and 6 times the current national average per capita expenditure.

On a per person basis, average health expenditures for Aboriginal and Torres Strait Islander peoples are slightly higher than the expenditure for other Australians, by an estimated 18%. This contrasts with measures of health status showing mortality rates, infant mortality and the occurrence of a broad range of diseases at much higher levels for Aboriginal and Torres Strait Islander peoples.

Effective primary care underpins almost all the strategies that can be delivered through the health system, for example antenatal care, immunisation, early detection and screening and chronic disease management, and many of the strategies targeted at healthy behaviours. Increased capacity is required across primary care and secondary/tertiary care, although the priority should be to strengthen the system of comprehensive primary care. Other gaps include dental services and access to private specialist services.

The future

There are many indicators in this report that are not reported for all jurisdictions or on a national basis. Decisions on which data to include have been based on the most recent evaluations of various data sets and reporting practices of national statistical agencies (e.g. for hospital data, *Improving the quality of Indigenous identification in hospital separations data.* - see the technical appendix for further details). Work is underway to improve data quality. The data to be included in the second report in 2008 will be reviewed through AHMAC information committee processes.

Future reports will consider the development of measures of community functioning, relative economic disadvantage, governance and health promotion. In addition better data may be available for some measures. The development of targets may be appropriate and will be considered.

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- Technical Advisory Group – established to provide advice on the most appropriate measures for the HPF
- National Advisory Group on Aboriginal and Torres Strait Islander Health Information and Data
- Statistical Information Management Committee
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- Individuals with expertise in particular topics from various organisations who reviewed draft material
- National Aboriginal Community Controlled Health Organisation
- Workshop participants
- Office for Aboriginal and Torres Strait Islander Health

Abbreviations

ABS	Australian Bureau of Statistics
ACER	Australian Council for Educational Research
ACHS	Australian Council of Healthcare Standards
ACT	Australian Capital Territory
AGPAL	Australian General Practice Accreditation Limited
AHMAC	Australian Health Ministers Advisory Council
AIDS	Acquired Immune Deficiency Syndrome
AIHW	Australian Institute of Health and Welfare
ARF	Acute Rheumatic Fever
BAA	Be Active Australia: A framework for health sector action for physical activity 2005-2010
BEACH	Bettering the Evaluation and Care of Health
BMI	Body Mass Index
CDEP	Community Development Employment Projects
CHINS	Community Housing and Infrastructure Needs Survey
CIHI	Canadian Institute of Health Information
CMR	Cumulative Mortality Rate
COAG	Council of Australian Governments
COPD	Chronic Obstructive Pulmonary Disease
DEST	Department of Education Science and Training
DMFT	Decayed, Missing, Filled Teeth (Adult)
dmft	Decayed, Missing, Filled Teeth (Infant)
EQuIP	Evaluation and Quality Improvement Program
FOBT	Faecal Occult Blood Test
GAS	Group A Streptococcal Bacterium
GP	General Practitioner
GPA+	General Practice Accreditation Plus
HIV	Human Immunodeficiency Virus
HPF	Aboriginal and Torres Strait Islander Health Performance Framework – Health Performance Framework

IHD	Ischaemic Heart Disease
KRA	Key Result Area
LBW	Low Birth Weight
MBS	Medicare Benefits Scheme/Schedule
NACCHO	National Aboriginal Community Controlled Health Organisation
NATSIHS	National Aboriginal and Torres Strait Islander Health Survey
NATSINSAP	National Aboriginal and Torres Strait Islander Nutrition Strategy and Action Plan
NATSIS	National Aboriginal and Torres Strait Islander Survey
NATSISS	National Aboriginal and Torres Strait Islander Social Survey
NCI	National Cancer Institute (US)
NHMRC	National Health & Medical Research Council
NHPC	National Health Performance Committee
NHS	National Health Survey
NGO	Non Government Organisation
NSFATSIH	National Strategic Framework for Aboriginal and Torres Strait Islander Health – The Strategic Framework
NSW	New South Wales
NT	Northern Territory
OATSIH	Office for Aboriginal and Torres Strait Islander Health
PBS	Pharmaceutical Benefits Scheme/Schedule
QIC	Quality Improvement Council
Qld	Queensland
RACGP	Royal Australian College of General Practitioners
RHD	Rheumatic Heart Disease
SA	South Australia
SCATSIH	The Standing Committee on Aboriginal and Torres Strait Islander Health
SCRGSP	Steering Committee for the Review of Government Services Provision
SIDS	Sudden Infant Death Syndrome
TAFE	Technical and Further Education
Tas.	Tasmania
VET	Vocational Education and Training
Vic.	Victoria
WA	Western Australia
WAACHS	Western Australia Aboriginal Child Health Survey
WHO	World Health Organization

Chapter 1 Introduction

This report is the first report against the Aboriginal and Torres Strait Islander Health Performance Framework (HPF). The HPF and the measures selected for reporting were developed through an extensive consultative process managed originally by the Standing Committee on Aboriginal and Torres Strait Islander Health (SCATSIH 2005). Draft material was presented to workshops held in Alice Springs, Melbourne and Canberra during August 2006, involving a broad range of stakeholders. The data in this report are the latest available but are sometimes from the period before the commencement of the NSFATSIH in 2003, and therefore may not reflect the impact of action taken since. This first report provides a baseline to monitor progress against the NSFATSIH (National Aboriginal and Torres Strait Islander Health Council) 2003 to 2013.

The HPF has been based on the National Health Performance Framework (NHPC 2001). The purpose of the Health Performance Framework is to monitor progress of the health system and broader determinants of health in improving Aboriginal and Torres Strait Islander health. Health systems comprise all the organisations, resources and activities whose primary purpose is to improve health. Governments, through their stewardship role in policy, planning and program delivery, have a key role to play in defining vision and direction as well as exerting influence and measuring performance. The HPF comprises three tiers of performance as follows:

Tier 1 - health status and health outcomes: Measures of prevalence of disease or injury, human function, life expectancy and well-being. How healthy are people? Is it the same for everyone? What is the opportunity for improvement?

Tier 2 - determinants of health status: Measures of the determinants of health including socioeconomic status, environmental factors and health behaviours. Are the factors that determine good health changing? Is it the same for everyone? Where and for whom are these factors changing?

Tier 3 - health systems performance: Measures of the health system including effectiveness, responsiveness, accessibility and sustainability.

The tiers and domains of the HPF and selected measures are shown in Figure 1. The three-tier structure of the HPF is particularly relevant to understanding health in the context of the new arrangements in Indigenous affairs. The shift in emphasis to a whole of government approach working in partnership with Aboriginal and Torres Strait Islander peoples makes the contribution of Tier 2, the determinants of health, a central rather than marginal part of the health policy picture. The HPF recognises the contribution that individuals and communities make to their own health status and acknowledges the holistic view of health that is valued by Indigenous Australians. There are several measures in the framework that have yet to be developed that will bring this perspective even more to the fore in future reports. These include measures of community functioning, governance and an index of socioeconomic disadvantage.

The HPF report will play an important role in documenting the impact of Government policies and strategies on the health of Aboriginal and Torres Strait Islander people and how well the broader health system performs for this population. In particular this report aims to:

- provide a quantitative account of the current state of play and progress in relation to measures of health status and outcomes, determinants of health, and health system performance
- present information on the nature of these measures, findings and policy implications
- articulate the relationships between measures and the domains of the performance framework
- summarise the overall findings and implications for Aboriginal and Torres Strait Islander peoples and governments.

An important feature of the HPF is that it recognises that sustainable health gain will require not only an efficient, effective and equitable health system but also timely contributions from other sectors. Any framework for measuring health performance in relation to Aboriginal and Torres Strait Islander peoples must take account of the particular health and social issues that are likely to affect Indigenous Australians to a greater or different degree than other Australians. The HPF tracks changes in key measures outside of the health sector to provide a better context for interpreting changes in health outcomes and provide a basis for constructive intersectoral dialogue.

Performance monitoring of the stewardship role of governments in their efforts to improve Aboriginal and Torres Strait Islander health is critical. In doing this, attention should be given to assessing not only the levels of access to appropriate care but the experiences of Aboriginal and Torres Strait Islander peoples in receiving care. Attention must also be given to the social and policy context of Aboriginal and Torres Strait Islander health and the complex relationships between determinants of health, the health system and health outcomes.

The HPF provides a policy based report on the health status of Aboriginal and Torres Strait Islander peoples, the performance of the health system, and the situation in relation to the determinants of health. Reporting against the HPF is designed to:

Figure 1 – Aboriginal and Torres Strait Islander Health Performance Framework (HPF) Performance Measures

Health Status and Outcomes (Tier 1)

Health Conditions 1.01 Low birthweight infants 1.02 Top reasons for hospitalisation 1.03 Hospitalisation for injury and poisoning 1.04 Hospitalisation for pneumonia 1.05 Circulatory disease 1.06 Acute rheumatic fever and rheumatic heart disease 1.07 High blood pressure 1.08 Diabetes 1.09 End stage renal disease 1.10 Decayed, missing, filled teeth 1.11 HIV/AIDS, hepatitis C and sexually transmissible infections 1.12 Children's hearing loss	**Human Function** 1.13 Disability *Next Report: Community functioning*	**Deaths** 1.18 Infant mortality rate 1.19 Perinatal mortality 1.20 Sudden infant death syndrome 1.21 All causes age standardised deaths rates 1.22 Leading causes of mortality 1.23 Maternal mortality 1.24 Avoidable and preventable deaths
	Life Expectancy and Well-being 1.14 Life expectancy at birth 1.15 Perceived health status 1.16 Median age at death 1.17 Social and emotional well-being	

Determinants of Health (Tier 2)

Environmental Factors 2.01 Access to functional housing with utilities 2.02 Overcrowding in housing 2.03 Environmental tobacco smoke	**Community Capacity** *Demography* 2.10 Dependency ratio 2.11 Single-parent families by age-group *Safety and Crime* 2.12 Community safety 2.13 Contact with the criminal justice system 2.14 Child protection *Other* 2.15 Transport 2.16 Indigenous people with access to their traditional lands	**Health Behaviours** *Tobacco, alcohol and other drug use* 2.17 Tobacco use 2.18 Tobacco smoking during pregnancy 2.19 Risky and high risk alcohol consumption 2.20 Drug and other substance use including inhalants *Physical activity* 2.21 Level of physical activity *Nutrition* 2.22 Dietary behaviours 2.23 Breastfeeding practices *Other health behaviours* *Next Report: Self reported unsafe sexual practices*
Socioeconomic Factors 2.04 Years 3, 5 and 7 literacy and numeracy 2.05 Years 10 and 12 retention and attainment 2.06 Educational participation and attainment of Aboriginal and Torres Strait Islander adults 2.07 Employment status including CDEP participation 2.08 Income 2.09 Housing tenure type *Next report: Index of disadvantage*		**Person-related Factors** 2.24 Prevalence of overweight and obesity

Health System Performance (Tier 3)

Effective/Appropriate/Efficient 3.01 Antenatal care 3.02 Immunisation (child and adult) 3.03 Early detection and early treatment 3.04 Chronic disease management 3.05 Differential access to key hospital procedures 3.06 Ambulatory care sensitive hospital admissions *Next Report: Health promotion*	**Accessible** 3.10 Access to services by types of service compared to need 3.11 Access to prescription medicines *Next Report: Access to after hours primary health care*	**Capable** 3.13 Accreditation 3.14 Aboriginal and Torres Strait Islander people in Tertiary Education for health related disciplines
Responsive 3.07 Discharge against medical advice 3.08 Access to mental health services 3.09 Aboriginal and Torres Strait Islander Australians in the health workforce *Next Report: Competent governance*	**Continuous** 3.12 Regular GP or health service *Next report: Care Planning for clients with preventable chronic diseases* *Next report: Use of Enhanced Primary Care items on MBS*	**Sustainable** 3.15 Expenditure on Aboriginal and Torres Strait Islander health compared to need 3.16 Recruitment and retention of clinical and management staff (including GPs)

The **Safe** domain is measured within the National Health Performance Committee framework.

Promote Accountability: The HPF will be a significant public accountability tool for all governments, measuring achievement against their commitments to improve Aboriginal and Torres Strait Islander health.

Inform policy: The HPF will provide important information to inform the development of policy in Aboriginal and Torres Strait Islander health and in whole of government action on the determinants of health. The HPF will complement the *Overcoming Indigenous Disadvantage* report produced by the Steering Committee for the Review of Government Services Provision (2005) by providing more direct measures that will assist in defining the policy responses needed, with a focus on health.

Inform research: The HPF will provide a valuable tool for those involved in research into Aboriginal and Torres Strait Islander health. Over time, analyses will be possible to highlight changes in key areas of health system performance and outcomes, as well as health determinants.

Foster informed debate: The HPF has the potential to become a key resource in informed public debate around Aboriginal and Torres Strait Islander health. It will add to material already available such as the triennial report *Expenditures on Health Services for Aboriginal and Torres Strait Islander People* (AIHW 2005e) and the biennial report *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples 2005* (ABS and AIHW 2005).

The HPF covers the entire health system including Indigenous-specific services and programs, and mainstream services, across the continuum of care. The Framework includes measures across the full continuum from inputs, processes, outputs, and intermediate outcomes to final outcomes. This enables short to medium term measures of progress to be included, and accommodates the different stages of development of services and systems. The data in this report is the latest available but is sometimes a few years old and therefore may not reflect the impact of recent action.

Structure of this report

Chapter 2 summarises key messages that have emerged through the analysis of indicators and consultations with stakeholders.

Chapter 3 presents a brief overview of existing national strategies and policies. The National Strategic Framework for Aboriginal and Torres Strait Islander Health (NSFATSIH) provides an overarching framework for national state and territory government action in this area.

Chapters 4, 5 and 6 present data and policy analysis for each of the tiers and measures identified for reporting under the HPF. Information for each measure is presented over two to three pages. For each measure there is a discussion of why the measure is important, the results from analysis of the measure, and implications. Finally relevant charts and tables of key aspects of the measures are presented.

By necessity, the material presented on each measure is succinct, and in some cases only touches the major features of complex issues. It is planned that additional data analyses conducted for this project will be available through the Internet at www.aihw.gov.au.

Data Limitations

There are significant limitations of available data, mainly due to the poor identification of Aboriginal and Torres Strait Islander peoples in available data collections. These should be noted when interpreting data analyses. These limitations include:

Under-identification: Under-identification of Aboriginal and Torres Strait Islander peoples is the main issue in most administrative data collections. Under-identification is a major problem in hospital morbidity and mortality data collections, particularly for some states and territories. As a result, many measures presented in this report are based on analysis of data for four jurisdictions only (Queensland, South Australia, Western Australia and the Northern Territory). Identification is also an issue for some surveys. For example, the *Bettering the Evaluation and Care of Health* (BEACH) survey, 'not stated' responses to the Indigenous identification question are often higher than 'yes' responses suggesting the survey consistently undercounts Indigenous people visiting doctors. Under-identification is due to a variety of factors, for example, whether the Indigenous status question is asked in the first instance, consistency in the way the question is asked, and differing responses depending on the situation.

Coverage by jurisdictions. Coverage of Indigenous Australians is especially a concern in some collections, and therefore, data analysis has been limited to jurisdictions with known better coverage. For hospital separations and recent mortality data, Northern Territory, Western Australia, South Australia and Queensland have been assessed as having better coverage. These four jurisdictions represent 60% of Australia's Indigenous population. For longer term trends (since 1991) only South Australia, Western Australia and the Northern Territory, representing 32% of the country's Indigenous population, have been shown to have good coverage for mortality data.

Indigenous status question. A standard wording for Aboriginal and Torres Strait Islander identification has been developed and endorsed nationally. However, the standard is not always used. For example, the Indigenous status question in birth notification forms contributing to national perinatal data has slightly different wording in some jurisdictions.

Limitations of the Indigenous status question for Indigenous identification. In the national perinatal data, Indigenous status is based on the mother. This under-identifies babies with an Aboriginal and/or Torres Strait Islander father and a non-Indigenous mother (approximately 30% of Indigenous babies).

Chapter 2 Key Messages

Major Findings

It is now apparent that the health of Aboriginal and Torres Strait Islander peoples is improving for a number of indicators. This means there are sound reasons to be optimistic about the potential positive impact of the National Strategic Framework for Aboriginal and Torres Strait Islander Health (NSFATSIH) on the health of Indigenous Australians. Unfortunately however, there are many measures that suggest that the improvements are not occurring fast enough and that some of the recent gains may not be sustained. This chapter summarises those areas where there has been improvement and highlights areas where it seems that the NSFATSIH will fail to achieve its goals without further concerted action. The areas of success can be used to guide this renewed effort.

Reasons for optimism

In the four north-western jurisdictions (Queensland, Western Australia, South Australia and the Northern Territory), all-cause mortality (measure 1.21) decreased by 16% between 1991 and 2003, more so for females than males (24% compared with 6%). Infant mortality (measure 1.18) declined by 44% and perinatal mortality (measure 1.19) by 55%. Sudden Infant Death Syndrome (SIDS) declined by 60% over the period 1997-98 to 2000-03 (measure 1.20). This was similar to the improvement in SIDS for other Australian babies, but demonstrates that very large improvements can be achieved within a decade.

> *National Strategic Framework Goal:*
> To ensure that Aboriginal and Torres Strait Islander peoples enjoy a healthy life equal to that of the general population that is enriched by a strong living culture, dignity and justice.

Even for chronic diseases, which have become much more frequent among Aboriginal and Torres Strait Islander peoples in recent years (as they have among all Australians), there are signs of improvement: mortality from circulatory disease (measure 1.22), the most common cause of death for Aboriginal and Torres Strait Islander peoples, declined at a faster rate for Aboriginal and Torres Strait Islander peoples than other Australians, and the gap between the two populations narrowed. Unfortunately, there was no improvement in mortality rates from other chronic diseases (measure 1.22).

Hospitalisation is becoming more common for Aboriginal and Torres Strait Islander peoples. This does not necessarily indicate deterioration in health status. It should be noted that changes in the level of accuracy of Indigenous identification in hospital records will result in changes in the level of reported hospital separations for Indigenous Australians. Also, changes in access, primary care delivery, hospital policies and practices all impact on the level of hospitalisation over time. An increase in hospitalisation rates may reflect better hospital access rather than a worsening of health.

Overall, there is some cause for optimism. While there is a long way to go, government investments, particularly in strengthening primary health care, are beginning to pay dividends through improved Aboriginal and Torres Strait Islander health.

Why more effort is needed

Although Aboriginal and Torres Strait Islander health status is improving, the very large disparities between Indigenous and other Australians remain. In fact, the relative gap between the two populations for many measures is widening because the rate of improvement has been greater for other Australians than for Aboriginal and Torres Strait Islander peoples over recent years. The severe health problems of Aboriginal and Torres Strait Islander peoples can be overcome; the progress of recent years demonstrates that with sustained and increased effort even more can be achieved in the future.

The analysis of measures of the health status of Aboriginal and Torres Strait Islander peoples reinforces the findings of significant disparities between Aboriginal and Torres Strait Islander peoples and other Australians that have been presented in many reports including, most recently, *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander People 2005* (ABS & AIHW 2005). These disparities are evident from the commencement of the life cycle, in infant mortality and low birth weight, in the much higher levels of occurrence of many conditions such infectious diseases, diabetes, cardiovascular disease, kidney disease, poor oral health and hearing loss, many signs of distress and poorer social and emotional well-being, higher levels of disability, and significantly lower life expectancy. While these disparities persist, the report provides some new perspectives on these issues, particularly by providing a time-series perspective and an analysis of regional variation.

Regional differences within Aboriginal and Torres Strait Islander populations

Most health status measures currently cover only the Aboriginal and Torres Strait Islander populations for the four north-western jurisdictions. Like most health information sources about Aboriginal and Torres Strait Islander peoples, information available for the four south-eastern jurisdictions (New South Wales, Victoria, Tasmania and the Australian Capital Territory) is not sufficiently reliable because of deficiencies in data availability, particularly incomplete identification of Aboriginal and Torres Strait Islander people in administrative data collections and disease registers.

There are indications that the health status of Aboriginal and Torres Strait Islander peoples is relatively similar across the jurisdictions, or at least that the similarities are greater than the differences between the health status of Aboriginal and Torres Strait Islander peoples and other Australians. Since previously the Northern Territory was the only jurisdiction with reliable data about Aboriginal and Torres Strait Islander peoples for most health issues, it was unclear whether the very bad health statistics for Aboriginal and Torres Strait Islander peoples in the Northern Territory were common to all jurisdictions. The picture of jurisdictional variation is not entirely consistent across all Tier 1 measures but the degree of difference between jurisdictions is relatively modest to moderate when compared to the gap between Aboriginal and Torres Strait Islander peoples and other Australians.

Perceived health status is available on a national basis. This measure indicates that there was little difference between jurisdictions in perceived health status reported by Aboriginal and Torres Strait Islander peoples themselves: the proportion who reported that their health status was poor or fair (the lowest two categories) was similar in most jurisdictions.

There is also very little variation in the proportion of Aboriginal and Torres Strait Islander babies born with low birthweight throughout the country (including the south-eastern jurisdictions) (measure 1.01), suggesting that maternal health before and during pregnancy may be similar in all jurisdictions. While there is only a small degree of variation in life expectancy (measure 1.15), the experimental methods used to calculate life expectancy estimates for Aboriginal and Torres Strait Islander populations in the south-eastern states are particularly limited by data inadequacy and the need to make assumptions about mortality levels in those states partly based on mortality levels in other states.

However, there are large differences between jurisdictions in other measures of specific health problems, such as the prevalence of end-stage kidney disease (measure 1.08) and dental health (measure 1.10).

So the degree of variation in Aboriginal and Torres Strait Islander health status remains unclear, and will remain so until the data is improved, particularly in the south-eastern jurisdictions.

Health Determinants

The HPF highlights a range of factors impacting on health, which are mostly the responsibility of non-health government portfolios. These include environmental factors, such as functional housing (measure 2.01) and overcrowding in housing (measure 2.02), socioeconomic factors such as educational participation and attainment (measures 2.04, 2.05 and 2.06), employment (2.07), income (2.08) and housing tenure (2.09), safety and crime (measures 2.12, 2.13, 2.14) and transport (2.15). Other factors, such as demography (2.10 and 2.11) and access to traditional lands (2.16) are also identified. Key findings include:

Access to basic utilities including a safe water supply, sewerage and electricity remains problematic for many remote communities (measure 2.01).

Twenty six per cent of Aboriginal and Torres Strait Islander peoples aged 15 years and over live in overcrowded housing, with problems exacerbated in remote regions (measure 2.02).

School retention rates are lower at years 10 and 12 compared with other young people, although there have been improvements over the last five years (measure 2.05). Aboriginal and Torres Strait Islander students are not achieving the same levels of literacy and numeracy at years 3, 5 and 7. However, literacy and numeracy levels have improved for Aboriginal and Torres Strait Islander students over the last five years, more so for reading and writing. The gap between Aboriginal and Torres Strait Islander students and other students is reducing (measure 2.04).

While unemployment rates remain high, the unemployment rate for Aboriginal and Torres Strait Islander adults fell from 30% in 1994 to 20% in 2002. There was a slight fall between 2001 and 2004-05 (measure 2.07).

National Strategic Framework
Key Result Area Six:
Wider strategies that impact health

Adjusted for household size, incomes for Aboriginal and Torres Strait Islander people are 59% of the Australian average. Forty two per cent of Aboriginal and Torres Strait Islander people are in the bottom quintile of income, compared with 19% of other Australians (measure 2.08).

Aboriginal and Torres Strait Islander people are much more likely to be the victims of violence (measure 2.12). Child abuse and neglect are also major problems (measure 2.14). Contact with the criminal justice system, including imprisonment, are far higher for Aboriginal and Torres Strait Islander peoples (measure 2.13). Trends in these areas are not encouraging and suggest these problems may have become worse over the last decade.

Health behaviours

A significant body of evidence suggests that significant improvements in the health of populations can be achieved by promoting positive health related behaviours. Positive cultural, social and economic factors can help make healthy choices the easy choices. Alternatively, poverty, disadvantage and stress support unhealthy behaviours - smoking, insufficient physical activity, poor nutrition, risky alcohol consumption and risky drug use.

National Strategic Framework Priority:
To address the pre-determinants of chronic disease

Smoking (measures 2.17 and 2.18) is a major modifiable risk factor with severe health consequences. Around 50% of Aboriginal and Torres Strait Islander adults smoke, more than twice the rate for other Australians. There has been no improvement over the last decade. Evidence on the effectiveness of anti-smoking programs targeted for Aboriginal and Torres Strait Islander peoples is limited. While tobacco is identified as a priority in the NSFATSIH, lack of any apparent impact is cause for concern.

An estimated 47% of Aboriginal and Torres Strait Islander adults living in non-remote regions report levels of physical activity that are classified as sedentary. After adjusting for age differences this was one and a half times the rate for other Australians (measure 2.21). This is an increase from an estimated 37% of Aboriginal and Torres Strait Islander adults living in non-remote regions in 2001.

In 2004-05, approximately twice as many Aboriginal and Torres Strait Islander adults reported that they had not consumed alcohol in the last 12 months compared with other Australians. Of those that do drink, the main excess risky drinking is in the short term risky/high risk drinking at least once per week (19%). Long term risky/high risk drinking levels were similar to other Australians.

In 2004-05, 24% of Aboriginal and Torres Strait Islander peoples aged over 12 years reported a low usual daily vegetable intake and 58% reported a low usual daily fruit intake (measure 2.22). After adjusting for age, Aboriginal and Torres Strait Islander peoples aged 12 years and over were twice as likely to report no usual daily fruit intake and 5 times as likely to report no daily vegetable intake as non-Indigenous Australians. Significantly more Indigenous Australians living in remote areas report no usual intake of vegetables or fruit compared with Indigenous Australians living in non-remote regions.

The consequences of lower levels of physical activity and poor nutrition are seen in levels of overweight and obesity (measure 2.24). In 2004-05 an estimated 27% of adult Aboriginal and Torres Strait Islander males reported a Body Mass Index (BMI) that was classified as obese, compared with 18% for other males. For adult females, the corresponding proportions were 29% and 15%. Levels of overweight and obesity have increased steadily in the last decade.

The combined impact of these behavioural risk factors should be a cause for alarm for the future burden of chronic disease among Aboriginal and Torres Strait Islander peoples. While some of the measures in this report suggest that access to services to manage established disease is having a positive impact, there is no sign that appropriate primary prevention is readily available. When the lack of progress on behavioural risk factors is brought together with the limited progress on the other health determinants noted above, there are reasonable grounds for concern that the recent improvements in Aboriginal and Torres Strait Islander peoples' health may stall or reverse.

Many Aboriginal and Torres Strait Islander peoples live in the most difficult social and economic environments in Australia. The challenge of creating health-promoting environments and building health literacy is daunting. However, it can be, and has been, done (Rowley et al. 2000a). The health sector can take a leadership role in putting programs in place, working with communities, families and individuals to address health behaviours. National strategies need to specifically address Aboriginal and Torres Strait Islander contexts. The strong engagement of all government agencies is required to create the conditions to support long-term, sustainable, healthy environments.

Child and maternal health

Improving child and maternal health is one of the priorities of the National Strategic Framework. There have been major improvements in several measures of child and maternal health for Aboriginal and Torres Strait Islander peoples in recent years. Since the 1990s, SIDS has fallen by 60% and perinatal and infant mortality rates have also improved considerably (measures 1.19, 1.20 and 1.21). Each of these measures remain considerably higher than for other Australians. However these trends demonstrate that large improvements have been achieved and provide optimism that they can continue. Immunisation coverage is high for Aboriginal and Torres Strait Islander children, only slightly below other Australian children (measure 3.02).

National Strategic Framework Priority:
Child and Maternal health

Other measures do not demonstrate similar success. Low birthweight is twice as common for Aboriginal and Torres Strait Islander babies than other Australian babies and there has been no improvement in birthweight of infants since 1997 nationally (measure 1.01). Around 3 times as many Aboriginal and Torres Strait Islander mothers smoked during pregnancy compared with other mothers. Despite rates of ear disease and hearing problems that are 2 or 3 times those of the non-Indigenous population, the mainstream health system response in terms of GP and hospital service delivery rates (apart from tympanoplasty) is no different. The only national data available on ear disease in Aboriginal and Torres Strait Islander children is self-reported information from parents in national surveys and suggests that there has been no improvement in levels of ear disease in non-remote areas in the past ten years and some improvement in remote communities since 2001 (measure 1.12).

Data on dental health is even scarcer for Aboriginal and Torres Strait Islander children. The data available demonstrates much greater levels of tooth decay and lower levels of dental care than for other Australian children. In the Northern Territory, the only jurisdiction for which trend data are available, there has been no improvement in dental health since 1991 (measure 1.10). Dental disease in childhood is readily treated but Aboriginal and Torres Strait Islander children do not have ready access to high quality dental care.

On the other hand, the high levels of immunisation coverage demonstrates that primary health care services can deliver an effective health care intervention to almost all Aboriginal and Torres Strait Islander children when adequately resourced and organised. The dramatic reduction in SIDS in Australia, in which Aboriginal and Torres Strait Islander peoples have shared, shows that health promotion messages can be heard and acted upon in Aboriginal and Torres Strait Islander communities.

Antenatal care provides a major opportunity to intervene at the earliest stages of human development. Ninety seven per cent of Aboriginal and Torres Strait Islander women access antenatal care at some point in their pregnancy (measure 3.01). However, compared with other women, access generally occurs later in the pregnancy and less frequently despite the priority accorded antenatal care in various state and national strategies. Further attention to strategies to improve this measure is warranted.

The child and maternal health measures illustrate the fundamental importance of improving comprehensive primary health care for Aboriginal and Torres Strait Islander communities. However, health services, either primary care or acute services, are not the sole answer to the health problems of Aboriginal and Torres Strait Islander peoples. The clearest illustration of this is the failure to achieve improvements in the birthweight of Aboriginal and Torres Strait Islander babies. While antenatal care and other primary health care are effective at improving pregnancy outcomes, improvements in the living conditions and economic and social circumstances of Aboriginal and Torres Strait Islander peoples, including housing and environment, education and employment, nutrition and substance use (particularly tobacco – measure 2.18) will be necessary before the excess levels of low birthweight can be eliminated.

Social and Emotional Well-being

Improving the social and emotional well-being of Aboriginal and Torres Strait Islander peoples is one of the priorities and key result areas of the National Strategic Framework.

National Strategic Framework
Key Result Area Four and Priority:
Emotional and social well-being

The Social and Emotional Well-being Framework recognises the strengths, resilience and diversity of Aboriginal and Torres Strait Islander communities. In 2002, approximately 82% of Indigenous Australians reported they had experienced at least one stressor in the last 12 months; one and a half times higher than for non-Indigenous Australians. Aboriginal and Torres Strait Islander peoples are far more likely to be confronted by the threat of physical violence. Young Aboriginal and Torres Strait Islander women are particularly at risk of serious injury from interpersonal violence, but men and women of all ages are subject to serious injury far more frequently than other Australians and these are more likely to cause death (measures 1.03 and 2.12).

Half of all Aboriginal and Torres Strait Islander peoples who die are aged less than fifty years. The very high death rates of Aboriginal and Torres Strait Islander peoples in their middle adult years deprive Aboriginal and Torres Strait Islander people of husbands, wives, parents and grandparents.

Although around one quarter of Aboriginal and Torres Strait Islander peoples are teetotallers, the high levels of binge drinking cause serious damage to not only the drinkers, but their families and wider communities (measure 2.19). The high levels of mental illness (measure 1.17), of substance abuse (measure 2.20), and suicide (measure 1.17) all testify to the challenges faced by Aboriginal and Torres Strait Islander peoples.

The financial stress in which the majority of Aboriginal and Torres Strait Islander households survive indicates not only that they are severely limited in their ability to cope with a crisis, but also unable to accumulate resources (measure 2.08). The levels of family disruption, the stressors faced by many Aboriginal and Torres Strait Islander children, and the high degree of risk of serious long-term emotional or behavioral difficulties in which many of these children live do not bode well for their future as young adults.

Unfortunately we have no reliable national trend data on most direct measures of the social and emotional well-being of Aboriginal and Torres Strait Islander peoples, so we do not know whether stressors are slowly reducing or increasing.

Health services have limited capacity to address the underlying social and economic difficulties that beset many Aboriginal and Torres Strait Islander families and communities. Mental health services can improve management of those with established mental illness, and early intervention may prevent emotional problems in some young people developing into serious long-term illness or death from suicide or other destructive behavior (measure 3.03). The development of social and emotional well-being services in Aboriginal and Torres Strait Islander specific primary health care services may also be able to ameliorate some of these problems.

Mental health services are inadequate for all Australians—the recent Council of Australian Governments Mental Health Reform package signals a major commitment by all governments to remedy this. The inadequacies are particularly apparent for Aboriginal and Torres Strait Islander peoples (measure 3.08). For other chronic diseases such as diabetes and hypertension, health services have begun to improve their ability to detect early and slow the development of complications. For mental health services, this process has hardly begun and must start from a much lower base. Rapid improvement in primary care and specialist mental health services, and much better collaboration between primary and acute care, are major challenges that must be faced by the health system to deal with the current and future demand for mental health services.

Nonetheless, health services will have only a very limited preventive impact and will continue to be faced with the management and amelioration of established problems until Aboriginal and Torres Strait Islander peoples are able to live more economically, socially and culturally secure, prosperous and optimistic lives. Until such time as the fundamental conditions that influence the social and emotional well-being of Aboriginal and Torres Strait Islander peoples improve, mental health services in particular will continue to face a large, and possibly increasing, demand for both primary and acute care.

The Council of Australian Governments Mental Health Reform package marks a watershed in the policy and funding priority given to mental health in Australia. Aboriginal and Torres Strait Islander peoples are a priority group for these reforms. The challenge for all jurisdictions is to have specific and practical plans that will turn these reforms into accessible and effective services for those who suffer the highest burden of mental illness.

Management of Chronic Illness

Chronic illnesses are one of the most pressing health issues for all Australians including Aboriginal and Torres Strait Islander peoples. Circulatory, renal, endocrine (particularly diabetes) and respiratory diseases account for 53% of excess deaths of Aboriginal and Torres Strait Islander peoples compared with death rates for other Australians (measure 1.22). While death rates for circulatory diseases are falling for Aboriginal and Torres Strait Islander peoples, and the gap in circulatory disease mortality with other Australians is closing, there has been less progress for other chronic diseases, and cancer mortality rates are rising.

Reducing the impact of chronic disease on Aboriginal and Torres Strait Islander adults is a major theme of the NSFATSIH. Addressing health behaviours that contribute to the development of chronic diseases, and the progression of these diseases, is a key priority. An additional focus should be to improve the capacity and performance of health services to manage chronic diseases, particularly cardiovascular, diabetes, renal, respiratory disease and cancer. Significantly better management can be achieved through early detection and early treatment by primary health care services (measure 3.03). Organised ongoing management of these chronic diseases (measure 3.04) by primary health care services and, for some conditions, specialist services, can delay the progression of these diseases and the development of complications.

Access to primary health care services (measures 3.10, 3.11 and 3.12) is a prerequisite to improved management of chronic illness. The introduction of new MBS items targeted for Aboriginal and Torres Strait Islander peoples is an opportunity to create more systematic processes within primary care, but more needs to be done to ensure implementation is successful. There are opportunities for primary health care providers to benchmark the extent to which their systems reflect the current state of knowledge on the management of chronic illness (measure 3.04).

Aboriginal and Torres Strait Islander peoples experience significant difficulties in accessing prescription medicines (measure 3.11) which are often vital in managing chronic illnesses. There have been recent successes in the area, particular with the Section 100 arrangements for health services located in remote regions, but access to pharmaceuticals for Indigenous people in other regions remains problematic.

Good linkages between primary and specialist services are also important. Aboriginal and Torres Strait Islander peoples need to be able to access effective specialist and hospital care when this is required (measure 3.05).

Chronic illnesses are a major factor contributing to excess hospitalisations for Aboriginal and Torres Strait Islander peoples (measure 3.06). In the long term, significantly improved management of these conditions outside hospitals will reduce the need for hospital admissions. However in the short and medium term, government should anticipate that hospitalisations will increase, as unmet needs are uncovered through better detection of chronic illnesses and barriers to access are reduced.

Strong Comprehensive Primary Health Care

The NSFATSIH places the development of strong comprehensive primary health care as one of the top priorities and key result areas for Government. Effective primary care underpins almost all the strategies that can be delivered through the health system, for example, antenatal care, immunisation, early detection and screening, and chronic disease management (measures 3.01, 3.02, 3.03, 3.04).

National Strategic Framework Priority:
Strengthen comprehensive primary health care

Key Result Area One:
Community controlled primary health care services

Key Result Area Two:
Health Delivery Framework

Aboriginal community controlled health services are services initiated, planned and governed by local Aboriginal communities through their elected Aboriginal board of directors. A nationwide network of community controlled and other Aboriginal and Torres Strait Islander primary health care services, supported by federal, state and territory direct funding and increasingly through revenue from the Medical Benefits Scheme, provide primary medical services and a wide range of other services. There has been expansion of the sector over the last decade, with increased funding, staffing levels and services delivered. Nevertheless gaps in service provision persist.

One positive finding from this report is that 91% of Aboriginal and Torres Strait Islander peoples report that they usually went to the same GP or Aboriginal and Torres Strait Islander medical service (measure 3.12). This suggests high levels of a usual source of medical care. Thirty per cent report that their usual source of care is an "Aboriginal medical service" and 60% report a "doctor" (GP) as the usual source of care. "Aboriginal medical services" are the usual source of care for 76% of Aboriginal and Torres Strait Islander peoples living in very remote regions. While there are positive signs, efforts to further enhance the capacity of the primary health care sector to meet the needs of Aboriginal and Torres Strait Islander Australians are warranted. Consultations undertaken to inform the preparation of this report identified that many Aboriginal and Torres Strait Islander primary care services are still struggling to respond to immediate demand involving acute illnesses, and do not always have the capacity to deliver the comprehensive early intervention and chronic disease management services that are required.

The Aboriginal and Torres Strait Islander Health Workforce

Aboriginal and Torres Strait Islander peoples continue to be under-represented in health professions (measure 3.09), and in training for various health professions (measure 3.14). Another major challenge is the recruitment and retention of staff in Aboriginal and Torres Strait Islander health services and in mainstream services located in regions with significant Aboriginal and Torres Strait Islander population (measure 3.16).

Addressing the issues within the Aboriginal and Torres Strait Islander health workforce is one of the key result areas for the NSFATSIH. The *Aboriginal and Torres Strait Islander Health Workforce Strategic Framework 2002* (SCATSIH 2005) recognises the importance of coordination across the Commonwealth, state and territory governments and partnerships with training providers, mainstream and community controlled health providers. It sets out several objectives and strategies for addressing these issues, in particular to increase the numbers of Aboriginal and Torres Strait Islander peoples working across all health professions.

National Strategic Framework
Key Result Area Three:
A competent health workforce

In 2001, Aboriginal and Torres Strait Islander peoples accounted for 0.9% of the health workforce, but comprised 2.4% of the total population (measure 3.09). Increasing the representation of Aboriginal and Torres Strait Islander peoples in the health workforce requires increased participation in training for health related disciplines. In 2004 an estimated 1.3% of all undergraduate students enrolled in health-related courses were Aboriginal or Torres Strait Islander (measure 3.14). Improving participation in training for health professions is a key priority across a broad range of disciplines including medicine, nursing, allied health, as well as for Aboriginal health workers. Educational institutions that have been successful in achieving high levels of enrollment of Aboriginal and Torres Strait Islander students typically take a comprehensive approach to establishing good links with communities, prospective students and their families, and having available Indigenous medical or health support units (Minniecon & Kong 2005). Ongoing support and development of Aboriginal and Torres Strait Islander staff is important to staff retention and developing more responsive health services.

Resources

On a per person basis, average health expenditures for Aboriginal and Torres Strait Islander peoples in 2001-02 was 18% higher than the expenditure for other Australians (measure 3.15). In contrast measures of health status show mortality rates (measures 1.14 and 1.24), infant mortality (measure 1.18) and the occurrence of a broad range of diseases (measures 1.04, 1.05, 1.06, 1.07, 1.08, 1.09, 1.10, 1.11 and 1.12) to be much higher in Aboriginal and Torres Strait Islander peoples.

National Strategic Framework
Key Result Area Eight:
Resources and finance

Various estimates have been made of the level of expenditure that would be required to address Aboriginal and Torres Strait Islander health service needs. Dwyer, Silburn & Wilson (2004, p. 71) concluded that "total health spending on Indigenous populations would need to be increased to a level between 3 and 6 times the current national average per capita expenditure to achieve equitable access to effective care". Current expenditures fall well short of these benchmarks, although there have been some important successes in recent years, such as the Section 100 provisions to improve access to pharmaceuticals in remote regions. Experience over recent years has demonstrated increased funding can lead to a significantly improved level of service provision in Aboriginal and Torres Strait Islander primary care services.

Increased capacity is required across primary care and secondary/tertiary care, although the priority should be to strengthen the system of comprehensive primary care. Other gaps notable in the analysis of expenditures and services include dental services and access to private specialist services.

The Future

The trends highlighted above provide several pointers for setting priorities in planning, funding and evaluating government programs. Another issue that should underpin planning is the impact of the significantly younger age structure of the Aboriginal and Torres Strait Islander population. In 2001, 39% of Indigenous people were aged under 15 years compared with 20% of non-Indigenous Australians. This younger age profile presents a challenge as health and other services for children and young people need to be adequately resourced, as well as developed and delivered in culturally sensitive ways. However the younger age structure also represents a tremendous opportunity. With well designed and delivered antenatal care and early childhood programs, along with effective interventions helping young adults to adopt healthy behaviours, there is an opportunity to temper the emergence of chronic illnesses and their devastating consequences in this group of younger people. While, it is vital that there is focus on ensuring improvement of health for Aboriginal and Torres Strait Islander peoples across their life course, jurisdictions need to ask how well they are taking account of demographic change in their planning for resource requirements and service delivery for Aboriginal and Torres Strait Islander peoples. The next report on the HPF could build a set of projections and scenarios based on the 2006 census and other data sources, in order to highlight planning priorities.

National Strategic Framework
Key Result Area Seven:
Data, research and evidence

This first report has reported on trends in various measures, where these are available. Before the next report is compiled, AHMAC could give consideration to setting targets. The target setting process needs to begin with a review of evidence on the effectiveness of target setting. Following this, criteria for selecting measures used for target setting should be developed. For example, is there a sound evidence base to demonstrate linkages between interventions and outcomes and is there accurate baseline data to give meaningful direction to decision makers? Is there a sufficient evidence base to provide guidance to the responsible agencies on what should be done to meet the target? Is responsibility for meeting the target sufficiently well understood so as to make particular agencies responsive to the target?

In the next HPF a range of other measures will be developed and reported on, including measures of community functioning, relative economic disadvantage, governance and health promotion.

The absence of quality data from a variety of sources remains a significant impediment to a full understanding of the health of Aboriginal and Torres Strait Islander Australians and the performance of health services. Governments made a commitment to addressing these issues under the NSFATSIH (Key Result Area 7) and there have been a variety of initiatives implemented. Progress is being made in implementing an Aboriginal and Torres Strait Islander identifier through Medicare Australia. To date approximately one quarter of Aboriginal and Torres Strait Islander peoples have been identified. Identification of Aboriginal and Torres Strait Islander patients by GPs is also relatively poor. Very little is known about the use of specialist medical practitioners by Aboriginal and Torres Strait Islander peoples. Hopefully, by the time the second HPF report has been prepared, significant progress will have been made on these data issues. AHMAC has an important leadership role in this regard and the data to be included in the second report in 2008 will be reviewed through AHMAC information committee processes.

Chapter 3 National Health Policies and Strategies

The key goal of the NSFATSIH, agreed to by all Australian Health Ministers in July 2003, is:

To ensure that Aboriginal and Torres Strait Islander peoples enjoy a healthy life equal to that of the general population that is enriched by a strong living culture, dignity and justice.

The HPF recognises that an effective, efficient and equitable health system is an essential component for any whole of Government effort that seeks to address Indigenous health. In addition, action is required in areas such as education, employment, transport and nutrition to achieve sustainable health gains. The NSFATSIH acknowledges the need for 'concerted action both across and beyond the health sector to address the complex and inter-related factors that contribute to the causes and persistence of health problems amongst Aboriginal and Torres Strait Islander people'. The framework encourages the health sector to 'contribute to action on the agendas of other portfolios through research, advocacy, partnerships and linkages'.

The NSFATSIH commits governments to action in the following keys areas:

Strengthening comprehensive primary health care

Emotional and social well-being:

- Mental health problems and suicide
- Protecting children from abuse and violence, including sexual abuse
- Responses to alcohol, smoking, substance and drug misuse
- Male Health

Pre-determinants of chronic disease in adult populations:

- Nutrition and Physical Activity
- Child and Maternal Health
- Oral Health

Improving the health of Aboriginal and Torres Strait Islander peoples in custodial settings

Data availability and quality

The NSFATSIH is consistent with the Council of Australian Government's (COAG) Reconciliation Framework (2000) that advocates a whole of government approach focusing on partnerships between governments and Aboriginal and Torres Strait Islander communities.

The NSFATSIH provides an overarching framework for other national strategies that provided more detailed points of reference for specific action areas, including:

- Jurisdictional implementation plans for the NSFATSIH
- *Cultural Respect Framework for Aboriginal and Torres Strait Islander Health 2004 – 2009*
- *Aboriginal and Torres Strait Islander Health Workforce National Strategic Framework* (May 2002)
- *National Aboriginal and Torres Strait Islander Nutrition Strategy and Action Plan 2003 – 2010*
- *National Aboriginal and Torres Strait Islander Oral Health Workshop – Workshop Report and Action Plan*
- *Social and Emotional Well-being Framework - A National Strategic Framework for Aboriginal and Torres Strait Islander peoples Mental Health and Social and Emotional Well-being 2004 – 2009*
- *The National Aboriginal and Torres Strait Islander Sexual Health and Blood Borne Virus Strategy 2005-2008*
- *National Drug Strategy Aboriginal and Torres Strait Islander peoples' Complementary Action Plan 2003 – 2006* (National Drug Strategy 2003) and the supplement to the *Complementary Action Plan* (Ministerial Council on Drug Strategy 2003).

Chapter 4 Health Status and Outcomes (Tier 1)

Measures in Tier 1 consist of indicators of health status and outcomes. These measures do not directly relate to specific health services or programs, but rather provide an overall indication of current status and recent trends in the health status of Aboriginal and Torres Strait Islander peoples on a range of health issues. Tier 1 measures cover four domains: health conditions; human function; life expectancy and well-being; and deaths. Within these domains, measures cover the issues of:

Child and maternal health
- low birthweight infants (1.01)
- dental health (1.10)
- hearing loss (1.12)
- infant mortality (1.18)
- perinatal mortality (1.19)
- Sudden Infant Death Syndrome (1.20)
- maternal mortality (1.23)

Chronic diseases
- top reasons for hospitalisation (1.02)
- circulatory disease (1.05)
- rheumatic heart disease (1.06)
- high blood pressure (1.07)
- diabetes (1.08)
- end-stage renal disease (1.09)
- leading causes of mortality (1.22)
- avoidable and preventable deaths (1.24)

Injury
- hospitalisations for injury and poisoning (1.03)

Communicable diseases
- hospitalisation for pneumonia (4.04)
- acute rheumatic fever (4.06)
- HIV/AIDS, hepatitis C and sexually transmissible infections (4.11)

Social and emotional well-being (4.18)

Overall health status
- life expectancy at birth (4.15)
- perceived health status (4.16)
- median age at death (4.17)
- all causes age standardised death rates (4.22)

Tier 1 is closely related to the other two tiers. Improvement in the health outcomes measured by Tier 1 measures are dependent on changes in the immediate and underlying determinants of health reported in Tier 2, and in the access to and effectiveness of health system performance reported in Tier 3.

Many of the implications and policy questions raised by Tier 1 measures are about the ability of governments, Aboriginal and Torres Strait Islander peoples and all Australians to improve the circumstances in which Aboriginal and Torres Strait Islander peoples live (Tier 2) and the effectiveness of the health systems that they use (Tier 3). Improvements in Tier 1 measures will occur only as Aboriginal and Torres Strait Islander peoples are able to live healthier lives and are able to use high quality health services according to need.

1.01 Low birthweight infants

WHY IS IT IMPORTANT?: Low Birthweight (LBW) is associated with premature birth or sub-optimal intrauterine environments (foetal growth retardation). LBW infants are at a greater risk of dying during the first year of life and are prone to ill health in childhood. LBW babies may also be more vulnerable to illness in adulthood. There is some evidence, as yet inconclusive, that babies born with LBW are more likely to develop chronic diseases in adulthood, including diabetes and renal disease.

FINDINGS: In 2001-03, LBW was twice as common among babies born to Aboriginal and Torres Strait Islander mothers than other Australian babies (13% compared with 6%). The LBW rate for babies born to Aboriginal and Torres Strait Islander mothers increased by 1.5% between 1997 and 2003. LBW also increased for other Australian babies over the same period, but by a lesser amount (0.2%). Both increases were statistically significant. Longer-term data on national time-trends are not available for Aboriginal and Torres Strait Islander births. In the Northern Territory, the LBW rate declined from around 15% in 1986-88 to 13% in 1998-2000, but this improvement did not continue in more recent years. There was only a small degree of variation in the LBW rate between states. The LBW rate was highest in the Australian Capital Territory but this figure should be treated with caution due to small numbers and the provision of maternity services for women from New South Wales. The LBW rate in Western Australia and the Northern Territory was only one to two per cent higher than in the eastern states (Queensland, New South Wales and Victoria).

Mean birthweight for infants born to Aboriginal and Torres Strait Islander mothers was 3,160 grams compared with 3,380 grams for other babies. Mean birthweight did not increase between 1997 and 2003.

LBW is a much more severe problem for Indigenous babies in Australia than in other countries. For the most recent period, the proportion of LBW babies was 7% of babies born to American Indian and Alaskan native mothers on reserves compared with 8% of other US babies; 8% of babies born to Maori mothers compared with 6% of all New Zealand babies; 5% of Canadian First Nation babies compared with 6% of all Canadian babies (D'Espaignet et al. 2003).

IMPLICATIONS: Efforts to improve the birthweight of Aboriginal and Torres Strait Islander children do not appear to have been successful since the mid-1990s. In the absence of reliable comparative data for most health issues in all jurisdictions, particularly the eastern states, it has been postulated that overall Aboriginal and Torres Strait Islander health status may be better in the eastern states than in the western jurisdictions, where a high proportion of the Aboriginal and Torres Strait Islander population live in remote areas. The relatively similar LBW rate across most parts of Australia is one indication that the health problems of Aboriginal and Torres Strait Islander peoples in the eastern states may be almost as serious as the well-documented situation in the western states.

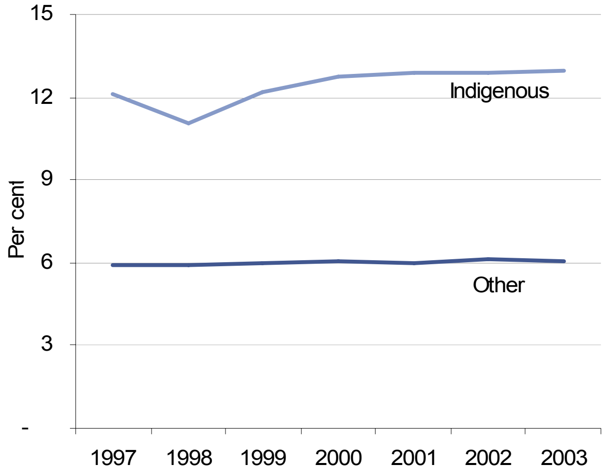
A major contributor to the excess of LBW in babies born to Aboriginal and Torres Strait Islander mothers is pre-term delivery, which was more common in Aboriginal and Torres Strait Islander babies than other babies (13% compared with 7% in 2001-03). Two-thirds of LBW babies were born pre-term in 2001-03 (Aboriginal and Torres Strait Islander 67%, other 69%).

Appropriate antenatal care and a healthy lifestyle for the mother can improve the chances that the baby will have a healthy weight. Some comprehensive mother and child programs for Aboriginal and Torres Strait Islander women in Australia have significantly improved pregnancy outcome measures including rates of LBW (Herceg 2005). While improvements in health services such as antenatal and acute care for pregnant women are important to reduce the occurrence of pre-term delivery and improve fetal growth during pregnancy, the reasons for premature delivery are not well understood. Health services have only limited success in improving foetal growth and preventing premature birth. Equally important to early access to antenatal care are factors such as reducing the prevalence of smoking, reducing the number of early teenage pregnancies, improving the nutrition and growth of girls during their childhood and adolescence, as well as their nutrition during pregnancy, reducing violence against women, improving the educational attainment, and improving the overall social and economic conditions for Indigenous Australian women and their families.

Maternal and child health is recognised as a key priority in the NSFATSIH. Governments across Australia have introduced a number of initiatives that seek to improve this situation. Specific Aboriginal and Torres Strait Islander action areas have been incorporated into the draft *National Agenda for Early Childhood and the Healthy Children - Public Health Strategic Framework for Children 2005-2008*. The Ministerial taskforce on Indigenous Affairs has identified early childhood as one of the three priority areas under the whole of government arrangements for Indigenous affairs. The Australian Government introduced the new *Healthy for Life* program that aims to improve the health of Aboriginal and Torres Strait Islander mothers, infants and children and those affected by chronic disease, through specific activities in maternal and child health and chronic disease in over 80 sites across Australia. A number of new Medicare items are being introduced to improve funding for antenatal checks by GPs and specialists, and by nurses, midwives and registered Aboriginal Health Workers in rural and remote areas.

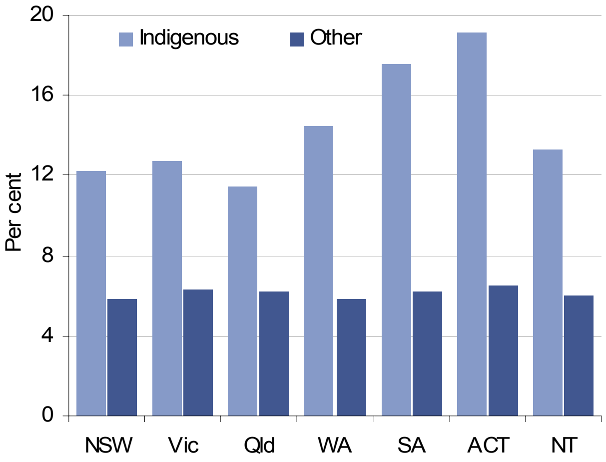
Policy makers need to give thorough consideration as to why birthweight is not improving.

Figure 2 – Low birthweight babies per 100 live births, by Indigenous status of mother, Australia 1997–2003



Source: AIHW National Perinatal Statistics Unit (NPSU) National Perinatal Data Collection

Figure 3 – Low birthweight rate (proportion), by Indigenous status of mother, by jurisdiction, 2001-03



Source: AIHW National Perinatal Statistics Unit (NPSU) National Perinatal Data Collection

Table 1 –Low birthweight rate (proportion), ratio and difference between babies of Indigenous and non-Indigenous mothers, Australia 1997–2003

	1997	1998	1999	2000	2001	2002	2003	Annual change
Rate per 100 live births (%)								
Indigenous	12.1	11.0	12.2	12.7	12.9	12.9	12.9	0.25*
Non–Indigenous	5.9	5.9	6.0	6.1	6.0	6.2	6.0	0.03*
Rate ratio	2.1	1.9	2.0	2.1	2.2	2.1	2.1	0.03*
Rate difference	6.2	5.1	6.2	6.7	6.9	6.8	6.9	0.22*

** Represents results with statistically significant increases over the period 1997-2003*
Source: AIHW National Perinatal Statistics Unit (NPSU) National Perinatal Data Collection

1.02 Top reasons for hospitalisation

WHY IS IT IMPORTANT?: Hospitalisation rates indicate two main issues: the occurrence of serious acute illness and conditions requiring inpatient hospital treatment in a population, and the access to and utilisation of hospital inpatient treatment by people with such conditions. Hospitalisation rates for a particular disease do not directly indicate the level of occurrence of that disease in the population. A high level of occurrence may not be reflected in a high hospitalisation rate if there is a relatively low level of utilisation of hospital services. For diseases that usually do not cause serious enough illness to require hospitalisation, a high level of occurrence will not be reflected in a high level of hospitalisation. Hospitalisation rates are calculated based on the number of episodes of hospitalisation rather than on the number of individual people who are hospitalised; consequently, a person who has frequent hospitalisations for the same disease is counted multiple times in the hospitalisation rate for that disease. Each kidney dialysis treatment is counted as a separate hospitalisation episode, so that each person receiving three dialysis treatments per week contributes approximately 150 hospitalisation episodes per year. It is important to separate hospitalisation rates for dialysis from rates for other conditions. Measures of hospitalisation are also impacted by the availability of primary care services (see measure 3.06), and the lack of alternative services.

FINDINGS: After adjusting for age differences in the two populations, the hospitalisation rate for Aboriginal and Torres Strait Islander peoples in the two years to June 2004 was 1.4 times higher than for other Australians (427 compared with 305 per 1,000, excluding same-day dialysis). Hospitalisation rates for Aboriginal and Torres Strait Islander peoples were two or more times those for other Australians for: infectious diseases and skin conditions (commonly serious skin infections, especially in children); endocrine, nutritional and metabolic diseases, reflecting the very high levels of diabetes in Aboriginal and Torres Strait Islander peoples; respiratory disease, reflecting the very high proportion of Aboriginal and Torres Strait Islander peoples who smoke and the high levels of pneumonia and other respiratory infections in Aboriginal and Torres Strait Islander children; circulatory disease, reflecting both the high levels of smoking and of diabetes and other obesity-related problems in Aboriginal and Torres Strait Islander peoples; and injury. Hospitalisation for care involving dialysis accounted for 41% of hospitalisations for Aboriginal and Torres Strait Islander peoples (compared with 9% for other Australians) and their hospitalisation rate was 15 times higher than that for other Australians.

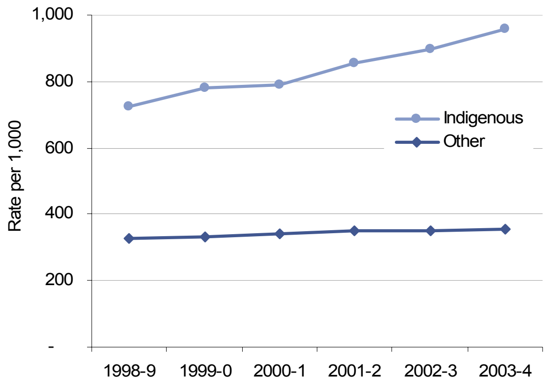
Between 1998-99 and 2003-04, the hospitalisation rate for Aboriginal and Torres Strait Islander peoples increased at an annual rate of 45 per 1,000, compared to an annual rate of 5 per 1,000 for other Australians.

IMPLICATIONS: In the two-year period July 1998 to June 2000, there were approximately 78,000 hospitalisations of Aboriginal and Torres Strait Islander peoples for dialysis treatment. This increased by 61% to over 129,000 in the period July 2002 to June 2004. This predominantly involved admission for around 500 people with kidney failure receiving dialysis three times per week. The increase in the hospitalisation rate for Aboriginal and Torres Strait Islander peoples between 1998-2000 and 2002-04 was entirely due to an increase in dialysis hospitalisations; there was no increase in the hospitalisation rate for all other conditions combined. The very high and rising number of Aboriginal and Torres Strait Islander peoples with kidney failure, and the low number of Aboriginal and Torres Strait Islander patients receiving kidney transplants, imposes a very high demand for dialysis services, which has major infrastructure and resource implications for the health system. The issues are magnified in remote areas. Earlier in 2006, the Australian Government announced funding for additional renal dialysis services in regional areas.

Excluding dialysis, infectious diseases (including skin and respiratory infections), chronic metabolic, heart and lung diseases and injury are the conditions causing the greatest excess of hospitalisations for Aboriginal and Torres Strait Islander peoples. Hospitalisation for mental illness and childbirth were also more common for Aboriginal and Torres Strait Islander peoples than for other Australians.

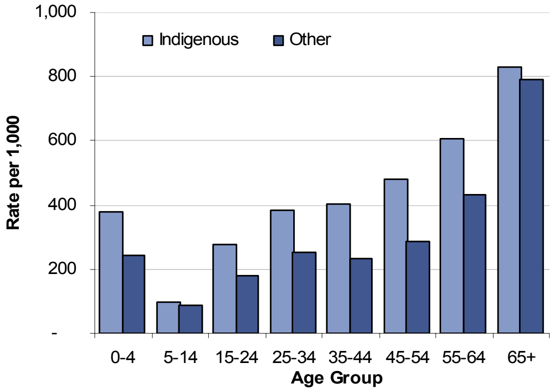
The 40% higher hospitalisation rate for Aboriginal and Torres Strait Islander peoples than other Australians is less than expected given the much greater occurrence of disease and injury and much higher mortality rates for Aboriginal and Torres Strait Islander peoples. It is more likely that the moderately higher hospitalisation rate represents underutilisation of acute care services relative to need. Excess hospitalisations for specific diseases for Aboriginal and Torres Strait Islander peoples is not an accurate measure of excess occurrence of these diseases. It is more likely this represents an underestimate of the occurrence of these diseases and a relative underutilisation of hospital services by Aboriginal and Torres Strait Islander peoples. Until the excess incidence of many health problems is reduced, hospitalisation rates for Aboriginal and Torres Strait Islander peoples should and will continue to increase as their need for acute care is more adequately met. Reductions in excess hospitalisation will eventually occur through concerted action to reduce incidence and prevalence of the underlying conditions, and prevent or delay complication, through more comprehensive primary health care and actions to address underlying determinants of health, rather than through actions within the hospital sector itself.

Figure 4 – Trend in hospitalisation rates by Indigenous status, Qld, WA, SA and NT, age standardised, 1998-99 to 2003-04



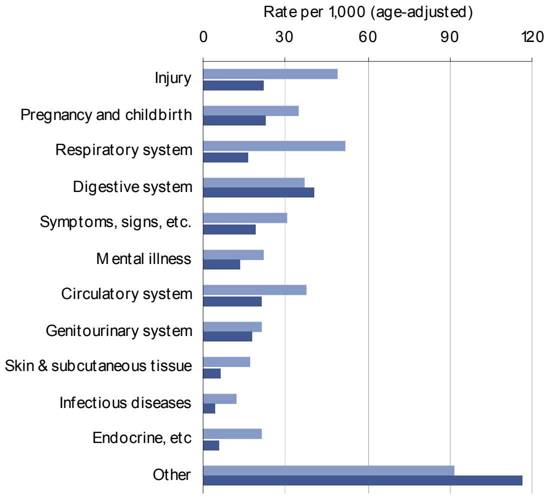
Source: AIHW National Hospital Morbidity Database

Figure 5 – Age specific hospitalisation rates by Indigenous status, Qld, WA, SA and NT, 2002-03 to 2003-04



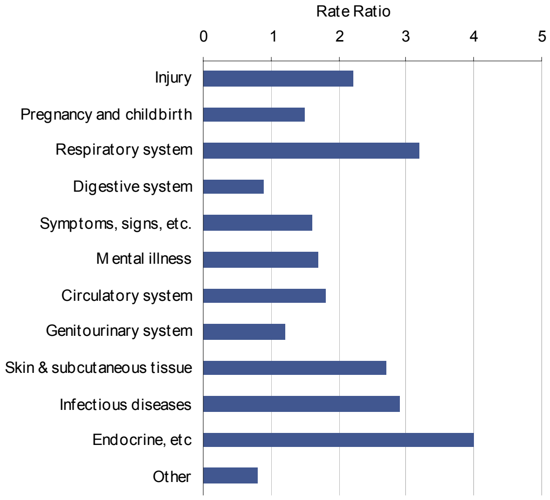
Source: AIHW National Hospital Morbidity Database

Figure 6 – Hospitalisation rates by principal diagnosis and Indigenous status in Qld, WA, SA and NT, 2002-03 to 2003-04



Source: AIHW National Hospital Morbidity Database

Figure 7 – Hospitalisation rate ratios (Indigenous to other) by principal diagnosis in Qld, WA, SA and NT, 2002-03 to 2003-04



Source: AIHW National Hospital Morbidity Database

1.03 Hospitalisation for injury and poisoning

WHY IS IT IMPORTANT?: Accidental and intentional injury has long been known to be much more common among Aboriginal and Torres Strait Islander peoples than other Australians. In more recent years, intentional self-harm and suicide has also become more common among Aboriginal and Torres Strait Islander peoples. Injuries can cause long-term disadvantage for Aboriginal and Torres Strait Islander peoples including: loss of cultural knowledge and wisdom, and the chance of a full life; the burden on caregivers for people with disabilities; decreased workplace productivity; and continuation of the cycle of grief among families, friends and Aboriginal and Torres Strait Islander communities. Hurt, loss and suffering can increase the risk of physical injury, especially if the feelings are severe, prolonged, or widespread in a community. There is a need to build on the existing capacity for resilience and to address systemic issues that reduce people's capacity to make health-enhancing choices and the likelihood they will do so (Aboriginal and Torres Strait Islander Injury Prevention Action Committee 2004).

FINDINGS: Hospitalisations for injury reflect hospital attendances for the condition rather than the extent of the problem in the community. Hospitalisations for injury and poisoning were the second most common reason for hospital admission for Aboriginal and Torres Strait Islander peoples. Severe injury has a much greater impact on young and middle-aged Aboriginal and Torres Strait Islander peoples than other Australian adults. Injury hospitalisation is more than twice as common among Aboriginal and Torres Strait Islander peoples than other Australians.

For other Australians, injury hospitalisation rates are much higher in the elderly (aged 65 and over) than in younger age-groups and similar for males and females in this age-group. In younger age-groups, rates are higher for males than females; for females, injury hospitalisation rates are similar for all age-groups below age 65, while for males injury hospitalisation rates are higher between ages 15 and 34. Injury hospitalisation has a very different pattern for Aboriginal and Torres Strait Islander peoples. Female hospitalisation rates are similar to male rates in most age-groups. Rates are only moderately higher than for other Australians in children and the elderly, but are much higher in the early and middle adult age-groups. Rates peak in early adult age-groups for both males and females and are higher in these age-groups than in the elderly.

The injury hospitalisation rate did not increase for Aboriginal and Torres Strait Islander peoples between 1998-99 and 2003-04. There was a slight decrease, which was not statistically significant. This is unlikely to reflect a decrease in access to acute care services, since the all-causes hospitalisation rate increased (see measure 1.02). It would thus appear that the burden of serious injury on Aboriginal and Torres Strait Islander peoples has remained stable, or may even have fallen slightly, since the late 1990s in the four states for which data are available (Queensland, Western Australia, South Australia and the Northern Territory).

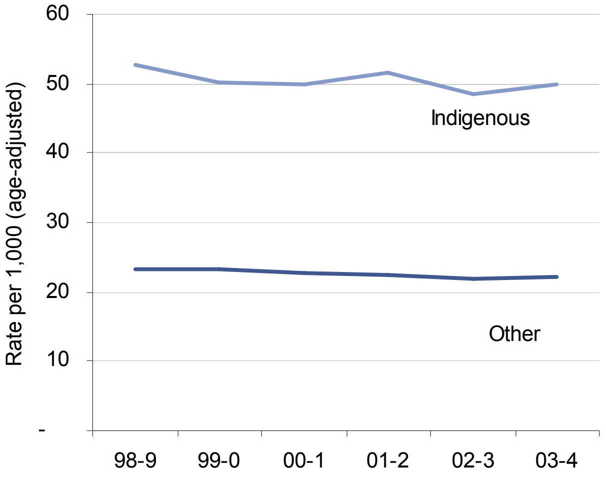
Assault is the leading cause of injury requiring hospitalisation for Aboriginal and Torres Strait Islander peoples, responsible for 26% of injury hospitalisations for males and 37% for females in the two years to June 2004. After adjusting for the age differences in the two populations, hospitalisation for injuries caused by assault is 47 times higher for Aboriginal and Torres Strait Islander women than other Australian women, and 10 times higher for men. Assault against women is the overwhelmingly dominant reason why Aboriginal and Torres Strait Islander female injury rates are so much higher than those for other Australian women. Most other causes of injury are approximately twice as common for Aboriginal and Torres Strait Islander peoples, and there is much less difference between males and females in these ratios for other causes of injury.

IMPLICATIONS: All causes of injury have a greater effect on Aboriginal and Torres Strait Islander peoples than on other Australians. There were no significant changes in hospitalisation for injury in the period 1998-99 to 2003-04. Interestingly while transport accidents made up 9% of hospitalisations for injury, they are the safety issue for which Aboriginal and Torres Strait Islander peoples suffer the least disadvantage: hospitalisation due to transport injury is 30% higher for Aboriginal and Torres Strait Islander peoples than for other Australians.

Although all causes of injury are more common among Aboriginal and Torres Strait Islander peoples than other Australians, assault is overwhelmingly the most important injury prevention issue, particularly for women. A key question for policy makers is: Should gender specific issues be considered for services, policy and funding?

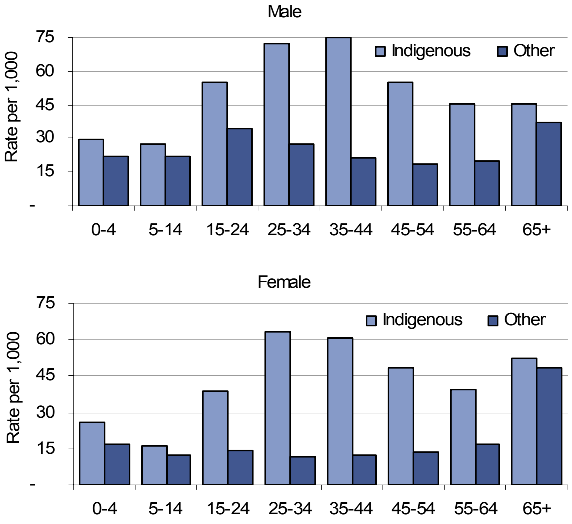
Various national and jurisdictional initiatives have been developed to address Aboriginal and Torres Strait Islander safety, for example, the *National Aboriginal and Torres Strait Islander Safety Promotion Strategy.* The Strategy outlines specific requirements for improving safety and reducing incidence and harm from injury to Aboriginal and Torres Strait Islander peoples.

Figure 8 – Hospitalisation rates for Injury and Poisoning - Aboriginal and Torres Strait Islander peoples and other Australians, Qld, WA, SA and NT, 1998-99 to 2003-04



Source: AIHW National Hospital Morbidity Database

Figure 9 – Age specific hospitalisation rates for principal diagnosis of injury and poisoning - Aboriginal and Torres Strait Islander peoples and other Australians, Qld, WA, SA and NT, by sex, 2002-03 to 2003-04



Source: AIHW National Hospital Morbidity Database

Table 2 – Hospitalisations for external causes of Injury and Poisoning for Aboriginal and Torres Strait Islander peoples in Qld, WA, SA and NT, by sex, 2002-03 to 2003-04

	Males			Females			Persons		
External cause	%	Rate	Ratio	%	Rate	Ratio	%	Rate	Ratio
Assault	26.1	14.1	10.3*	37.1	14.8	47.2*	31.1	14.4	17.0*
Accidental falls	15.9	8.7	1.5*	14.4	8.3	1.3*	15.2	8.6	1.4*
Inanimate mechanical forces	14.5	6.3	1.4*	8.5	2.9	2.2*	11.7	4.6	1.6*
Medical/surgical complications	8.4	6.8	1.7*	12.0	7.8	2.1*	10.1	7.3	1.9*
Transport accidents	10.8	5.0	1.3*	6.1	2.3	1.4*	8.7	3.6	1.3*
Other accidental exposures	7.6	4.3	1.5*	5.8	2.7	1.8*	6.8	3.5	1.6*
Intentional self-harm	4.7	2.3	2.4*	6.8	2.7	1.9*	5.6	2.5	2.1*
Electrocution, fire, animals, weather	4.2	1.9	2.1*	3.4	1.3	2.9*	3.8	1.6	2.4*
Animate mechanical forces	4.5	2.1	2.3*	2.3	0.9	2.2*	3.5	1.5	2.2*
Accidental poisoning	2.2	1.0	1.6*	2.5	1.0	1.6*	2.4	1.0	1.6*
Other external causes	1.1	0.6	4.7*	1.1	0.5	4.0*	1.1	0.5	4.3*
Total	100.0	53.0	2.1*	100.0	45.2	2.6*	100.0	49.1	2.2*
Total number of injury hospitalisations	13,776			11,479			25,255		

* Statistically significant difference between Indigenous and Other hospitalisation rates.

Source: AIHW National Hospital Morbidity Database

1.04 Hospitalisation for pneumonia

WHY IS IT IMPORTANT?: Aboriginal and Torres Strait Islander Australians experience considerably greater mortality and morbidity from pneumonia and invasive pneumococcal disease than other Australians. In Central Australia, Aboriginal children under 4 years had 11 times the relative risk, and adults aged 15 to 49 had a 20 fold greater risk than other adults in same age-group (Torzillo et al. 1995). Aboriginal children in Central Australia have attack rates for acute lower respiratory tract infection that are similar to those in developing countries (Torzillo et al. 1999). Influenza virus infection can frequently be involved and influenza and pneumonia are often considered together (AIHW 2003).

Although hospitalisation statistics reflect admissions to hospital rather that the prevalence or incidence of pneumonia in the community, hospitalisation statistics are a measure of the occurrence of severe pneumonia requiring acute care.

FINDINGS: Hospitalisation for pneumonia is much more common for Aboriginal and Torres Strait Islander peoples than other Australians. In the four north-western jurisdictions in 2002-04, hospitalisation for pneumonia represented 2.2% of all hospitalisations for Aboriginal and Torres Strait Islander peoples. After adjusting for age differences in the two populations, the hospitalisation rate for pneumonia was six times higher for Aboriginal and Torres Strait Islander peoples than other Australians and higher for both males and females and in all age-groups. For other Australians, the pneumonia hospitalisation rate is high in early childhood, but very low through the adolescent to middle adult age-groups, before rising again from age 55 years. A pattern of high rates in early childhood and the elderly is also seen in Aboriginal and Torres Strait Islander peoples, but rates increase at a much younger age, from age 25 years.

There is great variation in rates between the four jurisdictions for which data are available, ranging from 10 per 1,000 in Queensland to 25 per 1,000 in the Northern Territory, compared with a rate of 3 per 1,000 for other Australians. Accurate data are not available for the south-eastern jurisdictions.

The pneumonia hospitalisation rate fell by 15% between 1998-99 and 2003-04 for Aboriginal and Torres Strait Islander males; for females there was a smaller reduction that was not statistically significant. The pneumonia hospitalisation rate declined at a faster rate than for other Australians, and the gap has narrowed. There was also a significant decline for Aboriginal and Torres Strait Islander children aged 0-4 years over the same period.

IMPLICATIONS: There is some indication from hospitalisation rates that the impact of pneumonia on Aboriginal and Torres Strait Islander peoples has reduced in recent years, but the evidence is far from conclusive (a 15% fall for males over five years but no clear evidence of any fall for females). This finding provides encouragement that progress is being achieved and that further improvements are possible. However, hospitalisation for pneumonia remains six times more common for Aboriginal and Torres Strait Islander peoples than other Australians and remains an important public health issue.

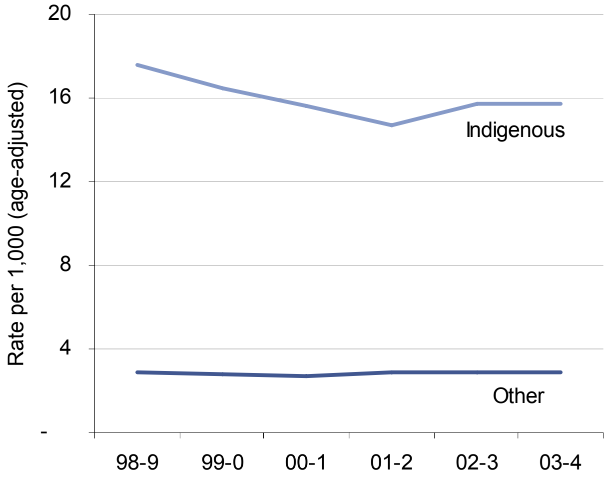
It is unlikely that these changes are due to changes in Indigenous identification coverage or changes in access to acute care services because all-cause hospitalisation rates have increased rather than decreased over this period. It may become apparent within one or two years, when additional data are available, that the reduction seen in recent years is not due to random fluctuation.

The most likely cause of reduced pneumonia hospitalisation rates is a reduction in occurrence of this disease in Aboriginal and Torres Strait Islander peoples due to the introduction and extension of pneumococcal and influenza vaccination programs. The *National Indigenous Pneumococcal and Influenza Immunisation Program* aims to increase adult Aboriginal and Torres Strait Islander peoples' immunisation status for influenza and pneumococcal disease, in order to reduce the Indigenous community's burden of acute respiratory illness and death. The program provides free vaccines through community controlled Aboriginal medical services, state/territory immunisation clinics and general practitioners for Aboriginal and Torres Strait Islanders aged over 50 and those 15-50 at high risk according to the NHMRC guidelines.

The introduction of the childhood vaccines for *Haemophyllis influenzae* (Hib) in the early 1990s and more recently pneumococcal vaccination has also contributed to a reduction in the occurrence of pneumonia for Aboriginal and Torres Strait Islander peoples. A childhood pneumococcal immunisation program for 'at risk' children was launched in 2001. This was extended to cover all children in 2004.

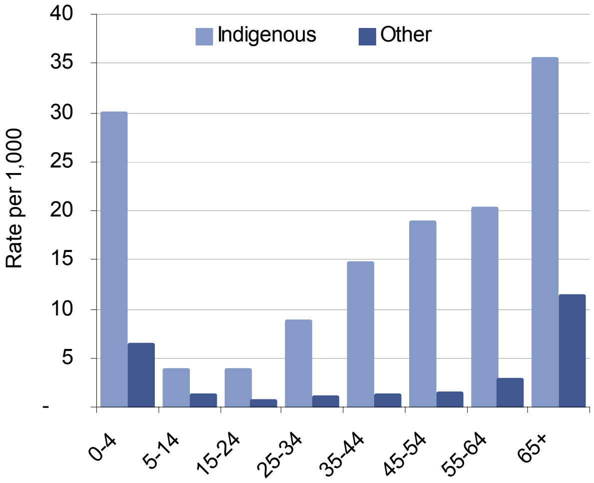
The large variations in hospitalisation rates between jurisdictions indicates that lower rates can be achieved in some Aboriginal and Torres Strait Islander peoples. A better understanding is required of why there is such large variation between jurisdictions.

Figure 10 – Hospitalisation rates for pneumonia for Aboriginal and Torres Strait Islander peoples and other people in Qld, WA, SA and NT, 1998-99 to 2003-04



Source: AIHW National Hospital Morbidity Database

Figure 11 – Age specific hospitalisation rates for pneumonia for Aboriginal and Torres Strait Islander peoples and other people in Qld, WA, SA and NT, 2002-03 to 2003-04



Source: AIHW National Hospital Morbidity Database

Table 3 – Hospitalisations for pneumonia for Aboriginal and Torres Strait Islander peoples - number, age standardised rates and rate ratios by sex, by jurisdiction Qld, WA, SA and NT 2002-03 to 2003-04

	Male			Female			Persons		
Jurisdiction	Number	Rate	Ratio	Number	Rate	Ratio	Number	Rate	Ratio
Queensland	954	11.1	3.4*	837	8.9	3.3*	1791	9.9	3.3*
Western Australia	1040	20.7	7.4*	963	18.0	8.2*	2003	19.3	7.8*
South Australia	273	14.0	3.9*	282	14.4	5.4*	555	14.2	4.6*
Northern Territory	1302	27.0	8.8*	1151	23.1	8.5*	2453	24.9	8.6*
Total (Qld,WA, SA, NT)	3569	17.0	5.3*	3233	14.5	5.7*	6802	15.7	5.5*

* *Statistically significant difference between Indigenous and Other hospitalisation rates.*

Source: AIHW National Hospital Morbidity Database

1.05 Circulatory disease

WHY IS IT IMPORTANT?: Circulatory disease is one of the major causes of morbidity in older Australians and one of the most common causes of death. In recent decades, Australian mortality rates from circulatory disease have fallen considerably, due to a variety of factors including fewer people smoking cigarettes, improvements in treatment of high blood pressure, and improved treatment of Ischaemic Heart Disease (IHD). However, recent trends in Australian society, particularly increasing levels of obesity and increasing numbers of people with diabetes, threaten to slow or reverse these improvements. Circulatory disease occurs much more frequently in Aboriginal and Torres Strait Islander peoples and reductions in disease occurrence and mortality have not occurred as for other Australians. Smoking levels are very high among Aboriginal and Torres Strait Islander adults (approximately half are current smokers) and have not fallen over the past decade (see measure 2.17), while levels of physical inactivity and obesity, diabetes and high blood pressure are much higher than for other Australians. Circulatory disease is a serious health problem for Aboriginal and Torres Strait Islander peoples, and is one of the most outstanding examples for which they have not shared the health gains that most Australians have enjoyed in recent decades.

FINDINGS: Self-reported prevalence of circulatory disease is only slightly higher for Aboriginal and Torres Strait Islander peoples than for other Australians. In a national survey in 2004-05, 23% of Aboriginal and Torres Strait Islander peoples reported having a heart or circulatory condition, compared to 20% of other Australians. There was no significant change in self-reported levels of circulatory disease between 2001 and 2004-05.

However, the circulatory disease hospitalisation rate for Aboriginal and Torres Strait Islander peoples was 80% higher than that for other Australians in the four north-western jurisdictions in 2002-03 and 2003-04. The hospitalisation rate decreased by around 9% for other Australians between 1998-99 and 2003-04, but there was no decrease for Aboriginal and Torres Strait Islander peoples. Circulatory disease hospitalisation rates are similar for Aboriginal and Torres Strait Islander peoples in each of the four states for which statistics are available.

IHD is the most common type of circulatory disease causing hospitalisation for Aboriginal and Torres Strait Islander peoples, accounting for 43% of all circulatory disease hospitalisations and is more than twice as common for Aboriginal and Torres Strait Islander peoples than other Australians. Rheumatic heart disease accounted for 5.8% of circulatory disease hospitalisations and was nine times more common for Aboriginal and Torres Strait Islander peoples than other Australians. Other than for Aboriginal and Torres Strait Islander peoples, rheumatic heart disease has been almost totally eliminated in Australia.

The incidence and death rates for heart, stroke and vascular disease among Australian Aboriginal and Torres Strait Islander peoples are higher than those in Indigenous populations of Canada, United States and New Zealand (Commonwealth Department of Health and Aged Care & AIHW 1999).

Among cardiac conditions, hypertension is the most frequent reason for GP attendance, accounting for approximately half of all cardiac attendances for both Aboriginal and Torres Strait Islander and other Australians. Compared with other Australians, Aboriginal and Torres Strait Islander peoples have a similar attendance rate for hypertension and cardiac check-ups but much higher rate for IHD and heart failure.

IMPLICATIONS: Although the self-reported prevalence of circulatory disease for Aboriginal and Torres Strait Islander peoples is only slightly higher than for other Australians, hospitalisation rates are more than twice as high. This may be because Aboriginal and Torres Strait Islander people are less likely to report circulatory disease when they have it, or because they are more likely to have severe disease requiring hospitalisation.

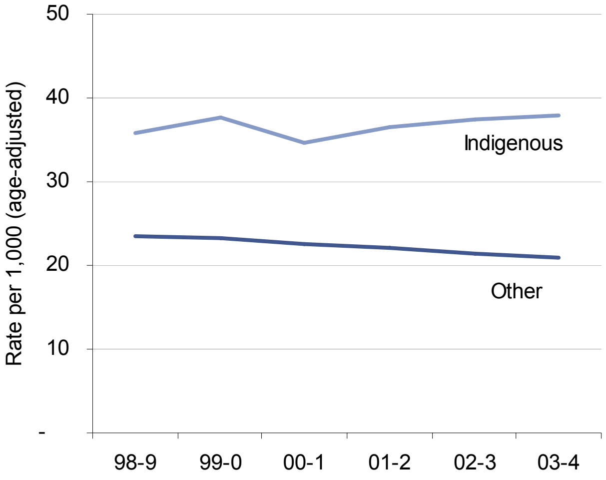
The absence of an excess of general practice consultations for cardiac checkups by Aboriginal and Torres Strait Islander peoples, despite their much higher hospitalisation and mortality rates from circulatory disease may indicate that Aboriginal and Torres Strait Islander peoples are not accessing primary health care at levels that would be expected particularly for preventive care.

Smoking, obesity and diabetes all damage the circulatory system and are common risk factors among Aboriginal and Torres Strait Islander peoples. The majority of Aboriginal and Torres Strait Islander adults smoke and there has been no reduction in smoking levels over the past decade. While the factors that cause circulatory disease remain at high levels, particularly among young people, it is unlikely there will be a decrease in the levels of circulatory disease afflicting Aboriginal and Torres Strait Islander peoples.

Hospitalisation for circulatory diseases is twice as common for Aboriginal and Torres Strait Islander peoples than other Australians, and is increasing slowly. It is not yet clear whether the increase represents a rise in disease incidence and prevalence or improved access and/or improved identification of Indigenous clients.

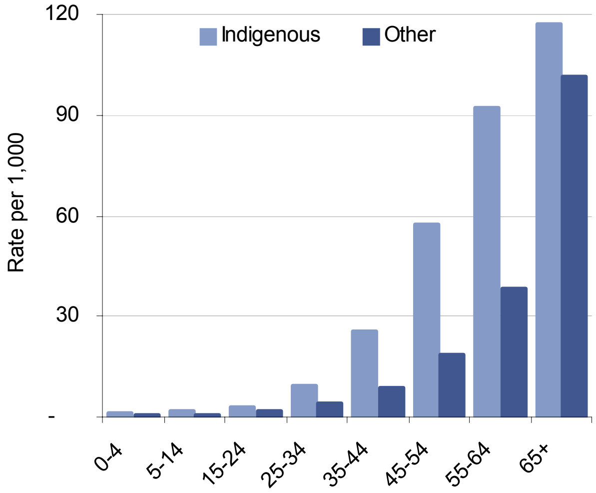
A better understanding is required of why GP attendances for hypertension and cardiac checkups are relatively low. Improved access to and utilisation of both primary and acute care services for Aboriginal and Torres Strait Islander peoples are necessary to achieve earlier diagnosis and better management of circulatory disease (see measures 3.03 and 3.04).

Figure 12 – Hospitalisation rates for a principal diagnosis of circulatory disease for Aboriginal and Torres Strait Islander and other people in Qld, WA, SA and NT, 1998-99 to 2003-04



Source: AIHW National Hospital Morbidity Database

Figure 13 – Age specific hospitalisation rates for a principal diagnosis of circulatory disease for Aboriginal and Torres Strait Islander and other people in Qld, WA, SA and NT, 2002-03 to 2003-04



Source: AIHW National Hospital Morbidity Database

Table 4 – Hospitalisations for circulatory disease by principal diagnosis for Aboriginal and Torres Strait Islander people - number, age standardised rates and rate ratios by sex, Qld, WA, SA and NT, 2002-03 to 2003-04

	Males			Females			Persons		
Specific circulatory disease	%	Rate	Ratio	%	Rate	Ratio	%	Rate	Ratio
Ischaemic heart disease	46.6	19.5	1.8*	39.9	13.9	2.8*	43.4	16.5	2.2*
Acute myocardial infarction	16.0	6.3	2.2*	9.9	3.5	2.8*	13.1	4.8	2.3*
Other heart disease	29.8	12.9	1.8*	28.5	10.5	2.1*	29.2	11.6	1.9*
Other diseases of the circulatory system	9.1	3.7	0.7*	10.0	3.0	0.6*	9.5	3.3	0.6*
Cerebrovascular disease	7.4	4.1	2.0*	8.3	3.4	2.1*	7.8	3.7	2.0*
Stroke	6.5	3.7	2.3*	7.8	3.2	2.5*	7.1	3.4	2.4*
Rheumatic heart disease	3.9	0.7	6.6*	7.8	1.3	10.9*	5.8	1.0	9.0*
Hypertension disease	3.2	1.2	4.0*	5.4	1.7	3.8*	4.3	1.4	3.8*
Total	100.0	42.1	1.6*	100.0	33.7	2.0*	100.0	37.6	1.8*
Total number of circulatory hospitalisations	5185			4630			9815		

** Difference between Indigenous and Other is statistically significant*

Source: AIHW National Hospital Morbidity Database

1.06 Acute rheumatic fever and rheumatic heart disease

WHY IS IT IMPORTANT?: Acute Rheumatic Fever (ARF) is a disease caused by an auto-immune reaction to a bacterial infection with group A streptococcus. ARF is a relatively short illness, but can result in permanent damage to the heart, called Rheumatic Heart Disease (RHD). A person who has had ARF once is susceptible to repeated episodes, each of which can increase the risk of RHD.

ARF and RHD are very common among Aboriginal and Torres Strait Islander peoples. The incidence of ARF and the prevalence of RHD among Aboriginal and Torres Strait Islander peoples living in some remote areas have been reported as among the highest in the world.

ARF and RHD are now rare in populations with good living conditions (optimal hygiene and minimal household crowding in particular) and easy access to quality medical care. Until Aboriginal and Torres Strait Islander peoples socioeconomic disadvantage is rectified, they will remain at risk of ARF/RHD.

FINDINGS: Other than one research report from north Queensland, data on ARF and RHD is available only for the Northern Territory, from the Northern Territory Rheumatic Health Disease Register. In 2002-05, 286 Aboriginal and Torres Strait Islander peoples had a new or recurrent episode of ARF in the Northern Territory; the incidence rate was 1.1 per 1,000 in the Top End and 1.5 per 1,000 in Central Australia. ARF is largely restricted to older children and young adults: 57% of cases occurred in children aged 5-14 years, with a further 25% in the 15-24 years age-group. Females comprised 56% of cases of ARF in 2002-05 (160 females, 126 males).

There is no indication that the incidence of ARF is falling in the Northern Territory. Incidence data is available since 1995. There were no significant changes in incidence rates between 1995-97 and 2004-05 in the Top End (0.8 per 1,000 in both periods) or in Central Australia (1.3 and 1.4 per 1,000 respectively).

The only other information on ARF in Aboriginal and Torres Strait Islander peoples is for the seven Health Services Areas of north Queensland, where the incidence was 0.6 per 1,000 in Indigenous people in 1999-2004 (Hanna & Heazlewood 2005).

In December 2005 1,209 people were recorded as having RHD in the Northern Territory; 1,110 (92%) were Aboriginal and Torres Strait Islanders Australians. The prevalence of RHD in Aboriginal and Torres Strait Islander peoples in the Top End was 26 per 1,000 (876 people) and 15 in Central Australia (234 people). Females comprised 65% of people with RHD (717 females, 393 males). After adjusting for the age differences between the Indigenous and non-Indigenous populations, the prevalence of RHD was higher in the Aboriginal and Torres Strait Islander peoples than in other residents of the Northern Territory (22 times higher in the Top End and 24 times higher in Central Australia).

IMPLICATIONS: There is no indication that the incidence of ARF is falling in the Northern Territory. This is the only jurisdiction in which there is time trend information for ARF. The incidence of ARF is apparently lower in north Queensland than in the Northern Territory, but is still far higher than for other Australians. Since there is no trend data on ARF or RHD in Queensland, it is unknown whether rates have been lower there for many years or whether progress has been made in recent years. At this stage, incidence of ARF and prevalence of RHD is not well documented for other parts of Australia.

Improved access to appropriate treatment for pharyngitis/tonsillitis is likely to reduce the rate of ARF. Opportunities for the primary prevention of ARF (and therefore RHD) in Aboriginal and Torres Strait Islander peoples through improved housing and socioeconomic circumstances are also relevant here. Although the role of Group A Streptococcal Bacterium (GAS) skin infection in precipitating ARF is contentious, it appears likely this does play a role in ARF in Australia. Interventions that aim to reduce GAS skin infection through community-based skin health programs may also be effective.

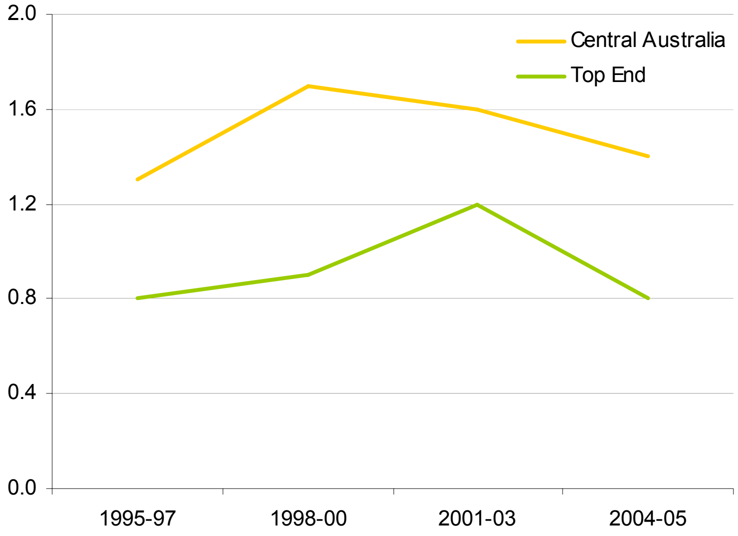
There is considerable scope for the secondary prevention of ARF/RHD through the implementation of effective disease registers, education for patients and their families, penicillin prophylaxis and regular clinical review. Access to specialists and hospital care are also important.

Can we expect any substantial reduction in ARF incidence (and hence RHD prevalence) until housing and other environmental conditions improve for Aboriginal and Torres Strait Islander peoples, particularly in remote communities?

In the Northern Territory, RHD registers are a central element of secondary prevention programs to prevent recurrence of ARF, and thus reduce the occurrence or severity of RHD. Extension of this approach to other jurisdictions has been proposed by public health professionals and researchers from the Northern Territory, but not accepted by other states. RHD registers are primarily intended to improve secondary prophylaxis by sending reminders for regular penicillin to people on the register or their usual primary care provider. A key question is: Would this approach be effective in other jurisdictions?

A policy issue raised by these findings is whether RHD should become a nationally notifiable disease.

Figure 14 – Acute Rheumatic Fever incidence, NT Indigenous Australians by time period, Central Australia and Top End



Source: AIHW analysis of Top End and Central Australian Rheumatic Heart Disease Registers

Table 5 – Acute Rheumatic Fever incidence (2002-05) and Rheumatic Heart Disease prevalence (31/12/2005) in NT Indigenous Australians, number and proportion of cases and incidence/prevalence rate by age-group

ARF incidence				**RHD prevalence**			
Age-group	Number	%	Rate per 1,000 persons	Age-group	Number	%	Rate per 1 000 persons
0-4	5	1.7	0.2				
5-14	162	56.6	3.0	0–14	99	8.9	4.9
15-24	70	24.5	1.5	15–24	270	24.3	23.7
25-34	28	9.8	0.7	25–34	289	26.0	29.1
35-44	16	5.6	0.6	35–44	235	21.2	33.4
45+	5	1.7	0.2	45–54	120	10.8	27.9
				55–64	67	6.0	29.8
				65+	30	2.7	18.6
Total	286	100	1.3	Total	1 110	100.0	19.5

Source: AIHW analysis of Top End and Central Australian Rheumatic Heart Disease Registers

1.07 High blood pressure

WHY IS IT IMPORTANT?: High blood pressure is a risk factor for several serious diseases of the circulatory system, including angina and heart attack, stroke, and restricted blood flow to many organs which can lead to deteriorating vision, kidney failure, chronic leg ulcers and eventually gangrene. High blood pressure is much more common among Aboriginal and Torres Strait Islander peoples than other Australians, and is one of the reasons heart attacks, strokes and other circulatory diseases are much more common, and cause many more early deaths, among Aboriginal and Torres Strait Islander peoples.

High blood pressure can be controlled by taking regular medication, thereby reducing the chance of developing the diseases listed above. In the long term, preventing high blood pressure from developing is even more important than treating it once it has developed. Although for some people high blood pressure appears to be inherited, most can avoid developing high blood pressure by leading an active and healthy life, remaining fit and avoiding obesity and diabetes.

For those who have developed high blood pressure, treatment with long-term medication can reduce the chances of developing serious complications. Reducing the prevalence of high blood pressure in Aboriginal and Torres Strait Islander peoples is one of the most important means to reduce the occurrence of these serious circulatory diseases.

FINDINGS: There are no national data available for the prevalence of high blood pressure in Australia. Three national data sources provide an indirect indication of the relative prevalence of high blood pressure in Aboriginal and Torres Strait Islander peoples compared with other Australians.

In 2004-05, after adjusting for differences in age structure, 14% of Aboriginal and Torres Strait Islander males and 16% of Aboriginal and Torres Strait Islander females reported having high blood pressure compared to 10% of other males and females. There was no significant change in self-reported high blood pressure for Aboriginal and Torres Strait Islander peoples between 2001 and 2004-05.

Very few people with high blood pressure require hospitalisation for this condition alone; most people with high blood pressure are treated by GPs or medical specialists. Hospitalisation rates for high blood pressure thus underestimate its prevalence in the community by a large extent. High blood pressure hospitalisation rates were four times higher for Aboriginal and Torres Strait Islander peoples than other Australians; the relative excess was greatest in the middle adult years (35-64 age range). This may indicate that the prevalence of severe high blood pressure is more common in Aboriginal and Torres Strait Islander peoples. It may also indicate that high blood pressure is not controlled as well in Aboriginal and Torres Strait Islander peoples, so that very severe disease requiring acute care in hospital is more common among this group than among other Australians.

Compared to other Australians, Aboriginal and Torres Strait Islander peoples have similar GP attendance rates for high blood pressure. In the five-year period 2000-01 to 2004-05, high blood pressure was a reason for consultation in 9.8% of GP consultations for Aboriginal and Torres Strait Islander patients and 9.4% for other Australians (age-adjusted proportions).

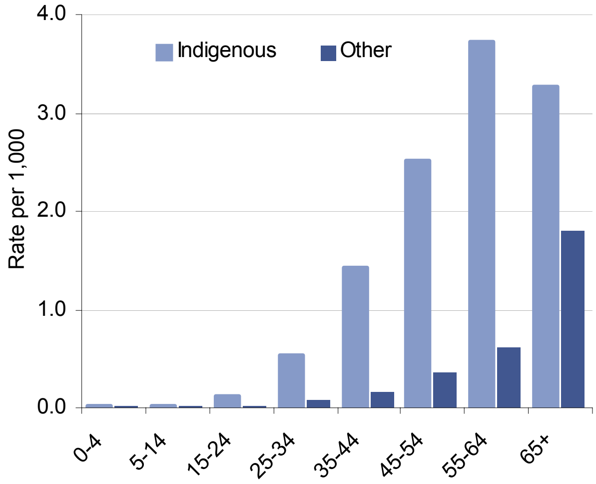
IMPLICATIONS: Hospitalisation rates indicate that severe high blood pressure is more common in Aboriginal and Torres Strait Islander peoples than other Australians. Whether this finding indicates that high blood pressure has a higher prevalence in this population or is poorly controlled and more likely to require acute care, is not known. In either case the importance of primary care and ambulatory specialist services to detect and treat high blood pressure in Aboriginal and Torres Strait Islander peoples is clear, so that severe high blood pressure can be avoided and complications of high blood pressure prevented.

Self-reported prevalence and hospitalisation rates for high blood pressure are both higher for Aboriginal and Torres Strait Islander peoples than other Australians, but high blood pressure accounts for a similar proportion of GP consultations for each population. This may indicate that Aboriginal and Torres Strait Islander peoples with high blood pressure attend their GPs less regularly than other Australians with the same disease and/or their blood pressure is less well controlled.

Research into the effectiveness of quality improvement programs in Aboriginal and Torres Strait Islander-specific primary health care services has demonstrated that both high blood pressure management processes and blood pressure control can be improved by a well-coordinated and supported systematic approach to chronic disease management (McDermott, Tulip & Sinha 2004).

Identification and management of hypertension requires access to comprehensive primary health care with appropriate systems for early detecting and chronic illness management (see measures 3.03 and 3.04).

Figure 15 – Age specific hospitalisation for a principal diagnosis of hypertensive disease for Aboriginal and Torres Strait Islander and other people in Qld, WA, SA and NT, 2002-03 to 2003-04



Source: AIHW National Hospital Morbidity Database

Table 6 – Persons reporting high blood pressure or hypertension, Aboriginal and Torres Strait Islander peoples and other people, by sex and age, 2004-05

	Males		Females	
Age group	Indigenous	Other	Indigenous	Other
	%	%	%	%
25–34	4	3	5*	2
35–44	14*	6	11*	4
45–54	22	15	24*	13
55+	39	32	46*	36
Total[(a)]	14*	10	16*	10

(a) Age standardised proportion
** Difference between Indigenous and Other is statistically significant*

Source: ABS & AIHW analysis of 2004-05 National Aboriginal and Torres Strait Islander Health Survey and 2004-05 National Health Survey

Table 7 – Aboriginal and Torres Strait Islander peoples reporting high blood pressure or hypertension, by sex and remoteness area, 1995, 2001 and 2004-05

	1995[(a)]		**2001**		**2004-05**	
	Males	**Females**	**Males**	**Females**	**Males**	**Females**
	%	%	%	%	%	%
Remote	n.a	n.a	7	10	10	10
Non-remote	15	16	5	7	6	7
Total	**n.a**	**n.a**	**6**	**8**	**7**	**8**

(a). Non remote data is not available for NATSIHS 1995 data

Source: ABS & AIHW analysis of 1995 and 2001 National Health Surveys (Indigenous supplements) and 2004-05 National Aboriginal and Torres Strait Islander Health Survey

1.08 Diabetes

WHY IS IT IMPORTANT?: Diabetes is a long-term (chronic) condition in which blood glucose levels become too high because the body produces little or no insulin, or cannot use insulin properly. Over many years, high blood glucose levels can damage various parts of the body, especially the heart and blood vessels, eyes, kidneys and nerves, resulting in permanent disabilities, reduced quality of life and shortened life expectancy. High blood glucose levels can cause complications for both the mother and baby during pregnancy. As the sixth leading cause of death in Australia, diabetes is responsible for an enormous public health and social burden.

There are several forms of diabetes. The most common form is Type 2, which accounts for 85-90% of all people with diabetes and is more common in people who have insufficient physical activity, poor diet, and are overweight or obese; other factors such as smoking and excessive alcohol consumption, low birthweight and intra-uterine factors are also associated with increased risk of developing Type 2 diabetes. Type 2 diabetes is a significant contributor to morbidity and mortality in the Aboriginal and Torres Strait Islander population. Type 1 diabetes, which is the most common form of diabetes in children, is generally thought to be rare among Aboriginal and Torres Strait Islander peoples although misclassification problems with Type 2 diabetes make this difficult to ascertain.

FINDINGS: In 2004-05, three times as many Aboriginal and Torres Strait Islander than other Australian adults reported having diabetes. Hospitalisation rates for diabetes are six times higher for Aboriginal and Torres Strait Islander peoples than other Australians, and are higher in all jurisdictions for which data are available (Queensland, Western Australia, South Australia and the Northern Territory). There is little variation between jurisdictions, with diabetes hospitalisation rates being a little lower in Queensland than in the three other jurisdictions. There was no significant change self-reported diabetes prevalence among Aboriginal and Torres Strait Islander peoples between 1995 and 2004-05. However, diabetes hospitalisation rates for the four north-western jurisdictions increased between 2000-01 and 2003-04. Diabetes was also a more commonly managed problem in general practice for Aboriginal and Torres Strait Islander than other Australians. Thirteen per cent of consultations included management of diabetes for Aboriginal and Torres Strait Islander peoples, compared with 3% for other Australians.

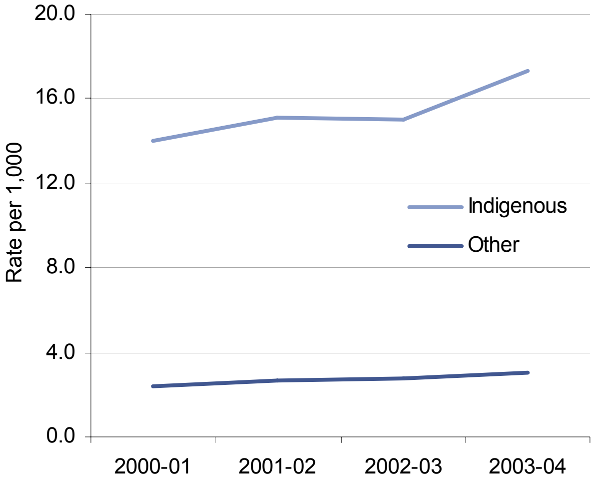
IMPLICATIONS: Diabetes is more common among Aboriginal and Torres Strait Islander peoples than other Australians, as measured by self-reported prevalence, GP consultations and hospitalisations. Hospitalisations for diabetes are increasing, although it is not clear that this is because of an increase in diabetes prevalence, an increase in complications among people with existing diabetes, or better access to health services with consequent increased utilisation of acute care services. Measured by GP consultations and hospital inpatient episodes, diabetes is more commonly treated in both primary care and acute care for Aboriginal and Torres Strait Islander than other Australians. While the excess prevalence of diabetes (measured by self-reported prevalence) is closely reflected in excess health services, it appears that health services volume only partially matches excess need. Local studies have shown that appropriate management structures and clinical support for people with diabetes in primary health care services can lead to improved glycaemic control and reduction in hospital admissions for preventable diabetes complications (McDermott et al. 2003). There is little national information available on the effectiveness of chronic disease management for Aboriginal and Torres Strait Islander diabetic patients (see measure 3.04).

Smoking is one risk factor for diabetes. There has been no reduction in smoking levels for Aboriginal and Torres Strait Islander peoples over the past ten years for which data are available (see measure 2.17). Trends in obesity, nutrition and physical activity, which are all major health risk factors for Aboriginal and Torres Strait Islander peoples show no improvement and risky/high risk alcohol consumption has increased. More attention is needed to deal with these underlying problems and achieve success (see Chapter 5).

Diabetes illustrates the imbalance between preventive strategies to assist and encourage Aboriginal and Torres Strait Islander peoples to live healthier lives and so avoid diabetes and related chronic diseases, primary health care to delay development of complications in those with established diabetes, and acute care to treat serious complications when they have developed in those with long-standing, poorly controlled disease. Hospitalisation for treatment of diabetes complications is the most significant preventable hospitalisation for Aboriginal and Torres Strait Islander peoples, 12 times more frequent than for other Australians (see measure 3.06). Hospitalisation rates for diabetes are increasing, but there is no sign that disease prevalence has decreased over the past decade. Until strategies to improve the lives of Aboriginal and Torres Strait Islander peoples and primary care services to control established disease are better resourced and more effective than they apparently have been to date, hospitalisation rates can be expected to increase further to treat increasing levels of serious disease.

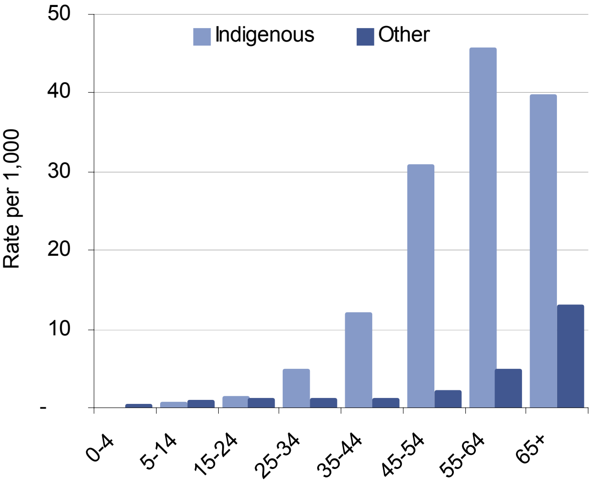
Challenges for decisions makers include maintaining a policy emphasis on primary prevention (nutrition, physical activity, smoking, alcohol) whilst implementing strategies to achieve effective secondary prevention (primary care, blood sugar control). More research is required on levels of undetected diabetes in the broader Aboriginal and Torres Strait Islander population, and the most effective mechanism for achieving early detection and ongoing management of the condition (see measures 3.03 and 3.04).

Figure 16 – Hospitalisation rates for a principal diagnosis of diabetes, Aboriginal and Torres Strait Islander peoples and other people in Qld, WA, SA and NT, age standardised, 2000-01 to 2003-04



Source: AIHW National Hospital Morbidity Database

Figure 17 – Age specific hospitalisation for a principal diagnosis of diabetes for Aboriginal and Torres Strait Islander peoples and other people in Qld, WA, SA and NT, 2002-03 to 2003-04



Source: AIHW National Hospital Morbidity Database

Table 8 – Persons reporting diabetes/high sugar levels, by Indigenous status and age, 2004-05

	Persons	
Age group	Indigenous	Other
	%	%
25–34	4	1
35–44	10	2
45–54	21	4
55+	32	12
Total[(a)]	12	4

(a) age-adjusted proportion

Source: 2004-05 National Aboriginal and Torres Strait Islander Health Survey and 2004-05 National Health Survey

Table 9 – Aboriginal and Torres Strait Islander peoples reporting diabetes/high sugar levels, by remoteness area, 1995, 2001 and 2004-05

	1995(a)	**2001**	**2004-05**
Remote	n.a	7	9
Non-remote	4	4	5
Total	**n.a**	**5**	**6**

(a). Non remote data is not available for NATSIHS 1995 data

Source: ABS & AIHW analysis of 1995 and 2001 National Health Surveys (Indigenous supplements) and 2004-05 National Aboriginal and Torres Strait Islander Health Survey

1.09 End stage renal disease

WHY IS IT IMPORTANT?: The kidneys can be permanently damaged by a variety of acute illnesses (e.g. severe infections) or by slowly progressive damage from chronic conditions such as elevated blood pressure (untreated hypertension) and long-standing high blood sugar levels (untreated diabetes). If the kidneys cease functioning entirely (known as end-stage renal disease, or kidney failure) waste products and excess water build up rapidly in the body and cause progressively worse illness. This will cause death within a few days or weeks unless a machine is used to filter the blood several times per week (renal dialysis) or a new kidney is provided from someone else (a kidney transplant).

Aboriginal and Torres Strait Islander peoples have very high levels of end-stage renal disease (ESRD), mostly because so many of them have diabetes or hypertension (AIHW 2005d). ESRD usually occurs in older people, but for many Aboriginal and Torres Strait Islander peoples it occurs in the middle adult years because they have had diabetes or hypertension since early adulthood. Few Aboriginal and Torres Strait Islander patients receive kidney transplants, so most must have dialysis three times per week for the rest of their lives.

FINDINGS: ESRD incidence is higher for Aboriginal and Torres Strait Islander peoples than other Australians, and there is considerable variation in incidence rates between jurisdictions and between urban, rural and remote areas. The incidence of ESRD can be estimated from data recorded by the Australian and New Zealand Dialysis and Transplant Registry for people receiving treatment for ESRD; this includes almost all Australians diagnosed with ESRD. In 2002-04, the age-adjusted incidence rate of treated ESRD was eight times higher for Aboriginal and Torres Strait Islander peoples than other Australians. ESRD incidence was higher for Aboriginal and Torres Strait Islander peoples in all adult age-groups; the greatest relative excess was in the 45–54 and 55–64 age-groups.

ESRD incidence for Aboriginal and Torres Strait Islander peoples was much higher in outer regional and remote areas than urban areas and much higher in the four north-western states than in Victoria and New South Wales. The relative excess in ESRD incidence was greatest in remote areas (26 times higher than for other Australians in the same areas) compared to outer regional and very remote areas (18 and 12 times higher respectively) and major cities and inner regional areas (4-5 times higher). Consistent with this regional variation, the relative excess for Aboriginal and Torres Strait Islander peoples was greatest in the Northern Territory (17 times higher) and least in Victoria and New South Wales (3 times higher). For other Australians, there was little difference in ESRD incidence between jurisdictions or between urban, rural and remote areas.

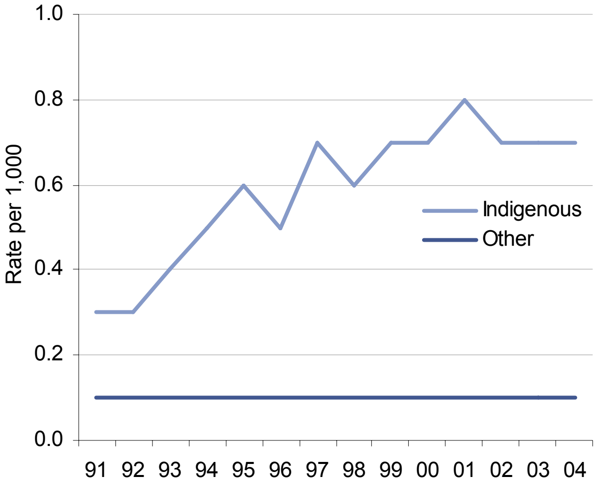
The number of Aboriginal and Torres Strait Islander patients starting ESRD treatment has more than tripled over the last decade (from 54 in 1991 to 188 in 2004), and the incidence rate increased by an average of approximately 3 per 100,000 each year over that period (which was statistically significant). ESRD incidence also increased, but not as rapidly, for other Australians over this period (the average annual increase was less than one per 100,000 per year). The rapid increase in the incidence of ESRD in the Aboriginal and Torres Strait Islander population may reflect both real growth in the incidence of ESRD among Aboriginal and Torres Strait Islander peoples and an increase in availability of kidney treatment; changing levels of identification of Aboriginal and Torres Strait Islander registrations in the ANZDATA registry may also be partly responsible.

ESRD patients require either a kidney transplant or dialysis to maintain the functions normally performed by the kidneys. In December 2004, of all Indigenous Australians ESRD patients registered, 87% were reliant on dialysis and only 13% had received a kidney transplant. In comparison, 54% of non-Indigenous Australians living with ESRD were reliant on dialysis and 46% had received a kidney transplant. Indigenous Australians with ESRD were 10 times more likely be reliant on dialysis.

IMPLICATIONS: The very high level of ESRD in Aboriginal and Torres Strait Islander peoples is a consequence of the high levels of diabetes, high blood pressure and related diseases, and possibly of the high levels of bacterial infections and glomerulonephritis in childhood (AIHW 2005c). These in turn are consequences of the poor environmental, housing, and hygiene conditions in which many Aboriginal and Torres Strait Islander peoples live (particularly in remote areas) and the relatively poor diet and physical activity levels that are affecting Aboriginal and Torres Strait Islander peoples even more than other Australians.

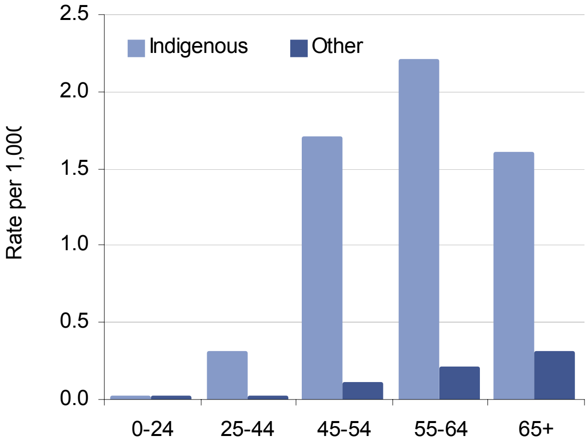
Considerable attention and resources have rightly been directed to life-saving treatment of those people whose kidneys have ceased to function. However, ESRD incidence will continue to rise, imposing even greater demands on acute care services, until primary health care services are re-oriented and sufficiently resourced to achieve the best possible chronic disease management for Aboriginal and Torres Strait Islander patients. Secondary prevention by primary health care is still a second-best solution to this problem. Primary prevention of kidney disease in childhood, by improved environmental conditions and hygiene, and in adulthood by healthier nutrition and greater physical activity, is essential before the excess of ESRD in Aboriginal and Torres Strait Islander peoples can be eradicated. For the foreseeable future, increasing demand for dialysis and transplantation services will be greatest in rural and particularly remote areas, where the cost and difficultly of delivering such technically sophisticated services is greatest. The cost of ESRD, to both the health care system and to Aboriginal and Torres Strait Islander peoples, will continue to rise in the foreseeable future.

Figure 18 – Age standardised registration rates for End Stage Renal Disease, by Indigenous status, 1991-2004



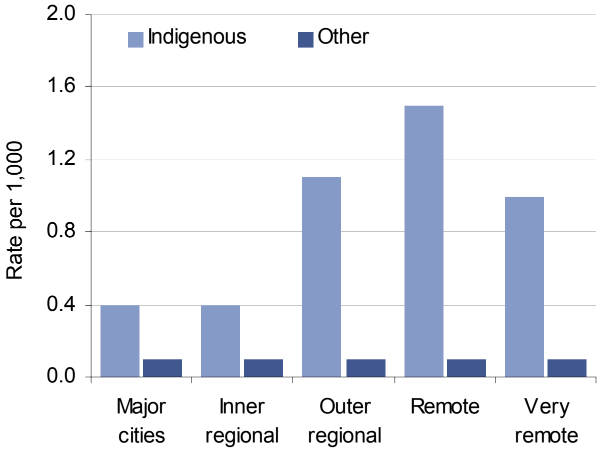
Source: AIHW analysis of Australian and New Zealand Dialysis and Transplant Registry (ANZDATA)

Figure 19 – Incidence of End Stage Renal Disease by Indigenous Status and age-group, 2002-04



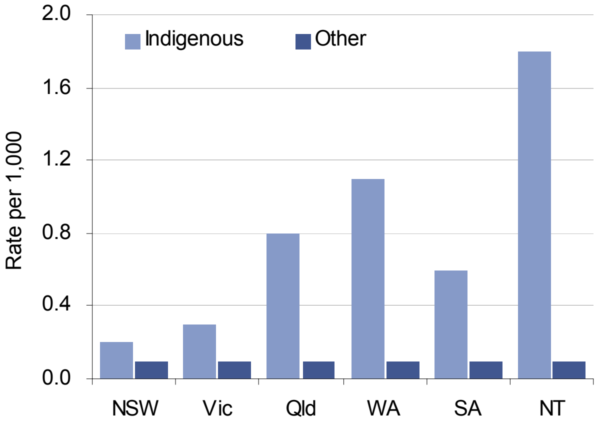
Source: AIHW analysis of Australian and New Zealand Dialysis and Transplant Registry (ANZDATA)

Figure 20 – Incidence of End Stage Renal Disease by Indigenous Status and remoteness, 2002-04



Source: AIHW analysis of Australian and New Zealand Dialysis and Transplant Registry (ANZDATA)

Figure 21 – Incidence of End Stage Renal Disease by Indigenous Status and jurisdiction, 2002-04



Source: AIHW analysis of Australian and New Zealand Dialysis and Transplant Registry (ANZDATA)

1.10 Decayed, missing, filled teeth

WHY IS IT IMPORTANT?: Oral health refers to the health of tissues of the mouth; muscles, bone, teeth and gums. This performance measure focuses on one component of oral health, the teeth, and particularly on the number of decayed, missing and filled infant (dmft) and adult (DMFT) teeth. The number of teeth with dental decay (termed 'caries') reflects untreated dental disease, while the number of missing and filled teeth reflects the history of dental health problems and treatment. The number of teeth with untreated decay is often higher in the younger age-groups, while older people are more likely to have missing or filled teeth.

Decayed teeth can cause illness and pain. The loss of permanent teeth can lead to difficulties in chewing, discomfort while eating and subsequent nutritional problems, embarrassment and social isolation. It is difficult for adults without teeth to eat a healthy diet. It is argued that children affected with dental diseases might not perform as well in school as their healthy counterparts. They have difficulty eating (which might adversely affect their nutritional levels), and they may have low self-esteem from the appearance of their decayed teeth. Poor dental health can also cause impaired speech and language development. Poor oral health may also exacerbate other chronic diseases.

Aboriginal and Torres Strait Islander peoples are more likely than other Australians to have lost all their teeth, have gum disease, and receive less caries treatment, but they are less likely to have received preventive dental care and more likely to have untreated dental disease.

Periodontal disease (affecting the gums) is associated with increased age, poor oral hygiene, infrequent dental visits, smoking, low education and income levels, and certain medical conditions especially diabetes. Current research is also finding an association between periodontal disease and pre-term, low birthweight babies; cardiovascular disease; and rheumatoid arthritis (Thompson et al. 2004; NATSIHC/SCATSIH 2003).

FINDINGS: The average number of decayed, missing and filled teeth per child is measured by the dmft score for deciduous (infant) teeth and the DMFT score for permanent teeth. For the three states for which reliable data are available (New South Wales 2000, South Australia 2003 and the Northern Territory 2002), the mean number of decayed or missing deciduous teeth and of decayed permanent teeth was much higher for Aboriginal and Torres Strait Islander children than other Australian children. The excess of decayed or missing teeth varied with age, but was more than twice as high in many age-groups.

In the 4-6 years age-group, other Australian children have more decayed than filled teeth. By 8-10 years of age, the number of decayed and filled teeth are similar, and by 12-14 years of age they have more filled than decayed teeth, indicating a high level of dental care. Aboriginal and Torres Strait Islander children have more decayed than filled teeth, indicating poor access to, and a large unmet need for, dental care. The highest mean number of decayed teeth was in the Northern Territory and filled teeth in South Australia. New South Wales had the lowest mean number of decayed teeth for Aboriginal and Torres Strait Islander children in all age groups.

The only data on trends in dental health is for school-age children in the Northern Territory; trend data is not available for other states. There was no improvement in dental health for Aboriginal and Torres Strait Islander children over the ten years from 1991 to 2001.

In 2001-02, the mean number of decayed teeth was higher for Indigenous Australians adults across all age groups, while the mean number of filled teeth was higher for non-Indigenous adults across all age groups. In 1994-96 Aboriginal and Torres Strait Islander adults were more likely to have no remaining teeth (16%) than other Australians (11%).

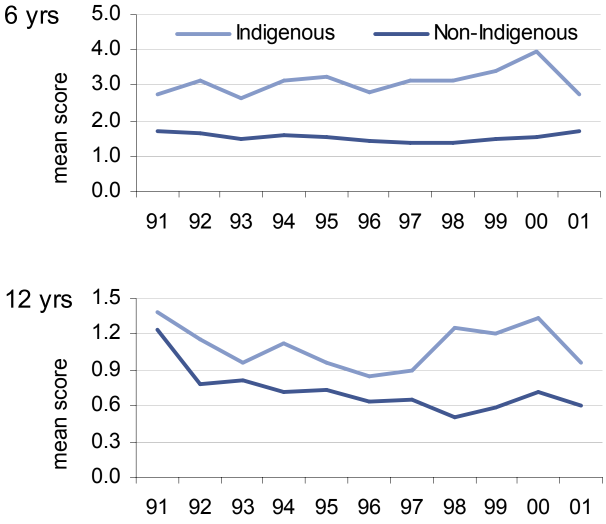
IMPLICATIONS: Dental health is worse for Aboriginal and Torres Strait Islander peoples than other Australians, for both children (based on data from three states) and adults (based on public dental care and national survey data). Of the three states for which child dental health data are available, the situation is much worse in the Northern Territory than in New South Wales or South Australia. The only trend information available is for the Northern Territory, where child dental health has not improved since 1991. Considerable improvement in dental health is still required for Aboriginal and Torres Strait Islander peoples throughout Australia before they will share the same standard of dental health as other Australians.

Aboriginal and Torres Strait Islander children in the Northern Territory are afflicted with very high levels of dental disease and low levels of dental treatment, neither of which have improved since 1991 (to 2001 at least). Lack of fluoridation of water supplies in most Northern Territory communities is part of the reason for the poor dental health of Aboriginal and Torres Strait Islander children, particularly for the high levels of decayed teeth.

The data available for these measures pre-date the *National Aboriginal and Torres Strait Islander Oral Health Action Plan* produced in 2003. Whether this plan has had any impact on the excess dental disease in Aboriginal and Torres Strait Islander peoples will not be apparent for some years. Data are also needed for all jurisdictions.

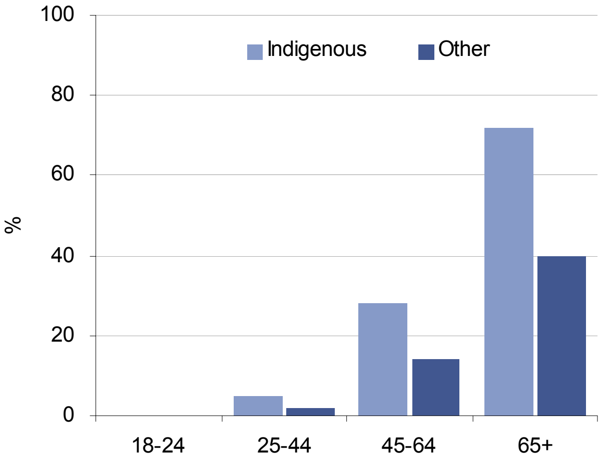
These findings raise significant policy questions about access to dental services and to population health measures for preventing dental disease and supporting oral health. Statistics on access to dental health services and barriers are shown in measure 3.10.

Figure 22 – Mean decayed, missing or filled teeth scores children aged 6 years (deciduous teeth) and 12 years (permanent teeth), NT, Aboriginal and Torres Strait Islander people and other people, 1991-2001



Source: AIHW Dental Statistics and Research Unit

Figure 23 – Adults with no natural teeth - Aboriginal and Torres Strait Islander people and other people, Australia 1994-96



Source: AIHW Dental Statistics and Research Unit

Table 10 – Mean number of decayed, missing or filled teeth for Aboriginal and Torres Strait Islander and other Australian children, NSW (2000), SA (2003) and NT (2002)

	NSW			SA			NT		
	Indigenous	Other	Ratio	Indigenous	Other	Ratio	Indigenous	Other	Ratio
4-6 year olds, deciduous teeth									
decayed	1.63	0.71	2.3	2.23	0.91	2.4	3.26	0.86	3.8
missing	0.22	0.04	5.0	0.33	0.08	4.0	0.14	0.05	2.7
filled	0.41	0.21	1.9	1.10	0.58	1.9	0.42	0.46	0.9
dmft	2.26	0.97	2.3	3.66	1.58	2.3	3.82	1.37	2.8
8-10 year olds, permanent teeth									
Decayed	0.32	0.15	2.2	0.48	0.19	2.5	0.51	0.14	3.6
Filled	0.13	0.10	1.3	0.31	0.25	1.2	0.14	0.16	0.9
DMFT	0.46	0.25	1.8	0.83	0.45	1.8	0.68	0.31	2.2
12-14 year olds, permanent teeth									
Decayed	0.67	0.32	2.1	0.94	0.41	2.3	1.16	0.41	2.8
Filled	0.37	0.33	1.1	0.86	0.65	1.3	0.37	0.52	0.7
DMFT	1.09	0.67	1.6	1.85	1.08	1.7	1.62	1.00	1.6

Source: AIHW Dental Statistics and Research Unit

1.11 HIV/AIDS, hepatitis C and sexually transmissible infections

WHY IS IT IMPORTANT?: Several sexually transmissible infections (STI) (chlamydia, gonorrhoea, syphilis and donovanosis) are much more common for Aboriginal and Torres Strait Islander peoples than for other Australians. Although each of these infections can be treated and cured once diagnosed, each can have serious long-term consequences, such as chronic abdominal pain or infertility in women after gonorrhoea and chlamydia, genital damage from the eroding ulcers caused by donovanosis, and heart and brain damage caused by syphilis. Several of these infections can cause pregnancy loss and permanent damage to new-born babies. Notification rates for hepatitis C are also significantly higher for the Aboriginal and Torres Strait Islander population. The prevalence of HIV among Aboriginal and Torres Strait Islander people is slightly higher than that of the general population, and higher rates of STIs and poorer access to primary health care services make the population more vulnerable to HIV transmission. Unlike the STIs listed above, hepatitis C and HIV/AIDS are viral infections which can both be fatal. HIV/AIDS remains incurable and management of both HIV and hepatitis C requires specialist services for which access may be poorer for Aboriginal and Torres Strait Islander peoples. This is reflected in much higher rates of AIDS among the Aboriginal and Torres Strait Islander population than the non-Indigenous population, despite an only slightly higher rate of HIV infection. The bacterial STIs and HIV are transmitted through sexual contact while hepatitis C is most commonly transmitted through contact with infected blood (usually injecting drug use). HIV is also transmitted through contact with infected blood. Notification data on sexually transmissible infections reflect diagnosed cases for the condition rather that the extent of the problem in the population. These data exclude information from those people who have the condition but have not been diagnosed. Therefore notification rates reflect a range of issues including access to responsive and effective health care, the accuracy of the tests, whether there is systematic screening for conditions that are common but frequently asymptomatic, and people's decisions regarding seeking health care for sexually transmissible conditions.

FINDINGS: Chlamydia, gonorrhoea and hepatitis C are all more common in Aboriginal and Torres Strait Islander peoples than other Australians. In the western states, syphilis occurs predominantly, and donovanosis almost exclusively, in Aboriginal and Torres Strait Islander peoples. During 2002-04, 79% of cases of syphilis notified in the three western states and 41 of 42 cases of donovanosis notified nationally (all in Queensland, Western Australia or the Northern Territory), occurred in Aboriginal and Torres Strait Islander people. All these diseases occur more frequently in the young adult age-groups, particularly the 15-24 years age-group.

Notification rates for chlamydia and gonorrhoea have increased across the whole Australian population over the last decade. The incidence rates of gonorrhoea, chlamydia and hepatitis C increased considerably between 1994 and 2004 for Aboriginal and Torres Strait Islander peoples.

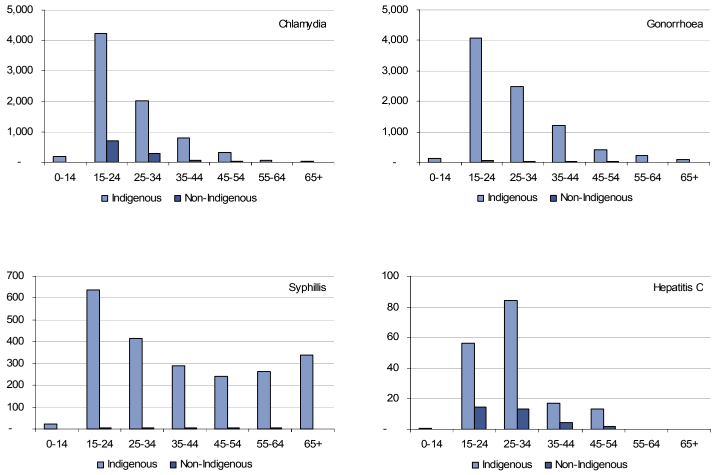
The incidence of HIV infection has increased slightly in recent years for both Aboriginal and Torres Strait Islander peoples and other Australians. For the period 2002-04, the incidence of HIV was 5.4 per 100,000 for Aboriginal and Torres Strait Islander populations and 4.4 per 100,000 for the non-Indigenous population, and rate of AIDS diagnosis was 2.6 per 100,000 in Aboriginal and Torres Strait Islander people and 1.1 per 100,000 in the non-Indigenous population. The distribution of infection is different in the two populations. Heterosexual contact (44% versus 12%) and injecting drug use account for a greater proportion of risk exposures among Aboriginal and Torres Strait Islander HIV diagnoses. The HIV incidence rate for Aboriginal and Torres Strait Islander females is 3.8 times higher than for other Australian females (3.5 compared with 0.9 per 100,000), but there is little difference for males (7.4 compared with 7.8).

IMPLICATIONS: Chlamydia and the other bacterial STIs are a major health problem for Aboriginal and Torres Strait Islander peoples. The incidence of these infections in many Aboriginal and Torres Strait Islander communities is so high that they may be regarded as being endemic. For jurisdictions for which data are available (the three western jurisdictions for most of these infections), there is no indication that these epidemics are being brought under control; indeed, incidence rates for gonorrhoea and chlamydia increased considerably between 1994 and 2004.

In this period several national strategies to control sexually transmissible infections and blood-borne viruses have been developed and implemented in Australia, some specific to Aboriginal and Torres Strait Islander peoples, others including Aboriginal and Torres Strait Islander peoples as a high priority. None of these strategies have as yet had any impact (based on communicable disease notifications data). It is possible, however, that these strategies have increased testing and therefore detection and notification of these infections, and have increased the identification of Aboriginal and Torres Strait Islander peoples in notification systems, so that part of the increase for some of these infections may be due to improved surveillance.

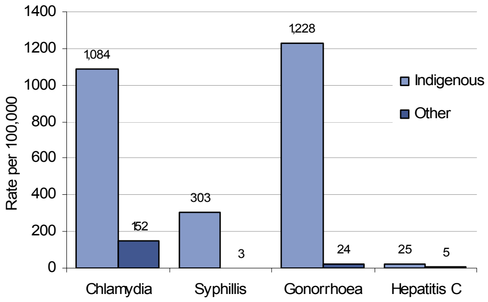
Improving data on STIs and HIV/AIDS for Aboriginal and Torres Strait Islander peoples is a priority to allow monitoring of progress nationally. The presence of high rates of bacterial STI increases a population's vulnerability to HIV infection, if exposed. Thus HIV prevention strategies in Aboriginal and Torres Strait Islander populations must have bacterial STI control as a central objective.

Figure 24 – Age specific notification rates per 100,000 of four infectious diseases, by Indigenous status, WA, SA and NT, 2002-04



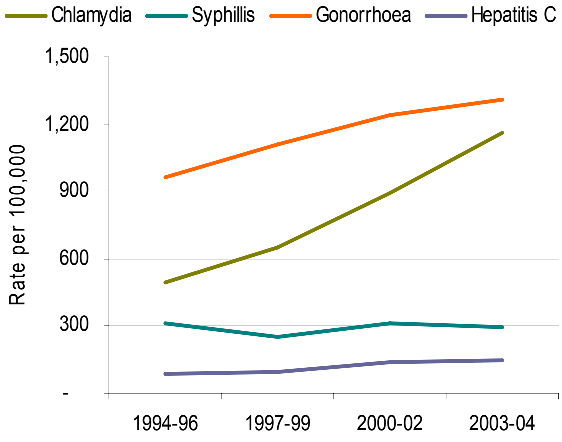
Source: AIHW analysis of National Notifiable Diseases Surveillance System

Figure 25 – Age-adjusted notification rate of four infectious diseases, by Indigenous status, WA, SA and NT, 2002-04



Source: AIHW analysis of National Notifiable Diseases Surveillance System

Figure 26 – Notification rate for four infectious diseases for Indigenous Australians, by period



Source: AIHW analysis of National Notifiable Diseases Surveillance System

Figure 27 – Notification rate for HIV and AIDS for Indigenous Australians, by period

Source: AIHW analysis of National Centre in HIV Epidemiology and Clinical Research

1.12 Children's hearing loss

WHY IS IT IMPORTANT?: Hearing loss among Aboriginal and Torres Strait Islander children is widespread and much more common than in the broader Australian population. In Australia, the most common causes of hearing loss among Aboriginal and Torres Strait Islander peoples are disorders of the middle ear, specifically bacterial and viral infections leading to otitis media. Otitis media is thought to be more common and severe among Aboriginal and Torres Strait Islander children because of poverty, crowded housing conditions, inadequate access to water and to functioning sewerage and waste-removal systems (increasing the risk of bacterial and viral infections), passive smoking, nutritional problems and lack of access to primary health care and treatment.

Hearing loss can lead to linguistic, social and learning difficulties, and behavioural problems in school, which reduces educational achievements that have life-long consequences for employment, income, and social success.

The World Health Organization regards a prevalence of chronic suppurative otitis media of greater than four per cent as a massive public health problem requiring urgent action. In 2001, a survey of 29 remote communities in northern and central Australia found a prevalence of 15% in Aboriginal and Torres Strait Islander children aged 0-14 years (Morris et al. 2005).

FINDINGS: In the National Aboriginal and Torres Strait Islander Health Survey in 2004-05, 10% of Aboriginal and Torres Strait Islander children aged 0-14 years were reported as having ear or hearing problems compared to 3% of other Australian children. These problems were higher in older children and in remote areas. Nationally there has been little change since 2001, however, there has been a significant improvement in remote areas (18% compared with 12-13%).

Hospitalisation rates for diseases of the ear and mastoid process are available for the north-western states (Queensland, Western Australia, South Australia and the Northern Territory). The hospitalisation rate for all ear disease combined for Aboriginal and Torres Strait Islander children was similar to that for other Australian children, with and a small statistically significant decline between 1998-99 and 2003-04. Hospitalisation rates were 30% lower for Aboriginal and Torres Strait Islander children than other Australian children in the 0-4 years age-group (11.3 compared with 16.6 per 1,000), but 30% higher in the 5-14 years age-group (7.2 compared with 5.4).

In the two-year period July 2002 to June 2004, Aboriginal and Torres Strait Islander children aged 0–14 years were hospitalised for tympanoplasty procedures due to middle ear infection at almost five times the rate of other children.

General practice attendances for acute otitis media or myringitis are only slightly more common for Aboriginal and Torres Strait Islander than other Australian children; the encounter rate in 2000-01 to 2004-05 was 9.7 per 100 encounters for Aboriginal and Torres Strait Islander children compared with 9.2 for other Australian children in the 0-4 years age-group, and 6.4 compared with 5.7 in the 5-14 years age-group.

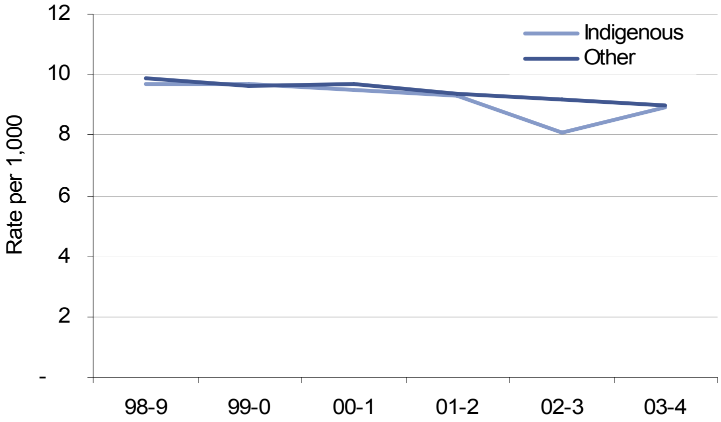
IMPLICATIONS: Chronic ear disease causing serious hearing damage is common in Aboriginal and Torres Strait Islander children. Chronic suppurative otitis media occurs in remote Aboriginal and Torres Strait Islander communities at levels described by the World Health Organization as a massive public health problem requiring urgent action.

The *Work Plan for Future Actions in Ear and Hearing Health* (Department of Health and Ageing 2003) outlines policy principles and key activities to address ear and hearing health needs of Aboriginal and Torres Strait Islander peoples. The key ones are: address ear health in a comprehensive, population-based approach to family, maternal and child health; promote skills development in the primary health care workforce in the clinical management of otitis media; facilitate earlier and increased access to medical specialists and audiologists; increase the capacity of the Commonwealth Hearing Services Program to respond to the tertiary hearing needs of Aboriginal and Torres Strait Islander peoples; enhance and harness the role Aboriginal Health Workers play in ear health services and health promotion; and improve the use of technological systems and training in school ear health and hearing policies and programs.

The Recommendations for Clinical Care Guidelines on the Management of Otitis Media in Aboriginal and Torres Strait Islander Populations (Menzies School of Health Research 2001) provides guidance on otitis media prevention, diagnosis and treatment in Aboriginal and Torres Strait Islander populations. However there are several policy questions for which data are not yet available. There is little data describing the main causes of otitis media and hearing loss in Aboriginal and Torres Strait Islander children and time trends showing incidence of otitis media and hearing loss.

The prevalence of ear disease is three times higher for Aboriginal and Torres Strait Islander children than other children in self-reported survey data, yet levels of treatment by GPs and levels of hospitalisation are similar to those of other Australian children; only tympanoplasty procedures in hospitals are higher. Is the health system failing to address the serious hearing problems of Aboriginal and Torres Strait Islander children? A comprehensive approach that combines early treatment, management and referral, linkages with school screening programs, preventative social and economic strategies, particularly to reduce overcrowded housing and improve hygiene and nutrition, is required to reduce the extremely high levels of chronic otitis media in Aboriginal and Torres Strait Islander communities.

Figure 28 – Hospitalisation rates for Aboriginal and Torres Strait Islander and other children aged 0-14 years from diseases of the ear and mastoid, Qld, WA, SA and NT, 1998-99 to 2003-04



Source: AIHW National Hospital Morbidity Database

Table 11 – Diseases of the ear and mastoid reported for children aged 0-14 years, by Indigenous status, 2004-05

	Proportion (%)		Rate per 1,000					
Age (years)	0-14 years		0-4 years		5-14 years		Total 0-14 years	
	Indigenous	Other	Indigenous	Other	Indigenous	Other	Indigenous	Other
Complete/ partial deafness or hearing loss	5*	1	18	5	59	16	45	12
Otitis media	4*	2	36	18	47	14	44	15
Other diseases of the ear and mastoid	1	-	4	1	16	5	12	4
Total	10*	3	55	23	115	34	95	30

* Statistically significant difference proportions between 'Indigenous' and 'Other'
Source: ABS & AIHW analysis of 2004-05 National Aboriginal and Torres Strait Islander Health Survey and 2004-05 National Health Survey

Table 12 – Diseases of the ear and mastoid reported for Aboriginal and Torres Strait Islander children aged 0-14 years, by remoteness and sex, 1995, 2001 and 2004-05

	1995[(a)]		2001		2004-05	
	Males	**Females**	**Males**	**Females**	**Males**	**Females**
	%	%	%	%	%	%
Remote	n.a	n.a	18	18	12	13
Non-remote	7	4	6	11	9	8
Total	**n.a**	**n.a**	**10**	**13**	**10**	**9**

n.a. Not available
(a) Data for the National Aboriginal and Torres Strait Islander Health Survey 1995 is available for non remote regions only
Source: ABS & AIHW analysis of 1995 and 2001 National Health Survey (Indigenous supplements) and 2004-05 National Aboriginal and Torres Strait Islander Health Survey

1.13 Disability

WHY IS IT IMPORTANT?: A disability may be an impairment of body structure or function, a limitation in activities, and/or a restriction in participation. A person's functioning or disability is conceived as an interaction between health conditions and environmental and personal factors. Aboriginal and Torres Strait Islander peoples are at greater risk of disabilities because they are more frequently subject to many factors that predispose them to disability, including higher rates of chronic disease, infectious diseases (for example, otitis media, especially among young children), accidents and violence, mental health problems and substance abuse, combined with limited access to early treatment and rehabilitation services. These factors tend to be more prevalent in communities where there are higher rates of unemployment, lower levels of income, poorer diet and living conditions, and poorer access to adequate health care - often due to geographical remoteness.

FINDINGS: The only national data source on disability for Aboriginal and Torres Strait Islander peoples is the *National Aboriginal and Torres Strait Islander Social Survey* (NATSISS) in 2002, and this data is limited to people aged 15 years or over, and to usual residents of private dwellings. The survey collected data on a broad measure of disability that was also used in the 2002 General Social Survey of the whole Australian population for Aboriginal and Torres Strait Islander people living in non-remote areas only. The survey also collected data for a more restricted measure of disability from Aboriginal and Torres Strait Islander peoples in both remote and non-remote areas, but no comparison is available with other Australians.

In 2002 102,900 (36%) of Aboriginal and Torres Strait Islander peoples aged 15 years or over had a disability or a long-term health condition (excluding psychological disability). Of these, 21,800 or 8% of the population aged 15 years or over had a profound or severe core activity limitation, meaning that they always or sometimes needed assistance with at least one activity of everyday living (self-care, mobility or communication). The prevalence rate, or proportion, of people with a disability or long-term health condition was similar in males (37%) and females (36%). The rate of disability or long term health condition increased with age. Approximately 70% of people aged 55 years or over had a disability or long-term health condition.

Aboriginal and Torres Strait Islander peoples were twice as likely to have a profound or severe core activity limitation as non-Indigenous Australians. The prevalence of profound and severe core activity limitation was higher in all age-groups, with the greatest difference in the 45-54 year age-group (around 4 times higher).

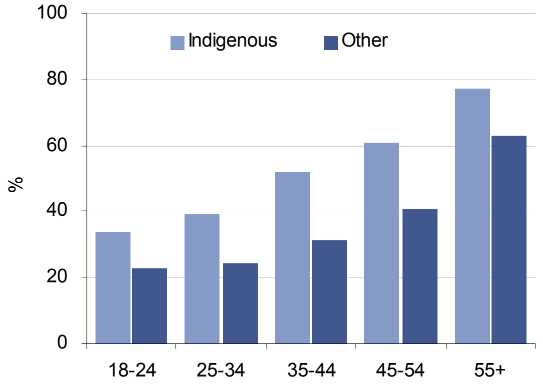
In 2002, Indigenous Australians aged 18 years and over had higher rates of disability than non-Indigenous Australians in all jurisdictions (rate ratios of between 1.3 and 1.6) except the Northern Territory, where rates were similar but the sample size of Aboriginal and Torres Strait Islander peoples in non-remote was too small to provide a reliable estimate.

Using the restricted measure (i.e., excluding psychological disability), disabilities and long-term health conditions have been grouped into broad disability types: physical, sensory/speech (sight, hearing or speech), and intellectual. In 2002, 24% of Aboriginal and Torres Strait Islander peoples aged 15 years and over had a physical disability or long-term health condition, 14% had a sensory/speech disability and 7% had an intellectual disability. One in six Indigenous people (16%) had an unspecified long-term health condition (requiring treatment) that could not be coded to a disability type. In the 55 years and over age-group, 30% of Indigenous people reported a sensory/speech disability, 50% of Indigenous people reported a physical disability, and 9% reported an intellectual disability.

Data on childhood disability is available for Western Australia only, from the *Western Australian* Aboriginal Child Health Survey conducted in 2001-02. Based on this survey, an estimated 2% of Indigenous children aged 4-17 years needed help with activities of daily living such as eating, dressing, bathing and going to the toilet. Limitations in vigorous activity were experienced by 4% of children of the same age. Approximately 8% of Indigenous Australian children did not have normal vision in both eyes, and 7% did not have normal hearing in both ears (ABS & AIHW 2005). The authors of the *Western Australian Child Health Survey* comment that the findings '…suggest that the reported rates of disability associated with significant impairment in activities of daily living for Aboriginal children are similar to those reported in the mainstream population, as too are rates of reported speech problems. In other areas, such as impairment of vision, reported prevalence rates are lower than those found in mainstream populations. There was a general trend for disabilities to be less frequent in more isolated areas. While this may reflect a reduced incidence of disabilities… it may also suggest that children with special needs and their families move to areas where those needs can be best addressed, such as the metropolitan area or major regional centres' (Zubrick et al. 2004).

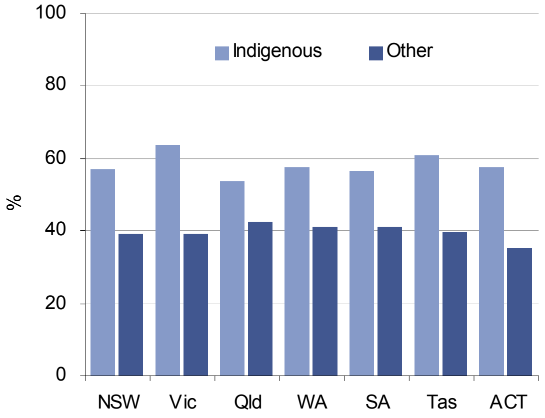
IMPLICATIONS: The high levels of disability among Aboriginal and Torres Strait Islander peoples are consistent with their levels of disease and injury, and the inadequate utilisation of health services relative to need. Aboriginal and Torres Strait Islander peoples have greater need for specific disability services, but there is little information available about their levels of utilisation or the effectiveness of these services. In the longer term, high levels of disability will persist until excessive levels of disease and injury and inadequate access to and effectiveness of health services are eliminated.

Figure 29 – Persons aged 18 years and older: Disability status by Indigenous status and age-group, non-remote areas 2002



Source: AIHW analysis of 2002 ABS National Aboriginal and Torres Strait Islander Social Survey and 2002 ABS General Social Survey

Figure 30 – Persons aged 18 years and older: Disability status by Indigenous status and state/territory, age standardised rates, non-remote areas 2002



Note: Insufficient sample in NT non-remote areas to produce reliable estimates.

Source: AIHW analysis of 2002 ABS National Aboriginal and Torres Strait Islander Social Survey and 2002 ABS General Social Survey

Table 13 – Aboriginal and Torres Strait Islander Persons aged 15 years and older: Disability type by age-group, Australia 2002

Disability type	15 to 24	25 to 34	35 to 44	45 to 54	55 or over	Total
	%	%	%	%	%	%
Sight, hearing, speech	7.6	10.5	13.3	19.3	30.0	13.7
Physical	13.5	16.6	24.0	35.8	50.2	23.6
Intellectual	7.4	6.3	6.7	5.5	9.0	6.9
Total with a disability or long term health condition(a)	*22.7*	*29.0*	*38.2*	*49.6*	*69.6*	*36.5*
Total with no disability or long-term health condition	77.3	71.0	61.8	50.4	30.3	63.5
Total	100.0	100.0	100.0	100.0	100.0	100.0

(a) Includes disability type not specified.

Source: AIHW analysis of the ABS National Aboriginal and Torres Strait Islander Social Survey 2002

Table 14 – Aboriginal and Torres Strait Islander persons aged 15 years and over: Disability status, by remoteness, 2002

Disability status	Remote	Non-remote
	%	%
Has profound core activity restriction	4.0	2.9
Has severe core activity restriction	4.9	4.4
Disability/restriction not defined	26.5	29.6
Total with disability or long term health condition	35.4	36.9

Source: AIHW analysis of the ABS National Aboriginal and Torres Strait Islander Social Survey 2002

1.14 Life expectancy at birth

WHY IS IT IMPORTANT?: Life expectancy at birth is an estimate of how long a baby born today would live, on average, if current mortality rates in every age-group remained constant throughout the baby's life. It is a way to summarise current mortality rates in an easily understood measure to which most people can directly relate.

Life expectancy is widely viewed as a key measure of the health of populations. It is affected by many factors such as: socioeconomic status, including employment, income, education and economic well-being; the quality of the health system and the ability of people to access it; risk factor behaviour such as tobacco and excessive alcohol consumption, poor nutrition and lack of exercise; social factors; genetic factors; and environmental factors including overcrowded housing, lack of clean drinking water and adequate sanitation.

Compared to the total Australian population, the life expectancy for Aboriginal and Torres Strait Islander peoples is low, indicating that their overall health status is also much lower. Comparisons with life expectancy for Indigenous peoples in other countries (New Zealand, Canada and the United States) have demonstrated that gaps in life expectancy between Indigenous and non-Indigenous populations are much lower in those countries than in Australia and that there have been large improvements in life expectancy for other Indigenous populations over two to three decades.

FINDINGS: Indirect methods have been used to calculate life expectancy because deaths data for Aboriginal and Torres Strait Islander peoples is considerably incomplete, particularly in the south-eastern jurisdictions. Such methods cannot entirely compensate for inadequate source data; the estimates produced here are regarded as 'experimental' and approximate only. Life expectancy has been calculated for Aboriginal and Torres Strait Islander peoples for the period 1996-2001 and for the total Australian population for 1999-2001.

In these periods, Aboriginal and Torres Strait Islander life expectancy was estimated to be approximately 17 years lower than that of the total population for both males (59 compared with 77 years) and females (65 compared with 82 years). There were only small differences in life expectancy between regions of Australia. No national data are available on life expectancy trends for Aboriginal and Torres Strait Islander peoples.

The gap in life expectancy between Indigenous Australians and the rest of the population in Australia is considerably larger than on other countries where Indigenous peoples share a similar history of relatively recent European colonisation, such as Canada and New Zealand.

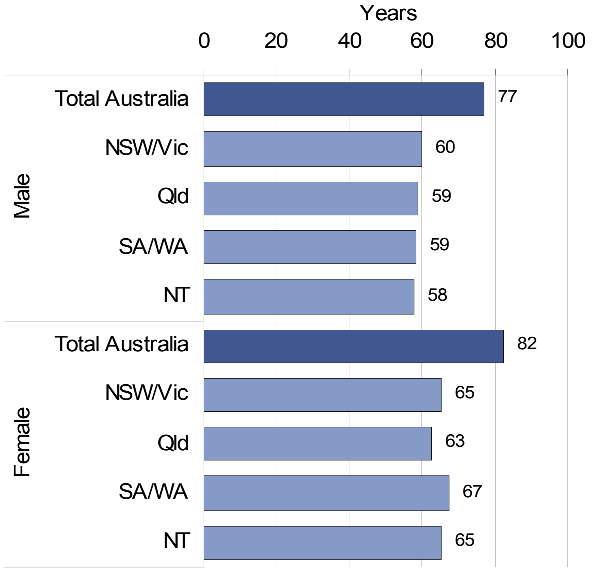
One study in the Northern Territory, where mortality data is of higher quality for Aboriginal and Torres Strait Islander peoples, found that their life expectancy improved by one to two years between 1981 and 2000, but that the gap between their life expectancy and that of other Australians did not narrow. However, there was a shift in the causes of the gap during this period. The contribution of communicable diseases (e.g. infectious and respiratory), maternal, perinatal and nutritional conditions to the gap in life expectancy had halved over this 20 year period, while the contribution of non-communicable diseases (e.g. circulatory, diabetes, cancer and digestive diseases) increased markedly.

IMPLICATIONS: The limited trend data available for the Northern Territory indicates that life expectancy is increasing, but slowly; the gap between life expectancy for Aboriginal and Torres Strait Islander and other Australians is not closing. As an overall measure of health status, life expectancy indicates that the health status of Aboriginal and Torres Strait Islander peoples is improving, but that this improvement is not keeping pace with the increasing good health of most other Australians. Currently available data from other jurisdictions are insufficient to determine whether life expectancy for Aboriginal and Torres Strait Islander peoples is improving elsewhere.

The similarity of regional life expectancy estimates may indicate that the health status of Aboriginal and Torres Strait Islander peoples in the Northern Territory; where most live in isolated remote communities with extremely poor housing and environmental conditions; may not be that much worse than elsewhere in Australia. However, the inadequacy of deaths data, particularly for the south-east jurisdictions, makes such interpretation of regional variations unreliable. More accurate identification of Aboriginal and Torres Strait Islander status in deaths data is urgently needed before such basic measures of overall population health status, which have important policy implications, can be reliably calculated.

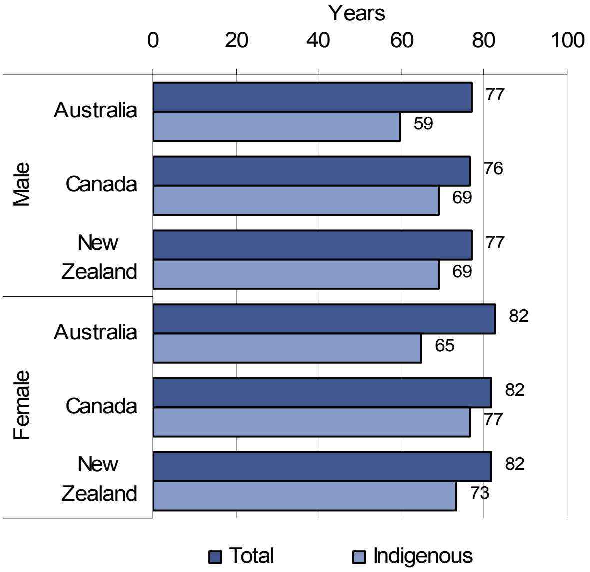
The findings from the Northern Territory that non-communicable diseases are the main contributors to the gap in life expectancy between Aboriginal and Torres Strait Islander peoples and other Australians is almost certainly applicable throughout Australia. The prevention and management of the rising tide of chronic diseases is even more important for Aboriginal and Torres Strait Islander peoples than for other Australians.

Figure 31 – Life expectancy at birth, total Australia (Indigenous and non-Indigenous combined) 1999-2001 and Indigenous by region 1996-2001



Source: ABS 2005a; SCATSIH & SIMC 2006

Figure 32 – Life expectancy at birth for males and females in Australia (1996-2001), Canada (2000) and New Zealand (2000-02), by Indigenous status



Source: ABS unpublished data; Health Canada 2005, Statistics New Zealand 2005

Table 15 – Life expectancy at birth, Indigenous 1996-2001, total population 1999-2001

Indigenous			Total population		
	Males	Females		Males	Females
New South Wales/Victoria	60.0	65.1	New South Wales	76.9	82.4
			Victoria	77.5	82.7
Queensland	58.9	62.6	Queensland	76.9	82.3
South Australia/ Western Australia	58.5	67.2	Western Australia	77.3	82.8
			South Australia	77.0	82.5
Tasmania	na	na	Tasmania	76.0	81.2
ACT	na	na	ACT	78.5	82.9
NT	57.6	65.2	NT	70.8	76.5
Australia	**59.4**	**64.8**	**Australia**	**77.0**	**82.4**

Notes: na- not available. For Tasmania and ACT estimates for the Indigenous population use NSW/Victoria estimate. Variations in life expectancies by Indigenous status, sex and jurisdiction should be interpreted with care as they are sensitive to differential data quality.

Source: ABS 2005a; SCATSIH & SIMC 2006

1.15 Perceived health status

WHY IS IT IMPORTANT?: Self-assessed health status provides measure of the overall level of a population's health based on individuals' personal perceptions of their own health. Health is recognised as having physical, mental, social and spiritual components. Therefore, the measurement of health must go beyond only objective measures such as morbidity and mortality. Part of this broader approach to measuring health is to ask people to assess the state of their own health.

Self-assessed health status is dependent on an individual's awareness and expectations regarding their health. Self-assessed health status may be influenced by a range of factors including access to health services and health information and the extent to which health conditions have been diagnosed. Social constructs of health also influence this assessment, for example definitions of health, the existing level of health within the community, judgements that one's own health is about the same, better or worse compared to others in this community.

Self-assessed health status correlates with objective health measures, such as number of reported long-term conditions, recent health related actions and the presence of a disability. There are, however, some inconsistencies in how Aboriginal and Torres Strait Islander peoples report their health status, particularly for those who speak a main language other than English, when compared with other objective measures. Aboriginal and Torres Strait Islander peoples have consistently rated their health as good or excellent despite significant health problems. Self-assessed health status is a useful measure of overall health status, but needs to be interpreted with some caution until further research into the use of such data clarifies these inconsistencies.

FINDINGS: In the 2004-05 NATSIHS, 43% of Aboriginal and Torres Strait Islander peoples aged 15 years and over reported their health as being very good or excellent, 35% reported their health as being good, and 22% reported their health as being poor or fair. There was a significant decline in those reporting their health as fair or poor from 2001 (down from 26%). Older people were less likely than younger people to report very good or excellent health: 59% in the 15-24 years age-group compared to 19% in the 55-plus years age-group. Aboriginal and Torres Strait Islander peoples were less likely than other Australians to report very good or excellent health; the difference between the two populations was greatest in the older age-groups.

After adjusting for differences in age structure between the Aboriginal and Torres Strait Islander and other Australian populations, Aboriginal and Torres Strait Islander peoples were almost twice as likely as other Australians to report their health as fair or poor; this difference between the two populations was similar in 2001. Females were more likely to report their health as fair or poor than Indigenous males (24% compared with 19%).

The proportion of Aboriginal and Torres Strait Islander peoples reporting fair or poor health was similar in all jurisdictions (22-23%) except in the Australian Capital Territory and the Northern Territory (17% and 16% respectively). A lower proportion of Aboriginal and Torres Strait Islander peoples in very remote areas reported poor or fair health (16%) than in other areas (21-25%), but the proportion reporting very good or excellent health in very remote areas (43%) was similar to that in other areas (38-45%).

IMPLICATIONS: Aboriginal and Torres Strait Islander peoples rate their own general health as lower than that of other Australians across all adult age-groups, although the disparity is least in younger age-groups. The differences between the two populations are large, which is consistent with other measures of overall health status.

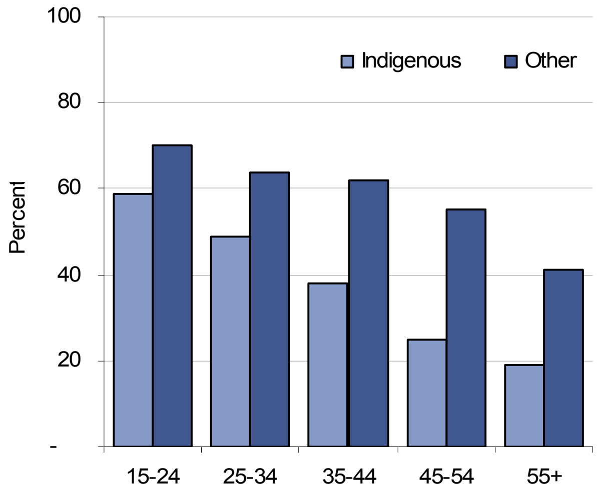
While there was variation in how Aboriginal and Torres Strait Islander peoples who rated their own overall health status between jurisdictions and between urban/rural/ remote areas, there was no obvious pattern of Aboriginal and Torres Strait Islander peoples in particularly parts of the country, such as remote areas or the south-eastern states, rating their overall health status as better or worse than those in other areas.

Self-assessed health is one of very few measures of overall health status that are currently available for Aboriginal and Torres Strait Islander peoples throughout the country. The relative consistency of self-assessed health across all jurisdictions and across urban, rural and remote areas indicates that their may not be large variations in overall health status for Aboriginal and Torres Strait Islander peoples across the country. This would be consistent with some other measures for which national data are available, such as low birthweight (see measure 1.01) for which there is also minimal variation between jurisdictions. However, other measures such as the prevalence of end-stage kidney failure indicate that there are very large differences in disease incidence between jurisdictions (much higher in the north-west than the south-east) (see measure 1.09). Mortality statistics would provide a very useful measure of overall health status, but reliable data are not available for the south-eastern states.

How an individual Aboriginal or Torres Strait Islander person assesses their own health status may also be to some extent influenced by how they perceive their health relative to other people, including other Aboriginal and Torres Strait Islander peoples, around them.

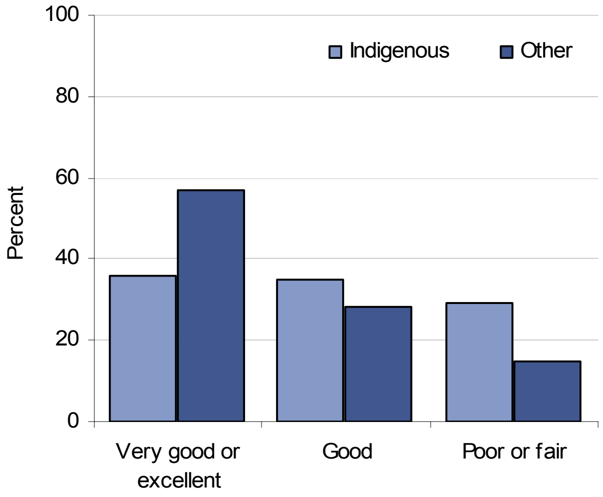
Self-assessed health status is consistent with other comparison of overall health status between Aboriginal and Torres Strait Islander peoples and other Australians, but the extent of variation between jurisdictions and between urban, rural and remote areas remains unclear.

Figure 33 – Self-assessed health status as 'Very Good' or 'Excellent' by Indigenous status and age, persons aged 15 years and over, Australia 2004-05



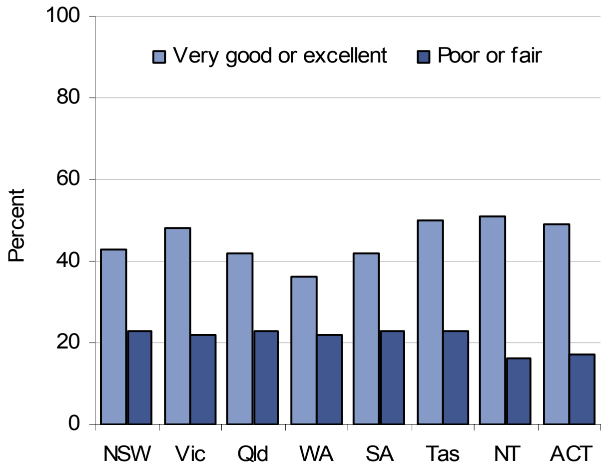
Source: 2004-05 National Aboriginal and Torres Strait Islander Health Survey and 2004-05 National Health Survey

Figure 34 – Self-assessed health status (age-adjusted percentage) by Indigenous status, persons aged 15 years and over, Australia 2004-05



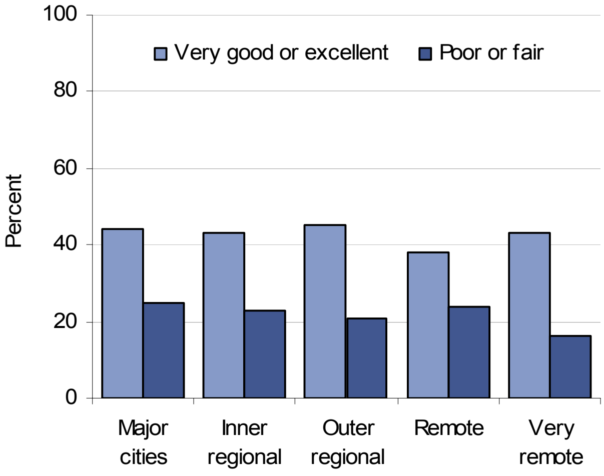
Source: 2004-05 National Aboriginal and Torres Strait Islander Health Survey and 2004-05 National Health Survey

Figure 35 – Self-assessed health status, Indigenous Australians aged 15 years and over, by state and territory, Australia 2004-05



Source:2004-05 National Aboriginal and Torres Strait Islander Health Survey

Figure 36 – Self-assessed health status, Indigenous Australians aged 15 years and over, by remoteness, Australia 2004-05



Source: 2004-05 National Aboriginal and Torres Strait Islander Health Survey

1.16 Median age at death

WHY IS IT IMPORTANT?: Median age at death is a general measure of the health status of a population. It is affected by the same sorts of factors affecting life expectancy and general mortality rates. These factors include socioeconomic status (such as employment, income, education and economic well-being), the quality of the health system and the ability of people to access it, risk factor behaviour (e.g. consumption of tobacco, excessive alcohol, poor nutrition, lack of exercise), social factors, environmental factors (e.g. overcrowding in housing, lack of clean drinking water and adequate sanitation) and genetic factors. Median age at death is also affected by the age structure of the population. In a population with a high fertility rate, and thus a high proportion of younger people, a higher proportion of deaths will occur at a young age than in a population with low fertility and a low proportion of young people. Median age at death is also a very insensitive measure of changes in mortality levels over time.

Life expectancy and mortality statistics provide one set of measures of the health of the population to be analysed in conjunction with the other health status measures in Tier 1.

FINDINGS: Reliable deaths data for Aboriginal and Torres Strait Islander peoples are only available for the four north-western jurisdictions (Queensland, Western Australia, South Australia and Northern Territory). Median age at death is lower for Aboriginal and Torres Strait Islander peoples than for other Australians, and lower for males than females. In 2003, median age at death for Aboriginal and Torres Strait Islander peoples in these four jurisdictions was 50 years for males and 56 years for females, compared with 76 years and 82 years respectively for other Australians.

For the three western jurisdictions (Western Australia, South Australia and Northern Territory) combined, median age at death decreased slightly for Aboriginal and Torres Strait Islander peoples between 1991 and 2003, by 1.2 years for males and 4.8 years for females; only the latter change was statistically significant. This decrease in median age at death for Aboriginal and Torres Strait Islander females is difficult to interpret, since median age at death provides very little information on changing mortality patterns in different age-groups. Mortality rates of Aboriginal and Torres Strait Islander peoples declined for both males and females, and more for females, over this period (see measure 1.21); this improvement in mortality levels is not reflected in median age at death.

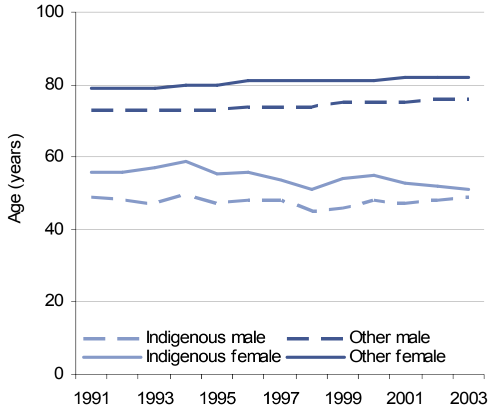
The first quartile of age at death is the age below which 25% of deaths occur. Trends in the first quartile of age at death are an indication of change in the deaths of young people, children and young adults. The first quartile of age at death increased between 1991 and 2003 for Aboriginal and Torres Strait Islander peoples in the three western states. The increase was significant for males in all three jurisdictions and only significant for females in South Australia. The third quartile of age at death is the age below which 75% of deaths occur. There was no significant change in the third quartile of age at death for Aboriginal and Torres Strait Islander peoples in the three western states over this time period.

IMPLICATIONS: Median age at death declined significantly for Aboriginal and Torres Strait Islander women between 1991 and 2003. A decline in median age at death indicates that a higher proportion of deaths are occurring at a younger age. This could be due to either a relative increase in deaths among young people or a relative decrease in deaths among older people, or a decrease in deaths in all age-groups but with a greater relative decrease in older people, or several other combinations of relative changes at younger and older age-groups.

The increase in the first quartile of age at death for Aboriginal and Torres Strait Islander peoples indicates that there was a relative reduction in the proportion of deaths occurring in children and young adults. The increase in the first quartile of age at death combined with the decrease in the median age at death indicates that an increased proportion of deaths occurred in the 35-50 years age range.

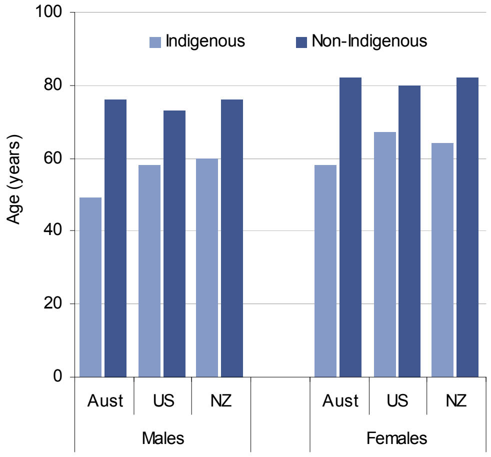
Over the same time period, the age-adjusted death rate for the same four jurisdictions decreased by approximately 16% (see measure 1.21). This indicates that the decrease in the median age at death was most likely because of a greater relative decrease in the very young and older age-groups than in the 35-50 years age-group.

Figure 37 – Median age at death, by Indigenous status and sex, WA, SA and NT, 1991-2003



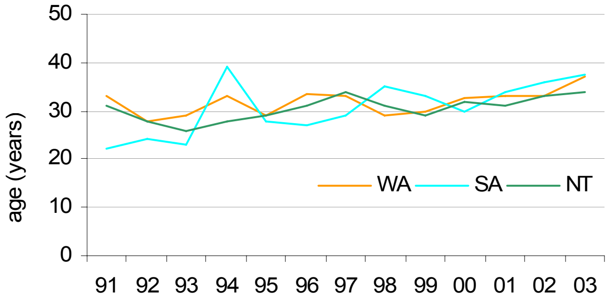
Source: AIHW national mortality database

Figure 38 – Median age at death for males and females in Australia, United States and New Zealand, by Indigenous status, 2003



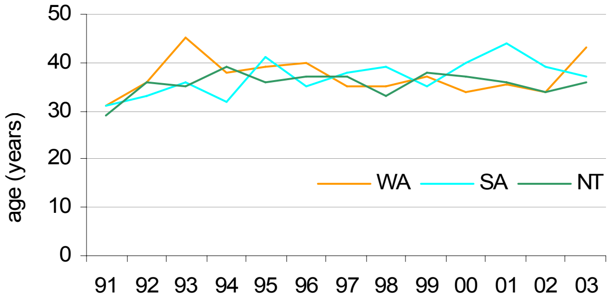
Source: AIHW national mortality database, unpublished data from US Department of Health and Human Services; Statistics New Zealand 2004

Figure 39 – First quartile of age at death, Indigenous males, WA, SA and NT, 1991-2003



Source: AIHW National Mortality Database

Figure 40 – First quartile of age at death, Indigenous females, WA, SA and NT, 1991-2003



Source: AIHW National Mortality Database

Table 16 – Median age at death, by Indigenous status and sex, Qld, WA, SA and NT, 1999-2004

	Indigenous		non-Indigenous	
	Male	Female	Male	Female
QLD	52	58	75	82
WA	50	57	75	82
SA	49	53	77	82
NT	46	52	62	70
QLD, WA, SA & NT	49	56	76	82

Source: AIHW National Mortality Database

1.17 Social and emotional well-being

WHY IS IT IMPORTANT?: Social and emotional well-being is a holistic concept and is dependant on individual, family and community experience. Health to Aboriginal peoples is ‘not just the physical well-being of the individual but the social, emotional and cultural well-being of the whole community’ (Social Health Reference Group 2004). Among Aboriginal and Torres Strait Islander peoples, social and economic disadvantage contributes to high rates of physical and mental health problems, high adult mortality, high suicide rates, child removals and incarceration rates which in turn lead to higher rates of grief, loss and trauma.

Aboriginal and Torres Strait Islander peoples have higher levels of acute morbidity and mortality from mental illness, assault, self-harm and suicide than other Australians; higher levels of alcohol and other drug use; and more frequent contact with the criminal justice system. Levels of child abuse and neglect are higher for Aboriginal and Torres Strait Islander children than other Australian children. Education, employment and income levels are lower for Aboriginal and Torres Strait Islander peoples.

These and many other measures indicate that the overall level of social and emotional well-being is not as high for Aboriginal and Torres Strait Islander peoples as for other Australians.

FINDINGS: NATSISS in 2002 collected information on a range of social issues relevant to social and emotional well-being.

Aboriginal and Torres Strait Islander peoples retain strong links to their traditional culture. In 2002, 54% of Aboriginal and Torres Strait Islander adults reported they identified with a clan or tribal group; 22% currently lived in traditional lands, 68% had attended cultural events in the last 12 months and 14% did not speak English as a primary language. Approximately 38% reported that they or a relative had been removed from their natural family.

Family and community attachments are important factors in the lives of Aboriginal and Torres Strait Islander peoples. Ninety per cent reported that, in a time of crisis, they could get support from outside the household. Approximately 90% reported that they had been involved in social activities in the last 3 months (such as religious activities, sporting activities, going out to a café, restaurant or bar, etc.) and 28% had undertaken voluntary work in the last 12 months.

Aboriginal and Torres Strait Islander peoples reported high levels of stressors in their lives. Eighty-two per cent reported that they had experienced at least one stressor in the last 12 months. Indigenous Australians were almost one and a half times more likely than non-Indigenous Australians to report experiencing at least one stressor. The most common stressors reported were the death of a family member or close friend (46%), serious illness or disability (31%) and inability to get a job (27%). Alcohol and drug related problems were reported as a stressor by 25%, and by 37% of those in remote areas. Fifty-four per cent reported that the household in which they lived could not raise $2,000 within a week in a time of crisis.

Social and emotional well-being of children

The *Western Australia Aboriginal Child Health Survey* (WAACHS) collected information on the social and emotional well-being of Aboriginal children during 2001 and 2002 (only a small number of Torres Strait Islander children participated in the survey). This survey found that a variety of health conditions, social circumstances and behaviours experienced by individuals, their carers and families can have an impact on the social and emotional well-being of Indigenous children (Zubrick et al. 2005).

Using a well established method to measure emotional and behavioural difficulties in children (the Strengths and Difficulties Questionnaire), 24% of Aboriginal children aged 4 to 17 years surveyed were assessed as being at high risk of clinically significant emotional or behavioural difficulties compared with 15% of all children. Male Aboriginal children were twice as likely as female Aboriginal children to be at high risk of clinically significant emotional or behavioural difficulties. Those children living in areas of extreme isolation were less at risk than those living in urban areas.

The WAACHS looked at a range of family and household factors that could impact on the social and emotional well-being of children. Factors that were found to be associated with high risk of clinically significant emotional or behavioural difficulties in Aboriginal children included the number of stress events experienced by the family in the 12 months before the survey (such as illness, hospitalisation, death of a close family member, family break-up, arrests, job loss, financial difficulties), quality of parenting, family functioning and family care arrangements. Residential mobility, the physical health of the child (speech, hearing and vision problems), the physical health of the carer, and carer’s use of mental health services were also associated with an increased risk of clinically significant emotional or behavioural difficulties in children. For example, around 22% of children aged 4-17 years in Western Australia were living in families where seven or more life stress events had occurred over the preceding 12 months. Of these children, 39% were at high risk of clinically significant emotional or behavioural difficulties compared to 14% of children in families where two or fewer life stress events had occurred.

Approximately one–fifth of children were living in families that functioned poorly (families with poor communication and decision making, poor emotional support, limited time spent together, and poor family cooperation). These children were over twice as likely to be at high risk of emotional and behavioural difficulties as children living in families with very good quality of parenting or very good family functioning.

A number of health risk factors were also found to be associated with a high risk of clinically significant emotional and behavioural difficulties. Approximately 29% of young people aged 12-17 years who used cannabis daily were at risk of clinically significant emotional or behavioural difficulties compared with 9% of young people who had never used cannabis. While Aboriginal males were more likely to use cannabis than females, particularly at age 17 years (45% compared to 21%), females who used cannabis were more likely to be at risk of clinically significant emotional or behavioural difficulties than males.

Young people who did not participate in organised sport were twice as likely to be at high risk of emotional and behavioural difficulties compared with young people who did participate in sport (16% and 8% respectively). Those who had been subject to racism in the past six months were more than twice as likely to be at high risk of emotional and behavioural difficulties than those who had not experienced racism.

Suicidal behaviour of teenagers

An additional survey was administered to Aboriginal young people aged 12-17 years to measure rates of suicidal thoughts and suicide attempts. Suicidal thoughts were reported by around one in six (16%) Western Australian Aboriginal people aged 12 to 17 years in the 12 months prior to the survey. A higher proportion of Aboriginal females reported they had seriously thought about ending their own life than Aboriginal males (20% compared to 12%). Of those who had suicidal thoughts in the 12 months prior to the survey, 39% reported they had attempted suicide in the same period.

Aboriginal young people who had been exposed to family violence were more than twice as likely to have thought about ending their own life (22%) as those who had not been exposed to family violence (9%). A higher proportion of Aboriginal males reported they had thought about ending their own life if they had low self-esteem (21%) than if they had high self-esteem (5%). Suicidal thoughts were associated with a number of health risk behaviours. The proportion of Aboriginal children who reported suicidal thoughts was significantly higher among those who smoked regularly, used cannabis, drank to excess in the six months prior to survey, were exposed to some form of family violence, and who had a friend who had attempted suicide.

Mental health

Mortality and hospitalisation rates for mental health conditions are higher for Aboriginal and Torres Strait Islander peoples than other Australians. In 2000-04, for the four north-western jurisdictions, after adjusting for age differences in the two populations, the mortality rate for Aboriginal and Torres Strait Islander peoples from mental health conditions was 1.8 times higher than for other Australians (2.5 for males and 1.3 for females). Excess mortality was highest in the 35-54 years age-group. In 2002-03 to 2003-04, Aboriginal and Torres Strait Islander peoples were 1.6 times more likely than other Australians to be hospitalised for mental health-related conditions (2.0 for males, 1.4 for females), and the excess was greatest in the young adult age-groups (25-34 years). There was a significant increase in the hospitalisation rate for Aboriginal and Torres Strait Islander women for mental health-related conditions between 1998-99 and 2003-04. There was a significant increase in the gap (in both relative and absolute terms) between Indigenous and non-Indigenous hospitalisation rates for these conditions during this period.

Hospitalisation for mental health due to substance use accounted for 34% of Aboriginal and Torres Strait Islander peoples hospitalisations for mental health. This was 4.1 times more frequent than for other Australians. Schizophrenia and delusional disorders accounted for 27% and were 2.4 times more common than for other Australians. Together, these two groups of conditions accounted for 61% of all hospitalisations for mental health-related conditions. Deaths due to substance use alone accounted for 63% of mental health-related deaths between 2000 and 2004.

There was considerable variation between the four north-western jurisdictions (the only ones for which reliable data are available) in the mental health-related hospitalisation rate for Aboriginal and Torres Strait Islander peoples in 2002-03 to 2003-04: after adjusting for age differences in the two populations there were 9 per 100,000 hospitalisations in the Northern Territory; 20 in Queensland; 33 in Western Australia; and 41 in South Australia. In contrast, there was little variation between three of these jurisdictions (Queensland, Western Australia and South Australia) for non-Indigenous people, for whom rates ranged from 13 to 15 per 100,000. In the Northern Territory, hospitalisation rates were very low for both Aboriginal and Torres Strait Islander peoples and other Australians (9 and 5 respectively).

Community mental health services are also utilised more frequently by Aboriginal and Torres Strait Islander peoples than other Australians. In 2003-04, after adjusting for age differences in the two populations, the contact rate with community mental health services ranged between 1.6 and 2.6 times higher for Aboriginal and Torres Strait Islander peoples than other Australians in all Australians jurisdictions except the Northern Territory. The Northern Territory had the lowest contact rate for both Indigenous Australians and non-Indigenous Australians.

Depression was the most frequently reported mental health related problem managed by general practitioners for both Aboriginal and Torres Strait Islander peoples (25%) and other Australians (34%) during 2000-01 to 2004-05. After adjusting for age differences in the two populations, mental health conditions accounted for a similar proportion of general practice encounters for Aboriginal and Torres Strait Islander peoples as for other Australians (12.6 per 100 compared with 12.1 per 100). Some specific mental health conditions were more frequent for Aboriginal and Torres Strait Islander peoples, particularly alcohol (2.6 times higher), drug abuse (2.2 times higher) and schizophrenia (1.6 times higher).

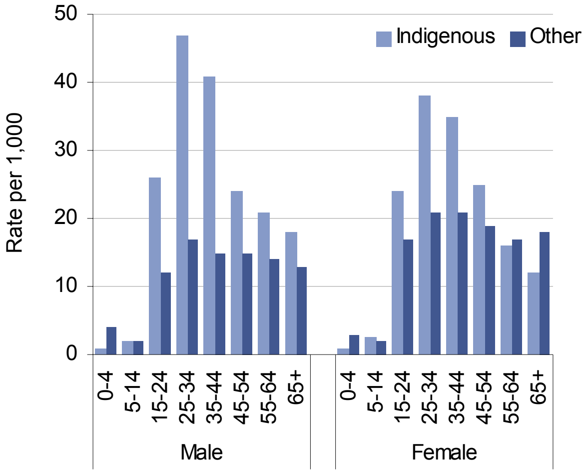
IMPLICATIONS: Aboriginal and Torres Strait Islander peoples were hospitalised for mental and behavioral disorders at twice the rate of other Australians. Mortality rates were also twice as high. The greatest excess of mental health-related hospitalisations was in the younger adult age-groups, while the greatest relative excess of mental health related deaths was in the 35-54 year age-group. Mental health related problems were among the top 5 most common problems managed during GP encounters. However, despite the higher hospitalisation and mortality rates, the rate of GP encounters was similar to other Australians.

In the Northern Territory, the contact rate in community mental health services for Aboriginal and Torres Strait Islander peoples was 11% lower than for other Australians (114 compared with 129 per 1,000). In the Northern Territory, the hospitalisation rate and the community mental health services contact rate for both Aboriginal and Torres Strait Islander peoples and other Australians were lower than in all other jurisdictions for which data were available. While it is possible that mental illness is much less common and thus utilisation of mental health services is lower in the Northern Territory than elsewhere in Australia, it is more likely that lower utilisation rates are because of lower availability of, and access to, mental health services in the Northern Territory than elsewhere, for both Aboriginal and Torres Strait Islander peoples and other Australians.

The NSFATSIH identifies social and emotional well-being as a key action area in the framework and targets mental health, suicide, alcohol, substance use and family violence issues. The *Social and Emotional Well-being Framework 2004-2009* and the *National Mental Health Plan 2003-2008* articulate specific action areas to improve the quality, responsiveness and continuity of care in this area for Aboriginal and Torres Strait Islander peoples.

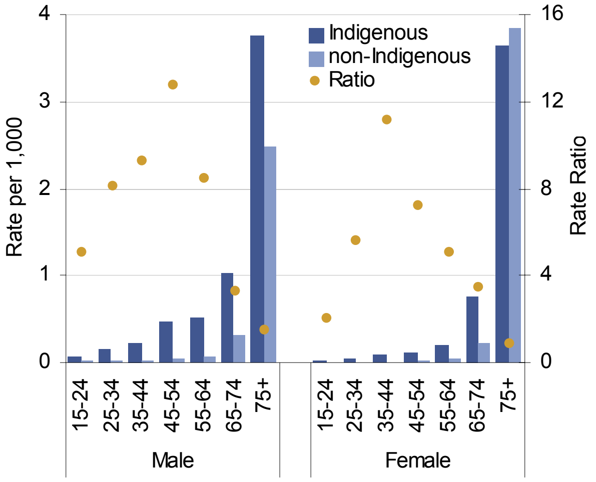
Major reforms have just been agreed through the Council of Australian Governments for mental health in Australia; Aboriginal and Torres Strait Islander peoples are rightly a priority group identified in those reforms. However, the policy response to social and emotional well-being problems needs to be multi-dimensional, and focus not only on mental health services. It needs to involve a wide range of stakeholders including Aboriginal and Torres Strait Islander communities, the health sector, housing, education, employment and economic development, family services, crime prevention and justice. It needs to support self determination and culturally valid understandings of health, build on the great strengths, resilience and endurance within Aboriginal and Torres Strait Islander communities and recognise the important historical and cultural diversity within communities (Social Health Reference Group 2004).

Figure 41 – Age specific hospitalisation rates for mental health-related conditions, by Indigenous status and sex, Qld, WA, SA and NT, July 2002 to June 2004



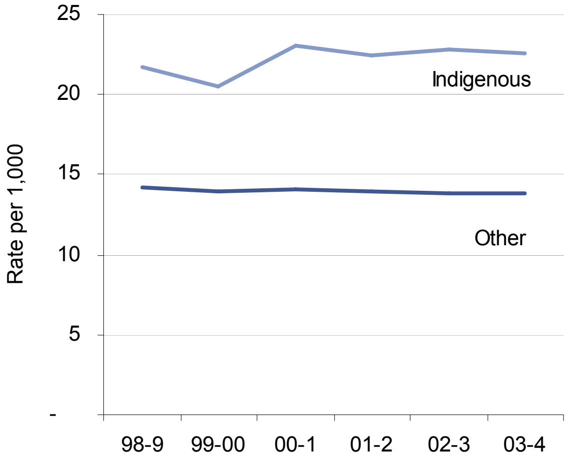
Source: AIHW National Hospital Morbidity Database

Figure 42 – Mental health-related mortality rates per 1,000, by Indigenous status, by age-group and sex, Qld, WA, SA and NT, 2000-04



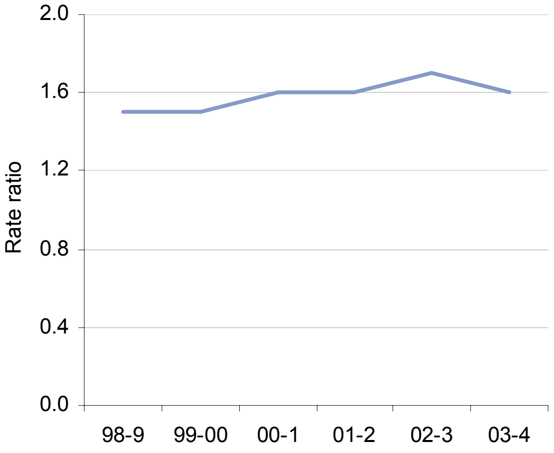
Source: AIHW National Hospital Morbidity Database

Figure 43 – Hospitalisation rates from mental health-related conditions by Indigenous status, Qld, WA, SA and NT, age standardised, 1998-99 to 2003-04



Source: AIHW National Hospital Morbidity Database

Figure 44 – Hospitalisation rate ratios between Indigenous and other Australians from mental health-related conditions, Qld, WA, SA and NT, age standardised, 1998-99 to 2003-04



Source: AIHW National Hospital Morbidity Database

1.18 Infant mortality

WHY IS IT IMPORTANT?: Infant mortality is a long established measure of child health as well as the overall health of the population and its physical and social environment. It reflects the health status and health care of the population, the effectiveness of preventive care and the attention paid to child and maternal health, as well as broader social factors such as socioeconomic deprivation, maternal education, smoking and other behavioural risk factors. Improvements in Australia's infant mortality in the last one hundred years were largely due to improved social and public health conditions such as sanitation and health education in the first half of the twentieth century, followed by the development of immunisation, and in more recent years by better treatment in neonatal intensive care and interventions for SIDS.

In the Aboriginal and Torres Strait Islander population, dramatic reductions in post-neonatal infant mortality, such as in the Northern Territory in the twenty years up to the late 1980s, reflected improved access to primary health care (including antibiotics for acute infection) and earlier evacuation to hospital for severe illness. However, infant mortality remains high for Aboriginal and Torres Strait Islander peoples because many have not benefited from the improved physical and social environment that most other Australians achieved more than fifty years ago.

FINDINGS: Reliable data on infant mortality for Aboriginal and Torres Strait Islander peoples are available only for the four north-western jurisdictions (Western Australia, South Australia, Northern Territory and Queensland). For these four combined, between 1999-2001 and 2002-04 the mortality rate for Aboriginal and Torres Strait Islander infants decreased by 20% (from 14.3 to 11.5 deaths per 1,000 live births), compared with a 13% decrease for other Australian infants (from 4.7 to 4.1).

Data on longer-term time trends are available for the three western states (Western Australia, South Australia and Northern Territory). For these three states, the Aboriginal and Torres Strait Islander infant mortality rate declined by an average of 0.8 deaths per 1,000 live births per year between 1991 and 2003, or by 9.6 deaths per 1,000 live births over the entire 13-year period. Over the period 1991 to 2003 infant mortality for Indigenous infants decreased by 44%. In 1991-2001 the Aboriginal and Torres Strait Islander infant mortality rate was 3 times higher than that of other Australian infants, but only 2.8 times higher in 2002-04.

The most common causes of death for Aboriginal and Torres Strait Islander infants are conditions originating in the perinatal period (42%) and congenital malformations (16%). These two causes account for half of the excess deaths in Aboriginal and Torres Strait Islander infants.

International statistics show that Indigenous infants in the US, Canada and New Zealand have higher mortality rates than infants in the general population, but the gap is not as great as for Aboriginal and Torres Strait Islander infants.

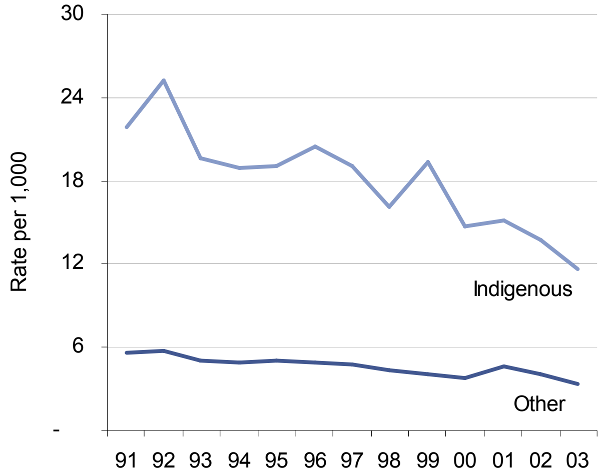
IMPLICATIONS: The infant mortality rate for Aboriginal and Torres Strait Islander infants is declining. Infant mortality for other Australian infants is also declining, but the gap in infant mortality between Aboriginal and Torres Strait Islander peoples and other Australians is reducing in both absolute and, to a lesser extent, relative terms.

There is considerable variation in mortality rates for Aboriginal and Torres Strait Islander infants between the four jurisdictions for which reliable data are available; lowest in South Australia and highest in the Northern Territory (8.4 compared with 14.5 per 1,000 live births in 2002-04), and improvement was lower for South Australia than elsewhere.

The improvement in Aboriginal and Torres Strait Islander infant mortality is partly due to reduced perinatal mortality (i.e. deaths in the first 28 days after birth; see measure 1.19) and reduced mortality of infants after the perinatal period. Deaths during the perinatal period are due predominantly to problems during pregnancy and birth, while in the post-neonatal period (1-11 months of age), nutritional and environmental problems predominate.

However, the birthweight of Aboriginal and Torres Strait Islander babies does not appear to be improving (see measure 1.01), indicating that there have not been major improvements in maternal health during pregnancy and consequently in the growth and development of the baby in-utero. It may be that the improvements in infant mortality are predominantly due to improvements in acute care for seriously ill new-born babies rather than reduced problems during pregnancy, and in post-natal factors such as nutrition and growth, environment and infectious diseases, and access to primary health and acute care. This suggests that improvements in post-natal factors have been successful in recent years (and need to continue) but that pregnancy has been neglected and needs more attention.

Figure 45 – Infant mortality rates Aboriginal and Torres Strait Islander infants and other Australians, WA, SA and NT, 1991-2003



Source: AIHW National Mortality Database

Table 17 – Infant mortality rates per 1,000 live births, by Indigenous status and jurisdiction, 1996-1998, 1999–2001 and 2002–2004

	Indigenous			Non-Indigenous	
	Deaths	Rate	(95% CI)	Rate	Rate ratio
1996-1998					
WA	82	18.3	(18.3-22.3)	4.7	3.9*
SA	16	8.8	(8.8-13.2)	4.5	2.0*
NT	90	23.2	(23.2-27.9)	5.6	4.1*
1999-2001					
WA	77	15.8	(15.8-19.3)	3.6	4.3*
SA	16	8.5	(8.5-12.7)	4.1	2.1*
NT	93	20.1	(20.1-24.1)	5.7	3.5*
Qld	112	11.8	(11.8-14.0)	5.5	2.2*
Qld, WA, SA & NT	298	14.3	(14.3-15.9)	4.7	3.0*
2002-2004					
WA	62	12.7	(12.7-15.8)	3.1	4.1*
SA	16	8.4	(8.4-12.5)	3.5	2.4*
NT	68	14.5	(14.5-18.0)	6.4	2.3*
Qld	104	10.2	(10.2-12.2)	4.7	2.2*
Qld, WA, SA & NT	250	11.5	(11.5-13.0)	4.1	2.8*

* Statistically significant difference between Indigenous and other mortality rates.

Source: AIHW National Mortality Database

1.19 Perinatal mortality

WHY IS IT IMPORTANT?: The perinatal mortality rate includes foetal deaths (stillbirths) and deaths of live-born babies within the first 28 days after birth. Almost all of these deaths are due to factors during pregnancy and childbirth. Perinatal mortality reflects the health status and health care of the general population, access to and quality of preconceptual, reproductive, antenatal and obstetric services for women, and health care in the neonatal period. Broader social factors such as maternal education, nutrition, smoking, alcohol use in pregnancy and other risk factors and socioeconomic deprivation are also significant.

Perinatal mortality rates are higher for Aboriginal and Torres Strait Islander peoples than for other Australians, indicating that the health status of and/or health care available to Aboriginal and Torres Strait Islander mothers is lower than that for other Australian women.

FINDINGS: Reliable data on foetal and infant deaths for Aboriginal and Torres Strait Islander peoples is only available for the four north-eastern jurisdictions (Queensland, Western Australia, South Australia and Northern Territory).

The perinatal mortality rate for Aboriginal and Torres Strait Islander peoples decreased by around 55% between 1991 and 2003 (an average yearly decline of 0.9 deaths per 1,000 births). The perinatal mortality rate for other Australians also decreased, but by a much smaller amount, so that the gap between Aboriginal and Torres Strait Islander peoples and other Australians decreased in both absolute and relative terms over this period, although only the absolute decrease was statistically significant.

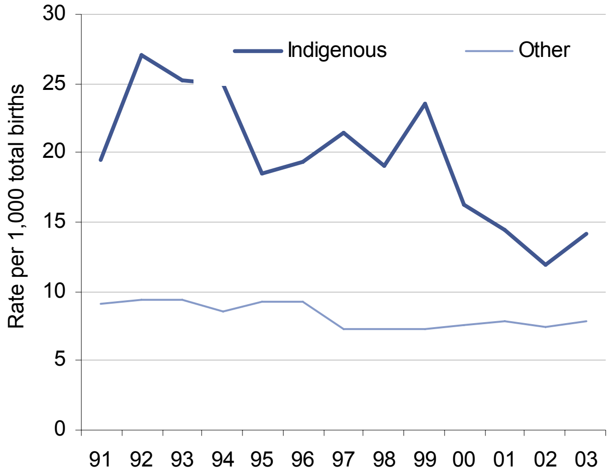
The most common specific causes of perinatal mortality were premature birth and inadequate foetal growth, which was a contributing factor in 23% of perinatal deaths in Aboriginal and Torres Strait Islander peoples (compared to 14% of other perinatal deaths), as well as conditions of the placenta, cord and membranes, which was a contributing factor in 28% (compared with 27% of other perinatal deaths).

IMPLICATIONS: There has been a large improvement in perinatal mortality for Aboriginal and Torres Strait Islander peoples since 1991. This contrasts with the failure to achieve an improvement in birthweight for Aboriginal and Torres Strait Islander babies (see measure 1.01). It may be that the improvement in the perinatal mortality rate for Aboriginal and Torres Strait Islander babies is predominantly due to improved acute care, which has reduced deaths during late pregnancy and following birth, rather than improvements in the health of mothers during pregnancy and improvements in the growth and development of babies in-utero.

There are insufficient data available to assess whether the decrease in perinatal mortality has occurred because of decreases in particular causes of death.

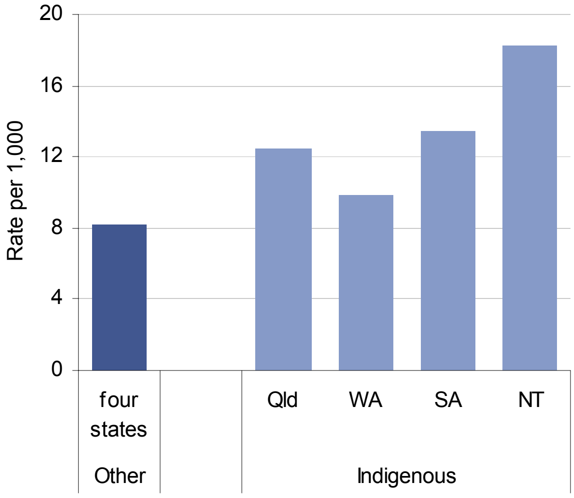
Enhanced primary care services and continued improvement in prenatal and antenatal care for Aboriginal and Torres Strait Islander women is very important to achieve further reductions in perinatal mortality rates. However, health services alone will not be able to reduce the perinatal mortality rate of Aboriginal and Torres Strait Islander peoples to that of other Australians. Improvements in socioeconomic, environmental and behavioural factors are also necessary before similar pregnancy outcomes, including perinatal mortality rates, can be achieved for Aboriginal and Torres Strait Islander and other Australian women and their babies.

Figure 46 – Perinatal mortality rate by Indigenous status, WA, SA and NT, 1991-2003



Source: AIHW analysis of ABS Deaths Registration Database

Figure 47 – Perinatal mortality rate, Indigenous by jurisdiction and non-Indigenous for four jurisdictions combined, 2002-04



Source: AIHW analysis of ABS Deaths Registration Database

Table 18 – Underlying or associated causes of death for perinatal babies, by Indigenous status, Qld, WA, SA and NT, 2000-04 [a]

	Total number		Per cent	
Cause of death	Indigenous	Other.	Indigenous	Other
Condition in the foetus/infant				
Disorders related to length of gestation and foetal growth	109	473	22.9	22.9
Perinatal respiratory and cardiovascular disorders	58	525	12.2	12.2
Infections specific to the perinatal period	23	127	4.8	4.8
Other conditions originating in the perinatal period	197	1489	41.4	41.4
Congenital malformations abnormalities	67	692	14.1	14.1
Other conditions	409	2689	85.9	85.9
Condition in the mother				
Complications of placenta, cord and membranes	135	922	66.2	28.4
Foetus and newborn affected by:				
maternal complications of pregnancy	88	630	16.2	18.5
maternal conditions unrelated to present pregnancy	77	448	18.5	16.2
other complications of labour and delivery	15	191	28.4	3.2
Total deaths(b)	476	3381	100.0	100.0

(a) Includes all foetuses and babies delivered weighing at least 400 grams or if birthweight is unavailable at gestational age of 20 weeks or more.
(b) The sum of the components will total more that the total number of deaths and 100%, as more than one condition may be reported for each death.
Source: AIHW analysis of ABS Deaths Registration Database

1.20 Sudden infant death syndrome

WHY IS IT IMPORTANT?: Sudden Infant Death Syndrome (SIDS) is the sudden and unexplained death of an apparently healthy infant, for which no cause can be found. A SIDS death usually occurs in healthy infants under one year of age, with the highest incidence between one to four months. A SIDS death occurs quickly, usually during sleep. There are several potentially modifiable factors associated with SIDS: prone sleeping position, sleeping on a soft surface, maternal smoking during pregnancy, environmental tobacco smoke, overheating, late or no prenatal care, young maternal age, prematurity and/or low birthweight, and male sex. In Australia the rate of SIDS declined by 84% between 1983 and 2003, with a sustained fall following the introduction in 1991 of the public health campaign encouraging parents to avoid the risk factors for SIDS deaths. However, data from Western Australia shows that the overall decline in SIDS observed in the general population between 1980 and 2002 were not observed in the Aboriginal population. During the period 1998-2000, the death rate for SIDS of Aboriginal and Torres Strait Islander infants in Queensland, Western Australia, South Australia and the Northern Territory was 5 times the rate of other Australian infants (Al-Yaman, Bryant & Sargeant 2002).

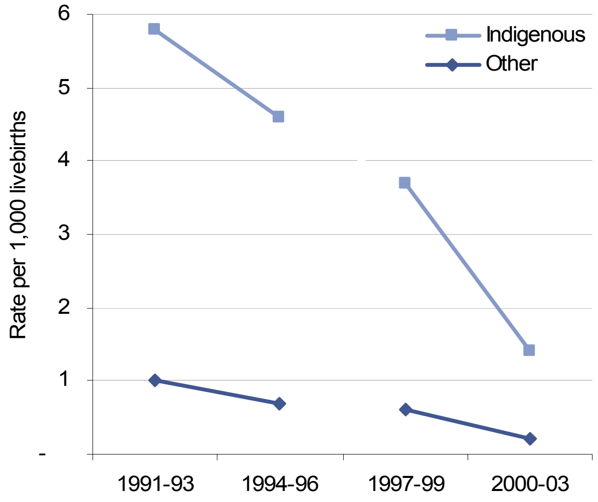
FINDINGS: Deaths from SIDS are 5 times higher for Aboriginal and Torres Strait Islander infants. There has been a significant decline in the mortality rate from SIDS for Aboriginal and Torres Strait Islander infants, particularly during the period 1997-99 to 2000-03 (decreased by 60%) in the three north-western jurisdictions (Western Australia, South Australia and Northern Territory) for which long-term mortality data on Indigenous people are available. The rate of decrease was higher than for other Australian babies. Recent research in Western Australia has found that there has been an increasing trend for Aboriginal and Torres Strait Islander infant deaths to be classified as ‘unascertainable’ rather than as SIDS (Freemantle et al. 2005).

A Queensland study during the period 1990-98 found that the SIDS death rate of Aboriginal and Torres Strait Islander infants was 3 times higher than the non-Indigenous Australians rate. The data on risk factors was poorly recorded and therefore inadequate to make specific conclusions concerning risk factors (Panaretto et al. 2002b). Another small Queensland study of 30 Indigenous Australian women and 30 non-Indigenous Australian women (Panaretto et al. 2002a) found that 37% of Indigenous infants were slept prone compared to 17% non-Indigenous. The Indigenous households had significantly more members. Fifty-three per cent of the Indigenous women smoked during pregnancy compared with 23% non-Indigenous and 60% were smokers at the time of the interview. Smoking occurred in 40% of Indigenous houses compared to 20% of non-Indigenous houses. This survey suggests SIDS risk factors may be higher in the Indigenous Australian population and new approaches to promoting SIDS awareness may be needed. A study in Western Australia of infant deaths 1980-2001 (Freemantle et al. 2006) found the proportion of deaths attributable to SIDS increased amongst Indigenous infants and decreased significantly in the non-Indigenous population. In 1998-2001 the SIDS death rate for Aboriginal and Torres Strait Islander infants was over eight times higher than for other infants and (in contrast to all other causes of infant death) higher for those living in metropolitan locations, although, the Indigenous infants mortality rate was highest for infants born in rural locations. SIDS is the most common cause of death for Aboriginal and Torres Strait Islander infants in Western Australia (Freemantle et al. 2004b). A recent total population study in Western Australia, reported that between 1998 and 2002, 51% of Aboriginal and 20% of non-Aboriginal mothers smoked during the pregnancy. However, 73% of Aboriginal and 60% of non-Aboriginal mothers whose infants died of SIDS, smoked during their pregnancy (Freemantle et al. 2004a). In a Perth study of Aboriginal mothers (Eades, Read & Bibbulung Gnarneep Team 1999) 11% of their infants slept prone, 96% shared a room and 68% shared a bed. Sixty-five per cent of these mothers smoked during pregnancy and 80% of infants were regularly exposed to tobacco smoke. Eighty-nine per cent of the mothers initiated breastfeeding and 70% were breastfeeding at the time of the interview. The authors conclude that the prevalence non-prone sleeping and breastfeeding are similar for Indigenous infants and other infants, but tobacco smoke exposure is significantly higher.

SIDS deaths are also more common among Indigenous people in New Zealand (Maori SIDS death rate 2.0 per 1,000 live births compared with 0.4 among non-Indigenous New Zealanders), but less common for Native Americans and Alaska Natives than for non-Indigenous people in the United States (0.6 compared with 1.2).

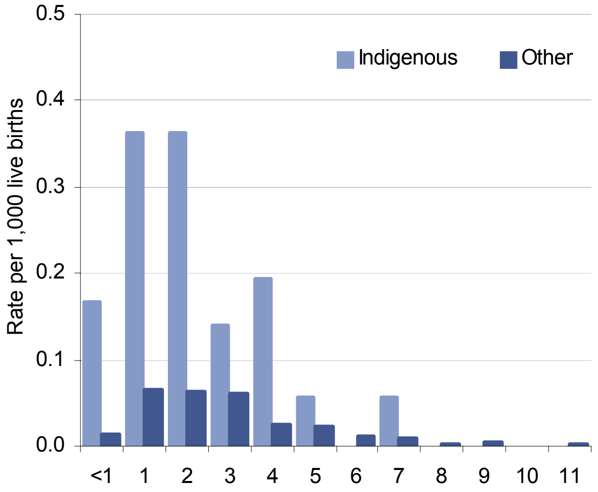
IMPLICATIONS: SIDS is more common for Aboriginal and Torres Strait Islander infants than other Australian infants; in 1991-93 SIDS death was 5.5 times more common for Aboriginal and Torres Strait Islander infants than other Australian infants. However, the SIDS rate decreased dramatically between 1991-93 and 2000-03 for both Aboriginal and Torres Strait Islander and other Australian infants. Aboriginal and Torres Strait Islander infants are sharing the benefits of research and public awareness campaigns that have reduced SIDS deaths for all Australians. The fall in SIDS deaths for Aboriginal and Torres Strait Islander infants demonstrates that behavioural changes can occur in a relatively short time period and produce dramatic results for Aboriginal and Torres Strait Islander peoples as for all Australians. Additional Australian research on the prevalence of risk factors and their link to the higher rate of SIDS in Aboriginal and Torres Strait Islander babies would be very useful. An outstanding question is whether anything more needs to be done specifically targeted to Aboriginal and Torres Strait Islander peoples or are the general measures that have worked well for the general population sufficient?

Figure 48 – SIDS mortality rates per 1,000 live births, Aboriginal and Torres Strait Islander and other Australian infants, WA, SA and NT, 1991-2003



Source: AIHW National Mortality Database

Figure 49 – SIDS mortality rates per 1,000 live births, by age in months, Aboriginal and Torres Strait Islander and other Australian infants, WA, SA and NT, 2000-04



Source AIHW National Mortality Database

Table 19 – SIDS mortality rates per 1,000 live births and rate ratios, Aboriginal and Torres Strait Islander and other Australian infants Qld, WA, SA and NT, 2000-04

	Indigenous		Other		
	Deaths	Rate	Deaths	Rate	Rate ratio
Qld	24	1.4	85	0.4	3.8*
WA	6	0.7	18	0.2	4.6*
SA	n.p.	0.6	16	0.2	3.3*
NT	16	2	n.p.	0.2	10.8*
Qld, WA, SA & NT	48	1.3	121	0.3	4.8*

** statistically significant difference between Indigenous and Other rates*
n.p. not published
Source: AIHW National Mortality Database

1.21 All-causes age-standardised death rate

WHY IS IT IMPORTANT?: The mortality rate of a population provides a summary measure of the overall health status of that population. However, it has some well-known limitations. There may be delays for many years before improvements in health status lead to reductions in mortality, and mortality statistics do not reflect the burden of illness in a population for diseases that do not necessarily result in death, such as arthritis and depression.

Despite these limitations, mortality rates are a useful measure with which to compare the overall health status of different populations and to monitor changes in overall health status of populations over time.

The all-causes mortality rate for Aboriginal and Torres Strait Islander peoples is several times higher than that for other Australians, indicating that the overall health status of Aboriginal and Torres Strait Islander peoples is worse than that of other Australians.

FINDINGS: Reliable mortality data for Aboriginal and Torres Strait Islander peoples are only available for the four north-western jurisdictions (Queensland, Western Australia, South Australia and Northern Territory) for the years 2000-04, and for earlier years only available for the three western jurisdictions (Western Australia, South Australia and Northern Territory).

In the four north-western jurisdictions in 2000-04 there were 7,479 deaths identified as Aboriginal and Torres Strait Islander. After adjusting for age differences between the two populations, the all-cause mortality rate was 2.1 times higher for Aboriginal and Torres Strait Islander peoples than for other Australians (13 compared with 6 deaths per 1,000 population). The all-causes mortality rate for Aboriginal and Torres Strait Islander peoples decreased by approximately 16% between 1991 and 2003 for the three western jurisdictions; the decrease was greater for females (24%) than males (6%). Although all-cause mortality decreased for Aboriginal and Torres Strait Islander peoples, mortality decreased by a relatively greater amount (21%) for other Australians.

As for all populations, mortality rates for Aboriginal and Torres Strait Islander peoples are higher in older age-groups. However, mortality rates increased at a much younger age for Aboriginal and Torres Strait Islander peoples than for other Australians. The greatest relative disadvantage in mortality rates was in the age range 25-64 years, where the mortality rates for Aboriginal and Torres Strait Islander peoples were between four and five times higher than for other Australians, for both males and females.

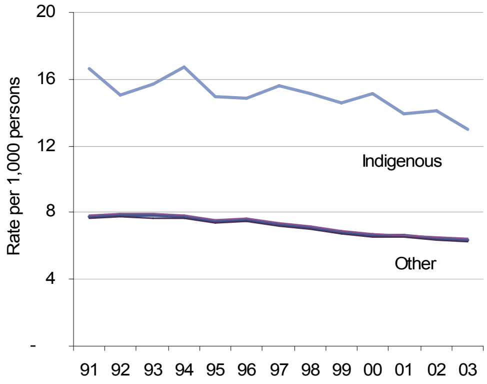
It is not certain how much variation there is, if any, between jurisdictions in mortality rates for Aboriginal and Torres Strait Islander peoples due to variations in data quality.

IMPLICATIONS: The very high mortality rates for Aboriginal and Torres Strait Islander peoples, particularly in early childhood and the middle adult years, are an indication of the poor overall health status of Aboriginal and Torres Strait Islander peoples. They are also a direct measure of the tragic early deaths of too many individual Aborigines and Torres Strait Islanders.

However, there has been improvement in mortality rates for Aboriginal and Torres Strait Islander peoples in the past 15 years, in the three western jurisdictions at least. In the absence of almost any other data on long-term trends for any health issues for Aboriginal and Torres Strait Islander peoples, this is an important indication that the wide-spread pessimistic perception of lack of improvement in overall Aboriginal and Torres Strait Islander health status in recent years is not well founded.

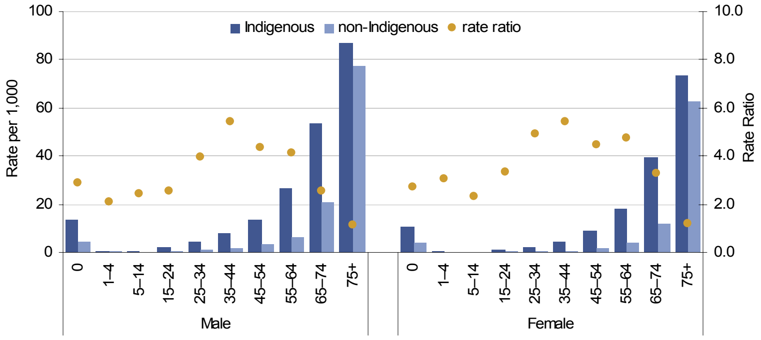
Although the reduction in mortality for Aboriginal and Torres Strait Islander peoples has not kept pace with that for other Australians, the fact that considerable improvements have occurred demonstrates that the severe health problems of Aboriginal and Torres Strait Islander peoples have been reduced to some extent in recent years and can be reduced further, and faster, with sustained and increased effort.

Figure 50 – Age standardised mortality rates by Indigenous status, WA, SA and NT, 1991-2003



Source: AIHW National Mortality Database

Figure 51 – Mortality rates by age-group and sex by Indigenous status, Qld, WA, SA and NT, 2000-04



Source: AIHW National Mortality Database

Table 20 – All cause mortality, by Indigenous status, Qld, WA, SA and NT, 2000-04

		Number of deaths		Rate per 1,000[(b)]		
	Coverage[(a)]	Indigenous	Other	Indigenous	Other	Ratio
Qld	54%	2,825	112,861	11.9	6.5	1.8*
WA	72%	1,823	52,587	12.9	6.1	2.1*
SA	66%	643	57,625	11.7	6.5	1.8*
NT	95%	2,188	2,190	16.9	6.7	2.5*
Qld, WA, SA & NT		7,479	225,263	13.2	6.4	2.1*

(a) Estimated proportion of Indigenous deaths accurately identified as Indigenous in deaths data for each jurisdiction.
(b) Directly age standardised using the 2001 Australian standard population.
** Statistically significant difference between Indigenous and other mortality rates.*
Source: AIHW National Mortality Database

1.22 Leading causes of mortality

WHY IS IT IMPORTANT?: Mortality rates are a useful measure of the overall health status of a population, particularly to compare one population with another or to measure improvements over time. The ratio of particular causes of death between the Aboriginal and Torres Strait Islander population and the rest of the Australian population provides an indication of the excessive effect of particular diseases on Aboriginal and Torres Strait Islander peoples, relative to the rest of the population. This is a useful indication of the diseases that have a greater impact on Aboriginal and Torres Strait Islander peoples. However, some significant health problems will not be reflected in mortality statistics; many diseases that cause serious health problems may not be fatal (such as depression, arthritis and intellectual disability) and so do not appear as common causes of death. Mortality rates for many diseases and types of injury are higher for Aboriginal and Torres Strait Islander peoples than other Australians, indicating that these problems are more common and have a greater effect on Aboriginal and Torres Strait Islander peoples. As health status and health services improve for Aboriginal and Torres Strait Islander peoples, the excess mortality from these problems should reduce over time. The mortality rate ratio indicates the excess mortality from particular conditions, measured as the ratio of the mortality rate for Aboriginal and Torres Strait Islander peoples to that for other Australians. When the mortality rates of the two groups are the same, the mortality ratio will be 1.0.

FINDINGS: Reliable mortality data for Aboriginal and Torres Strait Islander peoples are available only for the four north-western states. In 2000-04, the most common cause of death among Indigenous Australians was circulatory diseases (27% of all deaths), followed by injury (16%) and cancer (15%). Circulatory diseases and cancer were the most common causes of death for other Australians, accounting for a higher proportion of deaths than for Aboriginal and Torres Strait Islander peoples (37% and 30% respectively). Circulatory diseases, endocrine, metabolic and nutritional disorders (which includes diabetes), cancer and respiratory diseases accounted for 55% of excess deaths of Aboriginal and Torres Strait Islander males and 61% of excess deaths of Aboriginal and Torres Strait Islander females, with injury accounting for a further 18% and 12% of excess deaths of Indigenous males and females. Mortality rates were higher for Aboriginal and Torres Strait Islander peoples than other Australians for all causes of death, ranging from 20-30% higher for cancer and diseases of the nervous system to seven times higher for endocrine, metabolic and nutritional disorders (which includes diabetes).

Circulatory disease mortality rates have declined for both Aboriginal and Torres Strait Islander peoples and other Australians since 1991. In the three western jurisdictions (the only ones for which reliable time-trend data are available), between 1997 and 2003, circulatory disease mortality declined by an average of 34 deaths per 100,000 people per year for Aboriginal and Torres Strait Islander peoples, greater than the average annual decline (12 per 100,000) for other Australians. The gap in circulatory disease mortality between Aboriginal and Torres Strait Islander peoples and other Australians decreased in both absolute (from 255 to 127 per 100,000 higher) and relative (from 1.9 to 1.6 times higher) terms.

There was little change in Aboriginal and Torres Strait Islander mortality rates for the other leading causes of death between 1991 and 2003. Mortality rates for diabetes, respiratory disease and kidney disease remained relatively stable over this period for both Indigenous and other Australians. Cancer mortality rates remained stable for Aboriginal and Torres Strait Islander peoples but declined for other Australians, so that the gap between the two populations increased between 1991 and 2003.

IMPLICATIONS: Four groups of chronic conditions that share several common causes account for almost two-thirds for excess deaths among Aboriginal and Torres Strait Islander peoples: circulatory disease, diabetes and other endocrine/metabolic/nutritional disorders, cancer, and respiratory diseases. The greatest reductions in mortality rates and excess deaths for Aboriginal and Torres Strait Islander peoples will come from a combination of medical services and preventive strategies. Improved chronic disease management for diseases such as high blood pressure and diabetes can prevent development of life-threatening complications, but cannot cure these diseases. Even more important in the long term will be reductions in smoking by Aboriginal and Torres Strait Islander peoples and improvements in living conditions and life-styles, including improved nutrition and levels of physical activity. While improved chronic disease management is very important to reduce the onset of complications and delay death, these only reduce the impact of damage already done; until more Aboriginal and Torres Strait Islander peoples are living healthy lives that prevent the development of these diseases, too many will continue to develop these conditions, live with them, and die prematurely because of them.

Injury is an entirely different issue that predominantly affects younger people, particularly women, and is to a large extent due to alcohol abuse (see measures 1.03 and 2.20). Acute care services can save the lives of seriously injured people, and there is scope for some improvements in timely access to life-saving emergency care for Aboriginal and Torres Strait Islander peoples. Medical treatment after the event can have only a limited impact on injury mortality. Addressing the underlying causes of injury, particularly alcohol-fuelled interpersonal violence, is the most important single factor that will reduce excessive injury mortality rates for Indigenous Australians.

Decision makers should consider whether the leading causes of mortality receive appropriate priority in policy making and program implementation.

Table 21 – Causes of mortality, by Aboriginal and Torres Strait Islander status, Qld, WA, SA and NT, 2000-04

Underlying cause of death	Per cent Indigenous	 Other	Age standardised rate per 100 000 persons Indigenous	 Other	Ratio
Circulatory diseases	26.8	37.4	416.5	239.1	1.7*
Injury and poisoning	16.1	6.4	95.3	41.0	2.3*
Cancer	15.2	29.5	237.0	187.0	1.3*
Lung cancer	3.9	5.9	60.9	37.1	1.6*
Cervical cancer	0.5	0.2	11.0	2.4	4.6*
Endocrine, metabolic & nutritional disorders	9.4	3.4	149.7	21.5	7.0*
Respiratory diseases	8.8	8.7	142.5	55.9	2.6*
Digestive diseases	5.4	3.3	60.5	21.2	2.9*
Conditions originating in perinatal period	2.5	0.4	6.8	2.8	2.4*
Nervous system diseases	2.4	3.2	25.3	20.4	1.2*
Infectious and parasitic diseases	2.4	1.2	24.7	7.4	3.3*
Kidney diseases	2.2	1.5	35.8	9.6	3.7*
Other causes	9.0	5.1	94.5	32.5	2.9*
All causes	100.0	100.0	1288.6	638.4	2.0*
Number of deaths	7,479	225,263			

** Statistically significant difference between Indigenous and Other mortality rates.*
Source: AIHW National Mortality Database

Table 22 – Main causes of excess Aboriginal and Torres Strait Islander deaths, Qld, WA, SA and NT, 2000-04

Underlying cause of death	Males Total	 Excess[a]	 % excess	Females Total	 Excess[a]	 % excess
	no	no	%	No	no	%
Circulatory diseases	1143	764	27.8	863	528	25.7
Injury and poisoning	838	502	18.3	364	247	12.0
Respiratory diseases	366	274	10.0	290	212	10.3
Endocrine, metabolic & nutritional disorders	316	273	9.9	384	347	16.9
Cancer	601	186	6.8	533	172	8.4
Lung cancer	184	93	3.4	106	55	2.7
Cervical cancer	0	0	0	35	27	1.3
Digestive diseases	230	186	6.8	171	134	6.5
Conditions originating in perinatal period	108	66	2.4	80	46	2.2
Nervous system diseases	113	70	2.6	66	23	1.1
Infectious and parasitic diseases	101	79	2.9	75	61	2.9
Kidney diseases	65	52	1.9	98	84	4.1
Other causes	383	291	10.6	291	202	9.8
All causes	4264	2744	100.0	3215	2056	100.0

a Total deaths minus the number of deaths that would have been expected if Aboriginal and Torres Strait Islander peoples had the same mortality rates as other Australians.
Source: AIHW National Mortality Database

1.23 Maternal mortality

WHY IS IT IMPORTANT?: Serious, sometimes life-threatening, complications occasionally occur during pregnancy and childbirth. The death of a woman as a result of pregnancy or childbirth is now a rare event in Australia, but in the not too distant past women faced a considerable risk of serious damage or death with each pregnancy. Improvements in the general health and fitness of Australian women and advances in medical care during the twentieth century reduced the frequency and consequences of complications during pregnancy and childbirth for both mothers and babies.

The risk of death from complications of pregnancy and childbirth has also been reduced for Aboriginal and Torres Strait Islander women, but not to the same level as for other Australian women. The maternal mortality rate for Aboriginal and Torres Strait Islander women remains higher than for other Australian women; although deaths as a result of pregnancy or childbirth are also rare for Aboriginal and Torres Strait Islander women, they are not as rare as they should be.

FINDINGS: The maternal mortality rate is the total of direct, indirect and incidental maternal deaths. A direct maternal death is one caused by complications of the pregnancy itself. An indirect maternal death is the death of a woman during or shortly after pregnancy as the result of a disease that did not arise because of the pregnancy (e.g. heart disease, diabetes, renal disease) but was made worse by the physiological effects of pregnancy. An incidental death is the death of a woman as the result of a condition that occurred during pregnancy, where the pregnancy is unlikely to have contributed significantly to the death, such as cancer or a motor vehicle accident.

In the period 2000-02, there were thirteen maternal deaths of Aboriginal and Torres Strait Islander women, four direct maternal death, eight indirect maternal deaths and one incidental death. These deaths accounted for 17% of the 77 maternal deaths where Indigenous status was known.

The maternal mortality rate for Aboriginal and Torres Strait Islander women was 23.2 per 100,000 confinements in 1991–93, 17.4 in 1994–96, 23.5 in 1997–99 and 45.9 in 2000-02.

The maternal mortality rates for Indigenous women were between two and five times the maternal mortality rate for non-Indigenous women in the periods 1991-93, 1994-96 and 1997-99. There is no indication that the maternal mortality rate for Aboriginal and Torres Strait Islander women is falling to a similar level to that of other Australian women; in fact, the number of maternal deaths of Aboriginal and Torres Strait Islander women in 2000-02 was higher than in the three preceding periods.

IMPLICATIONS: If Aboriginal and Torres Strait Islander women had the same maternal mortality rate as other Australian women, there would have been seven maternal deaths of Aboriginal and Torres Strait Islander women between 1991 and 2002 rather than the 27 that actually occurred. In this twelve-year period there were twenty excess maternal deaths of Aboriginal and Torres Strait Islander women, an average of one or two excess deaths per year. The excessive maternal mortality of Aboriginal and Torres Strait Islander women is a clear indicator that their health and well-being during pregnancy is not what it should be.

Timely access to safe and effective medical interventions is essential to achieving the best possible outcomes for Aboriginal and Torres Strait Islander women during pregnancy and childbirth. However, obstetric medical services to treat serious illness when it arises during pregnancy and childbirth can have only a limited effect on reducing maternal mortality rates, and should not be the principle response to excess maternal mortality. If acute care services were able to entirely eliminate excess maternal mortality (which they cannot), one or two deaths would be avoided each year, but the overall health problems of Aboriginal and Torres Strait Islander mothers and their children would be little improved. It would be far more effective to reduce the causes of excessive health problems that afflict Aboriginal and Torres Strait Islander women during pregnancy.

The excess maternal mortality of Aboriginal and Torres Strait Islander women cannot be eliminated by focusing on pregnancy and childbirth alone. Strategies that improve the overall health of Aboriginal and Torres Strait Islander women before, during and after pregnancy, and reduce the level of violence that they face, will all have an impact on improving their pregnancy outcomes and the health and future prospects of their babies. Such strategies will also reduce their excessive levels of suffering, disability and death from other diseases.

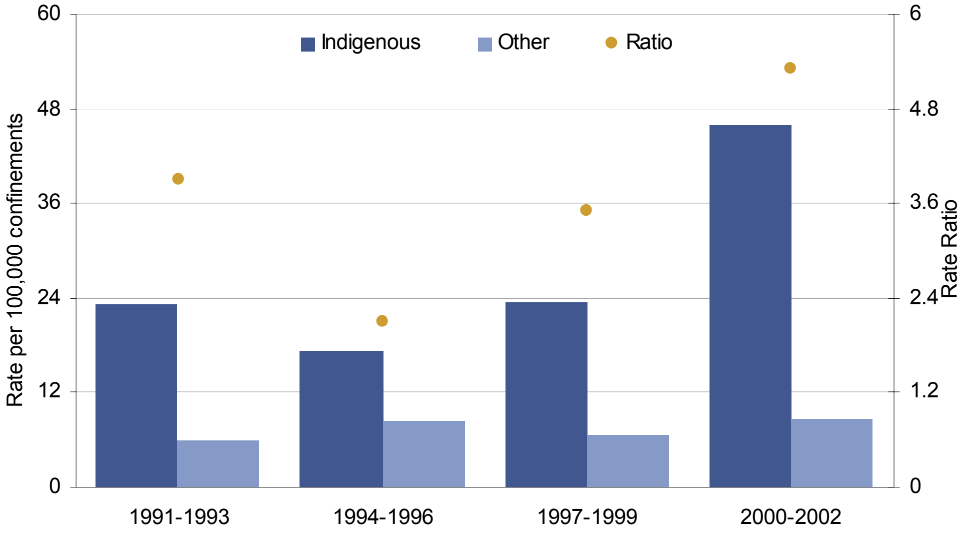
The maternal mortality rate is not a measure that is sensitive to short-term changes when there is an average of less than three maternal deaths of Aboriginal and Torres Strait Islander women each year. If there were a large decrease in the number of Aboriginal and Torres Strait Islander maternal deaths in one year, we would have to wait several years to see if this decrease was maintained before we could have any confidence that the health of Aboriginal and Torres Strait Islander women during pregnancy had indeed improved and the risk of maternal death had decreased. The maternal mortality rate demonstrates that Aboriginal and Torres Strait Islander women are more likely to have serious health problems during pregnancy than other Australian women. Other, more direct indictors of maternal health that are more sensitive to short-term changes are also needed to monitor strategies to improve pregnancy outcomes for Aboriginal and Torres Strait Islander women.

Why was there no apparent improvement in maternal mortality during the 1990s? Are acute care services providing the best possible care for mothers with serious complications of pregnancy and childbirth? If so, should the emphasis be on improved general health and well-being of women before and during (and after) pregnancy and improved primary care during pregnancy to reduce the occurrence of complications?

Maternal mortality is very insensitive to change when there are only an average of less than three maternal deaths for Aboriginal and Torres Strait Islander women each year. For example, even if there were no maternal deaths for Aboriginal and Torres Strait Islander women this year, we could have no confidence that the factors causing high maternal mortality had actually been reduced and that there would be only one or two maternal deaths for Aboriginal and Torres Strait Islander women in the next three years; it would be more likely that the absence of deaths in one year was a random fluctuation for that year and there will be more deaths in subsequent years.

How valuable is the maternal mortality rate as an indicator of improvements over time in the health and well-being of Aboriginal and Torres Strait Islander mothers and the outcome of their pregnancies and births? Although it measures the most serious possible consequence of pregnancy and childbirth for the mother, and data are available to measure it for the Aboriginal and Torres Strait Islander population nationally, should another measure of maternal pregnancy outcome be developed which is more sensitive to short and medium-term change?

Figure 52 – Maternal mortality ratios by Indigenous status, 1991-93 to 2000-02



Rate per 100,000 confinements calculated using direct and indirect deaths only.

Source: Slaytor, Sullivan & King 2004; Sullivan & King 2006

Table 23 – Aboriginal and Torres Strait Islander maternal mortality: number of maternal deaths and maternal mortality rates, 1991-93 to 2000-02

	Indigenous		Maternal mortality rate per 100,000 confinements		
Triennium	Maternal deaths	Confinements	Indigenous	Other	Rate ratio
1991-1993	5	21,539	23.2	5.9	3.9
1994-1996	4	22,996	17.4	8.3	2.1
1997-1999	6	25,530	23.5	6.7	3.5
2000-2002	12	26,128	45.9	8.7	5.3

Source: Slaytor, Sullivan & King 2004; Sullivan & King 2006

1.24 Avoidable and preventable deaths

WHY IS IT IMPORTANT?: Avoidable and preventable mortality refers to deaths from certain conditions that are considered avoidable given timely and effective health care (including disease prevention and population health initiatives). Avoidable deaths have been used in various studies to measure the quality, effectiveness and/or accessibility of the health system, although deaths from most conditions are influenced by a range of factors in addition to health system performance, including the underlying prevalence of conditions in the community, environmental and socioeconomic factors and lifestyle choices. Avoidable mortality includes conditions that are significantly attributable to factors outside the health system such as socioeconomic factors, environmental factors, lifestyle factors and legal issues.

Causes of avoidable mortality can be sub-divided into ‘preventable’ conditions for which there are effective means to prevent the condition occurring (e.g. conditions caused by smoking) and ‘amenable’ conditions for which death may be averted even after the condition has developed through early detection and effective treatment (e.g. cervical cancer).

There have been large reductions in avoidable mortality in Australia over the past four decades, but the decline for Aboriginal and Torres Strait Islander peoples has not been as great as for the total Australian population, and started at a higher level.

FINDINGS: In the four north-western jurisdictions in 2000-04, there were 4,845 deaths of Aboriginal and Torres Strait Islander peoples aged 0-74 years from avoidable causes. This represented over three-quarters (76%) of all Aboriginal and Torres Strait Islander deaths, slightly higher than the proportion for other Australians (70%). The proportion of deaths at ages 0-74 years from avoidable causes which are considered to be amendable to health care was also higher for Indigenous Australians (22%) than non-Indigenous Australians (11%).

After adjusting for differences in age structure, Aboriginal and Torres Strait Islander peoples died from all avoidable causes at four times the rate of other Australians. The avoidable mortality rate of Aboriginal and Torres Strait Islander peoples was higher than that of other Australians in all age-groups, and particularly high (5-6 times that of other Australians) in the middle adult age-groups (35-64 years). This relative excess was least in Queensland and greatest in the Northern Territory (of the four jurisdictions for which reliable data are available).

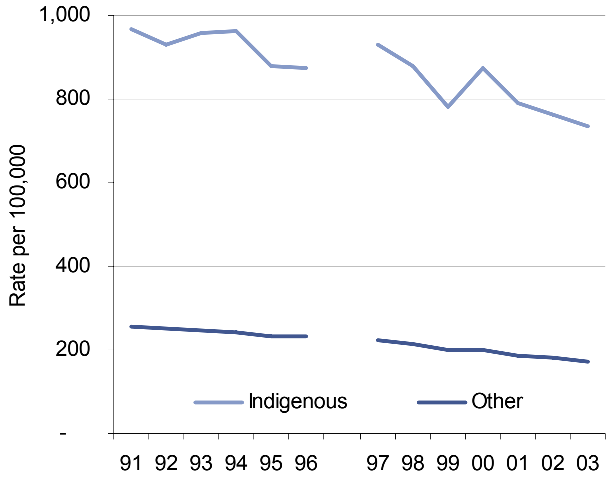
The most common conditions causing avoidable mortality were IHD (20%), cancer (13%) (in particular lung cancer), diabetes (11%) and suicide (8%). Indigenous Australians died from these conditions at four, two, 18 and two times the rate of non-Indigenous Australians respectively.

Although not causing such a high proportion of avoidable deaths, several other conditions caused a high relative excess of avoidable deaths for Aboriginal and Torres Strait Islander peoples compared to other Australians: selected invasive bacterial and protozoal infections (avoidable mortality rate 8 times higher that the rate for other Australians); alcohol related disease (9 times higher); violence (10 times higher); and nephritis and nephrosis (18 times higher).

Reliable data on time trends in avoidable mortality is available since 1991 for the three western jurisdictions. There has been a significant decline in the avoidable mortality rate for Aboriginal and Torres Strait Islander peoples aged 0-74 years over that time, with an average annual decline of 18 per 100,000 between 1991 and 1996 and 29 per 100,000 between 1997 and 2003. The declines were greater for females than males. Over the same periods, there were significant declines in the mortality rate for avoidable causes for other Australians. There was no significant change in the rate ratio between Aboriginal and Torres Strait Islander peoples and other Australian mortality from avoidable causes in either period.

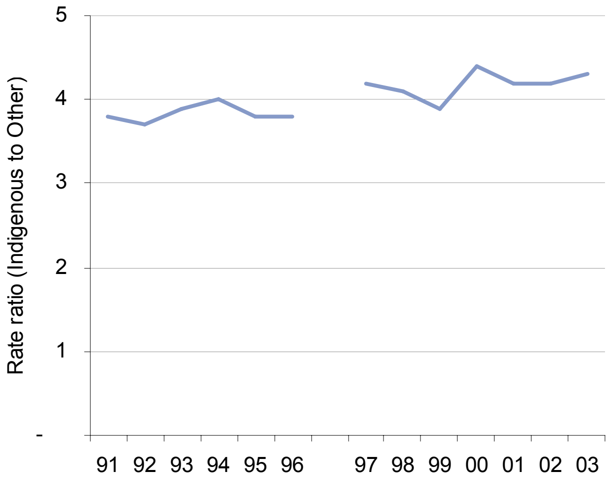
IMPLICATIONS: Avoidable mortality presents a similar picture to that seen in other mortality measures: death rates for Aboriginal and Torres Strait Islander peoples are declining, but too slowly to close the gap with other Australians. Chronic diseases and injury are the conditions causing the greatest proportion of excess deaths for Aboriginal and Torres Strait Islander peoples, and these conditions are amenable to both prevention and treatment. While all conditions causing excess deaths among Aboriginal and Torres Strait Islander peoples are important and need to be reduced, chronic conditions and injury are the conditions for which the greatest reductions in excess mortality can be achieved.

Figure 53 – Mortality rates for avoidable causes of death, Indigenous and other Australians aged 0-74 years, WA, SA and NT, age standardised, 1991-96 and 1997-2003



Source: AIHW National Mortality Database

Figure 54 – Mortality rates ratios for avoidable causes of death, Indigenous and other Australians aged 0-74 years, WA, SA and NT, age standardised, 1991-96 and 1997-2003



Source: AIHW National Mortality Database

Table 24 – Avoidable mortality by cause and Indigenous status, persons aged 0-74 years, Qld, WA, SA and NT, 2000-04

	Per cent		Age standardised rate per 100 000		
Cause of death	Indigenous	Other	Indigenous	Other	Rate ratio
Ischaemic heart disease	19.9	21.1	163.2	38.2	4.3*
Cancer	13.3	35.9	120.3	64.5	1.9*
Lung cancer	5.0	12.2	46.7	20.6	2.3*
Diabetes	11.1	3.2	104.7	5.8	18.1*
Suicide	7.7	6.9	27.2	12.7	2.1*
Road traffic injuries	6.5	4.9	25.9	8.9	2.9*
Cerebrovascular disease	4.5	6.0	40.6	10.9	3.7*
Alcohol related disease	6.1	2.4	37.6	4.3	8.8*
COPD	4.2	5.0	45.0	9.1	5.0*
Selected infections	4.8	2.0	30.7	3.7	8.2*
Nephritis and nephrosis	3.2	0.8	28.0	1.5	18.2*
Violence	3.0	0.6	11.6	1.2	10.0*
Birth defects	2.6	1.6	6.5	2.9	2.2*
Rheumatic and other valvular heart disease	1.8	0.3	10.2	1.3	7.6*
Other	11.3	9.3	58.6	16.6	3.5*
Total	100.0	100.0	710.1	181.3	3.9*
Total number of deaths	4845	60816			

** Statistically significant difference between Aboriginal and Torres Strait Islander and Other rates*
Source: AIHW National Mortality Database

Chapter 5 Determinants of Health (Tier 2)

Tier 2 consists of measures of the determinants of health status – factors outside the health system that impact on the health of Aboriginal and Torres Strait Islander peoples. The five domains identified for this Tier are: environmental factors, socioeconomic factors, community capacity, health behaviours and person-related factors. Strategies to address these issues require coordinated actions across government portfolios and active engagement of Aboriginal and Torres Strait Islander communities. Portfolio areas with specific leadership responsibilities for particular measures include:

Health
- tobacco use (2.17)
- tobacco smoking during pregnancy (2.18)
- environmental tobacco smoke (2.03)
- risky and high risk alcohol consumption (2.19)
- drug and other substance use including inhalants (2.20)
- physical activity (2.21)
- dietary behaviours (2.22)
- breastfeeding practices (2.23)
- prevalence of overweight and obesity (2.24)

Housing and Infrastructure
- access to functional housing with utilities (2.01)
- overcrowding in housing (2.02)
- housing tenure type (2.09)

Education
- years 3, 5 and 7 literacy and numeracy (2.04)
- years 10 and 12 retention and attainment (2.05)
- educational participation and attainment of Aboriginal and Torres Strait Islander adults (2.06)

Economic and social security portfolios
- employment status including CDEP participation (2.07)
- income (2.08)

Justice
- community safety (2.12)
- contact with the criminal justice system (2.13)

Child protection (2.14)

Transport (2.15)

Many of the implications and policy questions raised by Tier 2 measures relate to the ability of governments, Aboriginal and Torres Strait Islander peoples and all Australians to improve the circumstances in which Aboriginal and Torres Strait Islander peoples live.

2.01 Access to functional housing with utilities

WHY IS IT IMPORTANT?: Research on housing and health shows a relationship between inadequate housing and related infrastructure, and poor health outcomes (ABS and AIHW 2005). For Aboriginal and Torres Strait Islander peoples, lack of access to water, sanitation and electricity services is associated with higher rates of infectious diseases (ABS and AIHW 2005).

The human right to water 'entitles everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses. An adequate amount of safe water is necessary to prevent death from dehydration, to reduce the risk of water-related disease and to provide for consumption, cooking, personal and domestic hygienic requirements' (Committee on Economic, Social and Cultural Rights 2002). Internationally, poor water supply, sanitation and personal and domestic hygiene were estimated to account for 7% of the total burden of disease measured in the *Global Burden of Disease Study*. These determinants of health outcomes were second only to malnutrition as a major risk factor category. An adequate and reliable supply of water is required for washing people, food, kitchen utensils, and clothes.

A functional sewerage system prevents sewerage from contaminating drinking water, and reduces the risks of infectious diseases (SCRGSP 2003). Waste water in the living environment can be a source of infection for diseases such as diarrhoea and hepatitis (Department of Family and Community Services 2003).

A power supply such as electricity/gas contributes to health through improved nutrition by ensuring food is safely stored (refrigeration), prepared and cooked appropriately, providing access to internet, radio and televisions which can enable easier access to health promotion messages, and avoiding less safe forms of fuel for cooking and heating which may affect indoor air quality and increase the risk of harm from fire.

There is also evidence that Aboriginal and Torres Strait Islander populations suffer a disproportionate impact from both increased exposures to environmental hazards and decreased access to environmental health services. Aboriginal and Torres Strait Islander peoples are more likely to live in conditions considered to be unacceptable by general Australian standards. This includes overcrowding, poorly maintained buildings, high housing costs relative to income and a lack of basic environmental health infrastructure, such as adequate sanitation, water supplies and appropriate housing (AHMAC 2004).

FINDINGS: Of the 1,216 discrete Indigenous communities surveyed in the *2001 Community Housing and Infrastructure Needs Survey* (CHINS), approximately two per cent, with a total population of 90 people reported they had no organised water supply. Approximately 65% of Indigenous communities (784 communities) with a population of 66,531 people, reported bore water as their main source of water supply.

More detailed analysis is available for the 327 larger communities with a usual population of 50 or more, comprising 95,000 people in total. One third (35%) of these communities experienced water restrictions in the 12 months prior to survey, and a quarter of these reported restrictions on five or more occasions in the 12 months prior to survey.

Most communities that were not connected to a town water supply had their drinking water tested for levels of microbiological agents that would make it unsuitable for drinking. An analysis of the communities of 50 people or more shows that almost one quarter of the people were in communities from which drinking water had failed testing on at least one occasion during the preceding year. The proportion varied markedly between states, affecting from two thirds of the people in communities where drinking water was tested in New South Wales to one in six of people in communities tested in the Northern Territory. Eight per cent of people lived in communities where drinking water supplies had not been tested, even though they were not connected to a town water supply.

A separate survey in 2003 by the Health Council showed that the proportion of persons in Aboriginal and Torres Strait Islander communities where drinking water had failed microbiological testing was similar to that for non-Indigenous communities supplied by a utility with fewer than 3,000 customers.

Data from the 2001 CHINS indicate that the electricity for around half of the communities with a population of 50 or more was supplied by community generators. Most of the remaining communities were supplied from the state grid or other transmitted supply, with a small number of communities relying on solar or solar hybrid sources. Smaller communities relied on solar sources to a larger extent (23% of communities of less than 50 persons) but a small majority of communities relied on community and domestic generators (54%). Only one in eight were connected to a reticulated supply. Seven per cent of all communities had no organised electricity supply. All but one of these 80 communities had a population of less than 50 persons.

In 2001, interruptions to electricity supply in the 12 months prior to survey occurred in 82% (267) of the 327 discrete Indigenous communities with a reported population of 50 or more. While 17% of these communities experienced 20 or more interruptions in the 12 months, 31% of affected communities experienced less than five electricity interruptions in the year.

In 2001, the majority of people living in discrete Indigenous communities had a community water borne sewerage system or septic tanks. Approximately 1,110 people living in discrete Indigenous communities did not have an organised sewerage system. All of these people lived in communities with a population of less than 50 people. A further 3,573 people relied on pit toilets or pan toilets for their sewerage.

Sewerage system overflows or leakages in the 12 months prior to survey occurred in 47% of the 327 Indigenous communities with a usual population of 50 or more. These were most common in discrete Indigenous communities with septic tanks with leach drains as the main sewerage system (60 % experienced leaks or overflows). In 29% of communities the leakages or outflows had continued for longer than 48 hours, with communities in outer regional and in very remote areas affected more than others in this way.

Connection to services does not necessarily mean that the housing facilities (e.g. toilets, baths, showers, washing machines, cooking facilities, and refrigerators) are functional.

An environmental health review, *Uwankara Palyanyku Kanyintjaku*, conducted in the Anangu Pitjantjatjara (AP) Lands in 1987 identified the health problems that could be reduced by changes in the living environment for Indigenous communities in remote Australia. Through the review a list of nine healthy living practices (to help prevent the spread of infectious diseases) were identified.

The Healthy Living Practices in order of priority are:

- washing people
- washing clothes and bedding
- removing waste safely
- improving nutrition: the ability to store, prepare and cook food.
- reducing crowding and the potential for the spread of infectious disease
- reducing negative contact between people and animals, vermin or insects
- reducing the negative impact of dust
- controlling the temperature of the living environment
- reducing trauma (or minor injury) around the house and living environment.

The 2002 NATSISS collected information on the functionality of facilities required to support the following four Healthy Living Practices—washing people; washing clothes and bedding; removing waste safely; and improving nutrition: the ability to store, prepare and cook food.

In 2002, approximately 99% of Indigenous households reported that they had working facilities for washing people, 98% reported working facilities for washing clothes/bedding, 95% reported working facilities for storing/preparing food and 99% reported working sewerage systems.

This varied considerably by remoteness with almost one quarter of Aboriginal and Torres Strait Islander peoples in very remote communities reporting a lack of working facilities for the storage and preparation of food.

IMPLICATIONS: Action areas under the NSFATSIH's Key Results Area Five: Environmental Health, recognise that no one organisation, level of government or sector has responsibility for environmental health. The strategy therefore seeks to streamline government responsibilities and better coordinate all parties, including the range of government portfolios and jurisdictions with responsibility for health, housing, water, sewerage.

Initiatives are evident in the housing and community services portfolio areas. In May 2001, Housing Ministers endorsed a 10-year statement on directions for Indigenous housing reform called *Building a Better Future: Indigenous Housing to 2010* (Australian Housing Ministers' Conference 2001). This statement includes among its four objectives the achievement of safe, healthy and sustainable housing.

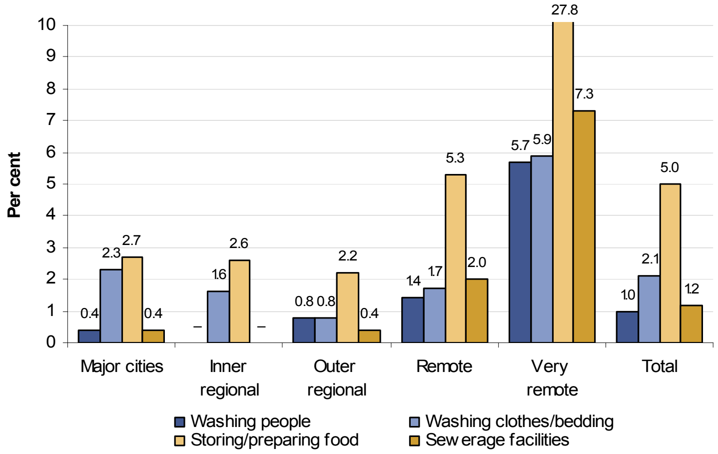
A National Indigenous Housing Guide (Department of Family and Community Services 2003) provides a practical tool to help ensure that housing health hardware (the physical infrastructure necessary to keep healthy) is safe, functional and sustainable. Houses will be designed, constructed and maintained to support Healthy Living Practices, adopted from the environmental health review *Uwankara Palyanyku Kanyintjaku*. The first four of the nine healthy living practices are monitored.

Table 25 – Testing of drinking water in discrete Aboriginal and Torres Strait Islander communities with a usual population of 50 or more, by State/Territory, 2001

	Not connected to town supply							
	Failed testing	Did not fail testing	Test result not stated	Total tested	Not tested	Total not connected	Connected to town supply	Total population of communities
	Population of communities (Number of people):							
NSW	870	280	180	1,330	75	1,405	6,111	7,516
Qld	5,739	18,266	1,300	25,305	2,832	28,137	1,693	29,830
SA	670	2,165	159	2,994	150	3,144	1,229	4,373
WA	4,350	5,663	–	10,013	335	10,348	3,075	13,423
NT	5,342	25,770	1,370	32,482	2,853	35,335	4,183	39,518
Total	17,028	52,144	3,009	72,181	6,245	78,426	16,570	94,996
	Proportion of population in communities where water supply was tested (%):					Proportion of total population of communities (%):		
NSW	65.4	21.1	13.5	100.0		18.7	81.3	100.0
Qld	22.7	72.2	5.1	100.0		94.3	5.7	100.0
SA	22.4	72.3	5.3	100.0		71.9	28.1	100.0
WA	43.4	56.6		100.0		77.1	22.9	100.0
NT	16.4	79.3	4.2	100.0		89.4	10.6	100.0
Total	23.6	72.2	4.2	100.0		82.6	17.4	100.0

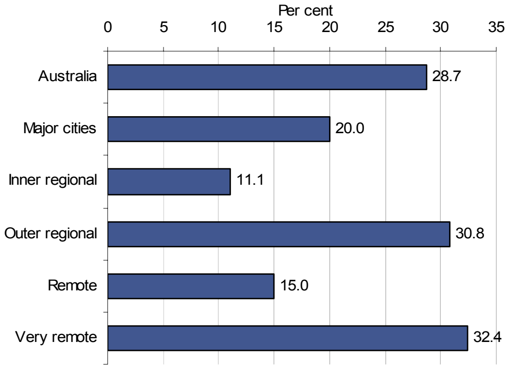
Source: SCGRSP 2003 – 2001 Community Housing and Infrastructure Needs Survey

Figure 55 – Percentage of Indigenous households reporting lack of working facilities for each of the first 4 Healthy Living Practices by remoteness, 2002



Source: SCGRSP 2003- 2002 National Aboriginal and Torres Strait Islander Social Survey

Figure 56 – Percentage of Indigenous communities of 50 or more persons, experiencing sewerage overflows or leakages for longer than 48 hours, 2001



Source: SCGRSP 2003 – 2001 Community Housing and Infrastructure Needs Survey

2.02 Overcrowding in housing

WHY IS IT IMPORTANT?: The effects of overcrowding in housing include inadequate access to facilities, which may increase the risk of infectious diseases such as meningitis, acute rheumatic fever, tuberculosis, and skin and respiratory infections (AIHW 2005a). However, the impact of overcrowding occurs in combination with other environmental health factors such as water quality and sanitation. One example is the contribution of overcrowding in housing to failure of sewerage systems. Septic tanks, used in many Indigenous communities, can leak or overflow if they are used by more people than they are designed for.

Overcrowding can potentially affect health in different ways. Overcrowding may increase psychological stress resulting in increased physical or verbal abuse. It may also adversely affect opportunities for student household members to study. However, the presence of more people may decrease social isolation, which may have a positive impact on health (Booth & Carroll 2005). Social and biological factors may also moderate the effects of overcrowding (for example, vaccination with influenza and nutrition for general immunity to bacterial infections).

As a higher proportion of Aboriginal and Torres Strait Islander peoples live in overcrowded conditions than other Australians, they face a greater risk of ill-effects that overcrowding can have on health.

FINDINGS: The 2002 National Aboriginal and Torres Strait Islander Social Survey estimated that there were 72,600 Indigenous Australians aged 15 years and over living in overcrowded households. This represented 26% of all Indigenous persons aged 15 years and over. These figures are based on the Canadian National Occupancy Standard that has been commonly used to measure overcrowding in housing in Australia.

Overcrowding increases with remoteness. It affects 62% of Indigenous Australians aged 15 years and over living in very remote areas, 31% in remote areas and 16% in non-remote areas in 2002. As a reflection of this, proportions also varied by jurisdiction. The Northern Territory had the highest proportion in overcrowded households (63%), followed by Queensland (26%) and Western Australia (25%).

The 2001 Census estimated that there were 21,274 Indigenous households that were overcrowded according to the Canadian National Occupancy Standard. This represented 15% of all Indigenous households in 2001. Overcrowding varied by tenure type with 42% of households of Aboriginal and Torres Strait Islanders peoples in Indigenous or mainstream community housing overcrowded in 2001. This compares with around 15% of households of Aboriginal and Torres Strait Islanders peoples in mainstream public housing or State Owned and Managed Indigenous Housing, 13% of private renters and 8% of home owners or purchasers.

Other census results are based on a *Proxy Occupancy Standard* that has been used to assess the extent of overcrowding in Commonwealth/State Housing Agreement data. Against this standard, approximately 5 times more households of Aboriginal and Torres Strait Islanders peoples were classified as overcrowded compared with other Australian households.

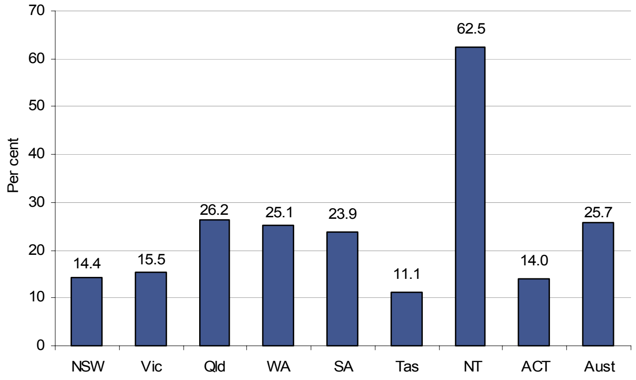
IMPLICATIONS: For some Aboriginal and Torres Strait Islander peoples, living with extended family groupings may be culturally acceptable. This creates challenges for the provision of appropriate housing (AIHW 2005a).

The NSFATSIH includes a Key Result Area on environmental health. This aims to improve standards of environmental health including housing and essential services in Aboriginal and Torres Strait Islander communities commensurate with the standards of the wider Australian community.

The *Cultural Respect Framework for Aboriginal and Torres Strait Islander Health* emphasises the principle of holistic approach to health that takes socioeconomic determinants of health, which would include overcrowding, into consideration. It also highlights the importance of working together with other agencies and organisations to achieve changes in the underlying determinants of health.

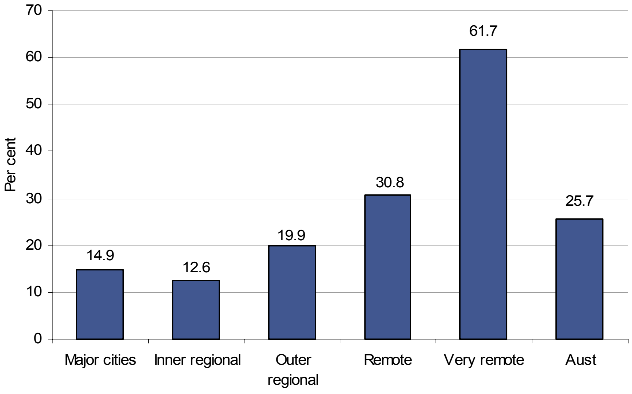
The housing sector has developed strategies targeting housing for Aboriginal and Torres Strait Islander peoples, and includes health outcomes as a specific objective. For instance, *Building a Better Future: Indigenous Housing to 2010* aims to achieve safe, healthy and sustainable housing through implementation of the *National Framework for the Design, Construction and Maintenance of Indigenous Housing*.

Figure 57 – Proportion of Indigenous people 15 years and over living in overcrowded housing, based on the Canadian Occupancy Standard, by jurisdiction, 2002



Source: SCRGSP 2005- 2002 National Aboriginal and Torres Strait Islander Social Survey

Figure 58 – Proportion of Indigenous people 15 years and over living in overcrowded housing, based on the Canadian Occupancy Standard, by remoteness, 2002



Source: SCRGSP 2005- 2002 National Aboriginal and Torres Strait Islander Social Survey

Table 26 –Proportion of overcrowded Indigenous households, using the Canadian National Occupancy Standard, by tenure type and by state and territory, 2001

	NSW/ ACT	Vic.	Qld	WA	SA	Tas.	NT	Aust
Home owner/purchaser	7.4	7.3	8	8.1	7.8	4.6	11.9	7.6
Renter mainstream public housing	12.4	12.3	18.2	20.5	14.1	9.7	19.8	15.4
Renter Indigenous/mainstream community housing	18.3	13.4	36	49.2	38.1	13.2	63	41.7
Private and other renter	12.7	11.9	14.2	11.2	8.9	7.8	17.6	12.8
Other	10.1	8.6	13.8	13.6	13.9	7.0	18.5	12.7
Total	**10.9**	**9.8**	**15.5**	**17.9**	**13.3**	**6.4**	**36.4**	**14.7**

Source: ABS 2001 Census, customised tables

2.03 Environmental tobacco smoke

WHY IS IT IMPORTANT?: Environmental tobacco smoke or passive smoking is now firmly established as a significant cause of morbidity and mortality. The first evidence of harm to children emerged in the early 1970s (Colley 1974; Harlap & Davies 1974; Leeder et al. 1976); and the first evidence of increased lung cancer risk in 1981 (Hirayama 1981). By 1986 the US Surgeon General (USDHHS 1986) and the Australian National Health and Medical Research Council (NHMRC 1986; NHMRC 1997) were able to conclude without doubt that passive smoking was harmful (VicHealth Centre for Tobacco Control 2001).

Environmental tobacco smoke is a significant contaminant of indoor air. There is strong and consistent evidence that passive smoking increases a non-smoker's risk of lung cancer and ischaemic heart disease. Passive smoking is also associated with increased risk of respiratory disease in adults (NHMRC 1997).

The home is the most important source of exposure to environmental tobacco smoke for children, and young children living with parents or relatives who smoke are particularly vulnerable. Passive 'environment' smoking of tobacco around a new born child is considered to be one of the major risk factors for sudden infant death syndrome (SIDS or cot death). Exposure to second hand smoke in the atmosphere also increases an infant's risk of ear infections, and developing asthma (AMA 1999).

The benefits of reducing exposure to environmental tobacco smoke include reducing the incidence of short-, medium- and long-term health effects in non-smokers, and reducing the uptake of smoking in children of smokers (VicHealth Centre for Tobacco Control 2001).

FINDINGS: In 2004-05, there were around 119,000 Aboriginal and Torres Strait Islander children aged 0-14 years living in households with a regular smoker. This represented 66% of all Aboriginal and Torres Strait Islander children aged 0-14 years. In comparison, only 35% of non-Indigenous children aged 0-14 years lived in households with a regular smoker.

Approximately 28% of Aboriginal and Torres Strait Islander children aged 0-14 years were living in households with a regular smoker who smoked at home indoors compared to 9% of non-Indigenous children of the same age.

A higher proportion of Aboriginal and Torres Strait Islander children aged 0-14 years in very remote areas lived in households with a regular smoker (80%) and in households with a regular smoker who smoked at home indoors (41%) than Aboriginal and Torres Strait Islander children in major cities, inner regional, outer regional or remote areas.

Aboriginal and Torres Strait Islander children in major cities and regional areas were four and two times as likely to live in households with a regular smoker who smoked at home indoors as non-Indigenous children in major cities and regional areas respectively.

The proportion of Aboriginal and Torres Strait Islander children aged 0-14 years who lived in households with regular smokers ranged from 53% in Victoria to 82% in the Northern Territory. The proportion of Aboriginal and Torres Strait Islander children aged 0-14 years who lived in households with a regular smoker who smoked at home indoors ranged from 24% in the Queensland and Western Australia to 45% in the Northern Territory.

IMPLICATIONS: The policy implications for addressing the dangers of environmental tobacco smoke are similar to those for tobacco smoking in general (measure 2.17) and tobacco smoking during pregnancy (measure 2.18). Exposure to environmental tobacco smoke should be monitored in conjunction with measures.

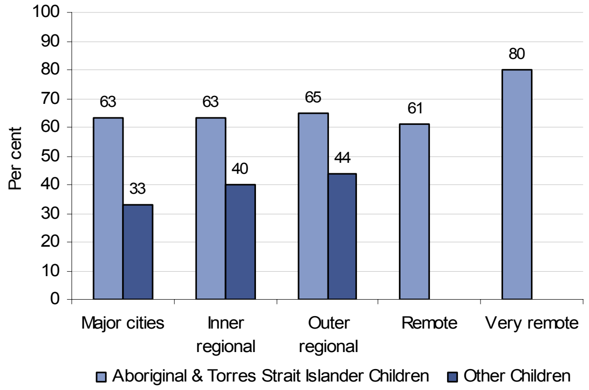
The NSFATSIH identifies smoking as one of the immediate priority areas for action and supports the development of initiatives designed specifically for Aboriginal and Torres Strait Islander peoples. *The National Drug Strategy Aboriginal and Torres Strait Islander People Complementary Action Plan 2003-2009* and the *National Tobacco Strategy* provide a framework to improve comprehensive approaches to reduce smoking-related harm among Aboriginal and Torres Strait Islander peoples, including environmental tobacco smoke in the workplace and at home.

Table 27 – Children aged 0-14 years in households with smokers, by Indigenous status of children, 2004-05

	Aboriginal and Torres Strait Islander children aged 0-14	Non-Indigenous children aged 0-14
	%	%
Regular smokers in household		
No	31	65
Yes	66	35
Other	3	0
Whether any regular smokers smoke at home indoors		
No	38	26
Yes	28	9
Other	34	65
Total Number	**180,669**	**3,760,010**

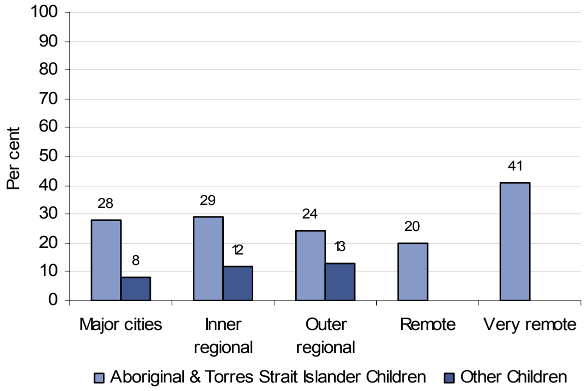
Source: ABS & AIHW analysis of 2004-05 National Aboriginal and Torres Strait Islander Health Survey and 2004-05 National Health Survey

Figure 59 – Children aged 0-14 years in households with a regular smoker in the household, by Indigenous status of children and remoteness, 2004-05



Source: ABS & AIHW analysis of 2004-05 National Aboriginal and Torres Strait Islander Health Survey and 2004-05 National Health Survey

Figure 60 – Children aged 0-14 years in households with a regular smoker who smokes at home indoors, in the household, by Indigenous status of children and remoteness, 2004-05



Source: ABS & AIHW analysis of 2004-05 National Aboriginal and Torres Strait Islander Health Survey and 2004-05 National Health Survey

2.04 Years 3, 5 and 7 literacy and numeracy

WHY IS IT IMPORTANT?: Education is a key factor for improving the health and well-being of Aboriginal and Torres Strait Islander peoples. Access to education is an important determinant of health and links with other social factors such as poverty, unemployment, quality of housing and access to primary health services. Furthermore there is a two way association between health and education. People who have low educational attainment tend to have poorer health, fewer opportunities, low incomes and lower employment prospects. In turn poorer health is associated with lower educational attainment impacting unfavourably upon income and employment (ABS & AIHW 2005; The Fred Hollows Foundation 2006).

Early educational experiences are important as they influence future academic performance (SCRGSP 2005a; ACER 2004). Students who do not attain the national literacy and numeracy benchmark standards for example will have difficulty progressing through school and are less likely to enter higher education. Furthermore, school leavers who lack fundamental skills in literacy and numeracy face lower employment prospects. Poor educational outcomes of Indigenous Australian students apparent in upper primary/lower secondary school are symptomatic of inadequate educational progress in the early years of schooling (ACER 2004). Aboriginal and Torres Strait Islander primary school students have considerably lower literacy and numeracy attainment than non-Indigenous students. Improvements in this area are crucial to the achievement of headline educational outcomes such as Years 10 and 12 retention and attainment.

FINDINGS: Information from the National Report on Schooling in Australia (MCEETYA 2004) shows that proportions of Aboriginal and Torres Strait Islander students achieving reading, writing and numeracy benchmarks in each of Years 3, 5 and 7 remain below corresponding proportions of all students. However, at all three school year levels and for all three disciplines, achievement of benchmarks by Aboriginal and Torres Strait Islander students has increased. While a noticeable discrepancy remains, the rate of improvement in the proportions achieving the benchmarks is bringing Aboriginal and Torres Strait Islander students closer to the proportions of all students who have achieved benchmark levels. The most rapid improvements by Aboriginal and Torres Strait Islander students have been evident in the 3.4% per annum improvement in the proportion achieving the Year 7 reading benchmark and a 2.6% per annum improvement in achieving the Year 3 writing benchmark between 1999 and 2004. There has been little improvement, though, in the proportion of Aboriginal and Torres Strait Islander students achieving the Year 7 numeracy benchmark, which remains at just above half of students (52%). Slippage in achievement of numeracy benchmarks is also evident in cohorts. For instance, the Aboriginal and Torres Strait Islander Year 7 cohort of which 52% achieved numeracy benchmarks in 2004 had 66% achieving the benchmark in 2002 (when in Year 5) and 74% in 2000 (Year 3).

Compared with the proportion of all students achieving educational benchmarks, Aboriginal and Torres Strait Islander students in 2004 show their most consistent levels of achievement across Year levels in the writing discipline, where the ratio of proportions is around 0.85 for each Year level. On the other hand, relative numeracy achievement levels of Aboriginal and Torres Strait Islander students in 2004 were much lower in Year 7, where the ratio of proportions is 0.63, compared with ratios of 0.85 for Year 3 and 0.76 for Year 5.

Proportions of Aboriginal and Torres Strait Islander students achieving literacy and numeracy benchmarks in 2004 varied widely between jurisdictions. Jurisdictions where the proportions of Aboriginal and Torres Strait Islander students achieving the relevant benchmark for their Year were generally below the national proportion were Western Australia, South Australia and the Northern Territory.

IMPLICATIONS: A priority of the NSFATSIH is to address wider strategies that impact on health, including the socioeconomic factors of employment and education. Key Result Area Six aims to develop partnerships with other sectors whose activities impact on health. In the case of this measure, the strategies include liaison on implementation of the *National Indigenous English Literacy, Numeracy and Attendance Strategy*.

Aboriginal and Torres Strait Islander students are falling behind in numeracy skills between Year 3 and Year 7 but are at least holding their relative position, if not improving, in writing skills. The implications of these trends should be considered in conjunction with the education sector. Many older Indigenous Australians have low education attainment and negative experiences at school which may act as barriers to achievement by students. Low expectations by families, communities and schools can impact on academic achievement. Fewer Indigenous Australian children have the opportunity to attend a pre-school, and so are less school ready than children who have attended pre-schools. Indigenous students have lower attendance rates than non-Indigenous students (ACER 2004; The Fred Hollows Foundation 2006; Zubrick et al. 2006).

Indigenous students at high risk of clinically significant emotional and behavioural difficulties are less likely to achieve academic milestones (Zubrick et al. 2006). A longitudinal multi-school study conducted by Australian Council for Education Research (2004) found that a student's school and it's ability to adapt to the needs of Indigenous students accounted for much of the variation in academic outcomes by the students.

Table 28 – Proportion of students achieving reading, writing and numeracy benchmarks, by Indigenous status, 1999-2004

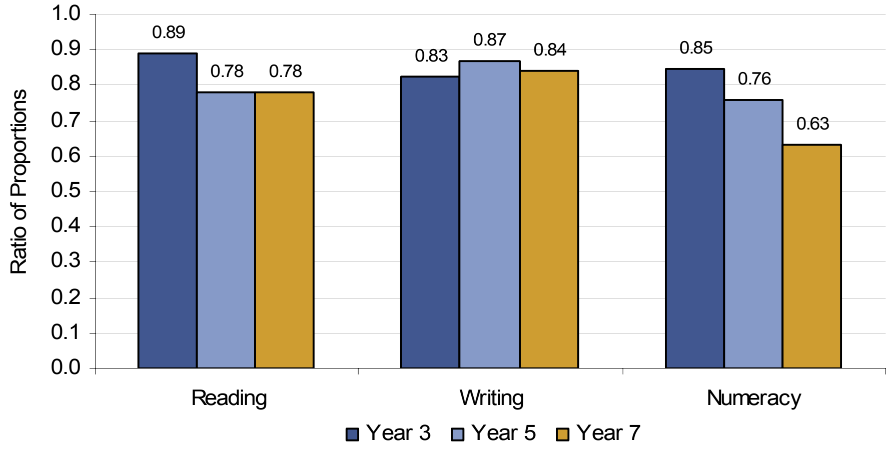
	1999	2000	2001	2002	2003	2004	Annual change$^{(a)}$
Reading							
Indigenous							
Year 3	73.4	76.9	72.0	76.7	78.8	82.9	1.7*
Year 5	58.7	62.0	66.9	68.0	67.7	69.4	2.0*
Year 7	n.a.	n.a.	60.1	65.3	66.5	71.0	3.4*
All students							
Year 3	89.7	92.5	90.3	92.3	92.4	93.0	0.5*
Year 5	85.6	87.4	89.8	89.3	89.0	88.7	0.6
Year 7	n.a.	n.a.	88.4	89.1	89.4	91.0	0.8*
Writing							
Indigenous							
Year 3	66.9	65.0	67.8	77.1	75.2	76.8	2.6*
Year 5	74.6	74.3	79.9	76.4	79.6	81.7	1.4*
Year 7	n.a.	n.a.	74.3	71.6	74.4	78.8	1.6
All students							
Year 3	91.9	90.0	89.5	93.6	92.2	92.9	0.5
Year 5	93.0	92.5	94.0.0	93.6	94.1	94.2	0.3*
Year 7	n.a.	n.a.	92.6	90.7	92.1	93.6	0.4
Numeracy							
Indigenous							
Year 3	n.a.	73.7	80.2	77.6	80.5	79.2	1.1
Year 5	n.a.	62.8	63.2	65.6	67.6	69.4	1.8*
Year 7	n.a.	n.a.	48.6	51.9	49.3	51.9	0.7
All students							
Year 3	n.a.	92.7	93.9	92.8	94.2	93.7	0.2
Year 5	n.a.	89.6	89.6	90.0	90.8	91.2	0.4*
Year 7	n.a.	n.a.	82	83.5	81.3	82.1	-0.2

** Represents results with statistically significant increases or declines at the p<0.05 level over the period 1998-99 to 2003-04.*

(a) Average annual change in proportions determined using linear regression analysis.

Source: AIHW analysis of National Report on Schooling in Australia 2004, available through MCEETYA,

Figure 61 – Ratio of proportion of Indigenous students achieving literacy and numeracy benchmarks to corresponding proportion of all students, 2004



Source: Compiled from National Report on Schooling in Australia 2004, available through MCEETYA

2.05 Years 10 and 12 retention and attainment

WHY IS IT IMPORTANT?: Education is a key factor in improving the health and well-being of Aboriginal and Torres Strait Islander peoples. Successful completion of Year 12 is critical to improving the economic and social status of Aboriginal and Torres Strait Islander peoples. Higher levels of education improve employment prospects, thus improving future income, standard of housing and access to health care (SCRGSP 2006; ABS 2002; ABS & AIHW 2005).

There is an established association between education and other socioeconomic factors and health status. Generally, population groups with lower socioeconomic status have poorer health than those with higher socioeconomic status. Health care utilisation and the effectiveness of population health programs are also similarly affected by socioeconomic factors.

Higher levels of education have been associated with reduced propensity to engage in health risk behaviours, particularly smoking but marginally also for alcohol consumption. In addition, improved health literacy is associated with education. Health literacy is defined as the ability to obtain, interpret and understand basic health information and services, as well as competence and motivation to use such information and services in ways that enhance health.

Research in the US (Wong et al. 2002) has found that mortality from all causes was higher for persons with fewer years of education particularly for smoking related diseases. Persons without a high-school education lost 12.8 potential life-years per person.

International literature has also documented improvements in child mortality associated with increased levels of maternal education and attributed this to a variety of factors, including improved understanding of and greater willingness to access health services (Caldwell 1979).

FINDINGS: Data from the *National Schools Statistics Collection* (NCCS) reports that the apparent retention rate of full-time Aboriginal and Torres Strait Islander students from Year 7/8 to Year 10 was 88.3% compared with 98.6% for other students. In the same year, the apparent retention rate of full-time Aboriginal and Torres Strait Islander students from Year 7/8 to Year 12 was much lower - 39.5% compared with 76.6% for other students. However, encouragingly, the retention rates for Aboriginal and Torres Strait Islander full-time students from Year 7/8 to both Year 10 and Year 12 have continued to increase over the last five years.

The apparent retention rates for Aboriginal and Torres Strait Islander females were slightly higher than for males from Year 7/8 to Year 10 (91% compared with 86%) and Year 7/8 to Year 12 (44% compared with 35%).

Apparent retention rates for Aboriginal and Torres Strait Islander full time students, from Year 7/8 to both Year 10 and Year 12, have continued to increase over the last five years. The rate to Year 10 increased from 79.2% in 2000 to 85.7% in 2005 for Aboriginal and Torres Strait Islander males and from 87.0% in 2000 to 90.9% in 2005 for females. The rate to Year 12 increased from 33.5% in 2000 to 35.1% in 2005 for Aboriginal and Torres Strait Islander males and from 39.3% in 2000 to 44.0% in 2005 for females.

Tasmania and the Australian Capital Territory had the highest retention rates of Aboriginal and Torres Strait Islander students from Year 7/8 to Year 10 (103% and 101% respectively), while New South Wales and Victoria had the lowest (80% and 81% respectively). Retention rates of Aboriginal and Torres Strait Islander students from Year 7/8 to Year 12 were highest in the Australian Capital Territory (60%) and Queensland (54%) and were lowest in Western Australia (29%) and New South Wales (31%).

Rates for Tasmania and the Australian Capital Territory should be interpreted with caution, due to the small size of these jurisdictions; relatively small changes in student numbers can create large movements in retention rates. Some rates exceeded 100%, largely reflecting the movement of students from non-government to government schools in Years 11 and 12; and in the Australian Capital Territory, some New South Wales residents from surrounding areas enrolled in Australian Capital Territory schools during secondary school.

In 2005, approximately 65% of Aboriginal and Torres Strait Islander Year 11 students went on to achieve a Year 12 certificate compared with 86% of other students.

Attainment rates were higher for females than for males in both the Aboriginal and Torres Strait Islander and non-Aboriginal and Torres Strait Islander populations. Approximately 68% of Aboriginal and Torres Strait Islander females in Year 11 went on to achieve a Year 12 certificate compared with 61% of Aboriginal and Torres Strait Islander males. Eighty nine per cent of non-Indigenous females who began Year 11 went on to complete Year 12 compared with 83% of non-Indigenous males.

Attainment rates of Aboriginal and Torres Strait Islander students were highest in the Australian Capital Territory (89%) and Queensland (78%), and were lowest in the Northern Territory (42%) and Western Australia (53%).

IMPLICATIONS: A report commissioned by the Task Force on School to Work Transition for Indigenous Australians (Long & Batten 1998) identified the following key barriers to education for Aboriginal and Torres Strait Islander peoples: a lack of relevant courses; a lack of culturally appropriate curriculum, teaching methods and assessment; and low literacy levels. Rurality was also found to disadvantage Aboriginal and Torres Strait

Islander youth, with those living in remote areas being less likely to have completed Year 12 compared with non-remote areas (SCRGSP 2005a). Low English literacy levels and/or speaking English as a second language also impacts unfavourably on education outcomes for Aboriginal and Torres Strait Islander students. Furthermore, lower parental levels of educational attainment were reported to have a strong association with lower rates of both student attainment and performance (SCRGSP 2005a).

From these findings, important policy issues are physical access to education, availability of work after completion of school education, and community support for students. But consultations for this report also stressed the importance of education for general life skills, not just for employment. They also identified the importance of appropriate safe places for study, highlighting difficulties experienced by students in crowded housing or in communities where education opportunities are not fostered.

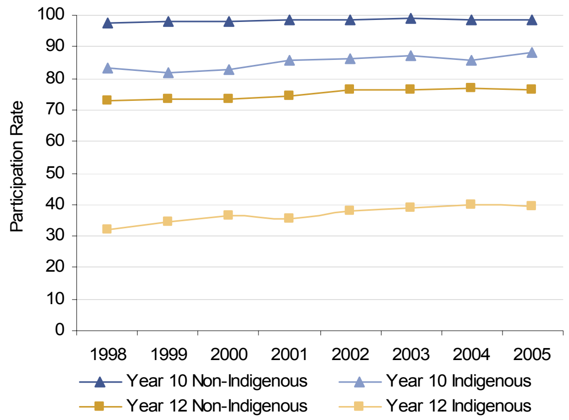
This measure should be examined in conjunction with other education participation, for instance TAFE education. In 2004-05, 9% of Aboriginal and Torres Strait Islander peoples aged 15 to 24 years were currently studying a TAFE or similar program, compared with 11% of corresponding non-Indigenous persons.

The National Aboriginal and Torres Strait Islander Education Policy (DEST 2005) forms the foundation of all Aboriginal and Torres Strait Islander education programs in Australia. Its major goal areas emphasise:

- participation by parents and communities in decisions about planning, delivery and evaluation of education services
- engagement of Aboriginal and Torres Strait Islander peoples as administrators, teachers liaison officers and in other roles in the education system, including teaching Aboriginal and Torres Strait Islander peoples
- ensuring that children have local access to primary and secondary schooling
- participation by all Aboriginal and Torres Strait Islander children in compulsory schooling
- enabling Aboriginal and Torres Strait Islander students to attain skills to the same standard as other Australian students, including completion of Year 12 or equivalent.

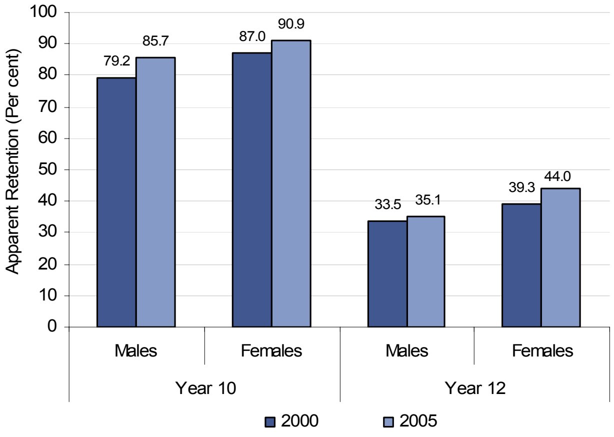
An example of a successful local program that has seen improved school attendance and increased community involvement in Aboriginal and Torres Strait Islander school education is the ‘Strong and Smart’ philosophy implemented at Cherbourg in Queensland. The program has extended to networking with other schools with a high proportion of Aboriginal and Torres Strait Islander students and leadership development for principals of similar schools through an Indigenous Education Leadership Institute (2006).

Figure 62 – Apparent Year 10 and Year 12 retention rates, by Indigenous status, 1998-2005



Source: AIHW analysis of ABS National Schools Statistics Collection (NSSC)

Figure 63 – Apparent Year 10 and Year 12 Indigenous students by sex, 2000 and 2005



Source: AIHW analysis of ABS National Schools Statistics Collection (NSSC)

Table 29 – Apparent retention and attainment rates for Aboriginal and Torres Strait Islander students by jurisdiction and sex, 2005

	Aboriginal and Torres Strait Islander:									Other:
	NSW	**Vic.**	**Qld**	**WA**	**SA**	**Tas.**	**ACT**	**NT**	**Australia**	**Australia**
Year 10 apparent retention										
Males	77.3	75.0	87.7	90.5	84.4	103.2	100.0	95.9	85.7	97.9
Females	83.1	87.4	96.2	95.4	88.8	103.2	102.2	87.2	90.9	99.4
Year 12 apparent retention										
Males	26.6	30.5	48.6	24.7	31.5	37.3	77.1	40	35.1	71.1
Females	35.5	52.0	59.9	33.2	35.1	58.9	42.4	35.9	44.0	82.3
Attainment – year 11 to year 12 completion										
Males	60.2	56.8	76.2	46.6	54.9	61.1	93.1	42.2	61.1	83.2
Females	71.1	65.7	78.7	58.3	55.6	79.8	82.4	41.5	67.9	88.9

Source: AIHW analysis of ABS National Schools Statistics Collection (NSSC)

2.06 Educational participation and attainment of Aboriginal and Torres Strait Islander adults

WHY IS IT IMPORTANT?: Education is a key factor in improving the health and well-being of Aboriginal and Torres Strait Islander peoples. Longitudinal studies show that people who go on to higher education (universities, colleges of advanced education, and other tertiary institutions) and graduate with a degree or diploma are more likely to obtain full-time work and earn higher incomes compared with those who do not. Likewise people who complete a course at a Technical and Further Education (TAFE) institution are more likely to be employed after the completion of their course than they were before. Those undertaking TAFE education who are already employed are more likely to receive a promotion and/or an increase in income after completion of their TAFE course (SCRGSP 2005a).

There is an association between socioeconomic factors such as education, employment, income and health status. Generally, population groups with lower socioeconomic status have poorer health than those with higher socioeconomic status. Reporting socioeconomic factors affecting health such as education level will help to inform public policy and encourage whole of government collaboration to address health inequalities (Canadian Institute for Health Information 2001)

Health literacy is another factor associated with education. Health literacy is defined as the ability to obtain, interpret and understand basic health information and services, as well as competence and motivation to use such information and services in ways that enhance health. Most health education campaigns use simplified language in their printed materials to convey information, assuming that people can read. Most adults do read, but many have difficulty understanding what they read and applying generalised information to their own specific situation. People with low levels of health literacy often find it difficult to navigate the complex health-care system and understand conditions and their treatments (Centre for Medicare Education 2006).

International research has demonstrated that maternal education is a determinant of child health and survival (ABS & AIHW 2005). There has been little conclusive research undertaken in the Indigenous Australian context on this issue (Ewald & Broughton 2002).

FINDINGS: In 2004-05, Year 12 was the highest level of school completed by 23% of Aboriginal and Torres Strait Islander adults compared to 47% of non-Indigenous adults. The proportion of Aboriginal and Torres Strait Islander Adults who have completed Year 12 increased from 10% in 1994. Analysis by age cohorts shows the increasing proportions of Aboriginal and Torres Strait Islander people who have completed Year 12 education. Amongst the youngest group, those aged 18 to 24 years, the proportion who have completed year 12 is 36%, much higher than the average reported above. Those in remote areas were less likely to complete Year 12 (14%) compared with non-remote areas (26%).

In 2004-05, approximately 38% of Aboriginal and Torres Strait Islander people aged 25-64 years reported they had a non-school qualification compared to 60% of non-Indigenous Australians of the same age. A similar proportion of Indigenous and non-Indigenous Australians aged 25-64 years had a certificate qualification (25% and 26% respectively). Much lower proportions of Aboriginal and Torres Strait Islander persons had a bachelor degree or diploma as their highest level of non-school qualification (6% and 6% respectively) compared to non-Indigenous Australians (22% and 10% respectively).

Vocational education and training (VET) courses are providing large numbers of Aboriginal and Torres Strait Islander peoples with non-school education training opportunities. During the year 2004, there were approximately 12,413 course completions in the VET sector by Aboriginal and Torres Strait Islander persons aged 15 years and over. This constitutes 4.1% of the Indigenous Australian population aged 15 years and over. In comparison, approximately 2.7% of the non-Indigenous population aged 15 years and over completed a course in the VET sector in 2004. A higher proportion of Aboriginal and Torres Strait Islander peoples had completed a VET course than other Australians in all age-groups, except the 15-24 year age-group where 6.4% of Indigenous Australians had a VET qualification compared to 7.1% of other Australians.

During the year 2004, 2.9% of Aboriginal and Torres Strait Islander persons aged 15 years and over completed a course in the higher education sector compared to 4.5% of other Australians. Approximately 2.1% of Indigenous Australians completed an undergraduate degree and 0.4% of Indigenous Australians completed a postgraduate degree. This compared with 3.3% and 1.2% for other Australians. Others completing enabling non-award courses are included in the total completing higher education courses.

IMPLICATIONS: The NSFATSIH's Key Result Area Six aims to develop partnerships with other sectors, and in the case of this measure to support liaison between health and education portfolios at national, state, territory and regional levels.

The *National Aboriginal and Torres Strait Islander Education Policy* (Department of Education Science and Training 2005) includes a number of goals relevant to this performance measure:

- Major Goal 1 - Involvement of Aboriginal and Torres Strait Islander People in Educational Decision-Making, including to increase the number of Aboriginal and Torres Strait Islander people employed as administrators, teachers, researchers and student services officers in technical and further education colleges and higher education institutions.

- Major Goal 2 - Equality of Access to Education Services, specifically to post-compulsory secondary schooling, to technical and further education, and to higher education.
- Major Goal 3 - Equity of Educational Participation in post-secondary education, in technical and further education, and in higher education,
- Major Goal 4 - Equitable and Appropriate Educational Outcomes at Year 12 or equivalent and from award courses in technical and further education, and in higher education.

The *National Vocational Education and Training Strategy 2004-2010* includes a key objective that Aboriginal and Torres Strait Islander Australians will have skills for viable jobs and that their learning culture will be shared. A national strategy for Aboriginal and Torres Strait Islander peoples in VET has been developed called *Partners in a Learning Culture* (Department of Education Science and Training 2005). The vocational and education and training sector has adopted six key performance measures including one on the extent to which Indigenous Australians engage with and achieve positive outcomes from vocational education and training (Canberra Institute of Technology 2004).

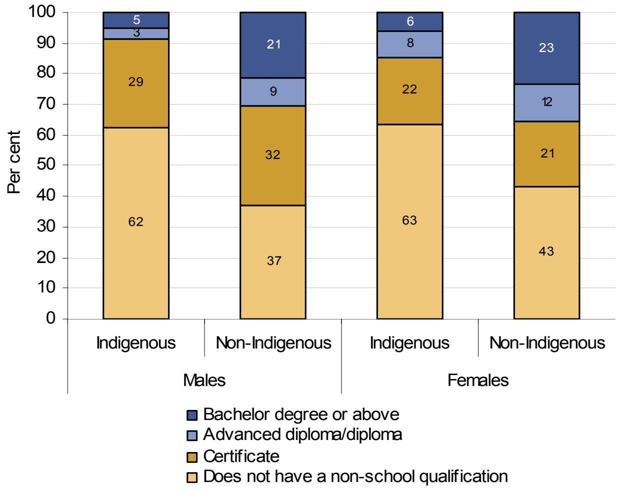
The Australian Government is the primary funding source and developer of policy relating to the higher education sector. Institutions receiving operating grants for Aboriginal and Torres Strait Islander education have an obligation to promote educational equity. The Australian Government supplements the higher education institutions' operating grants through the *Indigenous Support Programme* (Department of Education Science and Training 2005).

Table 30 – Persons aged 15 years and over: Educational institution currently attended by Indigenous status and age-group, Australia 2004-05

	15-24 years		25-34 years		35-44 years		45 years and over		Total		
Educational Participation	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous	Ratio
	%	%	%	%	%	%	%	%	%	%	
Secondary school	26	26	–	0	np	–	–	–	8	4	1.8
TAFE/Technical college/Business college/industry skills centre	9	11	7	5	7	4	2	1	7	4	1.7*
University/Other higher education	4	18	4	7	3	7	1	1	3	6	0.5*
Total currently studying	40	57	12	12	12	13	4	3	19	15	1.3*
Not studying	60	43	88	87	88	91	96	97	81	85	1.0*
Not stated	np	—	—	—	—	—	—	—	np	—	—
Total	100	100	100	100	100	100	100	100	100	100	

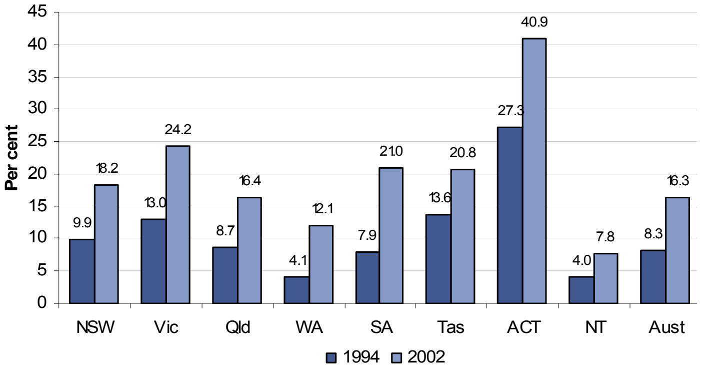
** Statistically significant differences between the Indigenous and non-Indigenous proportions.*
Source: ABS & AIHW analysis of 2004-05 National Aboriginal and Torres Strait Islander Health Survey and 2004-05 National Health Survey

Figure 64 – Persons aged 25 to 64 years: Whether has a non-school qualification by sex and Indigenous status, Australia 2004-05



Source: ABS & AIHW analysis of 2004-05 National Aboriginal and Torres Strait Islander Health Survey and 2004-05 National Health Survey

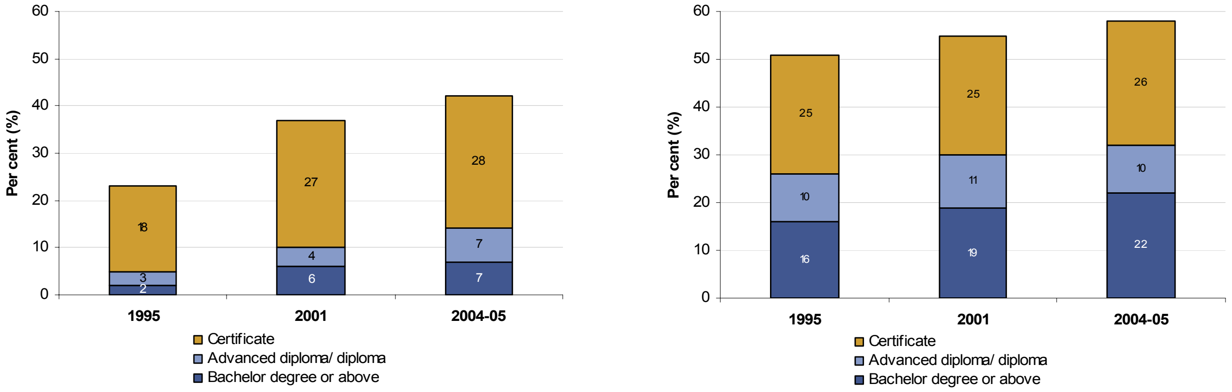
Figure 65 – Post secondary attainment of certificate III or above by Indigenous peoples aged 18 years and over, 1994 and 2002



Source: SCGRSP 2005 - 1994 National Aboriginal and Torres Strait Islander Survey and ABS 2002 National Aboriginal and Torres Strait Islander Social Survey

Figure 66 – Non-school qualifications, by Indigenous status, non-remote areas, 1995, 2001 and 2004-05

Indigenous Non-Indigenous



Source: ABS & AIHW analysis of 1995 and 2004-05 National Aboriginal and Torres Strait Islander Health Survey and National Health Surveys and 2001 National Health Survey (and Indigenous supplement)

2.07 Employment status including CDEP participation

WHY IS IT IMPORTANT?: Participation in employment has important consequence for living standards and social and emotional well-being, including self-esteem, opportunities for self development and participation in the community. There are also strong associations between socioeconomic factors such as employment status and health (OATSIH 2004). Analysis of the 1994 National Aboriginal and Torres Strait Islander Survey (ABS 1994) found that labour force status was associated with self-assessed health status even after adjusting for age. For both males and females, people who were unemployed or not in the labour force were significantly more likely to report fair or poor health than those employed in mainstream jobs (that is, jobs other than Community Development Employment Projects (CDEP) scheme jobs). Females who were employed in CDEP scheme jobs were somewhat more likely than those in non-CDEP jobs to report fair or poor health.

Recent studies have demonstrated the detrimental effect of unemployment on health. Mathers and Schofield (1998) concluded that there was ‘consistent evidence from different types of studies that unemployment is associated with adverse health outcomes and … unemployment [can have] a direct effect on health over and above the effects of socioeconomic status, poverty, risk factors, or prior ill-health.’ McLure (2000) noted that long periods of non-participation in the workforce can have negative effects on an individual’s health (both physical and psychological). The Steering Committee for the Review of Government Service Provision (SCRGSP 2005, p. 3.30) noted the ‘strong evidence of an association between unemployment and poor health and mortality which can be caused by material disadvantage in terms of factors such as poor housing and diet’.

There are two key measure of employment participation – the labour force participation rate and the unemployment rate. The labour force includes all people contributing to, or willing to contribute to, the supply of labour. This includes the employed (people who have worked for at least one hour in the reference week, including CDEP) and the unemployed (people who are without work, but are actively looking for work and available to start work within four weeks). The remainder of the population is not in the labour force. The labour force participation rate is calculated as the number of people in the labour force as a proportion of total people. The unemployment rate is calculated as the number of people unemployed as a proportion of the total labour force.

Aboriginal and Torres Strait Islander labour force statistics are particularly influenced by the CDEP scheme. Through this scheme, Aboriginal and Torres Strait Islander people are able to gain access to employment and training opportunities through community projects. Participants in the scheme are provided with a benefit equivalent to the Newstart Allowance. Participants in the scheme are classified as employed. The program has a large impact on the Aboriginal and Torres Strait Islander unemployment rate especially in remote and very remote areas.

FINDINGS: In 2004-05, the Aboriginal and Torres Strait Islander labour force participation rate for people aged 15-64 years was estimated to be 60%. This compares with a participation rate for other Australians of 78%. Of people in the labour force it was estimated that 16% were unemployed. This compares with an estimate of 4% for other Australians. It should be noted that the NATSIHS was not necessarily designed as a labour force survey. These results for the non-Indigenous population do not align with general labour force estimates of the unemployment rate, although the large difference in the rate between Aboriginal and Torres Strait Islander peoples and other people indicates a clear disparity. Of the estimated 142,600 Aboriginal and Torres Strait Islander peoples who were employed, an estimated 30,600 were employed through the CDEP scheme, and 112,100 through other employment.

Various data sources suggest different trends in employment status. The 1994 NATSIS and the 2002 NATSISS, indicated that nationally, the labour force participation rate for Indigenous people aged 18 to 64 years increased from 57% in 1994 to 64% in 2002, and the unemployment rate the rate fell from 30% to 20% in the same period (SCRGSP 2005, p. 3.31). The NATSIHS/NHS surveys suggest that labour force participation rates for people aged 15 to 64 years were 60% in both 2001 and 2004-05, and unemployment rates were 16.3% in 2001 and 15.5% in 2004-05.

Participation rates are lower for Aboriginal and Torres Strait Islander peoples in the 55-64 years age-group (30%). This compares with 56% for other Australians. Unemployment rates decline with age, from 28% for Aboriginal and Torres Strait Islander peoples aged 15-24 years to just over 9% for peoples aged 35-54 years to 4% for peoples aged 55-64 years.

In 2004-05, the labour force participation rate was estimated to be 58% for Aboriginal and Torres Strait Islander peoples in remote Australia and 61% in non-remote regions. The unemployment rate was estimated to be lower in remote regions (12%) compared with non-remote regions (16%).

IMPLICATIONS: Governments have committed to implement the *Indigenous Employment Policy* (IEP), which aims to improve employment outcomes for Aboriginal and Torres Strait Islander peoples over the next ten years through:

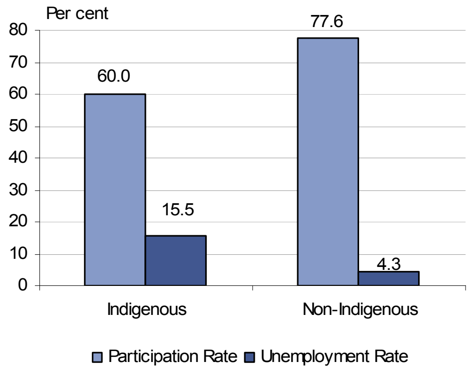
- the more effective delivery of employment services and programs in collaboration with other government agencies and jurisdictions

- improving career and training opportunities for Aboriginal and Torres Strait Islander peoples through strategic partnerships with relevant agencies
- using mainstream employment assistance through Job Networks, along side other agency programs and services
- using elements of the IEP such as Corporate Leaders for Indigenous Employment Project, the National Indigenous Cadetship Project, Structured Training and Employment Project, and Wage Assistance, alongside other agency programs and services.

The employment experience of Aboriginal and Torres Strait Islander peoples is different from other Australians in a number of ways. There is a higher proportion of long-term unemployed, a greater likelihood of being discouraged job seekers (Hunter and Gray 1999) and a higher proportion in part-time employment. The specifically targeted CDEP, which supports labour force participation in remote areas in particular, also has the effect of masking the degree of underemployment in the Aboriginal and Torres Strait Islander population. A lower proportion of employed Aboriginal and Torres Strait Islander peoples have jobs in the private sector than non-Indigenous Australians (SCRGSP 2005).

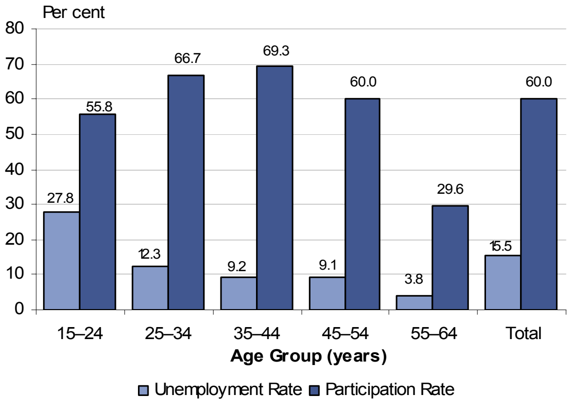
Few of these issues can be directly impacted by the health sector. However, as a large employer, it has a role to play in alleviating unemployment and under-employment of Aboriginal and Torres Strait Islander peoples.

Figure 67 – Unemployment and Labour Force Participation Rates, people aged 15-64 years, by Indigenous status, 2004-05



Source: ABS & AIHW analysis of 2004-05 National Aboriginal and Torres Strait Islander Health Survey and 2004-05 National Health Survey.

Figure 68 – Unemployment and Labour Force Participation Rates for Aboriginal and Torres Strait Islander peoples aged 15–64 years, by age Australia 2004-05



Source: ABS & AIHW analysis of 2004-05 National Aboriginal and Torres Strait Islander Health Survey and 2004-05 National Health Survey.

Table 31 – Labour force status of Indigenous Australians aged 15-64 years, by remoteness, 2004-05

	Remote	**Non-remote**	**Australia**
Labour Force Status	%	%	%
In the Labour Force (Participation Rate)	58	61	60
Employed CDEP	29	4	11
Employed non-CDEP	23	46	40
Total Employed	51	50	51
Unemployment Rate (Unemployed as percentage of labour force)	12	17	16
Not in the Labour Force	42	39	40
Total	**100**	**100**	**100**

Source: ABS & AIHW analysis of 2004-05 National Aboriginal and Torres Strait Islander Health Survey

2.08 Income

WHY IS IT IMPORTANT?: There is strong evidence, from Australia and other developed countries, that low socioeconomic status is associated with poor health (Turrell & Mathers 2000). Low income is associated with a wide range of disadvantages including poor health, low life expectancy, poor education, substance abuse, low social participation, crime and violence. People with lower socioeconomic status, including many Aboriginal and Torres Strait Islander peoples, bear a significantly higher burden of disease (AIHW 2004a).

The level of income inequality within a society has been suggested as a determinant of differential health outcomes (Wolfson et al. 1999). There are several competing explanations as to how income is involved with socioeconomic status and the reason why low income contributes to poor health (Wagstaff & van Doorslaer 2000).

Disparities in income are one aspect of socioeconomic status through which Aboriginal and Torres Strait Islander peoples face disadvantages. Income is closely linked to a range of other measures but most particularly employment status (measure 2.07), single parent families (measure 2.11) and educational attainment (measures 2.04, 2.05 and 2.06).

In measuring and comparing income it is important that various factors, such as the number of people living in a household, particularly children and other dependants, are taken into account. The statistical measure adopted here is *equivalised gross household income* which adjusts reported incomes to take these factors into account.

FINDINGS: Through the NATSISS in 2002, it is estimated that the mean equivalised gross household income for Aboriginal and Torres Strait Islander peoples was $394 per person per week, compared with $665 per person per week for non-Indigenous people. In other words, on average incomes for Aboriginal and Torres Strait Islander people were 59% that of other Australians.

This disparity is also evident when the distribution of income is considered. In 2002, 42% of Aboriginal and Torres Strait Islander peoples aged 18 years and over had incomes that were in the bottom 20% equivalised gross weekly household incomes. Only 6% of Aboriginal and Torres Strait Islander peoples were in the top 20% of equivalised gross weekly household income.

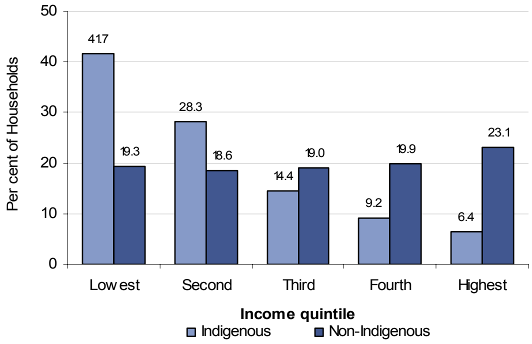
There was been little change in the mean equivalised gross household income for Aboriginal and Torres Strait Islander peoples between 1994 and 2002.

Aboriginal and Torres Strait Islander peoples also report a much higher level of financial stress. Indigenous Australians aged 18 years and over were about four times as likely as non-Indigenous Australians to report that they were unable to raise $2,000 within a week in a time of crisis.

IMPLICATIONS: The large disparity evident in the comparison of Aboriginal and Torres Strait Islander peoples' income quintiles with those of the non-Indigenous population has important direct implications for health. These include the capacity to access services required for a healthy lifestyle, including adequate nutritious food, housing, transport and health care. Other factors that may exacerbate the situation faced by a low income household include resource commitments to extended families and the propensity for a large number of visitors to Aboriginal and Torres Strait Islander households (SCRGSP 2005).

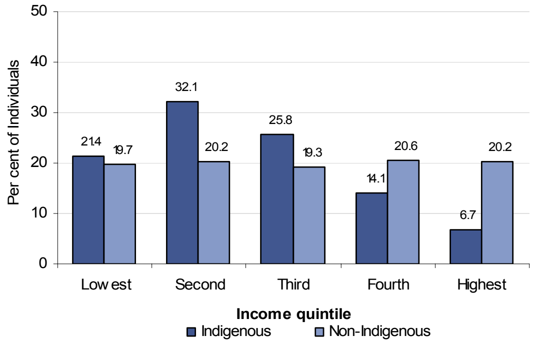
Factors influencing the average levels of income and its distribution are generally beyond the influence of the health sector.

Figure 69 – Proportion of Indigenous peoples in gross weekly equivalised household income quintiles, by Indigenous status, 2002



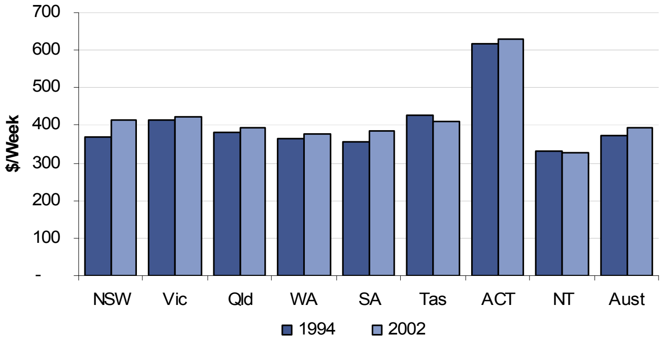
Source: SCRGSP 2005 - 2002 National Aboriginal and Torres Strait Islander Social Survey and 2002 General Social Survey data

Figure 70 – Gross weekly individual income quintiles, by Indigenous status, 2002



Source: SCRGSP 2005 - 2002 National Aboriginal and Torres Strait Islander Social Survey and 2002 General Social Survey data

Figure 71 – Indigenous mean gross weekly equivalised household income, by state and territory, 1994 and 2002



Source: SCRGSP 2005a – 1994 National Aboriginal and Torres Strait Islander Survey and 2002 National Aboriginal and Torres Strait Islander Social Survey

2.09 Housing tenure type

WHY IS IT IMPORTANT?: House tenure is associated with health outcomes including mortality and morbidity. People who own their own home typically experience better health than those who rent. There is a complex relationship between housing and health, and a number of interrelated factors. Housing tenure is also associated with socioeconomic status, with different levels of health hazards in the dwelling itself (e.g. overcrowding, structural problems) and the immediate environment (e.g. amenities, problems with crime) (Ellaway & Macintyre 1998; Macintyre et al. 1998; Southern Public Health Unit Network & West Moreton Public Health Unit 2006).

The health benefits of home ownership reflect the strong relationship between a person's socioeconomic status and their health. Home ownership is closely linked to higher incomes and longer employment, is indicative of a strong savings history and past access to credit, and also represents a secure appreciating asset that can be used against future borrowings (SCRGSP 2005).

FINDINGS: Among the estimated 165,700 Indigenous Australian households in 2002, 30% were home owners or purchasers, 28% were private and other renters, and 38% were renters of some form of social housing. In comparison, 70% of non-Indigenous households were home owners or purchasers and 27% were renters.

Lower rates of home ownership among Aboriginal and Torres Strait Islander peoples reflect both the lower socioeconomic status of many households and also that many households live in remote areas on Indigenous land where individual home ownership is generally not possible. In 2002, there were 11% of households of Aboriginal and Torres Strait Islander peoples who owned their homes outright and 20% who were purchasing their homes.

In 2002, the majority of households of Aboriginal and Torres Strait Islander peoples occupied some form of rental accommodation (66%). The largest group were renters of social housing, which included those renting from state or territory housing authorities (23%) and those renting from Indigenous or mainstream community housing organisations (15%). Around one quarter of Indigenous households were in the private rental market.

Between 1994 and 2002, the proportion of households of Aboriginal and Torres Strait Islander peoples who were home owners increased from 26% to 31%. Over the same period, there has been an increase in the proportion of households which were private or other renters from 23% to 28%. Household renting from state/territory housing decreased from 35% to 23%.

In 2002, the Northern Territory had the lowest proportion of Indigenous Australian households who were home owners (14%) and the highest proportion living in Indigenous or community housing (48%). The proportion of home owners/purchasers was highest in the eastern states of Victoria (37%), New South Wales (32%) and Queensland (30%). The proportion of private and other renters was also highest in New South Wales (32%), Queensland (31%) and Victoria (30%). Western Australia (32%) and South Australia (27%) had a relatively high proportion of households renting from the state housing authority.

In 2002, a total of 29,200 households of Aboriginal and Torres Strait Islander peoples lived in remote areas of Australia and 136,500 lived in non-remote areas. Among households of Aboriginal and Torres Strait Islander peoples living in remote areas of Australia, one-half (50%) were renters of Indigenous or community housing, 17% were renters of state or territory housing and 14% were home owners. In comparison, among Indigenous households in non-remote areas, the highest proportion were home owners (34%) followed by private or other renters (32%) and renters of state and territory housing (24%).

IMPLICATIONS: There is a complex relationship between housing and health and interrelated factors such as overcrowding (measure 2.02) and infrastructure (measure 2.01). Housing tenure is influenced by socioeconomic status e.g. income (measure 2.08) and employment (measure 2.07), and communal tenancy arrangements in some remote communities.

The NSFATSIH's Key Result Area Five, Environmental health, specifies continuing implementation of the Housing Ministers' 10 year statement of new directions entitled *Building a better future: Indigenous housing to 2010.* The strategy was endorsed by the Australian Housing Ministers' Conference in 2001. The vision articulated in this strategy includes the outcome that Aboriginal and Torres Strait Islander peoples throughout Australia will have access to affordable and appropriate housing which contributes to their health and well-being.

Table 32 – Households and persons, by tenure type and Indigenous status, 2002

	Persons aged 18 years and over			Households		
	Indigenous		Non-Indigenous	Indigenous		Non-Indigenous
	Number	%	%	Number	%	%
Home owners						
Owned without a mortgage	25 248	10	38.5	17 833	10.8	39
Being purchased	41 456	16.5	34.6	32 610	19.7	31
Total home owners	**66 703**	**26.5**	**73.1**	**50 443**	**30.5**	**70**
Renters						
Private and other landlord types	61 943	23.9	19.9	46 780	28.2	n.p.
State/territory housing authority	53 184	21.2	3.8	37 673	22.7	n.p.
Community/cooperative housing	59 904	24.5	0.6	24 493	14.8	n.p.
Total renters	**175 031**	**69.6**	**24.3**	**108 946**	**65.7**	**27**
Other	9 664	3.9	2.6	6 163	3.7	3
Total	**251 398**	**100**	**100**	**165 674**	**100**	**100**

Source: ABS & AIHW analysis of ABS 2002 National Aboriginal and Torres Strait Islander Social Survey and 2002 General Social Survey

Table 33 – Proportion of Indigenous households and persons, by tenure type and remoteness, 2002

	Persons aged 15 years and over		Households	
Tenure type	Remote	Non-remote	Remote	Non-remote
Home owners				
Owned without a mortgage	3.8	12.0	5.9	11.8
Being purchased	4.8	21.3	7.7	22.2
Total home owners	**8.6**	**33.3**	**13.6**	**34.0**
Renters				
Private and other landlord types	8.5	28.9	12.3	31.6
State/territory housing authority	13.2	25.4	17.1	24
Community/cooperative housing	63.9	9.3	50.0	7.3
Total renters	**85.6**	**63.7**	**79.4**	**62.9**
Other	5.8	3.0	7.0	3.0
Total	**100**	**100**	**100**	**100**

Source: ABS & AIHW analysis of ABS 2002 National Aboriginal and Torres Strait Islander Social Survey

2.10 Dependency ratio

WHY IS IT IMPORTANT?: The dependency ratio is a key demographic indicator which measures the ratio of the economically active section of the population to the economically inactive sector. There is an association between high dependency ratios (proportionately higher numbers of economically active people) and poverty. Poverty is a strong determinant of poor health.

Traditionally dependency ratios are measured as the ratio of people aged under 15 years or over 65 years to people aged 15-64 years. Factors that impact on the usefulness of dependent ratios as a tool for policy analysis include the impact of economically active children or people aged over 65 years, and people aged 15-64 years who are not economically active.

With the Aboriginal and Torres Strait Islander society the dependency ratio is even less clear-cut as an indicator. The combined dependency ratio for the Indigenous Australian population is mainly influenced by the proportion of children, whereas the combined ratio for the non-Indigenous and total populations is much more strongly influenced by the proportion of older people. Therefore, it is necessary to calculate separately the youth and age dependency ratios for the Indigenous population and compare these with the same ratios for the non-Indigenous population. The issue of greater concern in this measure is the youth dependency ratio for Indigenous society, how the burden of child rearing and dependent adolescents is shared amongst the small number of potential carers.

FINDINGS: It is important to note that *this measure does not take into account Indigenous Australian children who have one non-Indigenous parent*. Such cases will tend to exaggerate the Indigenous youth dependency ratio.

In 2001, 39% of Indigenous Australian people were aged under 15 years compared with 20% of non-Indigenous people. People aged 65 years or over comprised 3% of the Aboriginal and Torres Strait Islander population and 13% of the non-Indigenous population. These figures reflect higher rates of fertility and deaths occurring at younger ages among the Indigenous Australian population.

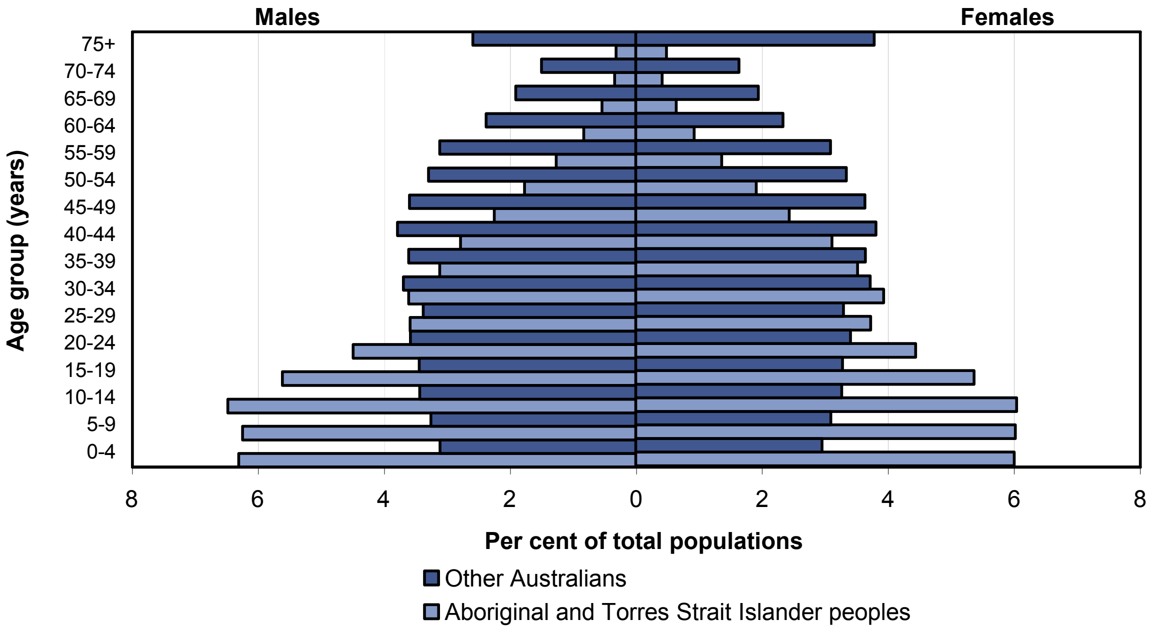
In 2001, the dependency ratio for Indigenous Australians was 0.72 compared to 0.49 for non-Indigenous Australians. This was a fall from 1996 when the dependency ratio was 0.75 for Aboriginal and Torres Strait Islander peoples and 0.50 for the rest of the population.

In 2001, the youth dependency ratio was higher for Indigenous Australians than non-Indigenous Australians (0.67 compared to 0.30), whereas the aged dependency ratio was lower for Indigenous Australians than non-Indigenous Australians (0.05 compared to 0.19).

In 2001, the youth dependency ratio for Indigenous Australians was lowest in remote and very remote areas (around 0.6) and highest in inner and outer regional areas (between 0.7 and 0.8), with major cities intermediate (0.65). In contrast, the aged dependency ratio was lowest in major cities (0.04) and highest in remote and very remote areas (0.06).

IMPLICATIONS: This younger age profile presents a challenge as health and other services for children and young people need to be adequately resourced, as well as developed and delivered in culturally sensitive ways. However, the younger age structure also represents an opportunity to implement strategies that could lead to a sustainable improvement in the health of Aboriginal and Torres Strait Islander peoples as the large cohort of children and young people ages into the future. With well designed and delivered antenatal care and early childhood programs, along with effective interventions helping young adults to adopt healthy behaviours, there is a tremendous opportunity to temper the emergence of chronic illnesses and their devastating consequences in this group of younger people. All jurisdictions need to ask how well they are taking account of demographic change in their planning for resource requirements and service delivery for Aboriginal and Torres Strait Islander peoples.

Figure 72 – Population profile by Indigenous status, age and sex, 2001



Source: ABS Census of Population and Housing, 2001

Table 34 – Total and Youth and Aged Dependency Ratios, by remoteness and Indigenous status, 2001

	Major cities	Inner regional	Outer regional	Remote	Very remote
	%	%	%	%	%
Indigenous					
Dependency ratio	0.70	0.79	0.75	0.69	0.66
Youth dependency ratio	0.65	0.75	0.70	0.63	0.60
Aged dependency ratio	0.04	0.05	0.05	0.06	0.06
Non-Indigenous					
Dependency ratio	0.47	0.56	0.53	0.47	0.39
Youth dependency ratio	0.28	0.33	0.33	0.34	0.29
Aged dependency ratio	0.18	0.22	0.20	0.14	0.10

Source: AIHW analysis derived from ABS population estimates based on the 2001 Census of Population and Housing

2.11 Single-parent families by age-group

WHY IS IT IMPORTANT?: Being a child in a single-parent family is one of the risk factors for well-being and health that clusters with others, such a low socioeconomic status, low educational attainment, and lack of social support and social networks. In many societies there is also an association between single-parent families and child-abuse and neglect (Chandola and Marmot 2004).

Although it is recognised that Aboriginal and Torres Strait Islander children are twice as likely to live in single-parent families as non-Indigenous children (AIHW 2005b), there are a number of considerations which need to be taken into account when discussing Aboriginal and Torres Strait Islander single-parent families.

While the term 'sole parent' might describe parental status, it does not adequately describe residential or domestic arrangements in Aboriginal and Torres Strait Islander families. Senior Indigenous Australian women, who have often been sole parents themselves, play an influential role in household structures and economies. Sole parents are not necessarily isolated from family support and assistance and, perhaps, more importantly, their extended kin networks act as an important reservoir of support and care for their children (Daly & Smith 1999; Daly & Smith 2005).

These issues give rise to the consideration that Aboriginal and Torres Strait Islander single-parent families may arise in different ways from non-Indigenous single-parent families, have different characteristics and result in different outcomes for children (Hunter & Smith 2002; Daly & Smith 1998; Taylor & Bell 1999).

FINDINGS: In 2001, approximately 34,528 households with Aboriginal and Torres Strait Islander people(s) were one-parent families with dependant children. This was 41% of all households of Indigenous Australians with dependent children. Approximately 20% of other households with dependant children were one-parent families.

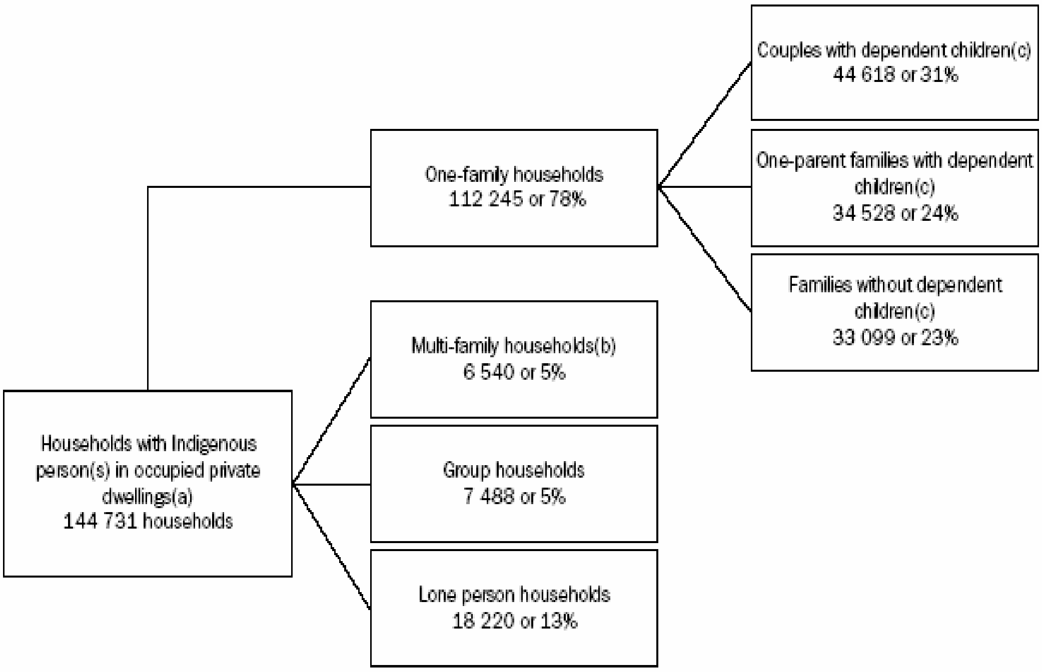
Approximately 15% of households of Aboriginal and Torres Strait Islander peoples with dependant children had 4 or more children compared to 6% of other households.

In 2001, among Aboriginal and Torres Strait Islander peoples in occupied private dwellings, approximately 39% were children under the age of 15 years. This compared to 20% among non-Indigenous persons. Indigenous Australians were also twice as likely to be classified as a lone parent (8% compared with 4%) and half as likely to be classified as a husband, wife or partner in a couple relationship as non-Indigenous persons (23% compared with 46%).

IMPLICATIONS: Functional and resilient families and communities are generally seen as being fundamental to the physical and mental health of adults and children. Characteristics of such families and communities may include: a caring, protective and supportive environment; positive health outcomes and cultural awareness (SCRGSP 2005).

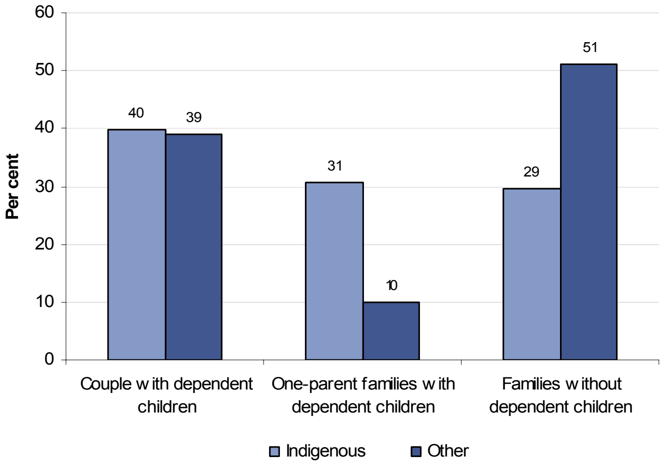
This measure needs to be interpreted carefully in the context of different family composition norms in Aboriginal and Torres Strait Islander society. Available data may not adequately reflect the extent to which family arrangements provide an environment that is conducive to positive health outcomes. Monitoring should be in conjunction with other measures of community capacity, especially measure 2.14 Child protection.

Figure 73 – Indigenous household composition, 2001



(a) Households occupied by usual residents, where household could be classified
(b) Households with two or more families
(c) Dependant children are defined as children under 15 years of age, or those aged 15-24 years who were full-time students
Source: ABS. Population Characteristics, Aboriginal and Torres Strait Islander Australians, 2001

Figure 74 – Selected family types as a proportion of all one-family households.



Source: ABS. Population Characteristics, Aboriginal and Torres Strait Islander Australians, 2001

2.12 Community safety

WHY IS IT IMPORTANT?: Personal injury or death as a result of violence is a direct health burden and as such needs to be measured under the Aboriginal and Torres Strait Islander Health Performance Framework (HPF).

Experience of threatened violence or a social setting in which violence or a lack of personal safety is common both have negative health effects, and these effects have been noted amongst Indigenous peoples in Australia (Astbury et al. 2000; Krug et al. 2005).

Wilkinson (1999) discusses the relationship between income inequality and violence and also notes the link between experience of discrimination and racism and high levels of family violence found in marginalised and oppressed groups. The high level of violence in Indigenous societies must be seen in the context of colonisation, post-colonial history and discrimination, and subsequent markers of disadvantage such as low income, unemployment, lack of access to traditional lands, and substance use.

Krug et al. (2005) notes that 'violence is the result of the complex interplay of individual, relationship, social, cultural and environmental factors'.

FINDINGS: In 2002, approximately 20% of Aboriginal and Torres Strait Islander peoples aged 15 years and over reported they were a victim of physical or threatened violence in the last 12 months. After adjusting for differences in age structure, Aboriginal and Torres Strait Islander peoples aged 18 years and over were twice as likely to report being victims of physical or threatened violence in the last 12 months as non-Indigenous Australians.

A slightly higher proportion of Aboriginal and Torres Strait Islander males than females reported being a victim of physical or threatened violence. The proportion of Indigenous Australians who were a victim of physical or threatened violence was similar in remote and non-remote areas.

These findings are in accord with the findings related to hospitalisation for assault (see measure 1.03). In the four jurisdictions which have adequate identification of hospitalisations for Aboriginal and Torres Strait Islander peoples (Queensland, Western Australia, South Australia and Northern Territory) in the two years from July 2002 to June 2004, Aboriginal and Torres Strait Islander peoples were hospitalised for assault at around 17 times the rate of other Australians. Hospitalisation rates are similar for male and female Aboriginal and Torres Strait Islander peoples, but compared with other Australians, hospitalisations for injuries caused by assault are 47 times higher for Indigenous women and 10 times higher for Indigenous men.

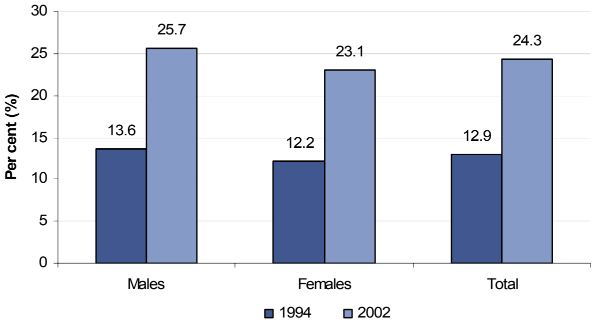
A much higher proportion of Aboriginal and Torres Strait Islander peoples reported being a victim of physical or threatened violence in the last 12 months in 2002 (24%) than in 1994 (13%).

In 2002, approximately 83% of Aboriginal and Torres Strait Islander peoples aged 18 years and over reported experiencing at least one personal stressor in the last 12 months compared with 57% of non-Indigenous Australians.

In 2002, approximately 74% of Indigenous Australians aged 15 years and over reported that neighbourhood or community problems were present. Dangerous or noisy driving was the most common problem reported (45%), followed by theft (43%). Problems involving youth, vandalism/graffiti/damage to property, alcohol and illegal drugs were also common problems reported. Rates were similar for males and females. Overall rates of reported community problems were similar for remote and non-remote regions, but reported rates for particular problems varied between regions. Differences in per cent of people who reported neighbourhood/community problems in remote vs non remote regions included: alcohol (54% vs 26%); illegal drugs (46% vs 27%); family violence (41% vs 14%); assault (41% vs 12%); sexual assault (17% vs 5%); and levels or neighbourhood conflict (31% vs 9%).

IMPLICATIONS: Aboriginal and Torres Strait Islander peoples are much more likely to be a victim of violence and to be hospitalised for injuries arising from assault. Women and men experience these problems at a similar level. Compared to other women, Aboriginal and Torres Strait Islander women experience vastly higher levels of violence. The evidence suggests these problems may be getting worse, not better. Community safety is a major issue for Aboriginal and Torres Strait Islander peoples. A range of national initiatives have been developed to address community safety including: the *National Aboriginal and Torres Strait Islander Safety Promotion Strategy; Women's Safety Agenda*; the *Violence Partnership Program*; the *Family the Violence Regional Activities Program*; the *National Initiatives to Combat Sexual Assault*; the *Family Law Violence Strategy*; the *Family Violence Strategy;* and the *Australian Crime and the Violence Prevention Awards*. The Council of Australian Governments have also agreed to the *National Framework on Indigenous Family Violence and Child Protection* which recognises that everyone has a right to be safe from family violence and abuse and that preventing family violence and child abuse in Indigenous Australian families is best achieved by families, communities, community organisations and different levels of government working together as partners. The available evidence suggests existing strategies have not been successful. Decision makers need to carefully consider evidence on which strategies will be most successful in creating safer community environments in which Aboriginal and Torres Strait Islander peoples live.

Figure 75 –Percentage of Indigenous Australians aged 15 years and over reporting they were a victim of physical or threatened violence in last 12 months, by sex, 1994 and 2002



Source: AIHW analysis of 1994 National Aboriginal and Torres Strait Islander Survey and 2002 National Aboriginal and Torres Strait Islander Social Survey

Table 35 – Issues of community safety, Indigenous persons aged 15 years and over, by remoteness, 2002

	Remote	Non-remote	Total
Victim of physical or threatened violence in last 12 months	22.7	25	24.3
Personal stressors experienced in last 12 months[(a)]			
Mental illness	na	15.6	na
Death of family member or close friend	55.3	42.1	45.7
Alcohol or drug related problems	36.5	20.5	24.9
Abuse or violent crime	17.2	8.9	11.2
Witness to violence	30	10.3	15.7
Trouble with the police	21.7	17.1	18.4
Member of family sent to /currently in jail	25	17.4	19.5
Overcrowding at home	41.6	12.6	20.5
Discrimination/racism	16.3	18.2	17.7
Total experienced stressors[(a)]	85.5	81	82.3
No stressors reported	14.5	19	17.7
Total	**100**	**100**	**100**

(a) Respondents may have indicated more than one response category

Source: AIHW analysis 2002 National Aboriginal and Torres Strait Islander Social Survey

Table 36 – Neighbourhood/community problems by sex, and by remoteness, Indigenous Australians aged 15 years and over, Australia 2002

	Male	Female	Remote	Non-remote	Total
Neighbourhood/community problem present	**%**	**%**	**%**	**%**	**%**
Theft	43.0	43.0	41.5	43.6	43
Problems involving youth	33.0	31.8	47.9	26.5	32.3
Prowlers/loiterers	15.6	14.2	n.a.	14.8	14.8
Vandalism/graffiti/damage to property	33.1	32.7	43.5	28.9	32.9
Dangerous or noisy driving	43.8	46.9	n.a.	45.4	45.4
Alcohol	33.1	33.9	54.1	25.8	33.5
Illegal drugs	32.2	32.3	46.1	27.1	32.3
Family violence	19.6	22.6	40.9	13.8	21.2
Assault	20.7	19.1	41.1	11.9	19.9
Sexual Assault	7.6	8.6	16.7	4.8	8.1
Problems with your neighbours	14.6	13.3	na	13.9	13.9
Levels of neighbourhood conflict	15.2	14.5	30.8	8.9	14.9
Level of personal safety day or night	10.3	11.2	n.a.	10.8	10.8
Total with neighbourhood/community problems	**72.9**	**74.1**	**74.2**	**73.3**	**73.6**
No neighbourhood/community problems reported	26.0	24.8	24.9	25.5	25.3
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: AIHW analysis of 2002 National Aboriginal and Torres Strait Islander Social Survey

2.13 Contact with the criminal justice system

WHY IS IT IMPORTANT?: Aboriginal and Torres Strait Islander peoples have historically experienced higher rates of arrest and incarceration than other sections of the population (Royal Commission into Aboriginal Deaths in Custody 1991). Prisons have a significant over-representation of people with mental health problems, substance abuse problems, learning difficulties and a history of physical and sexual abuse (Butler & Milner 2003; Levy 2005). The little information that is available indicates that Indigenous prisoners experience worse health problems in prison than non-Indigenous prisoners (Butler & Milner 2003; Butler et al. 1997).

The effects of prison custody persist after release. A study in Western Australia (Stewart et al. 2004) found that released prisoners have an increased risk of death compared with the general population, and this risk is greater for Aboriginal people, with female Aboriginal prisoners at particularly high relative risk. Aboriginal and Torres Strait Islander prisoners suffer greater rates of ill-health and injury compared with the Indigenous population generally (Hobbs et al. 2006). Rates of hospital admissions for mental disorders and injury and poisoning were approximately twice as great in Aboriginal and Torres Strait Islander male prisoners, and three times higher in female prisoners, as in the Indigenous population in Western Australia.

The social and health effects of imprisonment on Indigenous peoples include: mental and other health problems for children who have a parent in prison custody - 20% of Indigenous children have a parent in custody at some stage (Levy 2005); adverse employment and financial consequences (Woodward 2003); lack of positive male role-models in Indigenous society (Woodward 2003); prisoners taking health problems and problematic behaviours out into the community, for example hepatitis C, substance abuse, violence (Butler et al. 1997; Butler & Milner 2003; Woodward 2003).

FINDINGS: At June 2005, there were 5,656 Indigenous prisoners aged 18 years and over recorded in the National Prison Census. Indigenous prisoners represent 22% of the total prisoner population. Their median age was 30 years compared to 33 years for non-Indigenous prisoners. Ninety one per cent were male. After adjusting for age, Aboriginal and Torres Strait Islander peoples were 12 times more likely to be in prison than non-Indigenous persons. The median sentence length for Indigenous sentenced prisoners was 24 months. Aboriginal and Torres Strait Islander peoples are more likely to be in prison with a charge related to acts intended to cause injury (32%) compared with other prisoners (13%). Aboriginal and Torres Strait Islander peoples are less likely to be in prison for illicit drug offences (1%) compared with other prisoners (12%). Between 2000 and 2005, the proportion of the Aboriginal and Torres Strait Islander population in prison increased significantly by an annual average of 56 per 100,000. Over the same period, there was no significant change in the proportion of non-Indigenous Australians in prison.

Apart from imprisonment, a large number of Aboriginal and Torres Strait Islander peoples are taken into police custody. In October 2002, there were more than 7,000 incidents of police custody involving Aboriginal and Torres Strait Islander peoples representing 26% of all incidents reported.

Over the three year period 2002-04, there were 49 deaths in police and prison custody of Aboriginal and Torres Strait Islander peoples. Of these deaths, 24 were in police custody and 25 were in prison custody. Deaths of Aboriginal and Torres Strait Islander peoples in custody represent 22% of total deaths in custody for this period. Over the period 1994-95 to 2002-04 there had been a significant decline in the rate of Indigenous deaths in prison custody.

In 2003-04, 3.7% of Aboriginal and Torres Strait Islander young people aged 10-17 years had at least one day under juvenile justice supervision, compared with 0.3% for other young people.

IMPLICATIONS: Incarceration of persons whose behaviour is dangerous or disruptive may be beneficial to the community from which they have been removed, and perhaps to themselves. However, the high prevalence of imprisonment of Aboriginal and Torres Strait Islander peoples, male and female, signals problems beyond those which prisons are designed to resolve. Consultations for this report identified issues such as levels of self esteem, opportunities for employment, substance abuse and availability of mental health services as factors behind the high rates of incarceration of Aboriginal and Torres Strait Islander peoples. The issues highlight important overlaps between health and other aspects of life such as those highlighted in the *Cultural Respect Framework* (AHMAC 2004) and suggest the need for inter-sectoral responses.

Apart from the health issues before and during a period in prison, incarceration and release also makes continuity of care difficult, for example for coordination of hepatitis C treatment (Krieg 2006). There is a notable lack of programs aimed at helping former prisoners make the transition to life outside prison (Borzycki & Baldry 2003).

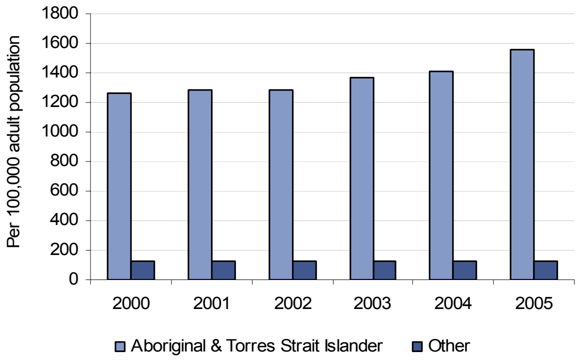
A priority for the NSFATSIH is improving the health of Aboriginal and Torres Strait Islander peoples in custodial settings. Key Result Area Six deals with wider strategies that impact on health, including policy and program initiatives and effective partnerships which address the needs of Aboriginal and Torres Strait Islander peoples in custodial settings, including health care delivery, health education and post-release programs.

Table 37 – People in Prison Custody by Indigenous status, sex and state/territory 30 June 2005

	Aboriginal and Torres Strait Islander				Other				
	Number			Age standard-ised rate	Number			Age standard-ised rate	Rate ratio
	Males	Females	Persons		Males	Females	Persons		
NSW	1 504	178	1 682	1 652	7 347	506	7 853	158	10.5
Vic.	199	21	220	983	3 236	236	3 472	91	10.8
Qld	1 235	96	1 331	1 304	3 718	251	3 969	138	9.5
WA	1 267	141	1 408	2 697	1 947	127	2 074	144	18.7
SA	240	25	265	1 297	996	58	1 054	99	13.2
Tas.	66	4	70	559	452	24	476	149	3.7
NT	641	22	663	1 441	153	4	157	135	10.7
ACT	14	3	17	821	129	7	136	93	8.8
Aust	**5 168**	**488**	**5 656**	**1 561**	**17 978**	**1 213**	**19 191**	**129**	**12.1**

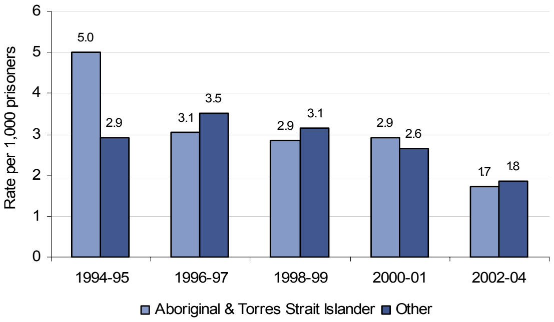
Source: ABS 2005b

Figure 76 – Age standardised rate of persons in prison, by Indigenous status 2000-05



Source: ABS 2005b

Figure 77 – Crude rates of deaths persons in prison custody by Indigenous Status 1994-95 to 2002-04



Source: AIHW analysis of AIC National Police Custody Survey

2.14 Child protection

WHY IS IT IMPORTANT?: Child protection services 'receive and assess allegations of child abuse and neglect, and/or harm to children and young people, provide and refer clients to family support and other relevant services, and intervene to protect children' (SCRGSP 2005a). Child protection functions are undertaken at the state and territory level of government. Each jurisdiction has its own legislation, policies and practices in relation to child protection although the processes are broadly similar. Child protection services are typically located in agencies that also have responsibility for providing or funding early intervention and family support services – designed to support families and prevent abuse and neglect of children. These agencies are also responsible for providing or funding alternative care arrangement such as foster care, where care of the child in their original family is not an option.

Historically Aboriginal and Torres Strait Islander peoples' experience of child welfare policies has been traumatic, with misguided policies leading to the forcible removal of children creating the Stolen Generations (HREOC 1997). The consequences of the resulting physical, social and psychological devastation have included repeated removal of children over several generations (Raphael, Swan & Martinek 1998; Yehuda, Halligan & Grossman 2001).

Child protection issues continue to be very significant for Aboriginal and Torres Strait Islander communities, reflecting this history of trauma and stressors impacting on parents and communities. The levels of substantiated child protection are an indicator of trends in community functioning.

In responding to situations in which Aboriginal and Torres Strait Islander children are at risk, all child protection agencies have adopted the Aboriginal Child Placement Principle which required that where Aboriginal and Torres Strait Islander children are removed from their family, the following order of preference for their placement should be followed:

- child's extended family
- child's Indigenous community
- with other Indigenous people.

FINDINGS In 2004-05, the rate of substantiated child protection notifications per 1,000 children was 24 for Aboriginal and Torres Strait Islander children compared with 7 per 1,000 for other children. Aboriginal and Torres Strait Islander children are between 3 and 4 times more likely to be the subject of a substantiated child protection report. Rates vary significantly across jurisdiction. These differences also reflect different legislation and practice relating to notification. Rates of substantiated notification are highest in Victoria and the Australian Capital Territory (63 and 56 per 1,000 children) and lowest in Tasmania, the Northern Territory and Western Australia (5, 14 and 12 per 1,000 children). Differences between rates for Aboriginal and Torres Strait Islander children and other children are most stark in Victoria and South Australia (11 and 10 times higher respectively) and less prominent in Queensland (50% higher) and Tasmania (17% lower).

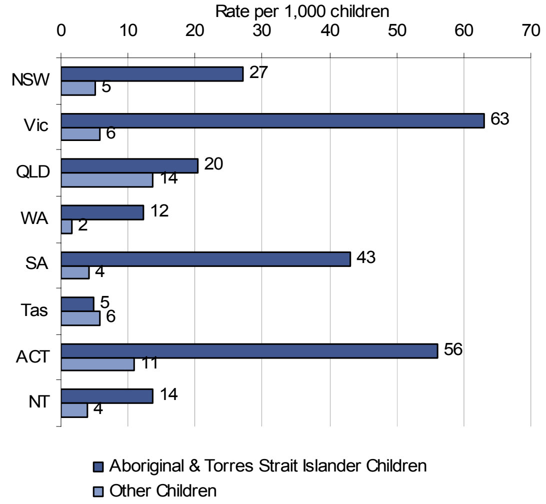
Since 1998–99, the rate of Aboriginal and Torres Strait Islander children in substantiations has fluctuated across the jurisdictions; however, it has increased substantially in all jurisdictions except in Western Australia. Improvements in the quality of the data on Indigenous status may affect trends. The pattern of substantiated abuse and neglect for Aboriginal and Torres Strait Islander children differs from the pattern for other children. Indigenous children were more likely than other children to be the subject of a substantiation of neglect.

During 2004-05, there were 5,564 Aboriginal and Torres Strait Islander children on care or protection orders, up from 2,868 in 1997-98, an increase of 94%. In the same period, there was a 44% increase in other children on care or protection orders.

As at 30 June 2005, there were 5,678 Aboriginal and Torres Strait Islander children in out of home care, equivalent to 2.6% of Aboriginal and Torres Strait Islander children. This compared with 0.4% of other children. The proportion of Aboriginal and Torres Strait Islander children who were placed with either an Indigenous carer or a relative, was highest in New South Wales and Western Australia (87% and 83%) and lowest in Tasmania and Victoria (27% and 59%).

IMPLICATIONS: The Council of Australian Governments (COAG) *National Framework on Indigenous Family Violence and Child Protection* recognises that everyone has a right to be safe from family violence and abuse and that preventing family violence and child abuse in Indigenous Australian families is best achieved by families, communities, community organisations and different levels of government working together as partners. The strategy commits governments to implementing successful prevention strategies that enable Indigenous Australians to take control of their lives, regain responsibility for their families and communities and to enhance individual and family well-being. The strategy recognises the need to address underlying causes and to build strong and resilient families. In light of the trends identified for this measure, including increasing rates of substantiated child protection reports and increasing numbers of Aboriginal and Torres Strait Islander children in out of home placements, decision makers need to consider the extent to which existing strategies are sufficiently effective. A key role for health portfolios is to strengthen child and maternal health services which can play an important role in early intervention.

Figure 78 – Children aged 0–16 years who were the subjects of substantiations: rate per 1,000 children, by Indigenous status and jurisdiction, 2004–05



Source: AIHW 2006d

Table 38 – Aboriginal and Torres Strait Islander children aged 0–16 years who were the subject of a substantiation, rate per 1,000 children, by jurisdiction, 1998–99 to 2004–05

Year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
1998–99	15.2	n.a.	9.3	10.9	25.6	1.1	14.3	na
1999–00	13.2	48.5	9.3	11.9	31.6	0.5	3.7	7.7
2000–01	14.9	50.9	12.4	12.6	29.4	0.3	12.1	6.8
2001–02	15.4	48.4	14.3	13.6	31.8	0.3	6.6	9.7
2002–03	31.9	55.3	15.6	9.6	32.0	2.5	19.4	8.6
2003–04	na	57.7	20.8	11.2	39.9	1.6	25.3	16.2
2004–05	27.1	63.0	20.4	12.2	43.2	4.8	56.0	13.7

Source: AIHW 2006d

Table 39 – Aboriginal and Torres Strait Islander children in out-of-home care: Indigenous status and relationship of carer, by state and territory, at 30 June 2005

Relationship	NSW	Vic.	Qld	WA	SA	Tas.	ACT	NT
				Per cent				
Indigenous relative/kin	59	27	27	51	24	11	33	36
Other Indigenous caregiver	17	15	29	21	48	1	24	33
Other relative/kin	10	14	9	8	4	15	5	na
Indigenous residential care	--	2	--	4	--	--	3	--
Total in accordance with the Aboriginal Child Placement Principle	**87**	**59**	**65**	**83**	**76**	**27**	**66**	**69**
Other caregiver	11	36	35	11	22	73	24	31
Other residential care	2	5	--	6	1	--	10	--
Total not placed in accordance with the Aboriginal Child Placement Principle	13	41	35	17	24	73	34	31
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Source: AIHW 2006d

2.15 Transport

WHY IS IT IMPORTANT?: Transport is seen as an important enabling resource that communities require to achieve desired outcomes, including safety and health.

Research on the impact of transport on health recognises both the beneficial impact of transport on health by enabling access to goods and services, and achieving and maintaining social networks; and the negative effects flowing from reduction in physical activity for example from walking and cycling, and the impact of accidents and increased pollution. The United Kingdom Inquiry into Inequalities in Health (Acheson 1998, Part 2 Section 5) found that 'lack of access to transport is experienced disproportionately by women, children, disabled people, people from minority ethnic groups, older people and people with low socioeconomic status, especially those living in remote rural areas.'.

Aboriginal and Torres Strait Islander communities face various challenges related to transport, especially in rural and remote regions. These challenges have a broader impact on social and economic circumstances, and specific impacts on access to health services. Limited or no public transport options significantly impacts the capacity to access health care, especially specialist services. Problems in access are especially significant for patients with chronic illnesses where frequent attendance at specialist clinics may be required. Schemes to assist patients in travel and associated accommodation operate in the various jurisdictions. Other approaches have also been adopted such as support for specialist services flying into remote localities.

FINDINGS: In 2001, the Census showed that 70% of Aboriginal and Torres Strait Islander households had access to at least one motor vehicle, compared with 84% of non-Indigenous households. In remote areas, the proportion of Aboriginal and Torres Strait Islander households with access to a vehicle was much lower (51%) than the proportion the proportion in non-remote areas (73%). The proportion of non-Indigenous households that had access to a motor vehicle was similar in remote and non-remote areas (85% and 84% respectively).

The Northern Territory had the lowest proportion of Aboriginal and Torres Strait Islander households with at least one vehicle (48%) and Tasmania had the highest (85%).

Access to vehicles has improved over time, with the ratio of persons to vehicles in both Indigenous and non-Indigenous households being higher in 1991 and 1996 compared to 2001. The difference between the Indigenous Australian and non-Indigenous ratios has also reduced over the same period.

The ABS's *National Aboriginal and Torres Strait Islander Social Survey 2002* found that around 12% of Aboriginal and Torres Strait Islander peoples reported that they could not get to, or often had difficulty getting to, the places they needed to, compared with only 4% of non-Indigenous Australians.

Access to a motor vehicle was not even across sub-groups in the Aboriginal and Torres Strait Islander population. Indigenous Australians aged 18-24 years were less likely to have access to a motor vehicle (48%) than those in older age-groups. A higher proportion of Aboriginal and Torres Strait Islander males than females reported having access to a motor vehicle (65% compared to 55%) (NATSISS 2002). Aboriginal and Torres Strait Islander peoples in the Northern Territory were five times as likely, and in Western Australia four times as likely, to be without access to a motor vehicle as non-Indigenous Australians in these states and territories.

In the 2004-05 *National Aboriginal and Torres Strait Islander Health Survey*, transport/distance was reported as the main reason why Aboriginal and Torres Strait Islander peoples did not visit a dentist (11% of persons), doctor (14%), other health professional (8%) or hospital (19%) in the last 12 months when needed. Proportions of Aboriginal and Torres Strait Islander peoples for whom transport/distance was the main reason for not visiting a health service were higher for those in remote areas, for persons aged 0 to 14 years and for females.

IMPLICATIONS: The NSFATSIH's Key Result Area Six identifies wider strategies that impact on health, aims to develop partnerships with, and obtain commitment from, other sectors whose activities impact on health. Actions related to transport include reviewing the effectiveness, eligibility criteria and payment levels of patient assisted travel schemes to improve equitable access to services by Aboriginal and Torres Strait Islander peoples across Australia.

For people living in non-remote areas public transportation may compensate for the lack of personal transport, and clinics may provide a transport service for their patients, but these services are not available everywhere. In remote areas, access to a motor vehicle is the most important issue.

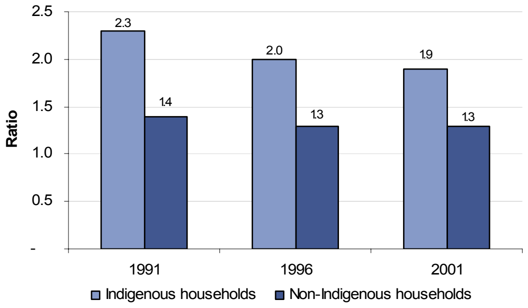
Overall, the lower levels of access to transport reported above for Aboriginal and Torres Strait Islander women and for younger people have implications for maternal and child health. This measure should be monitored in conjunction with others focusing on that topic in particular.

Table 40 – Households by number of motor vehicles and Indigenous status, Australia, 2001

	Ratio of persons 17 years and over in occupied private dwellings to vehicle			Proportion of households with at least one vehicle		
	Indigenous	Non-Indigenous	Total	Indigenous	Non-Indigenous	Total
State/Territory						
NSW	1.24	1.09	1.09	70.3	81.1	80.9
Vic.	1.16	1.07	1.07	76.2	84.9	84.8
Qld	1.28	1.06	1.07	70.3	85.7	85.2
SA	1.22	1.07	1.07	72.4	85.5	85.3
WA	1.33	1.05	1.06	67.9	87.1	86.6
Tas.	1.10	1.07	1.07	84.6	85.1	85.1
NT	1.91	1.05	1.19	47.7	82.2	75.9
ACT	1.11	1.05	1.05	81.6	87.6	87.5
Australia	1.29	1.07	1.08	69.8	84.1	83.8
Remoteness Area						
Major cities	1.18	1.08	1.08	74.1	82.8	82.7
Inner regional	1.18	1.06	1.06	75.4	86.7	86.5
Outer regional	1.24	1.05	1.06	70.3	86.9	86.2
Sub-total non-remote	1.20	1.07	1.08	73.4	84.1	83.9
Remote	1.41	1.04	1.07	62.6	86.5	84.3
Very remote	2.11	1.06	1.34	42.7	79.8	68.9
Sub-total remote	1.81	1.05	1.15	51.2	84.8	79.8
Australia	1.29	1.07	1.08	69.8	84.1	83.8
Total number of households	**144 731**	**6 783 502**	**6 928 233**	**144 731**	**6 783 502**	**6 928 233**

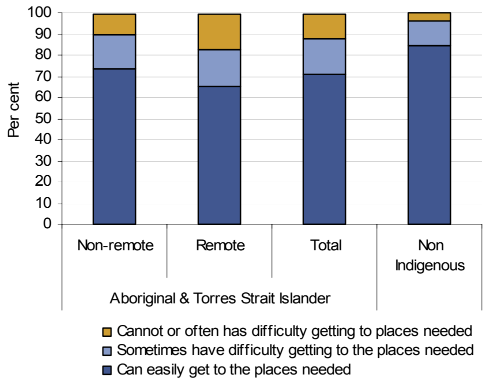
Source: ABS and AIHW analysis 2001 Census of Population and Housing, unpublished

Figure 79 – Ratio of persons aged 17 years and over in occupied private dwellings to vehicles, by Indigenous status, 1991, 1996 and 2001



Source: AIHW 2005 - 1991, 1996 and 2001 Census of Population and Housing

Figure 80 – Difficulty with transport, by Indigenous status, and remoteness, persons aged 18 years and over, 2002



Source: AIHW analysis 2002 National Aboriginal and Torres Strait Islander Social Survey

2.16 Indigenous people with access to their traditional lands

WHY IS IT IMPORTANT?: Loss of traditional land has been associated by many commentators with the trauma, illness and poor social outcomes experienced by Aboriginal and Torres Strait Australians today (Royal Commission Into Aboriginal Deaths in Custody 1991; Northern and Central Land Councils 1994). Ongoing access to traditional land is also seen as a determinant of health status, particularly where bush tucker can be accessed, physical exercise is part of daily life and alcohol/drug use is low (Aboriginal and Torres Strait Islander Social Justice Commissioner 2005).

Some quantitative evidence exists to support such views. Several studies demonstrate that where Aboriginal peoples have returned even temporarily to their land and adopted a semi-traditional hunter-gatherer lifestyle, there is a marked improvement in type 2 diabetes and reduction in the major risk factors for coronary heart disease. These changes can occur over a relatively short period of time (O'Dea 1984).

One aspect of this may be a reduction in harm caused by excessive alcohol consumption: for example, the 97 'dry' areas in the Northern Territory, where possession of alcohol is illegal, are all situated on Aboriginal-owned land (Northern Territory Licensing Commission 2006).

Contrasting with this positive view of the health implications of living on traditional lands, however, are data showing children living in 'rural communities with an Aboriginal local council' in the Northern Territory have increased prevalence of markers for growth and chronic and infectious disease in comparison with their counterparts in the cities (Mackerras et al. 2002). Assertions have been made that the relative lack of medical services outside cities and regional centres can impact negatively on health status for those living on their country (McLaren 1996).

The crucial difference is between the larger centralised communities and the decentralised smaller homeland communities/outstations. Both types of communities can be officially classified as 'remote', but the smaller homeland communities are distinguished by the closeness of family/kinship ties and the fact that they are situated on land to which all members have a direct cultural connection. The social makeup of the larger centralised communities, on the other hand, reflects their origins as missions, cattle stations or government settlements where many different groups were mixed together. In these situations, traditional governance structures have been confused and the relationship of residents to land has become indirect and diluted.

A study comparing the health of Aboriginal people living at homelands/outstations in Central Australia with the health status of Aboriginal people living at the surrounding larger centralised communities showed homelands residents had significantly lower prevalence levels of type 2 diabetes, hypertension and obesity; had significantly lower mortality rates than those living in centralised communities; and were significantly less likely to be hospitalised for any cause including infections and injury (particularly injury involving alcohol). Homelands residents lived on average 10 years longer than residents of the centralised communities. The positive association with health was more marked among younger adults (McDermott et al. 1998).

It has been argued that the distinctly Aboriginal form of social capital exemplified in traditional kinship structures plays a much more prominent role at small homelands/outstations than at the larger centralised communities (where such structures have been damaged and distorted in the colonisation process) (Christie & Greatorex 2004). This Aboriginal, traditional aspect of governance contributes to the greater social cohesion, availability of social support and psychological well-being often associated with homelands/outstations (Morphy 2005). Greater social cohesion has long been associated with improved health outcomes in non-Indigenous communities (Stansfield 2006).

FINDINGS: In 2002, approximately 30% of Indigenous Australians aged 15 years and over reported they did not recognise their homeland or traditional country. Approximately 22% reported they lived on their homeland, 46% were allowed to visit their homeland, and two per cent were not allowed to visit their homeland/traditional country. Those who lived in remote areas were more likely to live on homelands/traditional country (38%) or visit (47%), while those in non-remote areas were more likely to not recognise homelands or not be allowed to visit. There was a similar pattern by age, with older ages more likely to live on homelands (26% of those aged 55 and over) or visit (50% of those aged 55 and over) than the younger age-groups.

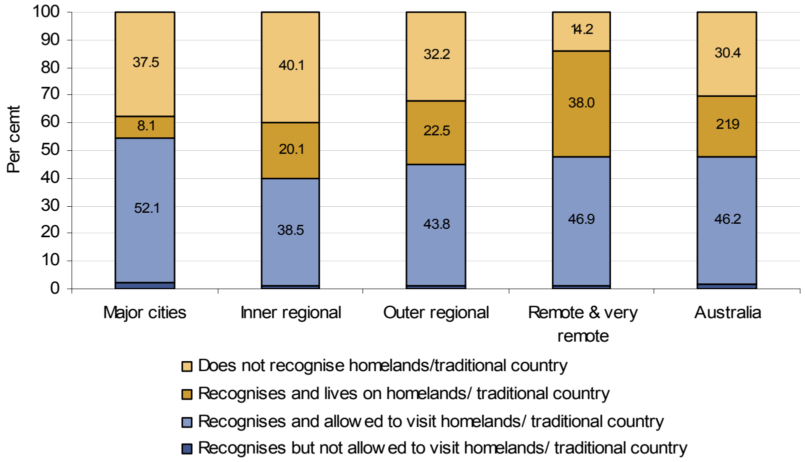
Results from the 2002 NATSISS provide inconclusive evidence about the impact of access to traditional homelands on self reported health, risk factors and social cohesion. There were no clear patterns between accessing homelands and health although the small numbers who were not allowed to visit homelands had the highest level of self reported health status of fair/poor and the highest smoking levels. Those who lived on homelands had the highest proportion of both abstainers from drinking and those drinking at medium/high risk levels. Presence of neighbourhood/community problems appears to have been highest for the group of Aboriginal and Torres Strait Islander peoples who recognise but are unable to visit their homelands/traditional country. However, this group made up only a small proportion of the respondents to the NATSISS and may not be a reliable indicator.

IMPLICATIONS: While evidence from research studies lends support to policy initiatives, which would encourage Aboriginal and Torres Strait Islander Australians to return to live on their traditional country, for many people this is no longer an option particularly in south-eastern Australia.

In this situation, occasional and infrequent visits may be the only realistic possibility. There seems to be little published information on the impact which occasional and infrequent visits may have on health status or general well-being and, as evident above, the NATSISS results are not conclusive.

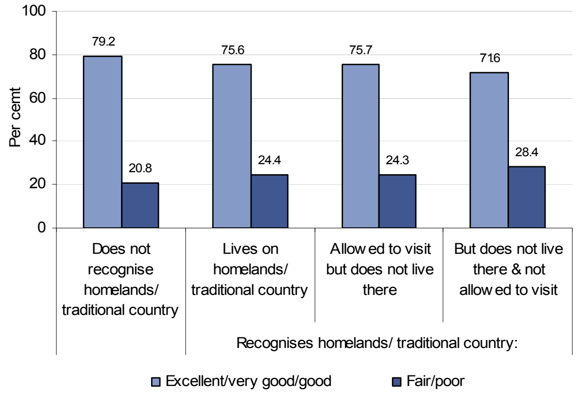
The NSFATSIH's Key Result Area Four: Emotional and Social Well-being has as one of its objectives 'reduced impact of grief, loss and trauma resulting from the historical impacts of past policies and practices, social disadvantage, racism and stigma'. It is appropriate for access to homelands/traditional country to be considered as part of strategies to address social and emotional well-being and to be monitored in conjunction with that measure (1.17).

Figure 81 – Access to homelands/traditional country, by Remoteness Area, Indigenous Australians aged 15 years and over, 2002



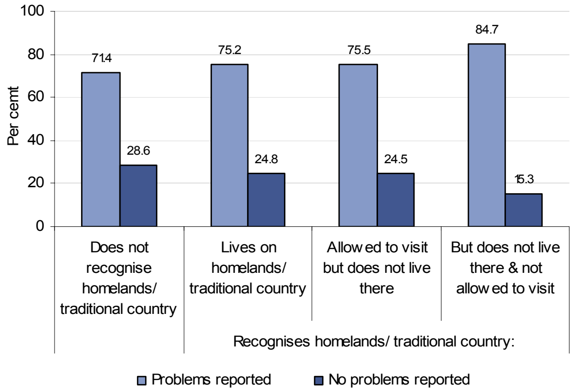
Source: AIHW analysis 2002 National Aboriginal and Torres Strait Islander Social Survey

Figure 82 – Self assessed health status by whether Indigenous people recognised/did not recognise homelands/traditional country, Australia, 2002



Source: AIHW analysis of 2002 National Aboriginal and Torres Strait Islander Social Survey

Figure 83 – Presence of neighborhood/community problems by whether Indigenous people recognised/did not recognise homelands/traditional country, Australia, 2002



Source: AIHW analysis of 2002 National Aboriginal and Torres Strait Islander Social Survey

2.17 Tobacco use

WHY IS IT IMPORTANT?: This measure focuses specifically on tobacco smoking. In the Australian population as a whole, 7.9% of the burden of disease has been attributed to tobacco smoking (AIHW 2006a).

The health impact of smoking is evident in the incidence of a number of diseases, including chronic lung disease, cardiovascular disease and many forms of cancer. It is estimated that smoking is responsible for 20% of all cancers and 21% of all heart disease in Australia (Action on Smoking and Health Australia, 2005). Its health ill-effects extend beyond individuals who are smokers. Environmental tobacco smoke has adverse heath effects for others who are in close proximity to a smoker, including asthma in children, lower respiratory tract infections, lung cancer, and coronary heart disease (AIHW 2002).

Given the adverse impact on the health of the Australian population as a whole, tobacco use is of particular importance for the health of Aboriginal and Torres Strait Islander peoples, amongst whom smoking is more prevalent (see findings, below). In relation to the health of Aboriginal and Torres Strait Islander peoples, the National Tobacco Strategy 2004-2009 notes that 'encouraging and finding ways to support smokers to quit successfully is probably the single most effective thing that could be done to improve child and maternal health, to reduce chronic diseases and some communicable diseases and to reduce financial stress, all key aims of the National Strategic Framework for Aboriginal and Torres Strait Islander Health' (Ministerial Council on Drug Strategy 2004 p. 38).

FINDINGS: In 2004-05, half of Indigenous Australians aged 18 years and over reported that they were current smokers. This figure has not changed since it was measured in 1995. It remains double that of the non-Indigenous population.

Unlike the non-Indigenous population, where the proportion of males who are smokers is one third higher than for females, the proportion of Aboriginal and Torres Strait Islander females who smoke is similar to that for males.

Differential proportions of Aboriginal and Torres Strait Islander and non-Indigenous people who smoke exist in all age-groups.

National data do not cover the smoking status of Aboriginal and Torres Strait Islander persons under age 18 years.

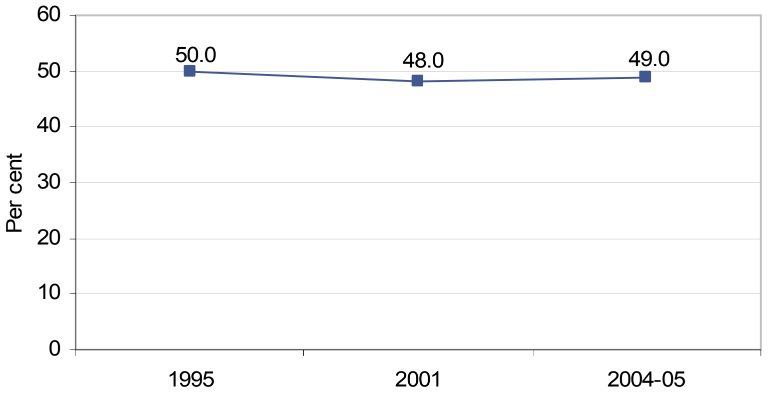
IMPLICATIONS: Tobacco smoking is influenced by a range of social and economic factors. The relative influence of different factors varies across the different community settings and social environments in which Aboriginal and Torres Strait Islander peoples live. Against such a background the Australian National Tobacco Strategy's focus on smoking by Aboriginal and Torres Strait Islander peoples emphasises a need for activities to be 'culturally valid, responsive to local needs and controlled by the community' (Ministerial Council on Drug Strategy 2004 p. 16). It suggests addressing tobacco smoking along with programs to tackle diabetes or maternal and child health and in holistic approaches to developing health.

Consultations for this report confirmed this view. They also cast doubt on the impact of some mainstream programs for discouraging smoking or promoting decisions to quit. Suggestions for a more effective approach focused on a more holistic view of life's values, including survival to meet family obligations, to enjoy grandchildren and to ease the community's concern about the incidence of premature death. Feedback also highlighted cost as a constraint on access to quit smoking programs.

National Tobacco Strategy documents identify that a weakness of past efforts has been that few projects have lasted long enough to allow staff to develop expertise. Partnerships with organisations such as NACCHO, State and Territory based Indigenous Health Organisations and Aboriginal and Torres Strait Islander health workers in general are proposed for building capacity to address tobacco smoking. Lessons identified from the past indicate that these need to be planned and managed as ongoing arrangements.

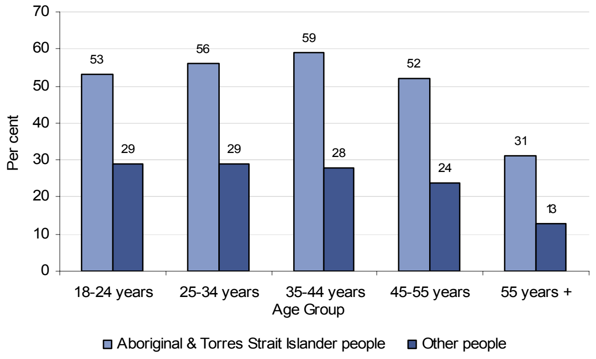
An Indigenous Centre for Excellence in Indigenous Tobacco Control, created as a result of the NACCHO report *Tobacco – A Time for Action*, has a focus on smoking amongst Indigenous health workers as one of its key areas of work, along with the development of an Indigenous tobacco control clearinghouse and developing a culturally appropriate Indigenous tobacco control resource. Integration of learning obtained through the Centre of Excellence with activities pursued through community partnership programs will be a challenge for national coordination of action on Aboriginal and Torres Strait Islander smoking.

Figure 84 – Per cent of Aboriginal and Torres Strait Islander people aged 18 years and over reporting they are a current smoker, by Indigenous status, non-remote areas, 1995, 2001 and 2004-05



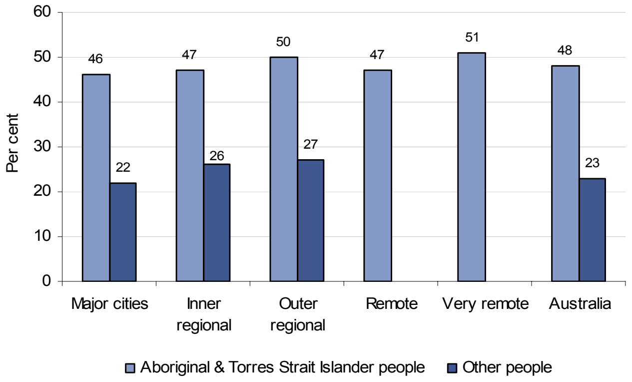
Source: ABS and AIHW analysis of1995 and 2004-05 National Aboriginal and Torres Strait Islander Health Survey and 2001 National Health Survey (Indigenous supplement)

Figure 85 –Per cent of population aged 18 years and over reporting they are a current smoker by Indigenous status and age, 2004-05



Source: ABS and AIHW analysis of 2004-05 National Aboriginal and Torres Strait Islander Health Survey and 2004-05 National Health Survey

Figure 86 – Per cent of population aged 18 years and over reporting they are a current smoker by Indigenous status and remoteness, 2004-05



Source: ABS and AIHW analysis of 2004-05 National Aboriginal and Torres Strait Islander Health Survey and 2004-05 National Health Survey

2.18 Tobacco smoking during pregnancy

WHY IS IT IMPORTANT?: Smoking is a risk factor for adverse events in pregnancy, and is associated with poor perinatal outcomes such as low birthweight (less than 2,500 grams) (AIHW 2004a), preterm birth, foetal growth restriction, congenital anomalies and perinatal death. Smoking is also associated with increased risk of spontaneous abortion and ectopic pregnancy. Obstetric complications such as preterm labour and antepartum haemorrhage are more common in smoking mothers than non-smoking mothers (Laws & Sullivan 2005). Nicotine, carbon monoxide and other chemicals in tobacco are passed on to the baby through the placenta, which reduces the oxygen supply to the unborn foetus (AMA 1999).

The negative health effects of tobacco smoking towards the unborn foetus may continue after childbirth if one or both of the parents smoke. Passive ‘environment’ smoking of tobacco around a new born child is considered to be one of the major risk factors for sudden infant death syndrome (SIDS or cot death). Exposure to second hand smoke in the atmosphere also increases an infant’s risk of ear infections and developing asthma (AMA 1999). Where the mother smokes, harmful chemicals are passed in the breast milk to new born babies. This increases the risk of respiratory illness, such as bronchitis or pneumonia, during the first year of life (NSW Health 2004).

FINDINGS: In 2003, approximately 4.2% of mothers giving birth in New South Wales, Western Australia, South Australia, the Australian Capital Territory and the Northern Territory identified as Aboriginal or Torres Strait Islander. More than half of these, numbering 2,937, reported that they smoked during their pregnancy. Of the remainder, 2,437 reported they did not smoke during pregnancy, and for 257, smoking status was not known.

The proportions of Aboriginal and Torres Strait Islander mothers who smoke during their pregnancy match the Indigenous population prevalence of smoking reported in measure 2.18.

After controlling for differences in the age distribution, the proportion of Aboriginal and Torres Strait Islander mothers who smoked during pregnancy was around three times that of non-Indigenous mothers in the five jurisdictions combined. The Indigenous to non-Indigenous ratio varied between states and territories from almost four in New South Wales to just over two in the Northern Territory, with other jurisdictions close to the combined figure.

Jurisdictions have taken different approaches to the collection of these statistics and therefore direct comparison between the jurisdictions is not recommended. Nevertheless, within-State ratios of proportions of Aboriginal and Torres Strait Islander mothers and non-Indigenous mothers who smoke during pregnancy are not affected by inter-jurisdiction differences in methodology.

IMPLICATIONS: A number of implications identified in relation to measure 2.17 Tobacco use, are also relevant to tobacco smoking during pregnancy.

Smoking and child/maternal health are priority areas identified in the NSFATSIH. The document provides few specific references to strategies for reducing smoking during pregnancy, although general strategies for improved antenatal care and reducing substance abuse are relevant. At the general level, the framework suggests developing an Aboriginal and Torres Strait Islander maternal and child health framework that addresses the physical, emotional and social well-being of women and children. Development of standard measures should be an important component of such a framework. While comparable measures remain unavailable, NSFATSIH’s key goal, that Aboriginal and Torres Strait Islander peoples enjoy a healthy life equal to that of the general population, can be monitored via the ratio of the proportions of pregnant mothers who smoke.

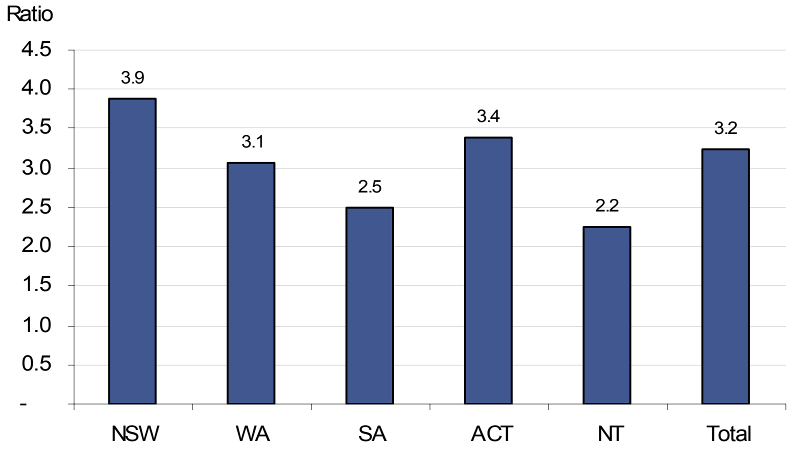
The Aboriginal and Torres Strait Islander Peoples Complementary Action Plan 2003-2006 (National Drug Strategy 2003) is designed to address the needs of Aboriginal and Torres Strait Islander peoples through improvement of health, social and economic outcomes, while preventing the uptake and reducing harmful drug use and effects (including tobacco use). Like the NSFATSIH, the Action Plan contains a range of strategies that are relevant but not specific to smoking during pregnancy. Some that are specific are:

- local communities design and develop their own Strong Mothers Strong Babies Program
- increase the use of health promotion resources specifically to address the effect of smoking and alcohol consumption on pregnant Aboriginal and Torres Strait Women.

Smoking during pregnancy should be monitored in conjunction with the following related measures from this framework – 1.01 Low birthweight infants, 1.18 Infant mortality, 1.19 Perinatal mortality and 1.20 SIDS. In addition, the Tier 3 measure 3.01 Antenatal care, is relevant to the capacity for smoking control strategies for pregnant mothers to be addressed through primary care services.

Lack of consistent state and territory data is a constraint on monitoring of progress against this matter of concern. Proportions of Aboriginal and Torres Strait Islander mothers smoking during pregnancy are the same as the proportion of smokers in the Aboriginal and Torres Strait Islander population. This suggests either policy failure or a need for new approaches for culturally appropriate and effective health promotion and primary health care interventions.

Figure 87 – Ratio of the proportion of Indigenous to non-Indigenous mothers who smoked during pregnancy, by selected jurisdictions, 2003



Source: AIHW National Perinatal Statistics Unit National Perinatal Data Collection

Table 41 – Age standardised proportion of Indigenous to non-Indigenous mothers who smoked during pregnancy, and Ratio of Proportions, by State and Territory 2003

Smoking status	NSW	WA	SA	ACT	NT	Total
			Proportion			
Indigenous						
Smoked	56.2	51.8	58.8	44.4	44.3	52.3
Did not smoke	43.8	48.2	35.9	55.6	40.4	43.7
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Non-Indigenous						
Smoked	14.5	16.9	23.6	13.1	19.7	16.1
Did not smoke	85.5	83.1	75.0	86.8	74.7	83.6
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
			Ratio of proportions, Indigenous: non-Indigenous			
Smoked	3.9	3.1	2.5	3.4	2.3	3.2
Did not smoke	0.5	0.6	0.5	0.6	0.5	0.5

Note: Excludes births where the mother's Indigenous status is not stated.

Source: AIHW National Perinatal Statistics Unit (NPSU) National Perinatal Data Collection

2.19 Risky and high risk alcohol consumption

WHY IS IT IMPORTANT?: Excessive consumption of alcohol is associated with health and social problems in all populations. It is a major risk factor for conditions such as liver disease, pancreatitis, diabetes and some types of cancer. Alcohol is also a frequent contributor to motor vehicle accidents, falls, burns, and suicide. It has the potential to evoke anti-social behaviour, domestic violence and family breakdown. Babies may be born with foetal alcohol syndrome where mothers have consumed alcohol during pregnancy.

In 2003 excessive alcohol consumption was associated with 5.1% and 2.1% of the total burden of disease for males and females respectively. Reducing alcohol and other substance misuse can significantly reduce the level of assaults and homicides and the level of disability, while improving the overall health and well-being of the population (SCRGSP 2005a). A reduction in alcohol and other substance misuse might also increase educational attainment, household and individual income levels, and reduce crime and imprisonment rates (SCRGSP 2005a). Among urban Aboriginal and Torres Strait Islander Australians, 65% regard either alcohol abuse or alcohol-related violence as the most serious issue facing Aboriginal and Torres Strait Islander communities (Commonwealth Department of Human Services and Health, 1995). Higher visibility of alcohol misuse by some Aboriginal and Torres Strait Islander groups creates a significant problem for some Aboriginal and Torres Strait Islander communities, leading to law and order issues and negative public perceptions. Consultations for this report identified widespread concern by Aboriginal and Torres Strait Islander peoples about the impact of alcohol on many aspects of community life.

FINDINGS: Compared with the non-Indigenous population, Aboriginal and Torres Strait Islander adults were twice as likely as non-Indigenous Australians to have abstained from alcohol consumption in the last 12 months. However, a greater proportion of those who do drink consume alcohol at levels that pose both short-term and long-term risks for their health and the health of others. Levels of risk associated with short-term (drinking over one day) and long-term risk levels (based on daily consumption over one week) are defined separately for males and females (NHMRC 2001).

In 2004-05, an estimated 50% of Indigenous Australian adults reported having consumed alcohol in the previous week. An estimated 17% of Indigenous Australian adults reported drinking at long term risky/high-risk levels. After adjusting for different age distributions, the proportions of Aboriginal and Torres Strait Islander adults reporting long term risky/ high risk alcohol consumption were similar to those of the non-Indigenous population.

Short term risky/high risk alcohol consumption is mainly associated with ‘binge’ drinking. An estimated 55% of Aboriginal and Torres Strait Islander adults drank at short-term risky/high risk levels in the last 12 months. For 19% of Aboriginal and Torres Strait Islander adults, drinking at short-term risky/high risk levels occurred at least once a week over the 12 month reporting period. This was higher than for the non-Indigenous population in all age-groups. After adjusting for the difference in age distributions, this was double the proportion reported for non-Indigenous adults.

A smaller proportion of Aboriginal and Torres Strait Islander males (17%) reported that they had not consumed alcohol in the past 12 months compared with females (30%). Males were more likely to report drinking at both short-term and long-term risky/high risk levels.

The health effects of risky/high risk alcohol consumption are evident in both mortality and morbidity statistics. Over the period 2000-04 in Queensland, Western Australia, South Australia and the Northern Territory, Aboriginal and Torres Strait Islander males died from alcohol related causes at 7 times the rate of non-Indigenous males. Females died from causes related to alcohol use at 10 times the rate of non-Indigenous females. Most (210 out of 323 deaths) were due to alcoholic liver disease. In the 4 reporting states, Aboriginal and Torres Strait Islander peoples died from mental and behavioural disorders due to alcohol use at 11 times the rate of non-Indigenous Australians; alcoholic liver disease at 6 times the rate of non-Indigenous Australians; and poisoning by alcohol at 10 times the rate.

Indigenous males were hospitalised for diagnoses related to alcohol use at 5 times the rate of other males, and Indigenous females were hospitalised for alcohol related conditions at 4 times the rate of other females. Three-quarters of these hospitalisations had a principal diagnosis of mental and behavioural disorders due to alcohol use, the most common type of which was acute intoxication. Aboriginal and Torres Strait Islander peoples were hospitalised at 9 times the rate of other Australians for acute intoxication; 14 times the rate of other Australians for mental and behavioural disorders due to withdrawal state; and 26 times the rate for psychotic disorder.

IMPLICATIONS: A policy approach to alcohol abuse is confounded by general community norms and behaviours related to alcohol consumption and a need to respect Aboriginal and Torres Strait Islander peoples’ rights and freedom of choice. Consultation for this report confirmed relationships between alcohol abuse by Aboriginal and Torres Strait Islander peoples and social and emotional well-being, mental health and other drug and alcohol co-morbidities. The Cultural Respect Framework for Aboriginal and Torres Strait Islander Health recognises the importance of primary health care services, including drug and alcohol services, that are culturally equipped to provide services to Aboriginal and Torres Strait Islander peoples. These factors are also recognised in the

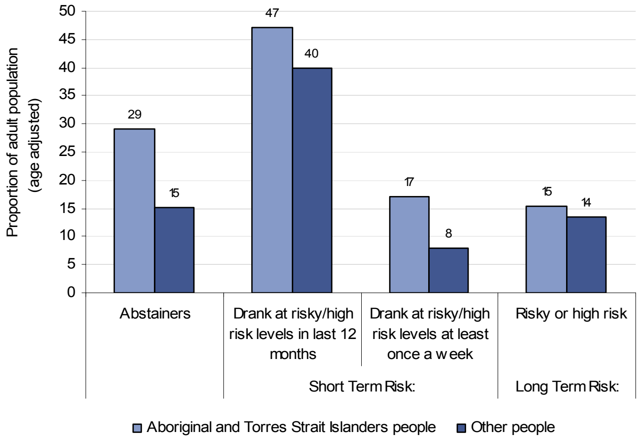
NSFATSIH Key Results Area Four, Emotional and Social Well-being, and in existing national strategies.

Action areas within the NSFATSIH include equipping a health workforce, including within mainstream health services, to manage emotional and social well-being along with substance misuse issues. It proposes links with existing strategies, including the *National Drug Strategy* and the *Aboriginal and Torres Strait Islander Complementary Action Plan 2003 – 2009*. This Action Plan is structured around six key result areas including enhancing capacity of Aboriginal and Torres Strait Islander communities to address current and future issues in the use of alcohol, tobacco and other drugs to promote their own health and well-being.

An important mainstream policy document which incorporates the needs of Aboriginal and Torres Strait Islander Australians is the *National Alcohol Strategy 2006 – 2009: Towards Safer Drinking Cultures*. The goal of the Strategy is to prevent and minimise alcohol-related harm to individuals, families and communities in the context of developing safer and healthy drinking cultures in Australia. A key priority area is the reduction of intoxication amongst drinkers. The Strategy seeks the inclusion of Aboriginal and Torres Strait Islander groups to identify the specific responses for Indigenous Australians.

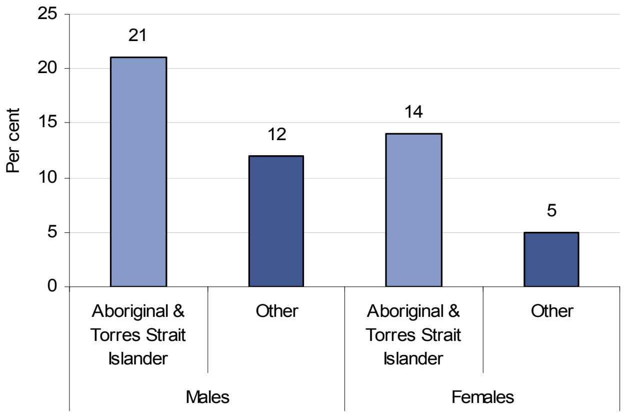
Various local, regional and national strategies have been implemented with the aim of reducing risky and high risk alcohol consumption, including some which restrict supply. Some are whole-of-community strategies while others are targeted solely at Aboriginal and Torres Strait Islander peoples. Legal provisions governing the supply of liquor are the responsibility of the states and territories. Many discrete Indigenous communities in remote areas of Northern and Central Australia have banned alcohol totally or partly. Consultations for this report stressed the value of community involvement in local actions to alleviate the problems of alcohol abuse.

Figure 88 – Alcohol risk levels by Indigenous status, persons aged 18 years and over, age standardised, Australia 2004-05



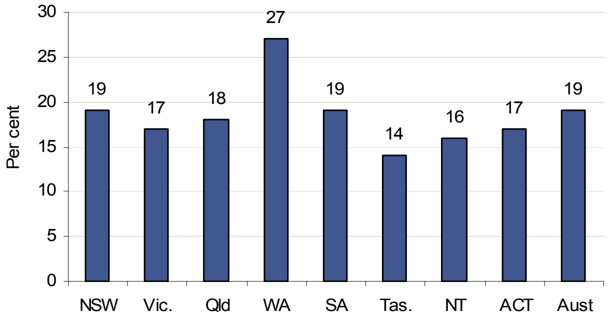
Source: ABS & AIHW analysis of 2004-05 National Aboriginal and Torres Strait Islander Health Survey and 2004-05 National Health Survey

Figure 89 –Persons aged 18 years and over who drank at short term risky/high risk levels at least once a week, age standardised, 2004-05



Source: ABS & AIHW analysis of 2004-05 National Aboriginal and Torres Strait Islander Health Survey and 2004-05 National Health Survey

Figure 90 – Aboriginal and Torres Strait Islander adults who drank at short term risky/high risk levels at least once a week, by jurisdiction, 2004-05



Source: ABS & AIHW analysis of 2004-05 National Aboriginal and Torres Strait Islander Health Survey

2.20 Drug and other substance use including inhalants

WHY IS IT IMPORTANT?: Substance misuse is a contributing factor to illness and disease, accident and injury, violence and crime, family and social disruption and workplace problems (SCRGSP 2005a). The use of drugs or other substances including inhalants is linked to various medical conditions for individuals. Injecting drug users, for example, have an increased risk of blood-borne viruses such as hepatitis or HIV (ABS & AIHW 2005). For communities, there is increased potential for social disruption, such as that caused by domestic violence, crime and assaults. Community based research has identified issues arising from alcohol, drug and substance use including loss of control and abusive behaviour ranging from physical to emotional violence (Franks 2006) Reducing drug related harm will improve health, social and economic outcomes at both the individual and community level.

Drugs or other substance consumption plays a significant role in Aboriginal and Torres Strait Islander peoples' involvement in the criminal justice system. According to the Office of the Status of Women there is a correlation between domestic violence, and drug and alcohol use in Aboriginal and Torres Strait Islander communities, with 70 to 90 per cent of assaults being committed under the influence of alcohol and other drugs (SCRGSP 2005a).

These issues are of significance for the Aboriginal and Torres Strait Islander population, whose adult members are almost twice as likely to report being a recent user as non-Indigenous Australians (AIHW 2005e).

Inhalant use, also referred to as glue sniffing, petrol sniffing, inhalant abuse, or solvent abuse, is difficult to control because the active substances are found in so many common products that have legitimate uses. People that use these substances as inhalants risk long-term health problems, or sudden death. Continued use can also cause the social alienation of sniffers, violence and reduced self esteem (SCRGSP 2005a).

FINDINGS: The 2004-05 NATSIHS shows that an estimated 28% of Indigenous people aged 18 years or over in non-remote areas reported illicit substance use in the last 12 months and 50% reported illicit substance use once in their lifetime (ABS 2006). These statistics show similar patterns to those found in the National Drug Strategy Household Survey in 1994 and 2004 (Commonwealth Department of Human Services Health 1995, AIHW 2005e). Substance use was more prevalent among Indigenous males, of whom 56% had tried drugs (compared with 46% of females) and 32% had used at least one substance in the last 12 months (compared with 24% of females) (ABS 2006).

Cannabis was the most common illicit substance use for Aboriginal and Torres Strait Islander peoples in 2004-05 followed by amphetamines/speed and painkillers or analgesics (for non-medical use).

In the 2002 NATSISS Indigenous Australians aged 25–34 years were the most likely to have ever tried substances (55%), whereas recent substance use peaked among those aged 15–24 years (30%) (ABS 2004).

Data enabling Indigenous and non-Indigenous comparisons is available from the National Drug Strategy Household Survey (Commonwealth Department of Human Services Health 1995, AIHW 2005e). In 2004 half of Indigenous Australians had never used drugs or other substances including inhalants compared with 62% of non-Indigenous Australians. Indigenous Australians were almost twice as likely to report being a recent user as non-Indigenous Australians (15%) (AIHW 2005e). When cannabis is excluded, a different picture emerges. Of Indigenous Australians, 12% were recent users of a drug or other substance other than cannabis, compared with 8% of other Australians (AIHW 2005e).

IMPLICATIONS: The *National Drug Strategy 2004–2009* provides the national framework for a coordinated, integrated response to reducing drug-related harm in Australia. Responsibility for action in related areas of law enforcement, criminal justice, health and education rests with government agencies at all levels; the community based sector, business and industry, the media, research institutions, local communities and individuals.

The *National Drug Strategy, Aboriginal and Torres Strait Islander Peoples Complementary Action Plan 2003 – 2009* (Ministerial Council on Drugs Strategy 2003) sets out an Action Plan for addressing specific issues for Aboriginal and Torres Strait Islander peoples, structured around six key result areas including:

- Enhancing capacity of Aboriginal and Torres Strait Islander communities to address current and future issues in the use of alcohol, tobacco and other drugs to promote their own health and well-being.
- Whole of government effort in collaboration with non-government organisations to implement, evaluate and improve comprehensive approaches to reduce drug-related harm.
- Substantially improved access to the appropriate range of health and well-being services that play a role in addressing alcohol, tobacco and other drugs issues.

The *Cultural Respect Framework for Aboriginal and Torres Strait Islander Health* recognises the importance of primary health care services, including drug and alcohol services that are culturally equipped to provide services to Aboriginal and Torres Strait Islander peoples. This is seen as a key factor for improved health outcomes for Aboriginal and Torres Strait Islander peoples. Other relevant policy documents are the *National Cannabis Strategy 2006–2009* and the *National Strategic Framework for Aboriginal and Torres Strait Islander*

Mental Health and Social and Emotional Well-being 2004–2009.

This measure should be monitored in conjunction with 1.18 Social and emotional well-being, all measures related to socioeconomic status, community safety and contact with the criminal justice system, and health behaviours including risky and high risk alcohol consumption, tobacco use and self reported unsafe sexual practices.

Table 42 – Aboriginal and Torres Strait Islander peoples aged 18 years and over in non-remote areas: Substance use by sex, 2002 and 2004−05

	2002			2004−05		
Substance use	**Males**	**Females**	**Persons**	**Males**	**Females**	**Persons**
Used Substances	**%**	**%**	**%**	**%**	**%**	**%**
Used substances in last 12 months						
Analgesics and sedatives for non-medical use	5	7	6	4	8	6
Amphetamines or speed	5	5	5	10	5	7
Marijuana, hashish or cannabis resin	25	16	20	29	17	23
Kava	1(a)	1(a)	1(a)	2(a)	−(b)	1(a)
Total used substances in last 12 months	*29*	*22*	*25*	*32*	*24*	*28*
Used substances but not in last 12 months	*19*	*18*	*19*	*22*	*21*	*22*
Total used substances	**48**	**40**	**44**	**56**	**46**	**50**
Never used substances	51	59	55	42	53	48
Not stated	1(b)	−(a)	−(a)	2(a)	2(a)	2
Total	**100**	**100**	**100**	**100**	**100**	**100**

a) estimate has a relative standard error of 25% to 50% and should be used with caution

b) estimate has a relative standard error of greater than 50% and is considered too unreliable for general use

− nil or rounded to zero (including null cells)

Source: ABS 2006 - 2002 National Aboriginal and Torres Strait Islander Social Survey and 2004-05 National Aboriginal and Torres Strait Islander Health Survey

2.21 Level of physical activity

WHY IS IT IMPORTANT?: Physical inactivity is an important behavioural risk factor associated with several potentially preventable chronic diseases that are prevalent in the Aboriginal and Torres Strait Islander population. These include cardiovascular disease, hypertension, diabetes, depression, anxiety and stress. Physical inactivity is related also to overweight and obesity, another important risk factor for multiple diseases. Most recent Australian estimates attribute 6.7 per cent of the Australian burden of disease to physical inactivity, with similar impact for both males and females.

Aboriginal and Torres Strait Islander peoples experience significantly higher levels of morbidity or mortality, or both, from major diseases for which physical activity is a risk factor. These include: cardiovascular disease, for which Aboriginal and Torres Strait Islander mortality between 1996 and 2000 was more than three times that for the non-Indigenous population (Australian Indigenous Health Infonet 2006) and type 2 diabetes, for which Aboriginal and Torres Strait Islander peoples reported almost four times the age-adjusted prevalence in 2001 (ABS 2002).

Recent studies of the relationship between physical activity and the presence of disease have confirmed the risk reduction that it provides for heart disease (Stephenson et al. 2000; Bull et al. 2004), essential hypertension (Kokkinos, Narayan & Papademetriou 2001), diabetes and the symptoms of depression, anxiety and stress (WHO website 2006b). In the case of diabetes, large scale trials in China, Finland and the United States have shown that a combination of modest weight loss, diet and moderate physical activity can reduce the risk of developing type 2 diabetes by 50-60% in those at high risk (Bull et al. 2004).

FINDINGS: There is a noticeable shift towards lower levels of physical activity by the Aboriginal and Torres Strait Islander population between 2001 and 2004-05. The proportion of sedentary persons amongst Aboriginal and Torres Strait Islander peoples aged 15 years and over increased between those years from 37% to 47%. This shift in the proportions came from the low and moderate physical activity groups which in total declined from 57% in 2001 to 46% in 2004-05. The proportion reporting a high level of physical activity remained unchanged (7%).

After adjusting for differences in age structure, Aboriginal and Torres Strait Islander peoples in non-remote areas were one and a half times as likely as other Australians to report their level of physical activity as sedentary in 2004-05.

A higher proportion of Indigenous females than Indigenous males reported that their level of exercise was sedentary (51% compared with 42%). The proportion of males who exercised at moderate or high levels was higher than females across all age groups in both the Aboriginal and Torres Strait Islander and non-Indigenous populations.

Proportions of Aboriginal and Torres Strait Islander peoples with sedentary or low levels of physical activity were highest among those aged 45-54 years and 55 years and over (83% and 85% respectively), while moderate or high levels of physical activity were highest among those aged 15-24 and 25-34 years (32% and 27% respectively).

Sedentary or low levels of physical activity among Indigenous Australians aged 15 years and over ranged from 70% in Tasmania to 78% in New South Wales.

Over three-quarters (78%) of Indigenous people aged 15 years and over who were overweight or obese reported exercising at low or sedentary levels.

Information from the NATSIHS 2004-05 and NHS 2004-05 shows that for both Aboriginal and Torres Strait Islander and non-Indigenous persons there is a positive association between level of physical activity and self-assessed health status. For Aboriginal and Torres Strait Islander peoples the proportion reporting excellent, very good or good health status rises from 71 per cent for those whose physical activity levels are sedentary to 94 per cent of those engaging in high levels of physical activity.

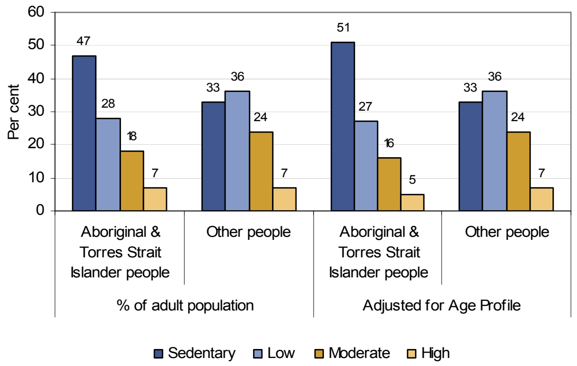
IMPLICATIONS: Individual health behaviours should be interpreted with an understanding of the socioeconomic and structural factors that incline the population to risk (OATSIH 2004). In relation to physical activity, the *Cultural Respect Framework for Aboriginal and Torres Strait Islander Health* (AHMAC 2004) identifies the need for cultural competence standards, action planning and cultural protocols in population health programs at the corporate, organisational and care delivery levels.

A priority of the NSFATSIH is to address the pre-determinants of chronic disease with a particular focus on nutrition and physical activity. Key Result Areas Two and Six identify actions to enhance service delivery to Aboriginal and Torres Strait Islander communities within the comprehensive primary health care context and to develop partnerships with other sectors whose activities impact on health. Action areas include partnerships between state and territory governments, local councils, private sponsors, and sports and recreation organisations to encourage the involvement of Aboriginal and Torres Strait Islander peoples in sports and recreational activities and support for the *Be Active Australia: A Framework for Health Sector Action for Physical Activity 2005-2010* (BAA) (National Public Health Partnership 2005b).

The *Be Active Australia* strategy provides a national framework for coordinated and comprehensive health sector action. The framework has identified Aboriginal and Torres Strait Islander Australians as a priority population and has recommended eight key actions to increase physical activity in this group.

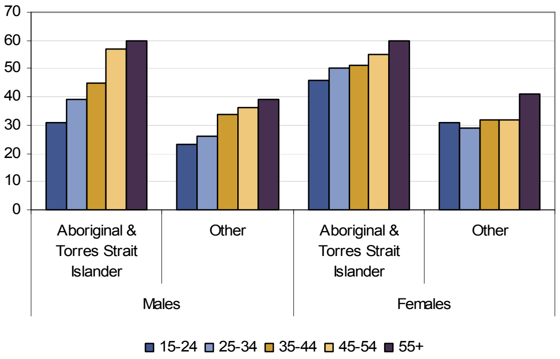
- Develop, in further consultation with a broad range of Aboriginal and Torres Strait Islander peoples, a detailed implementation plan for BAA.
- Ensure the inclusion of physical activity into Framework Agreements being developed in all jurisdictions.
- Develop practical strategies to assist community controlled health services and mainstream health services to encourage Aboriginal and Torres Strait Islander peoples to be active.
- Consider options for providing national strategic leadership, partnerships and coordination on physical activity across government for Aboriginal and Torres Strait Islander Australians.
- Consider options to increase funding, support and recognition for the development, implementation and evaluation of local physical activity best practice programs.
- Actively seek opportunities to integrate physical activity into relevant national, state and local policies, programs and initiatives.
- Explore the potential for partnerships with other sectors and private industry.
- Support appropriate research into the barriers and facilitators of physical activity for Aboriginal and Torres Strait Islander communities.

Figure 91 – Persons aged 15 years and over, level of physical activity, by Indigenous status, non-remote areas, 2004-05



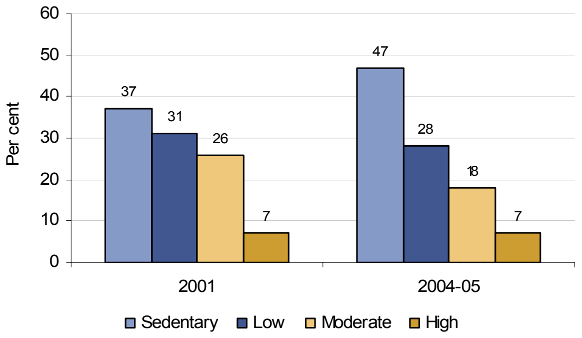
Source: ABS & AIHW analysis of 2004-05 National Aboriginal and Torres Strait Islander Health Survey and 2004-05 National Health Survey

Figure 92 – Persons aged 15 years and over reporting a sedentary level of physical activity, by Indigenous status and age group, non-remote areas, Australia, 2004-05



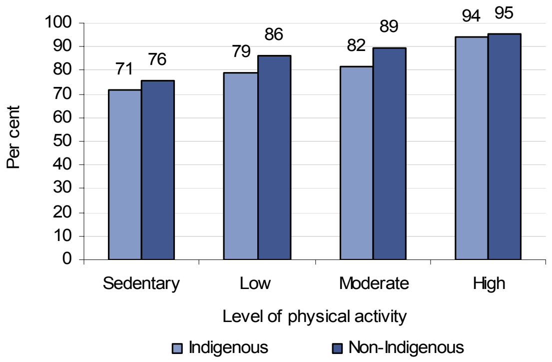
Source: ABS & AIHW analysis of 2004-05 National Aboriginal and Torres Strait Islander Health Survey and 2004-05 National Health Survey

Figure 93 –Indigenous persons aged 15 years and over, level of physical activity, non-remote areas, Australia, 2001 and 2004-05



Source: ABS & AIHW analysis of 2001 National Health Survey (Indigenous supplement) and 2004-05 National Aboriginal and Torres Strait Islander Health Survey

Figure 94 – Persons aged 15 years and over reporting excellent, very good or good health status by Indigenous status, 2004-05



Source: ABS & AIHW analysis of 2004-05 National Aboriginal and Torres Strait Islander Health Survey and 2004-05 National Health Survey

2.22 Dietary behaviours

WHY IS IT IMPORTANT?: Many of the principal causes of ill-health among Aboriginal and Torres Strait Islander peoples are nutrition related diseases, such as heart disease, Type 2 diabetes and renal disease. While a diet high in saturated fats and refined carbohydrates increases the likelihood of developing these diseases, regular exercise and intake of fibre-rich foods, such as fruit and vegetables, can have a protective effect against disease.

The National Health and Medical Research Council guidelines recommend a minimum of five serves of vegetables per day and two serves of fruit per day (ABS & AIHW 2005, ABS 2006).

Diet-related diseases are caused by combinations and interactions of environmental, behavioural, biological, social and hereditary factors. There is a substantial quantity of current animal, laboratory, clinical and epidemiological evidence that associates dietary excesses and imbalances with chronic disease. Of particular relevance in Indigenous communities are factors such as socioeconomic status, Syndrome X, transition from a traditional to a westernised lifestyle, prenatal and postnatal nutrition and childhood nutrition (NHMRC 2000).

Good maternal nutrition and healthy infant and childhood growth are fundamental to the achievement and maintenance of health throughout the life cycle. Mother's nutritional status is one factor that has been associated with low birthweight in babies. Growth retardation among Indigenous infants after the age of four to six months has consistently been noted. Relatively poor growth has also been shown to persist in older children, although overweight and obesity are also increasing (NHMRC 2003).

FINDINGS: In 2004-05, in non-remote areas, 42% of Aboriginal and Torres Strait Islander peoples were eating the recommended daily intake of fruit and 10% the recommended daily intake of vegetables.

In 2004–05, the majority of Aboriginal and Torres Strait Islander peoples aged 12 years and over reported eating vegetables (95%) and/or fruit (86%) daily. However, 24% reported a low usual daily vegetable intake (1 or less serves per day). This proportion had increased since it was measured at 18% in 2001 (ABS 2004). A much higher proportion (58%) of Aboriginal and Torres Strait Islander peoples aged 12 years and over reported a low usual daily fruit intake (1 or less serves per day) in 2004-05, similar to the proportion in 2001 (56%).

Fruit and vegetables may be less accessible to Indigenous Australians in remote areas. In remote areas, 20% of Indigenous Australians aged 12 years and over reported no usual daily fruit intake compared with 12% in non-remote areas. The disparity was even greater for vegetables, where 15% of Indigenous Australians in remote areas reported no usual daily intake compared with two per cent in non-remote areas.

After adjusting for differences in age structure, Aboriginal and Torres Strait Islander peoples aged 12 years and over were twice as likely to report no usual daily fruit intake and 5 times as likely to report no daily vegetable intake as non-Indigenous Australians.

In 2004-05, 46% of Aboriginal and Torres Strait Islander peoples aged 12 years and over reported that they usually added salt after cooking and a further 25% reported they did so sometimes. These proportions were higher in remote areas compared with non-remote areas (83% of persons compared with 66% respectively either usually or sometimes adding salt).

Approximately 79% of Aboriginal and Torres Strait Islander peoples aged 12 years and over reported they usually drank whole (full-cream) milk and 16% reported drinking reduced fat or skim milk. The proportion usually drinking whole milk was higher (87%) in remote areas than in non-remote areas (76%). Indigenous and non-Indigenous Australians aged 12-14 years were most likely to report drinking whole milk (88% and 69% respectively) than those in the older age-groups.

IMPLICATIONS: A priority of the NSFATSIH is to address the pre-determinants of chronic disease with a particular focus on nutrition. The Strategy's Key Results Area Six outlines action plans for partnerships between the media, the health sector, schools, and Aboriginal and Torres Strait Islander communities to encourage understanding of nutrition and healthy eating for children and parents and to promote healthy food choices. Action also includes developing an Aboriginal and Torres Strait Islander maternal and child health framework (incorporating nutrition) which complements initiatives within the national mainstream maternal, child and nutritional health policy context and links with Aboriginal and Torres Strait Islander maternal, child and nutrition programs.

The National Aboriginal and Torres Strait Islander Nutrition Strategy and Action Plan (NATSINSAP) is a component of Eat Well Australia. The plan has been designed to build on existing efforts to make healthy food choices easier choices for Aboriginal and Torres Strait Islander peoples. Action areas include: the food supply in remote/rural communities; food security/economic status; family focused nutrition promotion; nutrition issues in urban areas; environment/household infrastructure; development of Aboriginal and Torres Strait Islander nutrition workforce and national food/nutrition monitoring systems.

The ability to make healthy food choices has many influences including socioeconomic, geographical, environmental and social. Food security, food access and food supply issues are of particular importance in rural and remote areas. Under the Australian Better Health Initiative there are two projects targeting remote food supply issues, *Outback Stores Initiative* and the *Remote Indigenous Stores and Takeaways* initiative.

Low income combined with high food costs results in many Aboriginal and Torres Strait Islander peoples spending a large percentage of their income on food and contributes to concerns among Indigenous Australians of going without food. An estimated 30% of Aboriginal adults worry at least occasionally about going without food (SIGNAL 2001).

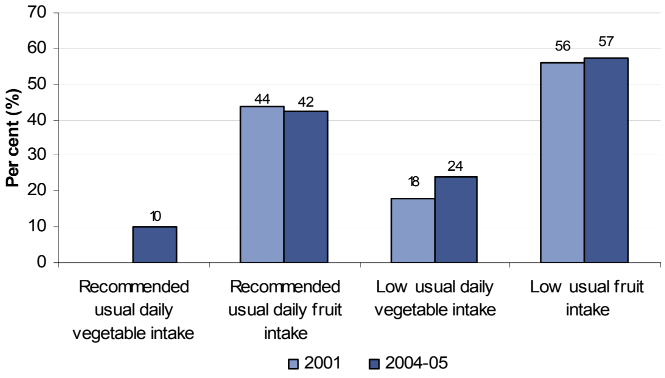
Remote stores often have a limited range of foods, particularly perishable foods such as fruit/vegetables and dairy foods.

Table 43 – Selected dietary habits, by remoteness, Indigenous persons aged 12 years and over, Australia, 2004-05

Dietary behaviours	Remote	Non-remote	Total
	%	%	%
Vegetable intake			
Eats vegetables daily	84	98	95
Does not eat vegetables daily	15	2	5
Total	*100*	*100*	*100*
Fruit intake			
Eats fruit daily	80	88	86
Does not eat fruit daily	20	12	14
Total	*100*	*100*	*100*
Usual type of milk consumed			
Whole	87	76	79
Low/reduced fat	4	14	11
Skim	2	5	5
Total drinks milk	*95*	*97*	*96*
Does not drink milk	5	3	4
Total	*100*	*100*	*100*
Salt added after cooking			
Never/rarely	16	35	30
Sometimes	30	23	25
Usually	53	43	46
Total	*100*	*100*	*100*

Source: 2004-05 National Aboriginal and Torres Strait Islander Health Survey

Figure 95 – Percentage of Indigenous Australians aged 12 years and over reporting the recommended and low usual daily intake of vegetables and fruit, non-remote areas, 2001 and 2004-05



Source: AIHW analysis of 2001 National Health Survey (Indigenous supplement) and 2004-05 National Aboriginal and Torres Strait Islander Health Survey

2.23 Breastfeeding practices

WHY IS IT IMPORTANT?: Breastfeeding is one of the most important health behaviours for promoting the survival, growth, development and health of infants and young children (AIHW 2006a). It offers protection against many conditions, including diarrhoea, respiratory infections, middle ear infections, SIDS and the development of diabetes in later life. Current guidelines recommend exclusive breastfeeding for the first six months of life and that all mothers continue breastfeeding until 12 months of age and even beyond (NHMRC 2003).

Babies of Aboriginal and Torres Strait Islander mothers have higher rates of infant mortality (see measure 1.21). The most common causes of death in infants and children aged less than two years are gastrointestinal and respiratory infections (NHMRC 2003). Aboriginal and Torres Strait Islander babies also have higher death rates from SIDS. These are all amongst the diseases for which breastfeeding has a protective effect.

Aboriginal and Torres Strait Islander babies are also more likely to experience poorer physical development and disproportionately high prevalence of illness and conditions such as poor dental health. The NHMRC guidelines recognise the protection that breastfeeding can provide against poor health outcomes in early childhood.

FINDINGS: The *ABS National Aboriginal and Torres Strait Islander Health Survey 2004-05* found that approximately 79% of Aboriginal and Torres Strait Islander infants aged 0-3 years in non-remote areas had been breastfed compared with 88% of non-Indigenous infants.

For Aboriginal and Torres Strait Islander children aged under 6 months at the time of the survey, a higher proportion of those living in remote areas were being breastfed than those in non-remote areas.

Figures available only for non-remote areas indicate that a higher proportion of Aboriginal and Torres Strait Islander infants (18%) than others (10%) are first given solid food within their first 3 months. By the time they reached 9 months, similar proportions of both groups had been given solid food regularly.

Breastfeeding status varied by remoteness, with a higher proportion of Indigenous mothers in remote areas currently breastfeeding their children than in non-remote areas. Approximately 42% of Indigenous Australian children aged 0-3 years in remote areas were currently being breastfed, 43% had previously been breastfed and 14% had never been breastfed. This compared with 13%, 65% and 21% respectively of Indigenous infants and children in non-remote areas.

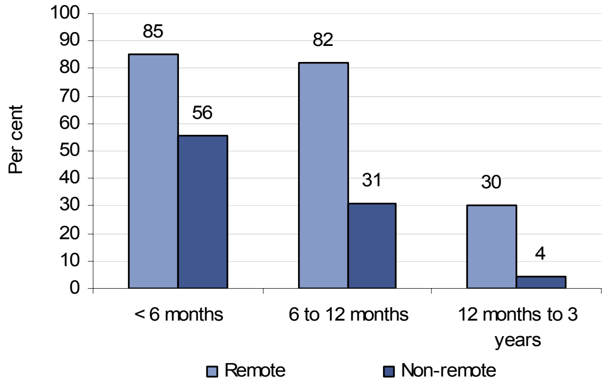
In 2004-05, the main reason mothers of Aboriginal and Torres Strait Islander infants aged 0-3 years in non-remote areas had stopped breastfeeding was that they were no longer producing any or adequate milk (32%). Approximately 21% of Indigenous Australian infants were no longer breastfed because mothers felt it was time to stop, and for 6% the mother was pregnant again.

IMPLICATIONS: The NSFATSIH places child and maternal health amongst strategies relevant to partnerships with other sectors. It proposes development of a maternal and child health framework, which would incorporate nutrition.

There are opportunities for promotion of breastfeeding within the health sector, particularly in antenatal and post-natal care. Delivery of targeted programs through these settings is likely to be an important element of a maternal and child health framework. However, partnerships with the education sector are also likely to be productive. Many Aboriginal and Torres Strait Islander women bear children at a relatively young age, so the delivery of appropriate health promotion through the education sector could be effective.

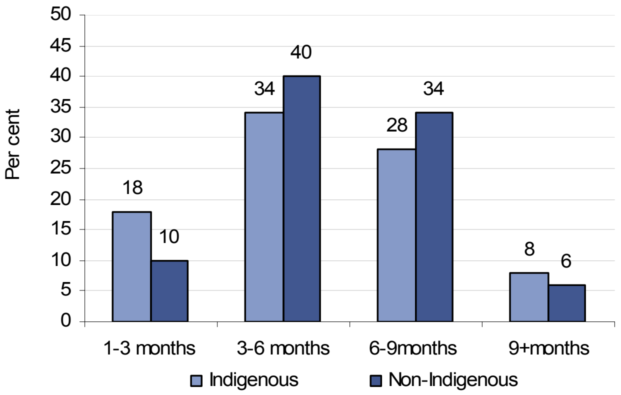
Monitoring of breastfeeding practices should be undertaken in conjunction with measures 1.08 Diabetes, 1.12 Children's hearing loss, 1.18 Infant mortality rate and 3.01 Antenatal care.

Figure 96 – Aboriginal and Torres Strait Islander children aged less than 3 years and currently breastfeeding, by age and remoteness, 2004-05



Source: ABS & AIHW analysis of 2004-05 National Aboriginal and Torres Strait Islander Health Survey

Figure 97 – Children in non-remote areas aged less than 3 years: age at which first given solid food regularly, by Indigenous status 2004-05



Source: ABS & AIHW analysis of 2004-05 National Aboriginal and Torres Strait Islander Health Survey and 2004-05 National Health Survey

Table 44 – Aboriginal and Torres Strait Islander children aged 0-3 years in non-remote areas: Breastfeeding status by State/Territory, 2004-05

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
Breastfeeding age range:					*Per cent*				
0 to < 6 months	35	43	31	27	22	51	32	41	33
6 to < 12 months	21	22(b)	19(a)	16(b)	14(a)	15(a)	15(a)	16(a)	19
12 months or more	11	10(b)	18(a)	10(b)	15(a)	9(b)	13(a)	17(a)	13
Currently breastfeeding	8(a)	9(a)	12(a)	18(a)	30(a)	11(b)	29(a)	17(a)	13
Ever breastfed	*76*	*84*	*79**	*70*	*81*	*86*	*89*	*92*	*79**
Never breastfed	24	15(a)	20	30(a)	19(a)	14(a)	11(a)	5(b)	21*
Total	100	100	100	100	100	100	100	100	100
					Number				
Total Persons	**13418**	**2373**	**10325**	**2019**	**3552**	**1762**	**1082**	**433**	**34964**

* *Statistically significant differences between Indigenous and non-Indigenous proportions.*
a *estimates having a relative standard error of 25% to 50% should be used with caution.*
b *estimate having a relative standard error greater than 50% are considered too unreliable.*

Source: ABS & AIHW analysis of 2004-05 National Aboriginal and Torres Strait Islander Health Survey

2.24 Prevalence of overweight and obesity

WHY IS IT IMPORTANT?: Overweight and obesity is a global health problem. Being overweight or obese is a risk factor linked to various chronic diseases. The Australian Burden of Disease study found that overweight accounted for approximately 4.3% of the total burden of disease (Mathers, Vos & Stevenson 1999). Obesity is closely associated with risk factors for the main causes of morbidity and mortality amongst Aboriginal and Torres Strait Islander peoples (NHMRC 2000). In both men and women of the Aboriginal population, body fat distribution is predominantly central; a pattern that is associated with higher risk of development of type 2 diabetes and cardiovascular disease. In children and adolescents overweight and obesity is linked with ill-health and psychosocial problems. Obesity is the most important risk factor associated with the onset of type 2 diabetes in children. Overweight and obesity in children and adolescence is positively correlated with overweight and obesity in adults thus leading to increased risk of morbidity in adulthood (AIHW 2003).

FINDINGS: Levels of overweight or obesity amongst Aboriginal and Torres Strait Islander peoples in 2004-05 were higher than in the non-Indigenous population in all adult age-groups. Major differentials were apparent in the more critical obese category (BMI greater than 30). Aboriginal and Torres Strait Islander males were one and a half (1.5) times as likely as non-Indigenous males to be obese, while Aboriginal and Torres Strait Islander females were almost twice as likely (1.9) as non-Indigenous females (NATSIHS 2004-05).

The proportion of Aboriginal and Torres Strait Islander peoples aged 15 years and over and living in non-remote areas who were overweight or obese increased steadily from 51% in 1995, 56% in 2001 up to 60% in 2004-05.

In 1994, it was estimated 28% of Aboriginal and Torres Strait Islander children (aged 7-15 years) were overweight or at risk of overweight, compared with the 15% expected from the Australian body mass index cut-points (Cunningham & Mackerras 1998). There are no current data about the prevalence of overweight and obesity among Aboriginal and Torres Strait Islander children.

For Torres Strait Islander peoples, results from the NATSIHS 2004-05 show higher proportions of those overweight or obese than for the Aboriginal population. This was particularly so for those living in the Torres Strait area, of whom 86% aged 15 years or over were overweight or obese.

IMPLICATIONS: Given the health risks associated with being obese or overweight, the situation for Aboriginal and Torres Strait Islander peoples requires urgent attention. In the first instance, arresting the increase in proportions of people who are overweight or obese is a reasonable target. Secondly, reducing levels of overweight and obesity in Aboriginal and Torres Strait Islander peoples to the levels for the rest of the Australian population would meet the key goal of the NSFATSIH - that Aboriginal and Torres Strait Islander peoples should enjoy a healthy life equal to that of the general Australian population. As Australia is ranked as one of the ‘fattest developed nations’ (Australian Department of Health and Ageing 2002), both of these should be interim goals.

While genetic factors account for a proportion of overweight and obesity within the Australian population, poor eating patterns and lack of physical activity are regarded as the main causes (AIHW 2004a; AMA 2005). Nutrition and physical activity are therefore the areas in which policies should focus. The 2003 NSFATSIH proposes partnerships with (a) food wholesalers, retailers and Aboriginal and Torres Strait Islander communities to ensure accessibility and affordability of healthy food choices; (b) media, health and education sectors to encourage understanding of nutrition and healthy food choices; and (c) state and territory governments, local councils, private sponsors and sports and recreation bodies to encourage the involvement of Aboriginal and Torres Strait Islander peoples in sport and recreational activities.

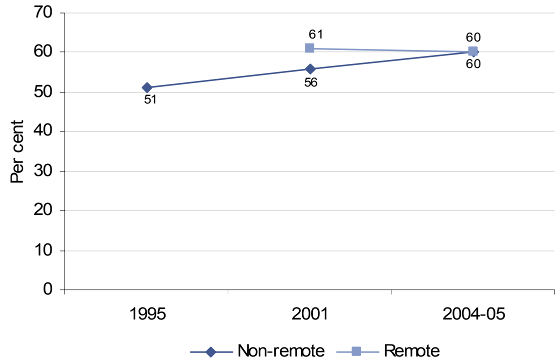
The National Obesity Taskforce (2003) nominated focus areas for Aboriginal and Torres Strait Islander peoples, including:

- traditional Indigenous games in physical activity programs in schools
- improved access to programs for healthy eating and active living within antenatal and postnatal care
- whole of community education and social marketing and communication strategies for nutrition
- recruiting at least two Indigenous communities in evaluated community-wide interventions
- engaging Aboriginal and Torres Strait Islander community leaders in promoting healthy eating and active living behaviours
- supporting professional networks to disseminate ‘good practice’, including specific assistance for Aboriginal and Torres Strait Islander health, education and other sector workers.

Monitoring of this measure should be in conjunction with measures 2.21 Level of physical activity and 2.22 Dietary behaviours.

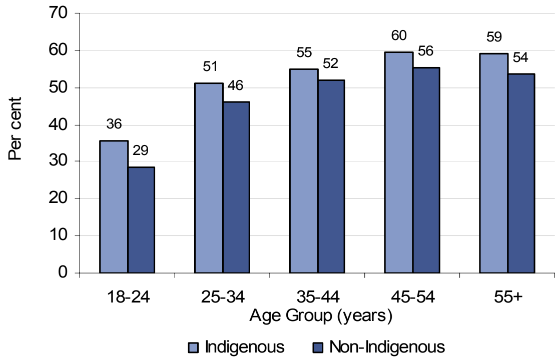
A specific focus is needed for Torres Strait Islander peoples, particularly those living in the Torres Strait Island area.

Figure 98 – Proportion of Aboriginal and Torres Strait Islander adults who were overweight or obese, non-remote areas, 1995, 2001 and 2004-05



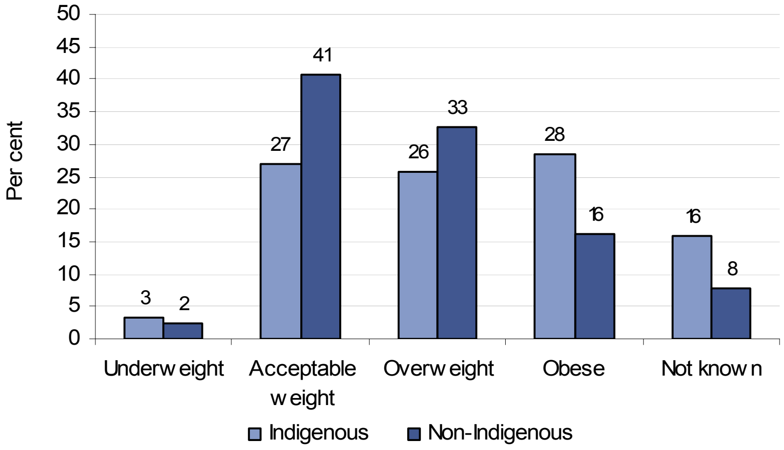
Source: ABS and AIHW analysis 1995 and 2004-05 National Aboriginal and Torres Strait Islander Health Survey and 2001 National Health Survey (Indigenous supplement)

Figure 99 – Proportion of adults who were overweight or obese, by Indigenous status and age, 2004-05



Source: ABS & AIHW analysis of 2004-05 National Aboriginal and Torres Strait Islander Health Survey and 2004-05 National Health Survey

Figure 100 – Proportion of adults by weight characteristics and Indigenous status, age standardised, 2004-05



Source: ABS & AIHW analysis of 2004-05 National Aboriginal and Torres Strait Islander Health Survey and 2004-05 National Health Survey

Chapter 6 Health System Performance (Tier 3)

Tier 3 includes measures of the performance of the health system including population health, primary health care and secondary/tertiary care services. Six performance domains are identified: measures of the extent to which health services are effective/appropriate/efficient, the responsiveness of health services to Aboriginal and Torres Strait Islander communities and individuals, accessibility of services, continuity of services, capability and sustainability. The measures deal with a range of programs and service types including:

Child and maternal health
- antenatal care (3.01)
- immunisation (3.02)

Early detection and chronic disease management
- early detection and early treatment (including cancer screening) (3.03)
- chronic disease management (3.02)
- ambulatory care sensitive hospital admissions (3.06)
- access to mental health services (3.08)
- access to services by types compared to need (3.10)
- access to prescription medicines (3.11)

Continuous Care
- regular GP or health service (3.10)

Access to secondary/tertiary care
- differential access to key hospital procedures (3.05)
- access to services by types compared to need (3.10)

The health workforce
- Aboriginal and Torres Strait Islander peoples in Tertiary Education for health related disciplines (3.14)
- Aboriginal and Torres Strait Islander Australians in the health workforce (3.09)
- recruitment and retention of clinical and management staff (3.16)

Adequacy of resources
- expenditure on Aboriginal and Torres Strait Islander health compared to need (3.15).

3.01 Antenatal care

WHY IS IT IMPORTANT?: Antenatal care involves 'recording the medical history, assessment of individual needs, advice and guidance on pregnancy and delivery, screening tests, education on self-care during pregnancy, identification of conditions detrimental to health during pregnancy, first-line management and referral if necessary' (WHO 2006a). Antenatal care for pregnant women commenced in the early 1900s as a process of screening asymptomatic pregnant women, with the aim of detecting, and thereby preventing, both maternal and neonatal adverse events (Dodd, Robinson & Crowther 2002). 'Good access to primary health care can make a difference to the health of women of childbearing ages and women during pregnancy, as well as the foetus during growth and development and the infant and young child' (Eades 2004). Antenatal care may be especially important for Aboriginal and Torres Strait Islander women, as they are at higher risk of giving birth to low weight babies and there are various risk factors which could be targeted through antenatal care such as anaemia, poor nutritional status, hypertension, diabetes or glucose intolerance, genital and urinary tract infections and smoking. Two studies of women attending tertiary referral hospitals for obstetric care found poorer birth outcomes associated with late antenatal bookings for pregnant Aboriginal and Torres Strait Islander women (Eades 2004).

There are currently no national guidelines on antenatal care, although these are currently under development. Existing guidelines for antenatal care vary and are not always consistent with national policies or research evidence (Hunt & Lumley 2002). Most guidelines recommend that the antenatal care should commence during the first trimester, as it is at this early stage that risk factors can best be assessed (Mercy Hospital for Women, Southern Health and Women's and Children's Health 2001). This approach was adopted into the Northern Territory's Aboriginal Health and Families framework (Northern Territory Government 2006).

The schedule of antenatal visits most commonly followed in Australia is monthly visits up until 28 weeks of pregnancy, fortnightly visits until 36 weeks and weekly visits thereafter. However, research has found that the frequency of visits could safely be reduced to between 7 and 10 visits for low risk women (Mercy Hospital for Women, Southern Health and Women's and Children's Health 2001; Wallace & Oats 2002).

FINDINGS: In the four jurisdictions that record this information (New South Wales, Queensland, South Australia and Northern Territory) an estimated 96.7% of Aboriginal and Torres Strait Islander mothers accessed antenatal care services at least once during their pregnancy. This compares with 99.6% for other mothers. For the three jurisdictions in which there is trend data, the level of access to antenatal care has remained much the same over the period 1998 to 2003, with a very small increase over time. Patterns of access to antenatal care do not vary greatly between jurisdictions.

There is evidence that Aboriginal and Torres Strait Islander mothers access services later in the pregnancy and have significantly fewer antenatal care sessions. Data from New South Wales show that 52.2% of Aboriginal and Torres Strait Islander mothers have their first antenatal session in the first trimester of the pregnancy, compared with 63.8% of other mothers. In the Northern Territory, 32.6% of Aboriginal and Torres Strait Islander mothers have their first antenatal session in the first trimester of the pregnancy, compared with 51.9% of other mothers.

In Queensland, South Australia and the Northern Territory, 73%-74% of Aboriginal and Torres Strait Islander mothers access 5 or more antenatal sessions, compared with well over 90% of other mothers.

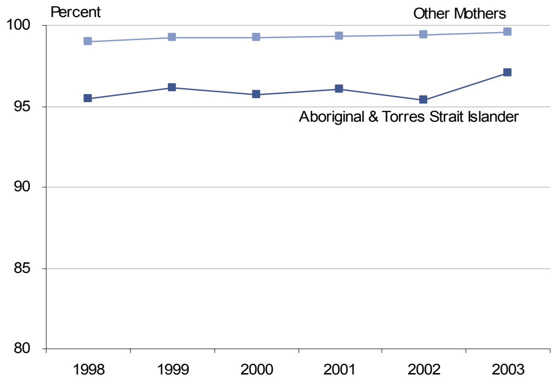
IMPLICATIONS: Around 97% of Aboriginal and Torres Strait Islander mothers access antenatal services at least once during their pregnancy. However, the evidence suggests Aboriginal and Torres Strait Islander mothers are accessing these services later in their pregnancy and less frequently than for other mothers. Little is known about the factors contributing to lower levels of access. In addition, little is known about how the pregnancies for Aboriginal and Torres Strait Islander women with higher risks are managed and whether these women have adequate access to specialist obstetric care.

Case studies of targeted programs suggest improved antenatal visiting can be achieved and that these can translate into improvements in health outcomes such as increased birthweight and reduced premature birth (Eades 2004; Herceg 2005). Programs that have been reviewed are mostly based in Aboriginal and Torres Strait Islander health services or tertiary maternity services. Little is known about the factors likely to impact on antenatal care for mothers seeking care through private general practitioners.

Maternal and child health is a key priority in the NSFATSIH. Governments around Australia have introduced initiatives that seek to address various issues in children's health including services required during pregnancy (Liu, Mead & Green 2004; National Public Health Partnership 2005a).

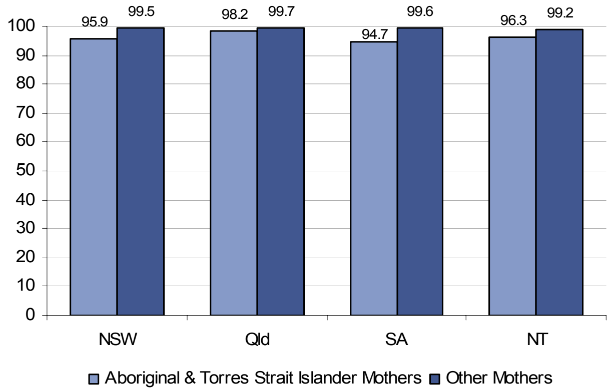
The Australian Government's *Healthy for Life* program aims to improve the health of Aboriginal and Torres Strait Islander mothers, infants and children and those affected by chronic disease. Specific activities in maternal and child health and chronic disease will be funded in over 80 sites across Australia. A target is to increase the rate of first attendance for antenatal care in first trimester. The Australian Government also recently announced new Medicare items for antenatal checks by nurses, midwives and registered Aboriginal Health Workers for mothers located in rural and remote areas. Appropriate training will be essential to ensure the success of these measures.

Figure 101 – Per cent of mothers who attended at least one antenatal care session, by Indigenous status NSW WA, SA , 1998-2003



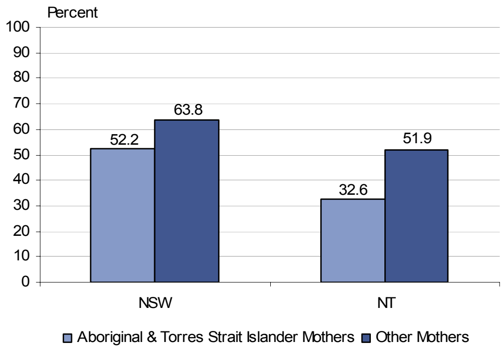
Source: States and Territories Perinatal Collections

Figure 102 – Per cent of mothers who attended at least one antenatal care session, by Indigenous status, by jurisdiction, NSW, WA, SA, NT, 2003



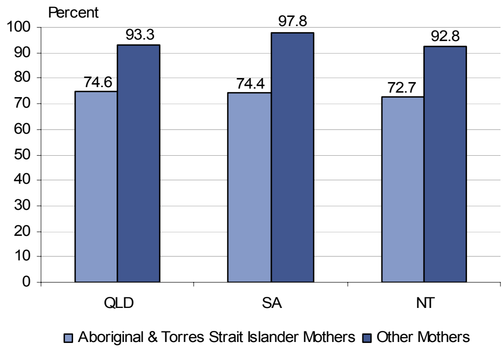
Source: States and Territories Perinatal Collections

Figure 103 – Per cent of mothers whose first antenatal care session occurred in the first trimester (<14 weeks), by Indigenous status, NSW, NT, 2003



Source: States and Territories Perinatal Collections

Figure 104 – Per cent of mothers attending 5 or more antenatal care sessions, by Indigenous status, Qld, SA, NT, 2003



Source: States and Territories Perinatal Collections

3.02 Immunisation (child and adult)

WHY IS IT IMPORTANT?: Immunisation is highly effective in reducing morbidity and mortality caused by vaccine-preventable diseases. Childhood vaccination for diphtheria was introduced in 1932 in Australia and use of vaccines to prevent tetanus, pertussis (whooping cough), and poliomyelitis became widespread in the 1950s, followed by measles, mumps and rubella in the 1960s. In more recent years vaccines have been included for hepatitis B, haemophilus influenza type b (Hib), pneumococcal disease, meningococcal C, and varicella (chicken pox). The *National Immunisation Program* provides free childhood vaccines for Australian children aged 0-7 years. Aboriginal and Torres Strait Islander children living in some states and territories also have access to a hepatitis A vaccine. Since the introduction of childhood vaccination, deaths from vaccine-preventable diseases have fallen for the general population by 99 per cent. Vaccinations are estimated to have saved some 78,000 lives (Burgess 2003). Effectiveness in providing vaccination services is measured by coverage at key milestones (such as 12 and 24 months, and 6 years of age).

The *National Indigenous Pneumococcal and Influenza Immunisation Program* provides free pneumococcal and influenza vaccines for all Indigenous peoples aged over 50 years and those in the 15-49 years age-group who have chronic debilitating illnesses or are immunocompromised. For the general population, free vaccinations are available for people aged 65 years and older. Influenza and its consequences, together with pneumonia, account for many deaths in the elderly population and also place significant burden on the health system through hospitalisation. Influenza vaccination has been demonstrated to reduce the incidence of pneumonia, hospitalisation and death for older people in the general population (Nichol et al. 1994; Gross et al. 1995).

FINDINGS: In December 2005, 85% of Aboriginal and Torres Strait Islander children at one year of age were fully vaccinated compared with 91% of other children. At two years of age, 90% of Aboriginal and Torres Strait Islander children were fully vaccinated compared with 92% of other children. At 6 years of age, 84.3% of Aboriginal and Torres Strait Islander children were fully vaccinated compared with 84.6% of other children.

Between 2001 and 2005, there was no significant change in the per cent of Aboriginal and Torres Strait Islander and other children who were fully vaccinated at one year of age. Vaccination rates increased slightly over the same period for children at two and six years of age, although the increase was not statistically significant.

Vaccination rates for Aboriginal and Torres Strait Islander children vary slightly between jurisdictions. Across the three ages, rates tend to be highest in the Northern Territory and Victoria.

In 2004-05, an estimated 60% of Aboriginal and Torres Strait Islander peoples aged 50 years and over reported they had been vaccinated against influenza in the last 12 months, which is an increase from an estimated 51% for 2001. In 2004-05, approximately 34% of Aboriginal and Torres Strait Islander peoples aged 50 years and over had been vaccinated against pneumonia in the last 5 years, an increase from an estimated 25% in 2001.

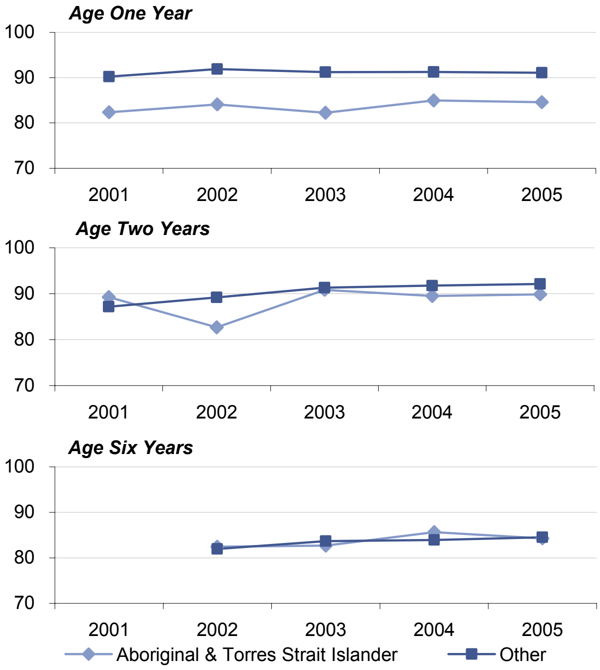
A higher proportion of Aboriginal and Torres Strait Islander peoples aged 50 years and over, living in remote areas, have been vaccinated against influenza in the last 12 months and pneumonia in the last 5 years (80% and 56% respectively) than in non-remote areas (52% and 26% respectively).

A higher proportion of Aboriginal and Torres Strait Islander peoples aged 65 years and over had been vaccinated against influenza and pneumonia (84% and 48% respectively) than non-Indigenous persons of the same age (73% and 43% respectively). However, the target group for Aboriginal and Torres Strait Islander peoples is *50 years and over*. A lower proportion of Aboriginal and Torres Strait Islander peoples in the target group (aged 50 years and over) had been vaccinated against influenza and pneumonia (60% and 34% respectively) than non-Indigenous persons in the target group of 65 years and over (73% and 43% respectively).

IMPLICATIONS: Achieving good immunisation coverage is primarily a reflection of the strength and effectiveness of primary health care. Rates of coverage for Aboriginal and Torres Strait Islander children fall slightly below the rest of the community for children aged one year, but are very close to the rates reported for other Australian children at two years and six years of age. Coverage rates drop off for children at six years for both Aboriginal and Torres Strait Islander children and other children.

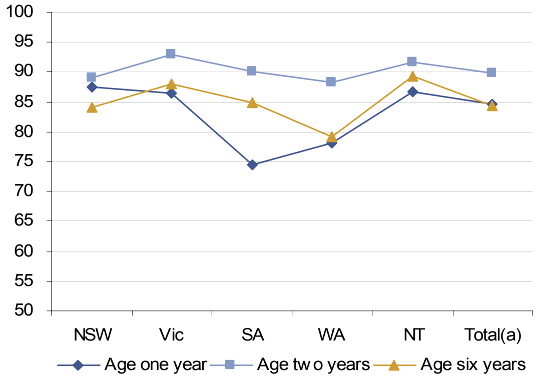
Coverage for adult vaccination for influenza and pneumonia has increased, but opportunities to improve coverage further exist. Around 30% of all Aboriginal and Torres Strait Islander peoples who had never been vaccinated against influenza or pneumonia had visited a doctor in the last two weeks. Adult vaccination rates are significantly lower in non-remote regions.

Figure 105 – Per cent of children fully vaccinated at age one year, two years and six years, NSW, Vic., SA, WA and NT combined, by Indigenous status, 2001-05.



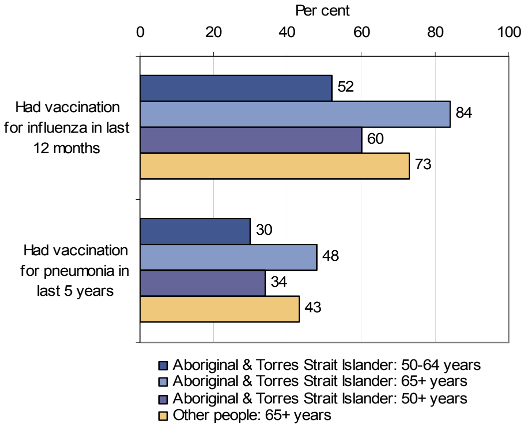
Source: AIHW analysis of Australian Childhood Immunisation Register, Medicare Australia

Figure 106 – Per cent of Aboriginal and Torres Strait Islander children fully vaccinated at age one year, two years and six years, NSW, Vic., SA, WA and NT, 2005



(a) Total for the five jurisdictions
Source: AIHW analysis of Australian Childhood Immunisation Register, Medicare Australia

Figure 107 – Per cent of Aboriginal & Torres Strait Islander peoples aged 50 years and over and other peoples aged 65 years and over: immunisation status 2004-05



Source: ABS and AIHW analysis of 2004-05 National Aboriginal and Torres Strait Islander Health Survey, and 2004-05 National Health Survey.

3.03 Early detection and early treatment

WHY IS IT IMPORTANT?: Early detection is the discovery of a disease or condition at an early stage of its development or onset, usually prior to the development of symptoms. Early detection may occur for individual patients, where clinically indicated, or for all members of a population through screening programs. In Australia, primary health care providers including Aboriginal and Torres Strait Islander health services and general practitioners, are a key element in early detection and early treatment programs. This role has been reinforced in recent years through the introduction of new items under the MBS which reimburse health assessments to help improve intervention and diagnosis for treatable conditions. In November 1999, MBS items were introduced to encourage annual health assessments for people aged 75 years and over, and Aboriginal and Torres Strait Islander people aged 55 years an over. More recently, items have been introduced to subsidise the provision of health assessments for Aboriginal and Torres Strait Islander people aged 15-54 years (May 2004) and 0-14 years (May 2006). Health services and general practitioners providing early detection and early treatment programs are most effective where there are systematic approaches to ensuring assessments, and screening occurs regularly in line with the recommended intervals.

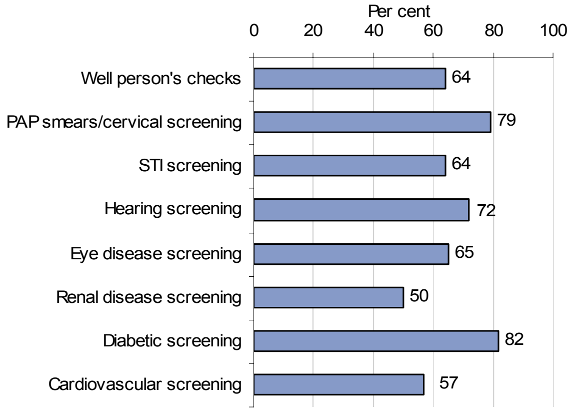
Breast and cervical cancer screening programs are designed to detect cancer early (breast cancer) or prevent its occurrence in the first place (cervical cancer). National organised programs for breast and cervical screening were implemented in Australia in the early 1990s, and have been followed by reductions in mortality for both these cancers. Screening for bowel cancer, using a Faecal Occult Blood Test (FOBT), has been demonstrated to reduce mortality from this cancer by 15-33% (NCI 2006). A national bowel cancer screening program is being implemented. Cancer mortality rates are higher for Aboriginal and Torres Strait Islander peoples than for other people (Condon et al. 2004). For jurisdictions in which data are available, mortality appears to be 5 times higher for cervical cancer compared with other women, but lower for breast and bowel cancers. Indigenous Australians in the Northern Territory have lower cancer survival for most cancer sites than other people.

FINDINGS: Most primary health care services funded by the Australian Government, for Aboriginal and Torres Strait Islander peoples provide early detection and early intervention services. In 2003-04, Aboriginal and Torres Strait Islander primary health care services reported providing screening for diabetes (82%), cervical cancer (79%), hearing problems (72%), eye disease (65%), sexually transmissible diseases (64%) cardiovascular disease (57%) and renal disease (50%). Sixty four per cent of services provided regular well persons' checks. New MBS items for health assessments for Indigenous children aged 0-14 years were introduced in May 2006. In the first two months, 423 health assessments were undertaken, representing around 1.4% of children in the target group. Two yearly health checks for Indigenous Australians aged 15-54 years were introduced in May 2004. In the 12 months from July 2005 to June 2006, there were 8,747 health checks performed, representing 3.2% of the target group. MBS Items for health assessments for Indigenous people aged 55 years and older, were introduced in November 1999. In 2005-06, health assessments were undertaken for 2,517 Aboriginal and Torres Strait Islander peoples aged 50 years and over, around 7.0% of the target population. Rates of use of this item have been increasing. However, rates are about a third of that for equivalent MBS items for annual health checks for the general population aged 75 years and over.

An estimated 38% of Aboriginal and Torres Strait Islander women aged 50-69 years participated in mammography screening for breast cancer compared with 55% for other women. Participation rates are highest in Queensland (50%) and Victoria (45%). There are no national data on cervical cancer screening participation rates for Aboriginal and Torres Strait Islander women. Work is underway to improve data on cervical cancer for Indigenous women.

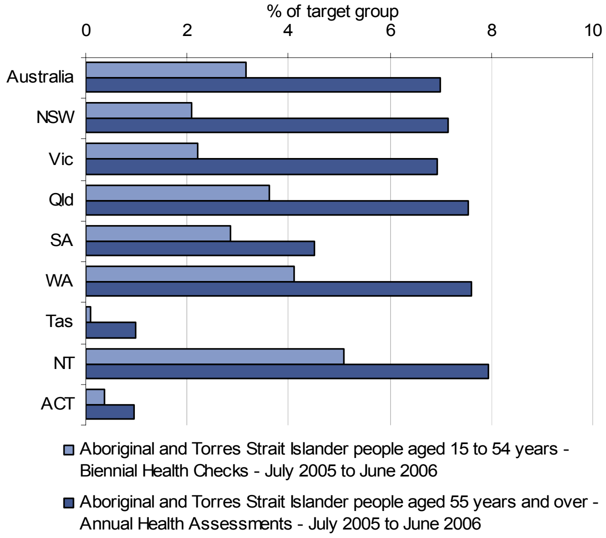
IMPLICATIONS: Early detection and early treatment through primary care services could have significant benefits for Aboriginal and Torres Strait Islander health. Not all primary health care services for Aboriginal and Torres Strait Islander peoples have established systems for screening and early detection; suggesting opportunities to extend systematic approaches to these issues. This is a challenge shared with mainstream general practice. The take-up of annual health assessments for Aboriginal and Torres Strait Islander peoples aged 55 years and over is low but increasing. More evidence is required on reasons for low take-up in both Aboriginal and Torres Strait Islander health services and general practice and the approaches taken in services that have been more successful. Achieving better participation rates in screening programs could have important positive impacts on Indigenous health. Up to 90 per cent of all cases of cervical cancer could be prevented through regular screening. Whilst HPV vaccination provides a new opportunity to reduce the excess in cervical cancer mortality, screening through pap smears will remain vital for many decades, as the current vaccine are not effective against all types of HPV that cause cervical cancer. Collection of data nationally on participation rates for Aboriginal and Torres Strait Islander women in cervical screening programs will be important to monitor progress, particularly given the high mortality rates for this disease. Lessons from jurisdictions that have been more successful in encouraging participation by Aboriginal and Torres Strait Islander peoples need to be studied and disseminated. These lessons should be applied in implementing the new national bowel cancer screening program.

Figure 108 – Percentage of respondent Aboriginal and Torres Strait Islander primary health care services providing early detection activities during the period 2003-04



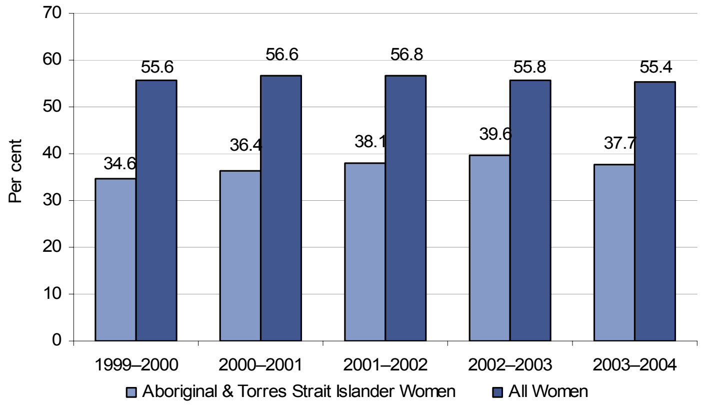
Source: Department of Health and Ageing Service Activity Report (SAR) 2003-04

Figure 109 – Per cent of target group received Medicare Benefits Schedule Health Assessments and Health Checks for Indigenous Australians



Source: AIHW analysis of Medicare data

Figure 110 – Participation rates for Breastscreen Australia programs of women 50-69 years, Aboriginal and Torres Strait Islander women and all women, 1999-2000 to 2003-04



Source: Report on Government Services 2006

3.04 Chronic disease management

WHY IS IT IMPORTANT?: Chronic diseases such as circulatory disease, diabetes, renal disease, chronic respiratory disease, cancers and chronic mental health conditions are a major cause of morbidity and mortality among Aboriginal and Torres Strait Islander peoples. Effective management of chronic disease can delay the progression of disease, decrease the need for high-cost interventions, improve quality of life, and increase life expectancy. Good quality care for people with chronic disease generally involves multiple health care providers across multiple settings. For example general practice, community health, hospitals, specialists, allied health professionals and NGOs and the engagement of the client and their families in self management of the condition (NHPAC 2006). Typically, the primary health care provider plays a central role in chronic disease management through regular or opportunistic screening to identify patients with asymptomatic disease, development of a management plan with the patient and their family, regular assessment of the extent to which the chronic illness is well controlled, regular checks to identify early signs of complications, and referral to specialist care where this is warranted. With more complex chronic diseases, such as renal failure and cancer, early access to specialist care is required, although primary care providers should continue to play a key role in the management of the disease. To play an effective role in chronic disease management, primary health care services need to take an organised approach reflecting evidence based guidelines (Wagner et al. 1996; Bodenheimer et al. 2002).

FINDINGS: The Service Activity Reporting prepared by Aboriginal and Torres Strait Islander primary health care services funded by the Australian Government, provide one insight into the extent to which health services have established processes to improve the management of chronic illness. Approximately 77% of services had a doctor working at the service. An estimated 78% of services provided management of chronic illness, 63% reported keeping track of clients needing follow-up (e.g. through monitoring sheets/follow-up files), 51% reported they maintained health registers (e.g. chronic disease register) and 57% utilised clinical practice guidelines. Approximately 54% of Aboriginal and Torres Strait Islander primary health care services reported they used Patient Information and Recall Systems (PIRS) which automatically provide reminders for follow-up and routine health checks.

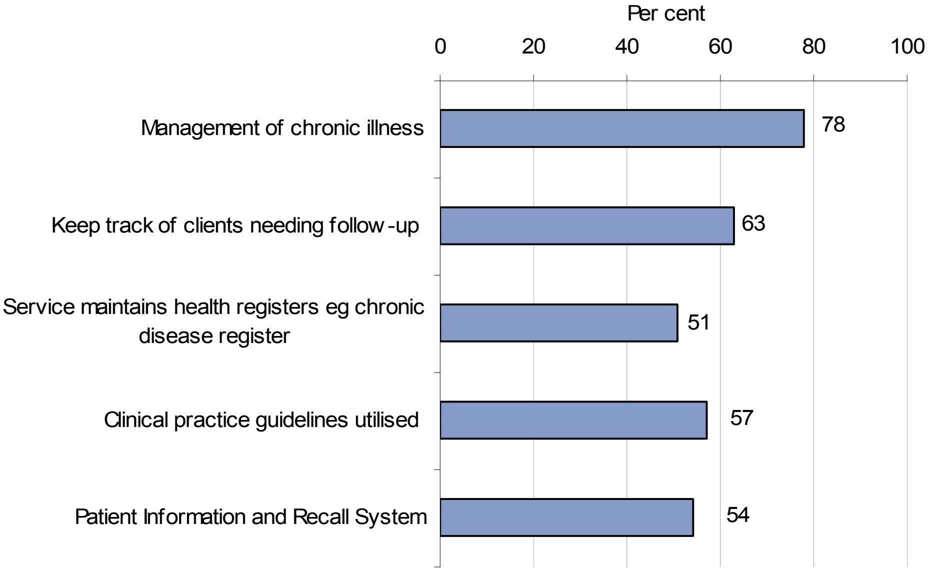
Acute rheumatic fever (ARF) and rheumatic heart disease (RHD) are now rare in Australia except in Aboriginal and Torres Strait Islander peoples (see 1.06). Adherence to secondary treatment for ARF (prophylaxis with benzathine penicillin G (BPG)) has been problematic in areas where this has been monitored. For example in 2005, in the Top End of the Northern Territory, 28% of patients missed half of their scheduled BPG injections and around half of all episodes of ARF were recurrences.

IMPLICATIONS: The provision of organised chronic disease management in Aboriginal and Torres Strait Islander primary health care services has been demonstrated to result in improvement in various health outcomes (Hoy et al. 1999; Hoy et al. 2000; Rowley et al. 2000b; McDermott et al. 2003). However, there are significant challenges in sustaining improvements in the management of chronic illnesses. These issues need to be addressed across the health system, not just in Aboriginal and Torres Strait Islander services. Some of the strategies recommended to address these challenges include systematic support from central agencies to buffer the effects of local factors, transparent work-practice systems backed by written disease management guidelines and manuals, delineated roles for practices for all practitioner types, appropriate staffing and training policies, raising awareness in communities through education and health promotion strategies with strong local participation (Bailie et al. 2004). A number of remote health services are participating in collaborative efforts to improve chronic illness management through clinical audit and benchmarking (for example Si et al. 2005). These processes allow services to assess the status of their systems for supporting chronic illness care together with intermediate clinical outcomes for their patients.

The Australian Government is supporting a number of initiatives to improve chronic disease management including the introduction of MBS items for chronic disease management, support of the *Australian Primary Care Collaboratives Program* and the new *Healthy for Life* program.

Unfortunately, little is known about the quality of care provided by general practitioners both for Aboriginal and Torres Strait Islander peoples and other Australians with chronic illnesses. Determining the effectiveness of chronic disease care for Aboriginal and Torres Strait Islander peoples is therefore difficult at this time.

Figure 111 – Per cent of respondent Aboriginal and Torres Strait Islander primary health care services that provide management of Chronic Disease, 2003-04



Source: Department of Health and Ageing Service Activity Report (SAR) 2003-04

3.05 Differential access to key hospital procedures

WHY IS IT IMPORTANT?: Australians with illnesses that can be effectively treated by hospital-based medical and surgical procedures, should have equitable access to these procedures. Studies have shown that while Aboriginal and Torres Strait Islander peoples, are more likely to be hospitalised than other people they are less likely to receive a medical or surgical procedure while in hospital (Cunningham 2002; ABS and AIHW 2005). The disparities are not explained by diagnosis, age, sex or place of residence (Cunningham 2002). Whilst these factors can be ruled out, the actual reasons for the disparities are not known.

There is some information available on patterns of access for particular conditions. For patients admitted to hospital with coronary heart disease, access to coronary angiography can be important in diagnosis and establishment of a course of treatment. Coronary heart disease may be treated medically (with drugs) or through revascularisation, either using a medical procedure (percutaneous coronary interventions) or a surgical procedure (coronary artery by-pass grafts). A study of patients admitted to Queensland hospitals for acute myocardial infarction (AMI) between 1998 and 2002 found that rates of coronary procedures among Indigenous Australian patients were 22% lower than rates for other patients (Coory & Walsh 2005).

Several studies have shown Aboriginal and Torres Strait Islander peoples have poorer survival for cancer. This is partly explained by the stage of cancer when patients are referred for specialist treatment (Condon et al. 2006; Valery et al. 2006) However Aboriginal and Torres Strait Islander peoples are less likely to have treatment for cancer (surgery, chemotherapy, radiotherapy) and tend to wait longer for surgery (Hall et al. 2004; Valery et al. 2006). After adjusting for stage at diagnosis, treatment and comorbidities, non-Indigenous Australians had better survival than Indigenous patients.

Aboriginal and Torres Strait Islander peoples with end stage renal failure have a lower rate of kidney transplants, reflecting both lower rates of acceptance onto waiting lists for transplantation and lower rates of moving from the list to transplantation (Cass et al. 2003). These disparities are not explained by age, sex, comorbidities or the cause of renal disease.

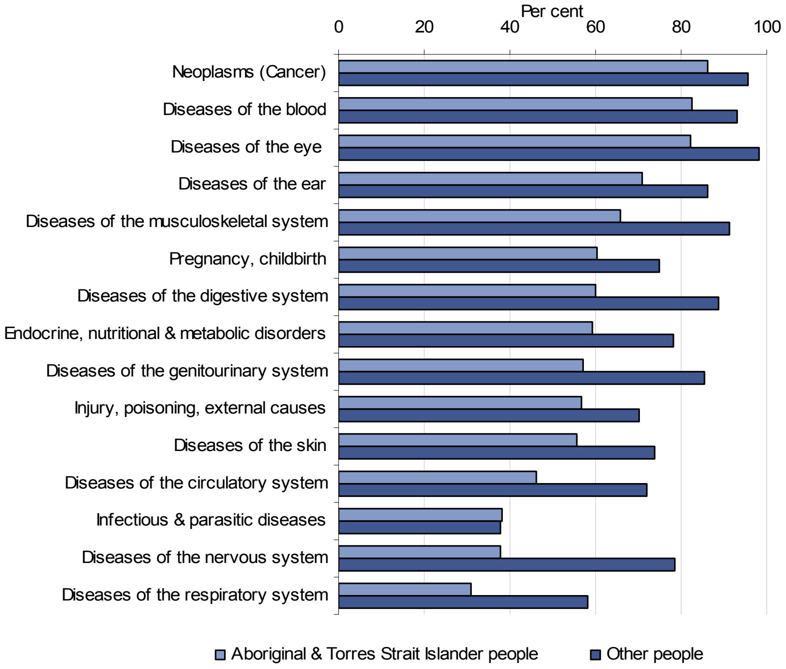
FINDINGS: In the two years to June 2004, excluding care involving dialysis, 53% of hospital episodes for Aboriginal and Torres Strait Islander peoples in public hospitals had a procedure recorded, compared with 70% of hospital episodes in public hospitals for other people. These differences are evident across age-groups, region of residence and in almost all principal diagnosis groups. For example, for diseases of the nervous system, 38% of separations for Indigenous patients had a procedure reported, compared with 78% for other patients.

In 2002-03, among those hospitalised with coronary heart disease, Aboriginal and Torres Strait Islander peoples were less likely to receive coronary procedures such as coronary angiography and revascularisation procedures. This was evident across all age-groups. Rates for Aboriginal and Torres Strait Islander peoples were a half of other people. The complexity of cases did not explain the lower procedure rate in Indigenous Australians compared with other Australians. The largest difference in procedure rates between Indigenous Australians and other Australians occurred in the least complex groups (i.e. no, or one to two, comorbidities present).

IMPLICATIONS: Disparities in access to hospital procedures are likely to reflect a range of factors, including ‘systemic practices, not ill-intentioned but still discriminatory, and almost invisible in the patient provider encounter’ (Fisher & Weeramanthri 2002 p. 49). An adequate primary health care system is a prerequisite for effective hospital and specialist services. Aboriginal and Torres Strait Islander patients with cancer and renal failure, present later in the course of these illnesses, which may impact on treatment options. Access to non-hospital specialist services for Aboriginal and Torres Strait Islander peoples is known to be well below national averages (Deeble et al. 1998). Other factors that have been suggested include: that the presence of comorbidities limits treatment options (although this did not explain the difference in coronary procedures outlined above); clinical judgments concerning post procedural compliance; communication issues, including difficulties for a patient whose main language is not English; and patient knowledge and attitudes, for example fatalistic attitudes towards cancer. Physical, social and cultural distance from mainstream health services also play a role, along with financial issues patients and their families face when seeking treatment in specialist referral services.

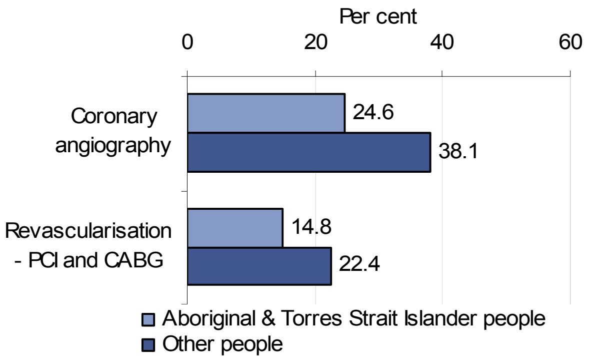
Effective strategies will require a better understanding of the factors leading to the observed disparities. Improvements in the primary care sector will increase early detection, referrals and improve support for patients following discharge. A range of measures have been taken by the Australian government and jurisdictions to support outreach specialist services for people living in remote regions. However, little is known of the extent of under-provision of specialist services for Aboriginal and Torres Strait Islander peoples. Clinicians and clinical colleges could also play a role in reviewing decision making processes and relevant data to identify what drives differential access to procedures and develop strategies to address these issues (Fisher & Weeramanthri 2002).

Figure 112 – Per cent of hospital episodes with a procedure reported, selected principal diagnoses and Indigenous status, Qld, WA, SA and NT, July 2002 to June 2004



Source: AIHW National Hospital Morbidity Database

Figure 113 – Use of coronary procedures for those hospitalised with coronary heart disease in Qld, WA, SA and NT, 2002–03



Source: AIHW 2006 (Aboriginal and Torres Strait Islander people with Coronary Heart Disease)

3.06 Ambulatory care sensitive hospital admissions

WHY IS IT IMPORTANT?: Analysis of the conditions for which people are admitted to hospital reveals that in many cases the hospital admission could have been prevented if more effective non-hospital care were available, either at an earlier stage in the disease progression or as an alternative to hospital care. Conditions that are sensitive to the effectiveness, timeliness and adequacy of non-hospital care are referred to as ambulatory care sensitive conditions (Public Health Division, Victorian Government Department of Human Services 2001; Centre for Epidemiology and Research, NSW Department of Health 2004; NHPC 2004). Studies of hospitalisation for these conditions have shown that the availability of non-hospital care explains a significant component of the variation between geographic areas in hospitalisation rates for the specified conditions (Weissman, Gatsonis & Epstein 1992; Billings et al. 1993; Bindman et al. 1995; UCSF-Stanford University Evidence-based Practice Center 2001).

Ambulatory care sensitive conditions can be considered in three categories: *Vaccine-preventable conditions* including influenza, tetanus, measles, mumps, rubella, pertussis, and polio; *Potentially preventable acute conditions* including dehydration/gastroenteritis, kidney infection, perforated ulcer, cellulitis, pelvic inflammatory disease, dental conditions, and ear, nose and throat infections; and *Potentially preventable chronic conditions* including diabetes, asthma, angina, hypertension, congestive heart failure, and chronic obstructive pulmonary disease (COPD).

Systematic differences in the rates observed for Aboriginal and Torres Strait Islander peoples and other people could indicate that gaps in the provision of population health interventions (such as immunisation), primary care services (such as early interventions to detect and treat high blood pressure, or availability of doctors to assist with treating patients with acute conditions such as kidney infection), and continuing care support (for example care planning for people with chronic illnesses such as congestive heart failure). Other explanations for differences could be that there is a higher prevalence for the underlying diseases and that Aboriginal and Torres Strait Islander peoples are more likely to live in remote regions where non-hospital alternatives are limited.

FINDINGS: In four jurisdictions - Queensland, Western Australia, South Australia and the Northern Territory - admission rates for *vaccine-preventable conditions* for Aboriginal and Torres Strait Islander peoples in 2003-04 were 1.4 per 1,000 persons compared with 0.4 for other people living in those jurisdictions. Rates fell dramatically between 1998-99 and 1999-2000, and have continued to decline at a gradual rate since. Admission rates for *acute* ambulatory care sensitive conditions in 2003-04 for Aboriginal and Torres Strait Islander peoples were 35.6 per 1,000 persons compared with 12.5 for other people. Rates for Aboriginal and Torres Strait Islander peoples have declined slightly over the five years to 2003-04, but increased slightly for the rest of the population.

Chronic conditions make up around 80% of ambulatory care sensitive conditions. In 2003-04, admission rates for chronic ambulatory care sensitive conditions were 154 per 1,000 Aboriginal and Torres Strait Islander peoples compared with 18.5 for other people. Rates have increased dramatically in the most recent two years.

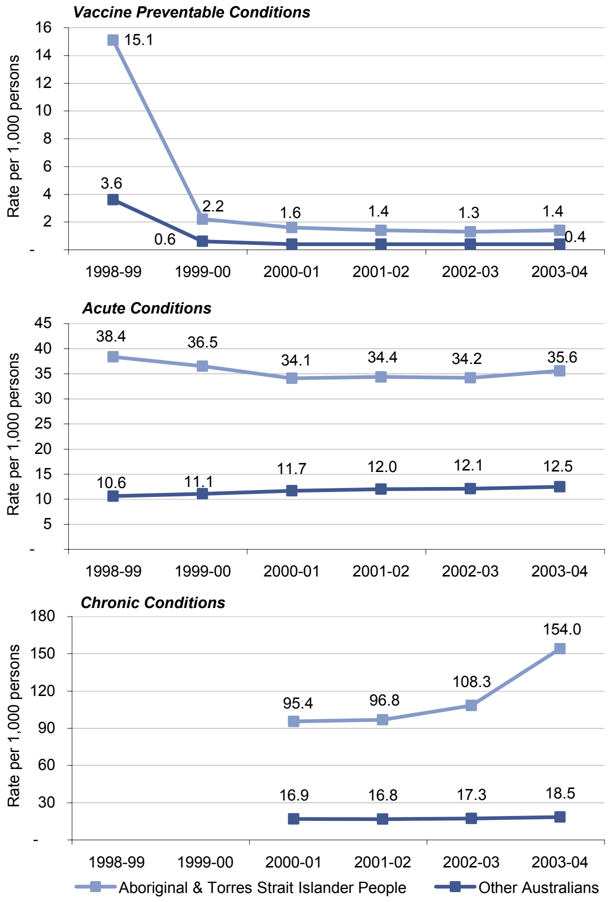
Rates of admission for ambulatory care conditions are much higher in Aboriginal and Torres Strait Islander peoples aged 45-64 years compared with the rest of the population. For younger Aboriginal and Torres Strait Islander peoples the most significant ambulatory care sensitive conditions are ear, nose and throat infections (an acute condition). For older Aboriginal and Torres Strait Islander people the most significant ambulatory care sensitive conditions are the chronic conditions of diabetes complications, chronic obstructive pulmonary disease, and congestive heart failure.

IMPLICATIONS: Declines in rates of vaccine-preventable ambulatory care sensitive conditions will mainly reflect improvements in the coverage of childhood and adult immunisation (see measure 3.02). The main challenges are to address gaps in coverage, for example in Aboriginal and Torres Strait Islander adults over 40 years receiving influenza and pneumonia vaccines.

Hospitalisation rates for acute ambulatory care sensitive conditions have declined slightly since 1998-99. The most significant conditions included in this group are ear, nose and throat infections and dental conditions. The significant gap between Aboriginal and Torres Strait Islander peoples and other Australians requires attention to fill gaps in the primary health care system, including access to dental health services.

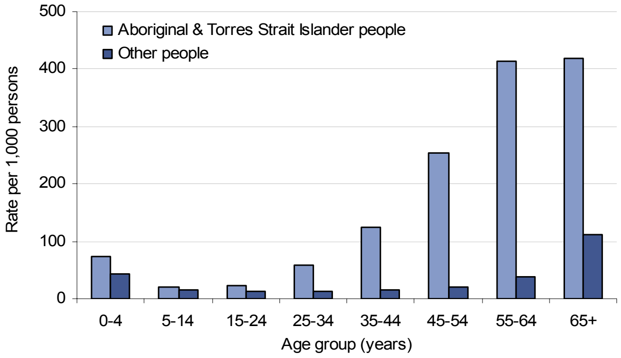
Hospitalisation for chronic ambulatory care sensitive conditions for Aboriginal and Torres Strait Islander peoples occurs at rates that are more than eight times the rest of the population. These high rates reflect gaps in non-hospital care including primary care, the absence of alternatives to hospital care in the more remote regions of Australia, and the much higher rates of illness in Aboriginal and Torres Strait Islander peoples. The major conditions within the chronic group - diabetes complications, chronic obstructive pulmonary disease, and congestive heart failure - each require effective primary care with good links to (out of hospital) specialist/outpatient care. For many of these admissions, hospital care is necessary and appropriate. The high rates highlight the need for strengthening services that intervene earlier in the disease process, particularly at the primary care level. In the medium term, improved primary care may result in increased admissions, as patients with established disease are more appropriately identified and treated.

Figure 114 – Age standardised hospitalisation rates for ambulatory care sensitive hospital admissions, Qld, WA, SA and NT, 1998-99 to 2003-04



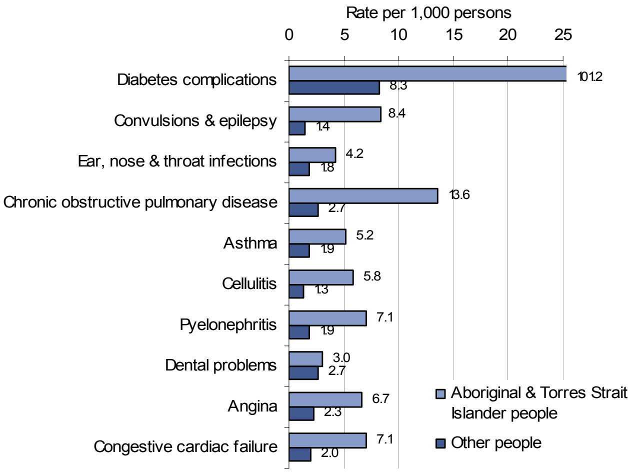
Source: AIHW National Hospital Morbidity Database

Figure 115 – Age specific hospitalisation rates for ambulatory care sensitive hospital admissions, by Indigenous status, Qld, WA, SA and NT, July 2002 to June 2004



Source AIHW National Hospital Morbidity Database

Figure 116 – Top ten ambulatory care sensitive hospital admissions, by Indigenous status, Qld, WA, SA and NT, July 2002 to June 2004



Source AIHW National Hospital Morbidity Database

3.07 Discharge against medical advice

WHY IS IT IMPORTANT?: Feedback on patient experiences, and community views of health care services and providers are important for shaping health services and policy. It is important to estimate consumer satisfaction as it is believed to impact on health-related behaviours. For example, satisfied consumers may be more likely to cooperate with treatment, continue using services, maintain a relationship with a specific provider, and actively participate in their own treatment.

Australia has a mixed history of systematically seeking feedback from the people for whom health services are intended to benefit. A recent review of patient satisfaction and experience surveys found jurisdictions had adopted a range of methods for seeking feedback on patient experiences of hospitals and related services (SCRGSP 2005b). Surveying the experiences of Aboriginal and Torres Strait Islander patients poses challenges which have been investigated by some jurisdictions.

In view of these problems, the measure reported here is based on the extent to which Aboriginal and Torres Strait Islander peoples 'vote with their feet', for example in discharging themselves from hospital against medical advice. This measure provides indirect evidence of the extent to which hospital services are responsive to the need of Aboriginal and Torres Strait Islander patients.

FINDINGS: In 2002-03 and 2003-04, in Queensland, Western Australia, South Australia and the Northern Territory, there were 8,450 hospitalisations where Aboriginal and Torres Strait Islander people left hospital against medical advice or were discharged at their own risk. This represented around 3% of all hospitalisations of Aboriginal and Torres Strait Islander peoples in these states and territories.

Overall, Aboriginal and Torres Strait Islander patients in these jurisdictions were discharged from hospital against medical advice at 19 times the rate of other Australians. Compared with other people, rates of discharges from hospital against medical advice were highest for Aboriginal and Torres Strait Islander peoples aged 25-44 years.

The most common principal diagnoses for hospitalisations of Aboriginal and Torres Strait Islander peoples who were discharged against medical advice were injury and poisoning (2,027 separations) followed by respiratory diseases (1,228 separations). These two groups of diagnoses represented 39% of all hospitalisations discharge against medical advice.

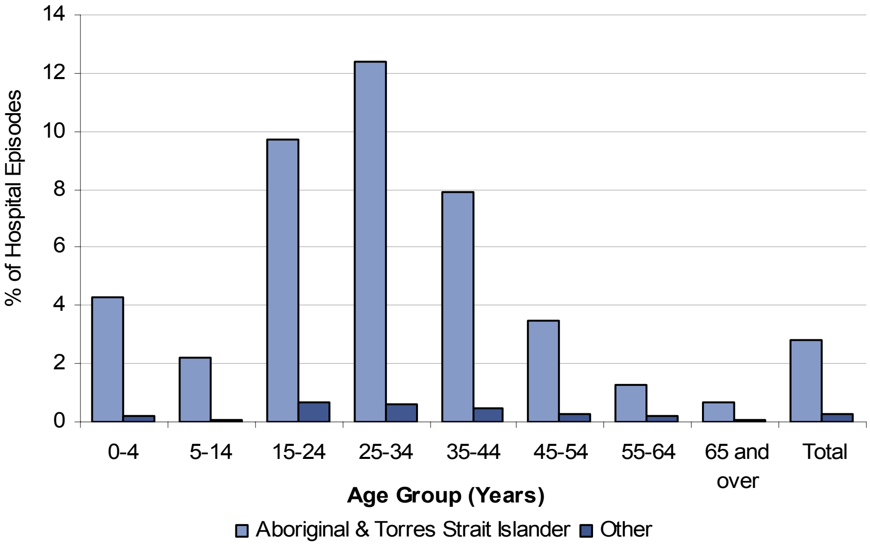
IMPLICATIONS: The significantly elevated levels of discharge against medical advice suggest that there are significant issues in the responsiveness of hospitals to the needs and perceptions of Aboriginal and Torres Strait Islander peoples. Whilst there are major challenges in developing culturally appropriate mechanisms for obtaining feedback from Aboriginal and Torres Strait Islander patients, health systems need to design and implement these mechanisms. The data suggest these issues are important for all age-groups, although the issues are most evident for young adults.

The *Cultural Respect Framework for Aboriginal and Torres Strait Islander Health* (AHMAC 2004) sets out the overarching commitments Australian jurisdictions have made to achieving the 'recognition, protection and continued advancement of the inherent rights, cultures and traditions of Aboriginal and Torres Strait Islander peoples'. The Framework proposes that Cultural Respect will be achieved when the health system is a safe environment for Aboriginal and Torres Strait Islander peoples and where cultural differences are respected. Cultural Respect is a commitment to the principle that the provision of services offered by the Australian health care system will not wittingly compromise the legitimate cultural rights, practices, values and expectations of Aboriginal and Torres Strait Islander peoples. Practical examples of respectful practices offered in the Framework include:

- effective representation and cross-cultural input into governance structures and processes
- ensuring access to interpreter services
- where possible and culturally appropriate, Aboriginal and Torres Strait Islander patients are co-located with other individuals who speak the same traditional language
- hospitals have written protocols in place on maternal and birthing health, specific to Aboriginal and Torres Strait Islander women
- development of protocols for end of life issues that respect local cultural beliefs and traditions of Aboriginal and Torres Strait Islander peoples.

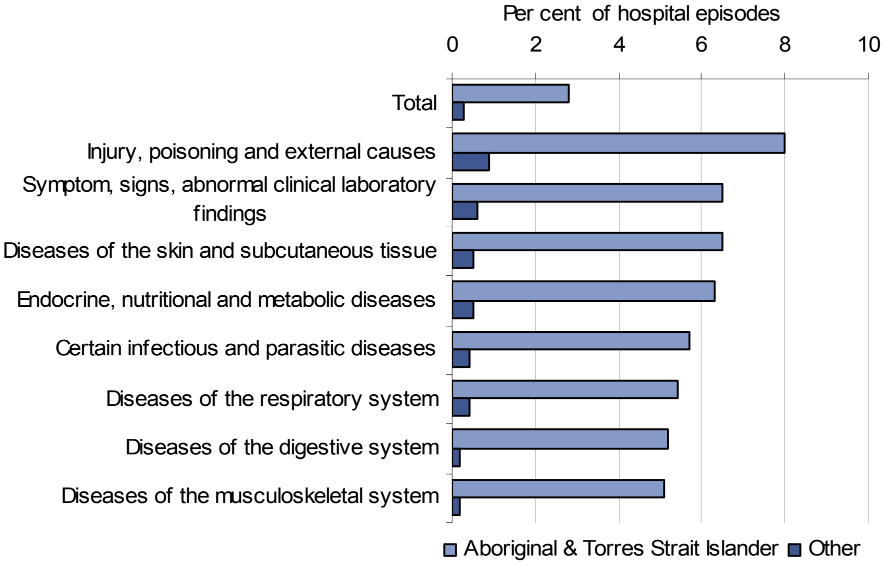
There are several questions that health service researchers and health service managers need to tackle in devising strategies to achieve more responsive and respectful service delivery. More needs to be known about the reasons for the high rates of discharge against medical advice. The experience of Aboriginal and Torres Strait Islander peoples of health services needs to be routinely evaluated but the mechanisms for doing this need to better researched. Hospitals and health services that have implemented successful programs to reduce discharge against medical advice need to be studied and lessons disseminated.

Figure 117 – Per cent of Hospital Episodes in which patients were discharged against medical advice, by Indigenous status and age-group (excluding Mental and Behavioural Disorders) in Qld, WA, SA and NT, June 2002 to July 2004



Source AIHW National Hospital Morbidity Database

Figure 118 – Per cent of Hospital Episodes in which patients were discharged against medical advice, by Indigenous status and principal diagnosis (excluding Mental and Behavioural Disorders) in Qld, WA, SA and NT, June 2002 to July 2004



Source AIHW National Hospital Morbidity Database

3.08 Access to mental health services

WHY IS IT IMPORTANT?: Mortality rates for mental health and behavioural disorders are two times higher for Aboriginal and Torres Strait Islander peoples than other Australians (2.5 times higher for men and 1.3 times higher for women). Aboriginal and Torres Strait Islander peoples are more than twice as likely to die from suicide. Hospital admissions rates for intentional self-harm are double those of other Australians. Among Aboriginal and Torres Strait Islander peoples, continuing social and economic disadvantage contributes to high rates of physical and mental health problems, high adult mortality, high suicide rates, child removals and incarceration rates which in turn lead to higher rates of grief, loss and trauma.

In most instances, mental health services address the mental health condition once it has manifested rather than the underlying causes of that distress. Nevertheless, early access to effective services can help diminish the consequences of these problems and help restore people's emotional and social well-being. Therefore, it is important to assess how accessible mental health services are for Aboriginal and Torres Strait Islander peoples.

Mental health services include non-specialist services such community-based health services, general practitioners and specialist services such as private psychiatrists, state mental health team, and designated psychiatric services both in general hospitals and in specialist facilities.

Major reforms have just been agreed through the Council of Australian Governments for mental health in Australia; Aboriginal and Torres Strait Islander peoples are identified as a priority group in those reforms. The Australian Government's commitment to these reforms includes $20.8 million over the five financial years up to 2010-11 for Improving the Capacity of Health Workers in Indigenous Communities. This measure will assist health workers in Aboriginal and Torres Strait Islander communities to identify and respond earlier to signs of mental illness and related substance use issues. Training will be provided for 840 Aboriginal health workers, counsellors, and clinical staff to treat mental illness. There will also be training in mental health first aid for 350 transport and administrative staff in Aboriginal and Torres Strait Islander health services who manage clients on presentation to services. There will be 25 mental health scholarships for Indigenous students, and 10 new mental health worker positions created.

FINDINGS: In 2003-04, primary health care services for Aboriginal and Torres Strait Islander peoples reported 97,570 client contacts with emotional and social well-being staff or psychiatrists, representing 3.7% of the estimated total contacts. Based on the BEACH survey, it is estimated that around 1.3% of general practice encounters are with Aboriginal and Torres Strait Islander peoples (Britt et al. 2005). For the period 2000-01 to 2004-05, there were 56,470 problems managed by general practitioners related to mental health related conditions, of which 971 (1.7%) related to Aboriginal and Torres Strait Islander peoples. The proportion of encounters in which there was a mental health related condition was slightly higher for Aboriginal and Torres Strait Islander peoples (12.6%) than for the rest of the population (12.1%) after adjusting for age.

In 2003-04, there were 181,706 service contacts (3.7%) for clients of state/territory-based specialised community mental health services where the client identified themselves as being of Aboriginal and/or Torres Strait Islander origin. Aboriginal and Torres Strait Islander males and females have higher rates of community mental health care service contacts across all age-groups except those aged less than 15 years. Differences were most marked in the 25-34 year and 35-44 year age-groups, where rates for Aboriginal and Torres Strait Islander peoples are twice those of other Australians in these age-groups.

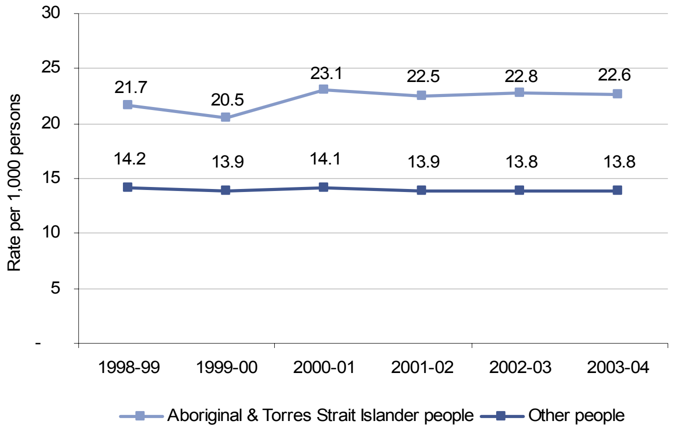
There are no national data on the use of specialist psychiatry by Aboriginal and Torres Strait Islander peoples. Access to specialist psychiatry in rural and remote Australia is known to be particularly problematic.

In the two years to June 2004 in the four north-western jurisdictions, hospitalisation rates for Aboriginal and Torres Strait Islander men for mental health issues were 200% higher than rates for other men, whilst rates for Aboriginal and Torres Strait Islander women were 40% higher than for other women after adjusting for age. Hospitalisation rates tend to be lower in the Northern Territory for both Aboriginal and Torres Strait Islander peoples and other people. During the period 1998-99 to 2003-04 there was a significant increase in hospitalisation rates for Aboriginal and Torres Strait Islander women and an overall increase in the gap with other Australians (both relative and absolute).

Rates of ambulatory equivalent hospital separations for mental health related conditions for Aboriginal and Torres Strait Islander peoples were lower than for other Australians, particularly for specialised psychiatric care (rate ratio of 0.2). Other hospitalisations for these conditions were more than double those for other Australians (1.3 times higher with specialised psychiatric care and 4 times higher without specialised psychiatric care).

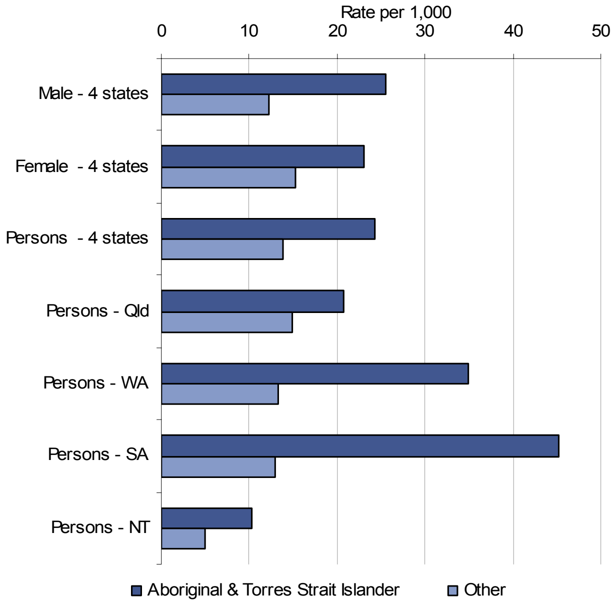
IMPLICATIONS: Access to primary care level and specialist mental health services is problematic for Aboriginal and Torres Strait Islander peoples. Recent initiatives by the Council of Australian Governments represent a major opportunity to address current deficiencies. Key issues to be considered in addressing gaps include ensuring services are culturally appropriate, services are well linked into the system of primary health care, that Aboriginal and Torres Strait Islander peoples are able to access effective treatment including specialist treatment through psychiatrists and psychologists.

Figure 119 – Age standardised hospitalisation rates from mental health-related conditions, Qld, WA, SA and NT, 1998-99 to 2003-04



Source: AIHW National Hospital Morbidity Database

Figure 120 – Age standardised hospitalisation rates for principal diagnosis of mental health–related conditions by Indigenous status and sex, Qld, WA, SA and NT, July 2002 to June 2004



Source: AIHW National Hospital Morbidity Database

3.09 Aboriginal and Torres Strait Islander Australians in the health workforce

WHY IS IT IMPORTANT?: Compared with other Australians, Aboriginal and Torres Strait Islander peoples are significantly under-represented in the health workforce. This potentially contributes to reduced access to health services. International studies, mostly of Black and Hispanic Americans, suggest a preference for seeing health professionals from the same ethnic background (Powe & Cooper 2004). Patients were more likely to report more favourable ratings of patient care if the physician is of the same ethnic background. In Australia there has been no research of Indigenous Australians' preferences for health care provision by Indigenous health professionals. However, anecdotal evidence suggests such a preference. One patient satisfaction survey found that the presence of an Aboriginal and Torres Strait Islander doctor at a community health centre was a main reason that Indigenous Australians attended the clinic (Hayman 1998). Patients reported that an Indigenous doctor was 'more understanding of their needs'. Numbers of Aboriginal and Torres Strait Islander patients attending the clinic increased markedly following the arrival of the Aboriginal and Torres Strait Islander doctor and other changes in the service designed to make it more welcoming.

FINDINGS: In 2001, Aboriginal and Torres Strait Islander peoples accounted for 0.9% of the health workforce, but were 2.4% of the total population. In that year there were approximately 3,260 Aboriginal and Torres Strait Islander peoples employed in health-related occupations. This has increased from 2,831 in 1996.

Aboriginal and Torres Strait Islander peoples comprised 93% of all Aboriginal and Torres Strait Islander Health Workers, 0.8% of all nurses, 0.6% of all dental workers, 0.5% of all allied health professionals, 0.3% of all medical workers and 0.1% of all pharmacists. There were 87 Aboriginal and Torres Strait Islander medical practitioners and 1,899 Aboriginal and Torres Strait Islander nurses, 982 of which were registered or enrolled nurses. There were 844 Aboriginal and Torres Strait Islander Health Workers.

In 2001, the Northern Territory had the highest proportion of health workers being of Aboriginal or Torres Strait Islander origin (9%), and Victoria and the Australian Capital Territory had the lowest (0.3%). These are well below the Aboriginal and Torres Strait Islander proportion of the state/territory population.

For younger age-groups, Aboriginal and Torres Strait Islander peoples make up a higher proportion of the health workforce - 1.3% of the workforce aged 15-24 years and 1% of the workforce aged 25-34 years.

Aboriginal and Torres Strait Islander females represented a higher proportion of the health workforce than Aboriginal and Torres Strait Islander males across all age-groups.

IMPLICATIONS: One of the aims of the NSFATSIH is to strengthen the service infrastructure essential to improving access by Aboriginal and Torres Strait Islander peoples to health services. Increasing the participation of Aboriginal and Torres Strait Islander peoples in the health workforce is one element of the strategies identified to help achieve this aim. The first objective of the *Aboriginal and Torres Strait Islander Health Workforce Strategic Framework* endorsed by AHMAC in 2002 (SCATSIH 2002) is to increase the numbers of Aboriginal and Torres Strait Islander people working across all health professions.

Reducing under-representation in the health workforce will require success across a range of fronts, many of which are identified in the Workforce Strategic Framework. Educational disadvantages faced by Aboriginal and Torres Strait Islander children can reduce options for further training (see measures 2.04 and 2.05). Strategies to address barriers to entry into health professional training, and strengthen support while in training, need to be implemented (see measure 3.14). Improved opportunities for employment and advancement, and retention of Aboriginal and Torres Strait Islander peoples in the workforce, also require attention (see measure 3.16).

There are some signs of improvement. Participation in the health workforce is higher for younger age-groups, suggesting that participation rates may increase over time. There were no Aboriginal and Torres Strait Islander medical practitioners before the 1980s and the first Aboriginal and Torres Strait Islander doctor graduated in 1983. By 2001, there were 87 Aboriginal and Torres Strait Islander medical practitioners. However, these still represent only 0.3% of the medical workforce.

Aboriginal and Torres Strait Islander health professionals should have access to employment in a broad range of settings within the health sector, and not be limited to working in targeted services for Aboriginal and Torres Strait Islander peoples.

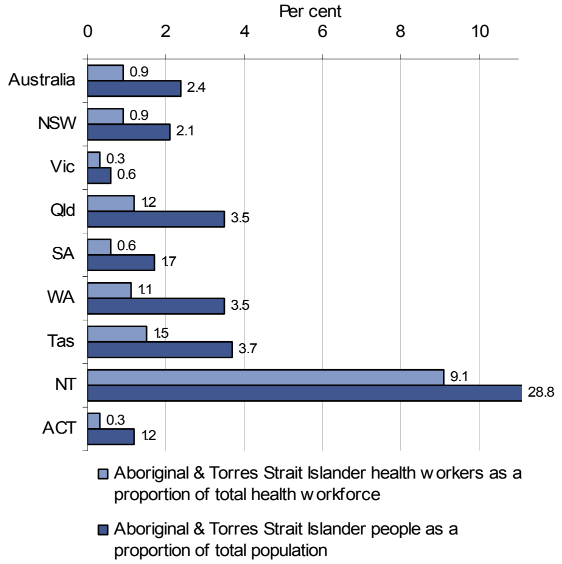
Some health authorities and NGOs have set targets to increase the proportion of Aboriginal and Torres Strait Islander peoples employed in their workforce. These strategies have not been formally evaluated, but anecdotal evidence suggests the targets have had some success in focusing management on these issues. Attention to the type of occupation in which Aboriginal and Torres Strait Islander peoples are employed is important to avoid targets leading to over-representation in less skilled positions and under-representation in more skilled and managerial positions.

Table 45 – Employment in health related occupations by Indigenous status, 2001

	Aboriginal & Torres Strait Islander people	Total	Percent Indigenous
			%
Aboriginal & Torres Strait Islander Health Workers	844	906	93.2
Medical workers			
Health service managers	72	6,456	1.1
Medical Practitioners	87	45,079	0.2
Medical imaging professionals	17	8,279	0.2
Subtotal	*176*	*59,814*	*0.3*
Dental workers total	*155*	*25,339*	0.6
Nursing total	*1,899*	*239,924*	0.8
Pharmacists	12	13,130	0.1
Ambulance officers & paramedics	82	6,689	1.2
Physiotherapists	29	10,119	0.3
Psychologists	23	9,105	0.3
Dieticians	18	1,982	0.9
Other	22	9,735	0.2
Total	3,260	376,743	0.9

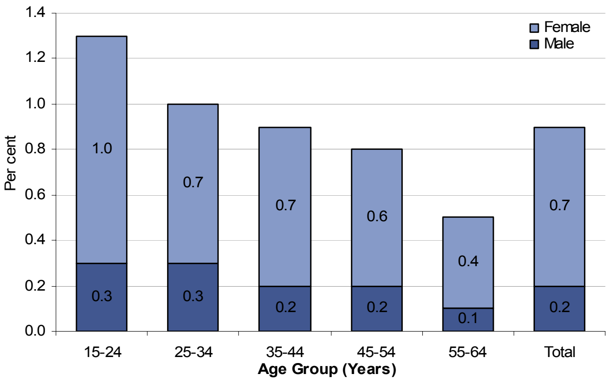
Source: ABS and AIHW analysis 2001 Census of Population and Housing, unpublished data.

Figure 121 – Aboriginal and Torres Strait Islander peoples in health workforce as a proportion of total health workforce, by jurisdiction, 2001



Source: ABS and AIHW analysis 2001 Census of Population and Housing, unpublished data.

Figure 122 – Aboriginal and Torres Strait Islander peoples in health workforce as a proportion of the total health workforce, by age-group and sex, 2001



Source: ABS and AIHW analysis 2001 Census of Population and Housing, unpublished data.

3.10 Access to services by types of service compared to need

WHY IS IT IMPORTANT?: Measures presented in this section examine the level of access to health care for Aboriginal and Torres Strait Islander peoples compared with their need for health care. Aboriginal and Torres Strait Islander peoples have significantly poorer health status than other Australians. As discussed elsewhere in this report, life expectancy is around 17 years less, infant mortality is almost twice the national rate and Indigenous Australians are twice as likely to rate their health as fair or poor compared to non-Indigenous Australians.

FINDINGS: In 2004-05, 46% of Indigenous Australians reported accessing health care in the last 2 weeks; 23% had visited a doctor, 6% casualty/outpatients, 3% dentists, 20% other health professionals and 19% had been admitted to hospital in the last 12 months. After adjusting for age differences between the two populations, Aboriginal and Torres Strait Islander Australians accessed health care at similar rates to other Australians (ratio 1.1). There were differences in types of health care accessed. Indigenous Australians were twice as likely to visit casualty/outpatients and half as likely to see a dentist. For people reporting fair or poor health, 40% of Indigenous Australians and 42% of non-Indigenous Australians reported visiting a doctor in the last two weeks, 11% of Indigenous and 6% of non-Indigenous Australians reported visiting a casualty department or outpatient clinic and 30% of Indigenous and 27% of non-Indigenous Australians reported admission to hospital in the last 12 months. Reported use of these health services has not changed significantly since the last survey in 2001.

In 2004-05, 15% of Aboriginal and Torres Strait Islander peoples reported that at some time in the last 12 months they did not go to a doctor when needed, 7% did not go to hospital when needed, 21% did not go to a dentist when needed and 8% did not go to another health professional when needed. A higher percentage of people in non-remote regions report not accessing doctors, dentists and other health professionals when needed, compared to Aboriginal and Torres Strait Islander peoples living in remote regions. Reasons for not accessing services vary between regions. In non-remote regions, cost is a more important factor. In remote regions transport/distance and the lack of availability of services are more important. Waiting times were also important factors for not accessing doctors, hospitals, dentists and other health professionals. Cost was the main reason Aboriginal and Torres Strait Islander peoples did not visit a dentist (29%).

In 2004-05, approximately 15% of Indigenous Australians in non-remote areas required co-payment for their last visit to the doctor, 37% required co-payment for their last visit to a specialist and 17% required co-payment for their last visit to other health professionals.

In non-remote regions, 17% of Aboriginal and Torres Strait Islander peoples are covered by private health insurance compared with an estimated 51% for the rest of the population. The most common reasons for Indigenous Australians to not have private health insurance were that they could not afford it (65%), and that they felt that Medicare cover was sufficient (19%).

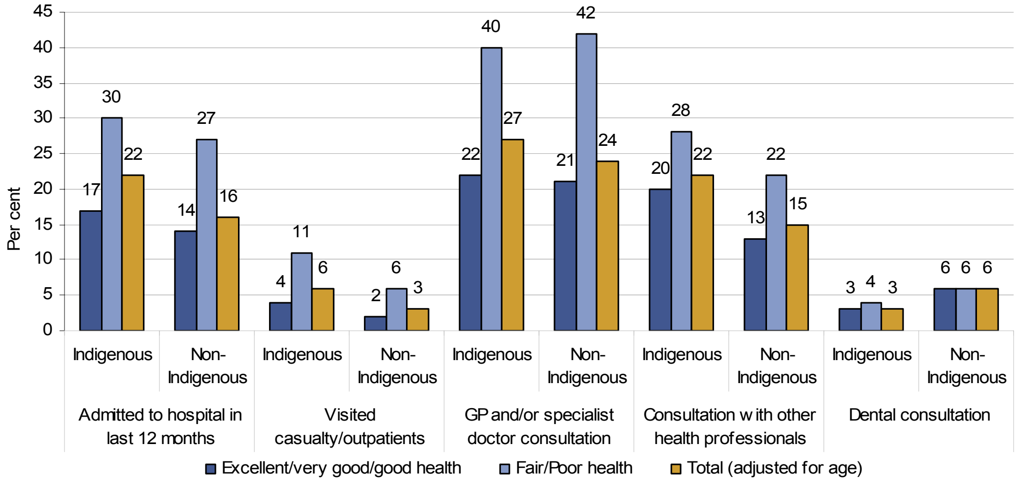
An estimated 108,100 Aboriginal and Torres Strait Islander peoples live in the 1,216 discrete Aboriginal communities; many of which are located in remote regions. A study of community housing and infrastructure needs conducted in 2001 provided a profile of the many access issues for these communities. 543 communities with a total of 38,000 residents are located 250 kilometres or more away from the nearest hospital. A further 400 communities with a total of 29,000 residents are located between 50 and 250 kilometres away from the nearest hospital.

Community health centres were more likely to be located near or within Indigenous communities than were hospitals. Overall, 85% of Indigenous Australians living in these communities were located within 10 kilometres of either a hospital or a community health centre.

Over the last five years, there has been a steady rise in the number of Aboriginal and Torres Strait Islander Primary Health Care Services; from 120 services in 1999-2000 to 140 services in 2003-04. Over the same period, episodes of health care provided to clients of these services have increased 26% from one million in 1999-2000 to 1.26 million in 2003-04 (data derived from 85 services).

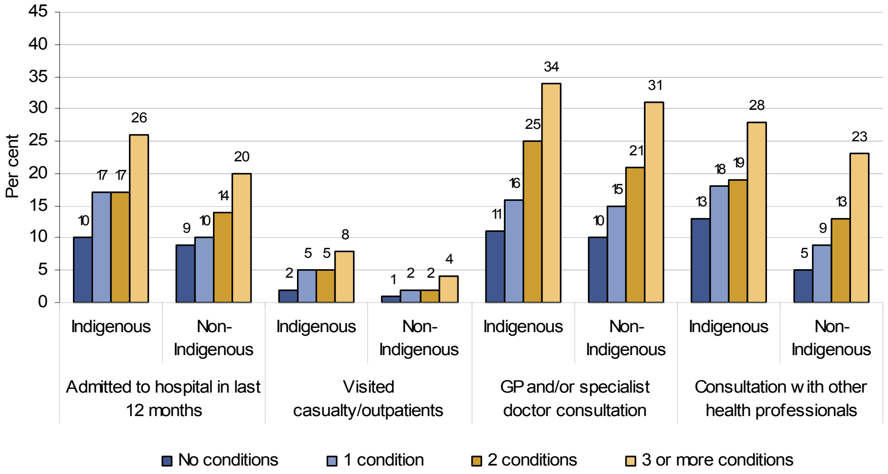
IMPLICATIONS: Aboriginal and Torres Strait Islander peoples report slightly higher level of use of doctors. These findings and data on the growth in services delivered through Aboriginal and Torres Strait Islander primary health care services suggest there have been improvements in access to primary medical care services in recent years. However, other evidence, such as continuing lower levels of access to MBS-funded services, suggest that significant gaps in access to primary health care and specialist care persist. The priority, as identified in the NSFATSIH, must continue to be the creation of a strong and comprehensive primary health care sector. Less is known about disparities in access to specialist services and these also require attention. Gaps in access to dental services are clear from the national survey data. Aboriginal and Torres Strait Islander peoples have much lower levels of private health insurance, and consequently are relying on public hospital services to a greater degree. Data from the national survey highlight the barriers to accessing care when needed and how these vary between remote and non-remote regions, suggesting that strategies to address disparities in access need to be adapted for local circumstances.

Figure 123 – Per cent of people aged 15 years and over who accessed health care, by type of health care, within the last 12 months (hospital) or last two weeks (other health care), by Indigenous status, and self reported health status, age standardised, Australia 2004-05



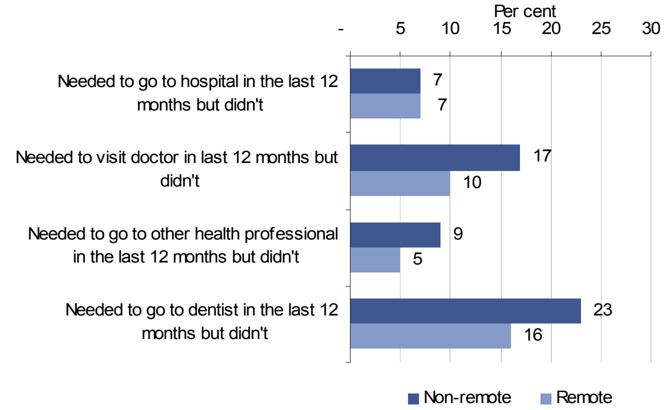
Source: ABS and AIHW analysis of 2004-05 National Aboriginal and Torres Strait Islander Health Survey and 2004-05 National Health Survey

Figure 124 – Per cent of people who accessed health care, by type of health care, within the last 12 months (hospital) or last two weeks (other health care), by Indigenous status, and number of self reported number health conditions, Australia 2004-05



Source: ABS and AIHW analysis of 2004-05 National Aboriginal and Torres Strait Islander Health Survey and 2004-05 National Health Survey

Figure 125 – Per cent of Aboriginal and Torres Strait Islander peoples reporting that they needed a health service at least once in the last 12 months but did not access the service, 2004-05



Source: ABS& AIHW analysis of 2004-05 National Aboriginal and Torres Strait Islander Health Survey

Table 46 – Whether needed to go to a Dentist, Doctor, Other health professional or hospital, reasons didn't go, by remoteness area, sex and age, Aboriginal and Torres Strait Islander peoples, 2004-05

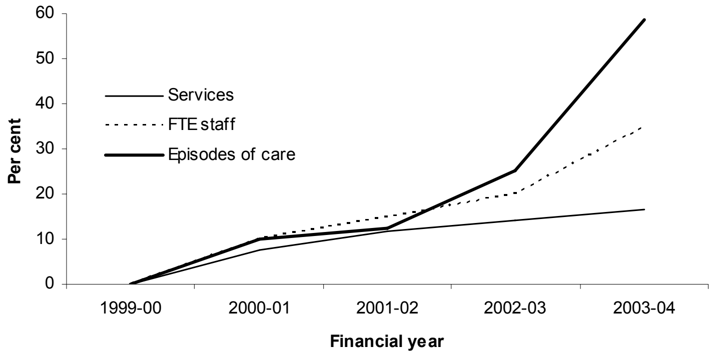
	Doctor		**Hospital**		**Dentist**		**Health Professional**	
	Non-remote	*Remote*	*Non-remote*	*Remote*	*Non-remote*	*Remote*	*Non-remote*	*Remote*
	%	%	%	%	%	%	%	%
Needed to go to service in the last 12 months but didn't	17	10	7	7	23	16	9	5
Reasons why didn't visit:								
Cost	14	4(a)	5(a)	3(a)	32	15	33	5(b)
Transport/Distance	11	28(a)	13	34	7	28	7(a)	15(a)
Waiting times	14	15	18	10(a)	21	23	7(a)	19
Not available	2(b)	13(a)	2(a)	8(a)	3	28	2(a)	30
Too busy	26	17	17	16	15	11	27	20
Dislikes	10	11	18	9(a)	21	20	12	11
Felt it would be inadequate	5	7(a)	6	7(a)	2(a)	2(b)	5(a)	5(b)
Decided not to seek care	27	22	25	26	14	8	18	16
Other	12	5	15	9	9	7(a)	11	10(a)

(a) Estimate has a relative standard error between 25%-50% and is subject to sampling variability too high for most practical purposes

(b) Estimate has a relative standard error greater than 50% and is considered too unreliable for general use

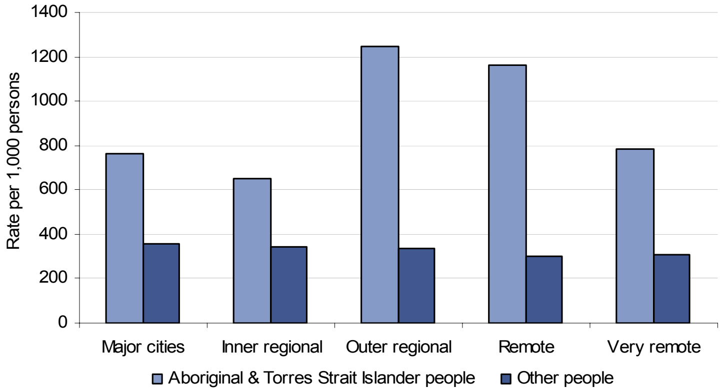
ABS & AIHW analysis of 2004-05 National Aboriginal and Torres Strait Islander Health Survey

Figure 126 – Cumulative per cent changes to Aboriginal and Torres Strait Islander primary health care services, 1999-2000 to 2003-04



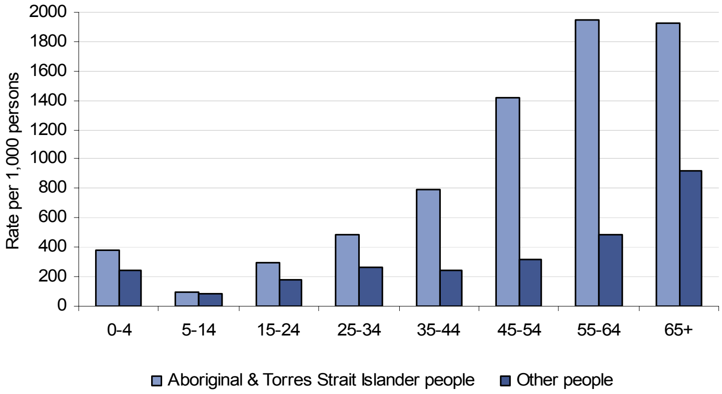
Source: Service Activity Reporting 2003-04.

Figure 127 – Age-standardised hospitalisation rates, by Indigenous status and remoteness category, Qld, WA, SA and NT, 2002-03 to 2003-04



Source: AIHW National Hospital Morbidity Database

Figure 128 – Age-specific hospitalisation rates, by Indigenous status and sex, Qld, WA, SA and NT, 2002-03 to 2003-04



Source: AIHW National Hospital Morbidity Database

3.11 Access to prescription medicines

WHY IS IT IMPORTANT?: Essential medicines save lives and improve health when they are available, affordable, quality assured and properly used. Affordable access is important for many acute and chronic illnesses. For chronic illnesses such as diabetes, hypertension, heart disease and renal failure, multiple medications may be required for many years to avoid complications. It is important to ensure that Aboriginal and Torres Strait Islander peoples, who experience high rates of acute and chronic illnesses, are able to access appropriate prescription medications when they are required. In Australia, the main mechanism for ensuring reliable, timely and affordable access to a wide range of prescription medications is the Australian Government's Pharmaceutical Benefits Scheme (PBS). This scheme subsidises the cost of an estimated 170 million prescriptions each year at a cost of around $6 billion. Access to pharmacies is particularly problematic for people living in rural and remote Australia, where many Aboriginal and Torres Strait Islander peoples live. Specific provisions under the PBS allow clients of over 170 approved remote area Aboriginal and Torres Strait Islander primary health care services to receive medicines directly from these services at the time of medical consultation without charge or the need for a normal prescription form. Progressively, from 1 August 2006, the PBS will include new listings to support treatment of conditions common in Indigenous health settings. Some listings will include medicines new to the PBS while others may outline specific restrictions for prescribing existing PBS items. These medicines are listed to address the greater burden of disease experienced by Aboriginal and Torres Strait Islander peoples; and morbidity almost exclusively seen in the Aboriginal and Torres Strait Islander population.

FINDINGS: Expenditures on pharmaceuticals for Aboriginal and Torres Strait Islander peoples are estimated to be 30% of the level of expenditures for other Australians. In 2001-02, expenditures for Aboriginal and Torres Strait Islander peoples were $66 million in total or $144 per person, compared with $9.01 billion or $475 per person for other Australians. Benefits paid through the PBS are estimated to be 37% of the level of expenditures for other Australians. Mainstream arrangements account for 66% of payments for Aboriginal and Torres Strait Islander peoples and the special provisions for remote area Aboriginal health services account for 32% of payments. The gaps between expenditures for Aboriginal and Torres Strait Islander peoples appear to be greatest in major cities, inner regional and outer regional areas. In remote and very remote areas, per person pharmaceutical expenditures for Aboriginal and Torres Strait Islander peoples are higher, largely due the impact of the special provisions for remote area Aboriginal health services. Pharmaceutical expenditures in these regions are almost twice the per person expenditures for Aboriginal and Torres Strait Islander peoples in other regions.

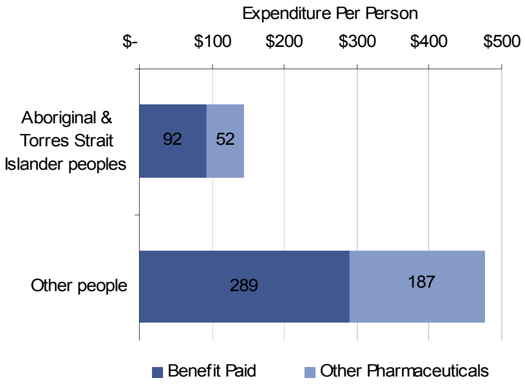
IMPLICATIONS: There is a large gap between pharmaceutical expenditures for Aboriginal and Torres Strait Islander peoples and other Australians. Estimation of this gap is complicated by the absence of high quality data sources on Indigenous pharmaceutical usage and expenditures, the younger age profile for Aboriginal and Torres Strait Islander peoples and the problems in access to prescription medicines faced by all people living in remote and very remote Australia. However, given the high prevalence of acute and chronic illnesses for Aboriginal and Torres Strait Islander peoples low levels of expenditure signal severe problems in access to medicines. These problems are evident across geographical regions. However, the special provisions under the PBS for remote Aboriginal and Torres Strait Islander primary health care services have played an important role in addressing problems in remote and very remote regions. Under the 2000-01 *Regional Health Strategy*, the Australian Government created incentives to encourage pharmacists to remain in, relocate to, or start up in rural and regional areas. The impact of these initiatives on access for Indigenous peoples is yet to be evaluated.

Access needs to be addressed at multiple levels. Prescription medicines are prescribed by primary care and specialist practitioners, and barriers to accessing these services in the first place may result in under-use of medications. Appropriateness of prescribing may also be an issue. Once a prescription has been issued, access to pharmacies may be limited, particularly in rural and remote regions. Financial barriers, particularly for people on low incomes, can be important, despite the safety nets. It is estimated that in 2001, around 19% of Australians did not fill a prescription because of cost (Blendon *et al*. 2003). Ongoing compliance is an issue for all patients with chronic illnesses, and these issues may be exacerbated for Indigenous peoples.

It is important to have a better understanding of how these barriers impact on Indigenous Australians, in order to better target strategies. A Voluntary Indigenous Identifier was introduced into the Medicare database from November 2002. By April 2006, 122,587 people had identified as Aboriginal, Torres Strait Islander or both in the Medicare database. As the data improve, better analysis of gaps in the PBS arrangements will be possible.

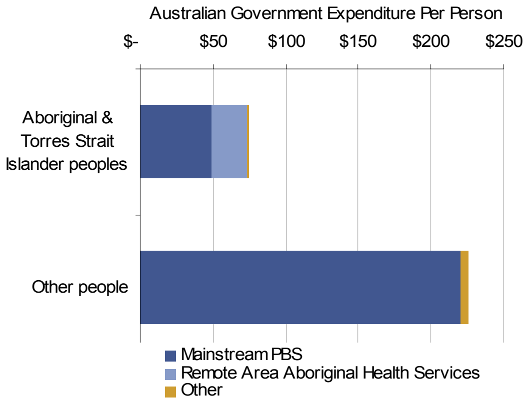
A key requirement for addressing inadequate access to prescription medicines is the strengthening of a comprehensive primary health care sector. Given the success of the specific provisions in the PBS for remote area Aboriginal and Torres Strait Islander primary health care services, decision makers need to consider measures for improving access to pharmaceuticals for Aboriginal and Torres Strait Islander peoples.

Figure 129 – Pharmaceutical expenditure per person, Australia, 2001-02



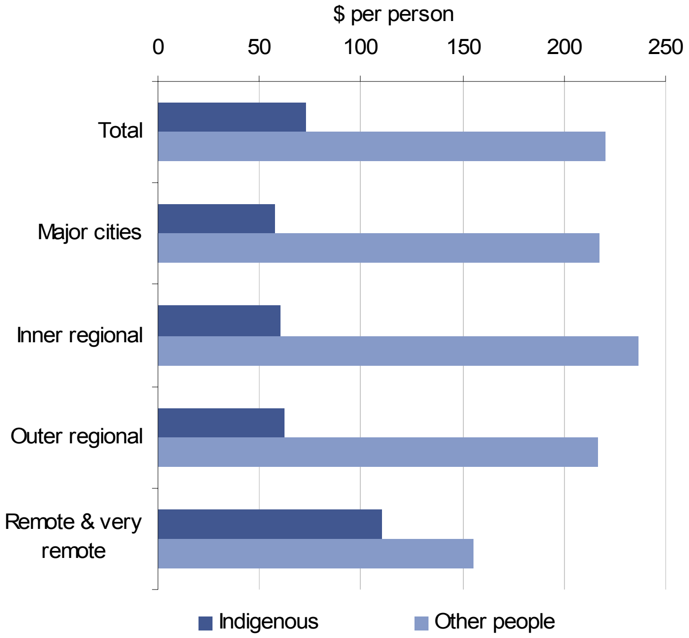
Source: AIHW 2005

Figure 130 – Pharmaceutical Benefits Scheme expenditures per person, Australia, 2001-02



Source: AIHW 2005

Figure 131 – Pharmaceutical Benefits Scheme expenditures per person, by remoteness, 2001-02



Source: AIHW 2005

3.12 Regular GP or health service

WHY IS IT IMPORTANT?: Having a usual primary care provider is associated with good communication between the patient and provider, greater trust in the health care provider (Mainous et al. 2001) and better health outcomes (Starfield 1998). Effective communication between the patient and provider is particularly relevant in the health of Aboriginal and Torres Strait Islander peoples where communication issues can lead to health care problems such as misdiagnosis and incorrect treatment. An ongoing relationship between the patient and provider assists in understanding long term health needs and facilitates the coordination of care with other providers (e.g. specialists) to meet patient needs (Forrest & Starfield 1996). Having a usual primary care provider correlates with higher quality care (Christakis et al. 2002; Inkelas et al. 2004). The literature focuses on having a regular primary care doctor (GP). It is not clear whether having a regular health service without having a regular GP is positively associated with improved care. Given the different models of primary health care in Australia such as Aboriginal and Torres Strait Islander primary health care services and private GP practices, it may be difficult to draw clear conclusions about the relationships between having a regular health service and continuity of care.

One international survey found that 88% of Australians reported having a regular GP. Rates were higher in the UK and NZ at 91% and lower in Canada (86%) and the US (83%). In Australia, a further 6% reported they had no regular doctor but did have a usual place of care (Schoen et al. 2004). In the US, the Healthy People 2010 strategy includes a goal for 85% of Americans to have a usual primary care provider by 2010. The baseline figures in 1996 were 77% for the total population and 79% for American Indians/Alaskan Natives (US Department of Health and Human Services 2000; US Department of Health and Human Services 2005).

FINDINGS: In 2004-05, 91% of all Aboriginal and Torres Strait Islander peoples surveyed in the National Aboriginal and Torres Strait Islander survey reported that they usually went to the same GP or medical service. Sixty per cent of Aboriginal and Torres Strait Islander peoples went to a doctor if they had a problem with their health, 30% reported they went to an ‘Aboriginal medical service’. ‘Aboriginal medical services’ were used as the regular source of health care for 15% of Aboriginal and Torres Strait Islander peoples in major cities but by 76% in very remote areas. The proportion of Aboriginal and Torres Strait Islander peoples using a doctor for their regular health care decreased with remoteness from 80% in major cities to 6% in very remote areas.

In all states and territories, a higher proportion of Aboriginal and Torres Strait Islander peoples reported using a doctor for their regular health care rather than Aboriginal medical services, except the Northern Territory where 82% reported using Aboriginal medical service and only 14% reported using a doctor. A higher use of hospitals for regular health care was reported in Queensland and Western Australia compared to other jurisdictions at 12% and 14% respectively.

Sixteen per cent of Indigenous Australians reported an experience where they were treated badly by a health service provider because they were Indigenous. Up to a third of these people have tried to avoid the situation, which suggests they may not be seeking care when it is required.

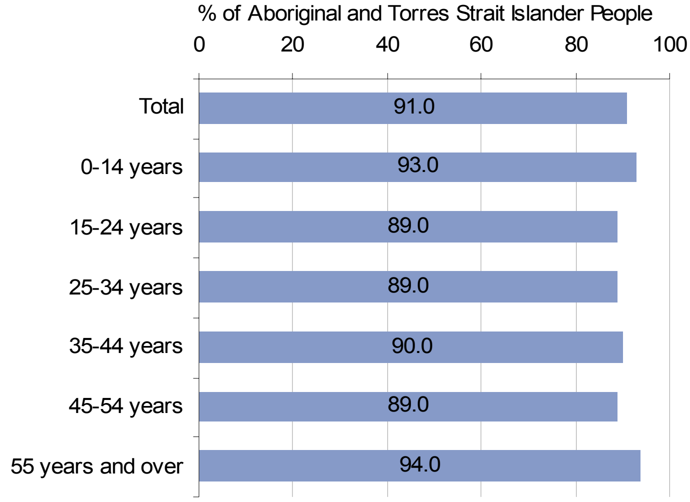
IMPLICATIONS: A high proportion of Aboriginal and Torres Strait Islander peoples have a usual source of health care. Mainstream GPs are the main source of usual care. Aboriginal medical services also play an important role as the usual source of care for a third of Aboriginal and Torres Strait Islander peoples overall, and as the major provider in remote regions of Australia. These findings are encouraging as access for a usual source of care is one of the foundations for a good primary care system (Starfield 1998).

However, many policy challenges remain. Aboriginal and Torres Strait Islander primary health care services continue to a major provider of primary care, particularly in rural and remote regions. These services offer a range of services other than primary medical care and remain the service of choice for many Aboriginal and Torres Strait Islander peoples. Strengthening these services is areas of potentially high demand should remain a priority.

While mainstream general practice is a significant source of care, the awareness of Indigenous health issues and responsiveness to the needs of Indigenous Australian patients is not clear. Anecdotal reports suggest a relatively small proportion of private GPs provide sensitive and appropriate services to their Aboriginal and Torres Strait Islander patients and that these GPs tend to attract most Indigenous patients living locally. Strategies are still required to address cultural insensitivity and discrimination by mainstream providers. Divisions of General Practice can play an important role for example in assisting practices to improve Indigenous identification processes and their use of Indigenous specific MBS items, facilitating engagement between GPs and local Aboriginal and Torres Strait Islander communities. Government funding is available to practices under the Practice Improvement Program to employ Aboriginal Health Workers, although it is understood there has been little take up of these opportunities.

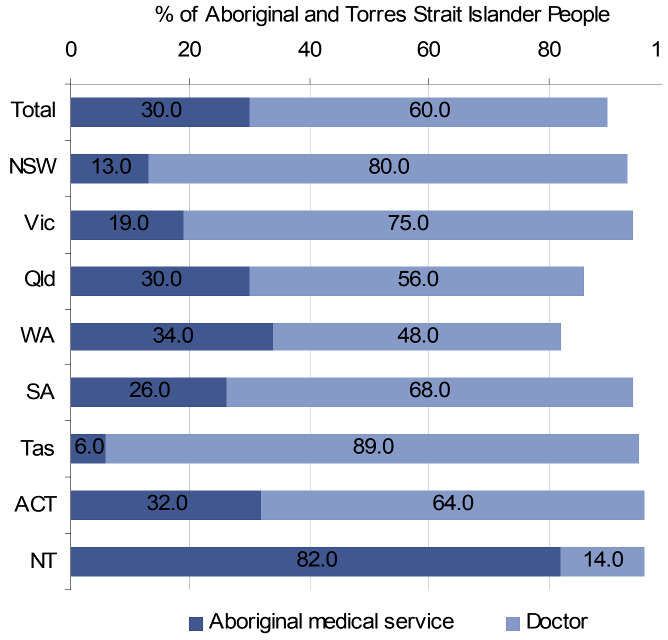
While Aboriginal and Torres Strait Islander peoples may have a usual source of care, it is not clear that health care is always sought when they are sick (see measure 3.10). Available data do not give a good indication as to whether, having sought care, Aboriginal and Torres Strait Islander peoples received appropriate follow-up care, are referred for specialist care, or are able to receive specialist care when this is required.

Figure 132 – Whether usually goes to the same GP/medical service, by age-group, Aboriginal and Torres Strait Islander peoples 2004-05



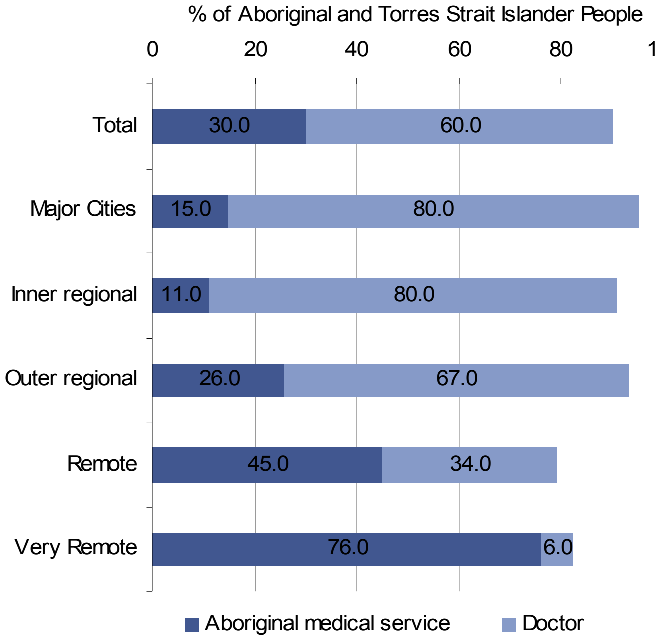
Source: ABS and AIHW analysis of 2004-05 National Aboriginal and Torres Strait Islander Health Survey

Figure 133 – Where usually go if problem with health, by jurisdiction, Aboriginal and Torres Strait Islander peoples 2004-05



Source: ABS and AIHW analysis of 2004-05 National Aboriginal and Torres Strait Islander Health Survey

Figure 134 – Where usually go if problem with health, by remoteness area, Aboriginal and Torres Strait Islander peoples 2004-05



Source: ABS and AIHW analysis of 2004-05 National Aboriginal and Torres Strait Islander Health Survey

3.13 Accreditation

WHY IS IT IMPORTANT?: Accreditation is a process, usually voluntary, through which a recognised external body assesses the extent to which a health care organisation meets applicable quality standards. Quality standards typically address issues such as: governance of the organisation, management of safety issues such as infection control, handling of care processes such as discharge planning, general management issues such as human resource management, quality of the physical infrastructure, and issues such as handling of patient complaints. Assessments often result in recommendations for action. The assessment outcome may also be made available publicly in a summarised form. The services accessed by Aboriginal and Torres Strait Islander peoples should be able to demonstrate a comparable level of quality when compared with other health services in Australia. While accreditation status is a broad measure, it provides one indicator of the capability of services, based on their skills and knowledge, to provide quality health services to Aboriginal and Torres Strait Islander peoples.

In Australia, there are well developed accreditation systems for hospitals and general practice. Most hospitals are accredited by the Australian Council of Healthcare Standards (ACHS) Evaluation and Quality Improvement Program (EQuIP), although other accreditation systems are used by hospitals such as the Quality Improvement Council (QIC). Overall 81% of hospitals accounting 96% of hospital beds have achieved some form of accreditation (AIHW 2006b). Most large hospitals are accredited. Accreditation is less common for small hospitals located in regional and remote areas. Achieving accreditation generally requires a considerable ongoing investment of time and resources which is not always easy for smaller hospitals. It is not possible to draw conclusions about the quality of care in hospitals that do not have accreditation.

Accreditation in general practice involves assessment against standards set by the Royal Australian College of General Practitioners (RACGP) in five key areas: practice services, rights and needs of patients, quality assurance and education, practice administration, and physical factors for workplace health and safety (RACGP 2006). There are two registered accreditation providers: Australian General Practice Accreditation Limited (AGPAL) and General Practice Accreditation Plus (GPA+). Most general practices are accredited by AGPAL. The RACGP standards indirectly address issues for Aboriginal and Torres Strait Islander peoples. For example, in assessing whether patient care is effective, accreditation assessors ask GPs if they ‘can access guidelines for specific clinical care of patients who self identify as Aboriginal and Torres Strait Islanders’.

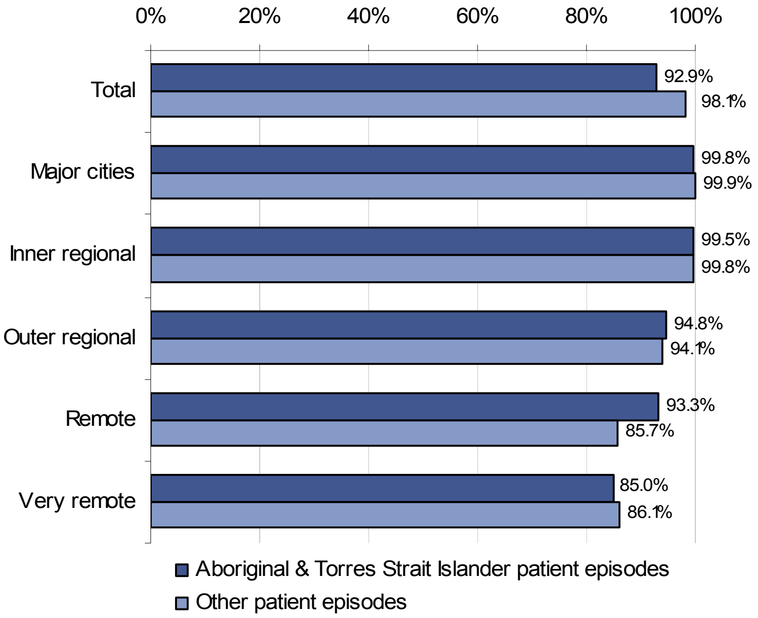
FINDINGS: For the four jurisdictions in which Indigenous identification in hospital patient data is considered adequate, 93% of episodes for Aboriginal and Torres Strait Islander peoples occurred in accredited hospitals, compared with 98% of episodes for other people. This difference mainly reflects the lower proportion of accredited hospitals in remote regions in which Aboriginal and Torres Strait Islander peoples make up a larger proportion of the population. The percentage of both Aboriginal and Torres Strait Islander patient episodes and other patient episodes treated in accredited hospitals is lower for hospitals located in remote (93% and 86% respectively) and very remote (85% and 86% respectively) regions, compared with the 100% of episodes in major cities and inner regional areas.

An estimated 62% of general practices are accredited. Accreditation is lowest (54%) for practices in regions where Aboriginal and Torres Strait Islander peoples make up more than 10% of the population. In regions where Aboriginal and Torres Strait Islander peoples make up less than one per cent of the population accreditation for practices is similar (55%). Regions with a reasonably high proportion of Aboriginal and Torres Strait Islander peoples (4-10%) have the highest proportion of practices accredited (86%).

Of the 106 Aboriginal and Torres Strait Islander primary health care services that employed a general practitioner an estimated 77% were accredited or registered for accreditation. In May 2006, 53 were accredited with AGPAL and 19 registered for becoming accredited. In February 2006, 8 Aboriginal health services were accredited with GPA+ and two were registered for accreditation. The Quality Improvement Council (QIC) accredits 8 Aboriginal and Torres Strait Islander specific primary health care services which do not employ a GP.

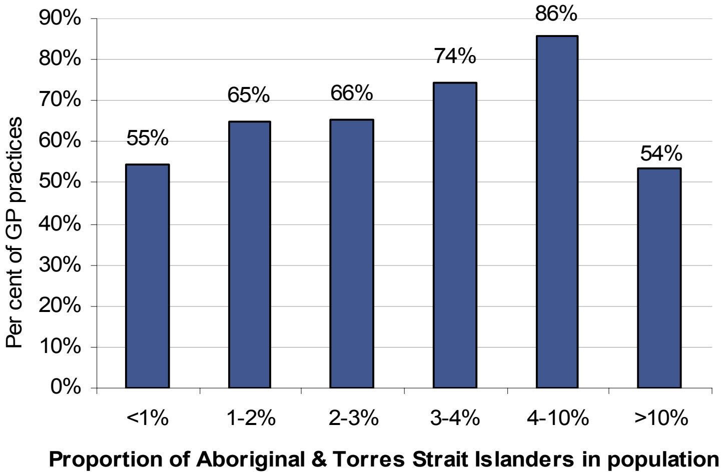
IMPLICATIONS: Most accreditation processes do not specifically address the needs of Aboriginal and Torres Strait Islander peoples in either quality or safety of care. Accreditation processes do not address capacity to provide culturally specific skills and knowledge to address the health needs of Aboriginal and Torres Strait Islander peoples. Little research into the appropriateness of accreditation processes for Aboriginal and Torres Strait Islander peoples has been undertaken (Otim, Anderson & Renhard 2002). VicHealth Koori Health Research and Community Development Unit (2004) studied how accreditation addressed the health service needs of Indigenous Australians in 8 Victorian hospitals. The project found the most widely used systems (EQuIP and QIC) could be adapted for Aboriginal and Torres Strait Islander hospital accreditation. Questions concerning accreditation include: Should accreditation agencies enhance their standards to assess the cultural responsiveness of health services, such as availability of liaison staff, processes for Indigenous identification, and cultural safety? Should accreditation providers themselves address cultural responsiveness, for example proactively employing Indigenous auditors/assessors? Should accreditation processes take account of the broad range of activities undertaken by Aboriginal and Torres Strait Islander primary health care services?

Figure 135 – Per cent of hospital admitted patient episodes, by Indigenous status and accreditation status of hospital, Qld, WA, SA, and NT, July 2002 to June 2004



Source: AIHW National Public Hospitals Establishment Database

Figure 136 – Proportion of General Practices accredited, by proportion of Aboriginal and Torres Strait Islander in population for Divisions of General Practice 2004-05



Source: AIHW analysis of the Annual Survey of the Divisions of General Practice

3.14 Aboriginal and Torres Strait Islander peoples training for health related disciplines

WHY IS IT IMPORTANT?: Compared with other Australians, Aboriginal and Torres Strait Islander peoples are significantly under-represented in the health workforce (see measure 3.09). Improving the participation of Aboriginal and Torres Strait Islander peoples in tertiary education for health related disciplines is vital to increasing Aboriginal and Torres Strait Islander participation in the health workforce, and creating a workforce capable of addressing the significant challenges in Aboriginal and Torres Strait Islander health.

FINDINGS: Indigenous students are more likely to study health and welfare-related courses than other students. In 2004, there were an estimated 846 Aboriginal and Torres Strait Islander undergraduate students enrolled in health related courses and 103 who completed a health-related undergraduate degree. An estimated 1.3% of all undergraduate students enrolled in health-related courses in 2004 were Aboriginal or Torres Strait Islander. This is still lower than the overall Aboriginal and Torres Strait Islander proportion of the Australian population (2.4%). The most common health-related course for Indigenous undergraduate students was nursing (425 enrolled and 38 completed) followed by public health (253 enrolled and 34 completed). An estimated 103 students were enrolled in medicine, equivalent to 1.1% of total medical students. Thirteen medical students completed their studies in 2004, compared with 10 in 2003, 9 in 1999 and 3 in 1997. Around 58% of Indigenous Australian medical students are enrolled at three medical schools: Newcastle, James Cook and Western Australia (Minniecon & Kong 2005). Participation rates are very low in pharmacy, dental studies, radiography and rehabilitation therapies.

Only 0.7% of undergraduate students who completed a health related course in 2004 were Aboriginal or Torres Strait Islander. Proportions were similar in most states and territories (between one and two per cent) except in the Northern Territory where around 15% of students enrolled in health-related courses were Indigenous Australians.

In 2004, an estimated 4,039 Indigenous students were enrolled in health related courses in the vocational education and training (VET) sector and 199 Indigenous students completed a health-related course. An estimated 3.9% of the sector's students enrolled in health-related courses and 3.1% of students completing a health related course in 2004 were Indigenous Australians. The most common type of health-related course in which Aboriginal and Torres Strait Islander VET students were enrolled or had completed was public health (2,123 enrolled and 123 completed) followed by nursing (172 enrolled and 40 completed). The category of 'public health' in these data include a broad range of discipline such as environmental worker, and occupational health and safety (ABS 2001). Five percent of VET sector students enrolled in public health were Indigenous Australians and 1% of VET sector students enrolled in nursing were Indigenous Australians. Two per cent of VET sector students who had completed a course in medical studies and 9% of students who had completed a course in public health in 2004 were of Aboriginal and Torres Strait Islander origin.

IMPLICATIONS: Increasing the participation of Aboriginal and Torres Strait Islander peoples in the health workforce is an objective for both the NSFATSIH and the *Aboriginal and Torres Strait Islander Health Workforce Strategic Framework* (SCATSIH 2002). Strategies to improve participation in tertiary education for health related disciplines are being pursued by a number of groups including the Aboriginal and Torres Strait Islander Health Workforce Working Group (2005), the Committee of Deans of Australian Medical Schools, the Australian Indigenous Doctors Association and the Congress of Aboriginal and Torres Strait Islander Nurses.

Some medical schools have been significantly more successful in attracting and retaining Indigenous Australian medical students. These schools have generally adopted a comprehensive approach including: locally based strategies involving personal contact and community engagement; building relationships with potential students and their families and communities through, for example, school visits by Indigenous medical students and doctors; and Indigenous medical or health support units. Medical schools with these units have the most Indigenous Australian medical students enrolled. Fifty-seven per cent of Indigenous Australian medical students reported the presence of a support unit was their main reason for choosing the university. The presence of Aboriginal and Torres Strait Islander staff within the school has also important, along with mentoring, curriculum and cultural safety (Minniecon & Kong 2005).

The Australian Indigenous Doctors Association recommends that all medical schools should have established specific pathways into medicine for Indigenous Australians by 2010. Many of these issues are common to other health disciplines. The availability of Indigenous health support units within universities and colleges, supporting Aboriginal and Torres Strait Islander students across a range of health disciplines is a key requirement. Improvements in the tertiary trained Indigenous health workforce are also dependant on improvements in school educational retention and attainment (see measure 2.05). Strategies are also required to increase enrollment in courses for the health disciplines in which Aboriginal and Torres Strait Islander peoples are under-represented such as pharmacy, dental studies, radiography and rehabilitation therapies.

Training of Aboriginal Health Workers occurs mostly in the vocation education and training sector, which accounts for the relatively high proportion of Indigenous Australian students in the sector.

Table 47 – Undergraduate students enrolled and completed health-related courses in the Tertiary Education sector, 2004

	Enrolled			Completed		
	Aboriginal & Torres Strait Islander	**Total**	**Per cent Aboriginal & Torres Strait Islander**	**Aboriginal & Torres Strait Islander**	**Total**	**Per cent Aboriginal & Torres Strait Islander**
			%			%
Medical Studies	103	9,571	1.1	13	1,730	0.8
Nursing	425	30,355	1.4	38	8,110	0.5
Pharmacy	9	4,575	0.2	3	984	0.3
Dental Studies	4	1,601	0.2	2	336	0.6
Optical Science	5	583	0.9	2	157	1.3
Public Health	253	3,576	7.1	34	708	4.8
Radiography	8	1,945	0.4	2	519	0.4
Rehabilitation Therapies	41	10,838	0.4	9	2,291	0.4
Total	**846**	**62,773**	**1.3**	**103**	**14,795**	**0.7**

Source: DEST Higher Education Student Statistics Collection

Table 48 – Vocational education and training (VET) sector students enrolled and completed health-related courses, 2004

	Enrolled			Completed		
	Aboriginal & Torres Strait Islander	**Total**	**Per cent Aboriginal & Torres Strait Islander**	**Aboriginal & Torres Strait Islander**	**Total**	**Per cent Aboriginal & Torres Strait Islander**
			%			**%**
Medical Studies	62	1,219	5.1	1	45	2.2
Nursing	172	13,140	1.3	40	2,182	1.8
Pharmacy	0	23	0	0	9	0
Dental Studies	54	3,286	1.6	18	1,000	1.8
Optical Science	5	910	0.5	0	106	0
Public Health	2,123	45,953	4.6	123	1,327	9.3
Rehabilitation Therapies	18	1,170	1.5	0	161	0
Complementary Therapies	33	3,708	0.9	6	763	0.8
Other Health	1,572	33,213	4.7	11	837	1.3
Total	**4,039**	**102,622**	**3.9**	**199**	**6,430**	**3.1**

Source: NCVER 2004 VET Provider Collection

Note The category of 'public health' in these data include a broad range of discipline such as environmental worker, and occupational health and safety (ABS 2001).

3.15 Expenditure on Aboriginal and Torres Strait Islander health compared to need

WHY IS IT IMPORTANT?: A basic equity principle is that health expenditures should be targeted to reflect relative needs for health services. Health expenditures for population groups with higher levels of need should be proportionately higher. For Aboriginal and Torres Strait Islander peoples the principle means that the demonstrable higher levels of need should be accompanied by higher levels of health expenditure. If health expenditures are not sufficiently matched to need, then this fundamental principle of equity will not be met and services for Aboriginal and Torres Strait Islander peoples will struggle to be sustainable and effective. There are many challenges in working through how this principle can be defined and assessed (Commonwealth Grants Commission 2001; SCRGSP 2005). However, a broad assessment of how well the principle is given effect is provided by comparing broad differentials in health status with differences in per capita health expenditures.

FINDINGS: On a per person basis, average health expenditures for Aboriginal and Torres Strait Islander peoples in 2001-02 was $3,901, which was 18% higher than the expenditure for other Australians ($3,308). In contrast, measures of health status show mortality rates (measures 1.14 and 1.24), infant mortality (measure 1.18) and the occurrence of a broad range of diseases (measures 1.04, 1.05, 1.06, 1.07, 1.08, 1.09, 1.10, 1.11 and 1.12) are much higher in Aboriginal and Torres Strait Islander peoples. Estimated health expenditures for Aboriginal and Torres Strait Islander peoples rose by about 17% between 1998–99 and 2001–02, while average expenditures for non-Indigenous people increased by around 19% per person over the same period. The ratio of estimated Indigenous Australian to non-Indigenous Australian expenditures per person was 1.08:1, 1.22:1 and 1.18:1 in 1995–96, 1998–99 and 2001–02 respectively.

Governments provided an estimated 93% of the funding used to pay for health goods and services for Aboriginal and Torres Strait Islander peoples during 2001–02. Per person funding provided by the Australian Government for Aboriginal and Torres Strait Islander peoples was $1,683 compared with $1,581 for other Australians, a ratio of 1.06:1. Per person funding provided by state and territory Governments for Aboriginal and Torres Strait Islander peoples was $1,932 compared with $644 for other Australians, a ratio of 3.00:1.

Estimated expenditures per person by state and territory governments vary across jurisdictions, with the highest expenditures per person in the Northern Territory.

Per person expenditures for Aboriginal and Torres Strait Islander peoples are highest in the remote and very remote regions of Australia, with an estimated $3,304 per person compared with $1,476 per person in major cities. The costs of delivering health care services are higher in remote areas.

In 2001-02, expenditures for primary health care services were $1,749 per person for Aboriginal and Torres Strait Islander peoples compared with $1,427 for other people. Primary health care expenditures on medical services including those paid through the medical benefits scheme are $181 per Aboriginal and Torres Strait Islander person compared with $373 for other Australians. Per person expenditures on pharmaceuticals in the primary care sector are also much lower for Aboriginal and Torres Strait Islander peoples (see measure 3.11) - $130 per person compared with $395 per person for other Australians. Per person expenditures on community health services are higher for Indigenous Australians - $959 per person compared with $148 per person for other Australians. Community health expenditures including Australian government expenditures on Aboriginal and Torres Strait Islander primary care services, which accounted for $440 million in 2001-02 or 55% of total primary health care expenditures for Aboriginal and Torres Strait Islander peoples. Australian government payments to Aboriginal and Torres Strait Islander services increased to $340 million in 2005-06. Per person expenditures on dental services for Aboriginal and Torres Strait Islander peoples were less than half that for other Australians in 2001-02.

In 2001-02, expenditures for secondary and tertiary health care services were $1,948 per person for Aboriginal and Torres Strait Islander peoples compared with $1,705 for other people. Hospital expenditure is the largest single expenditure item in secondary/tertiary care and accounts for nearly half of the overall expenditure for Aboriginal and Torres Strait Islander health. Expenditures on secondary/tertiary care medical services (mainly specialist care) were estimated to be $36 per Aboriginal and Torres Strait Islander person compared with $213 per person for other Australians.

IMPLICATIONS: Overall, per person health expenditures for Aboriginal and Torres Strait Islander peoples are not sufficient to match needs. Expenditure is around 18% higher and mortality rates are 210% higher. Various estimates have been made of the level of expenditure that would be required to equitably address Aboriginal and Torres Strait Islander health needs. Dwyer, Silburn & Wilson (2004, p. 71) reviewed a range of studies and concluded that 'total health spending on Indigenous populations would need to be increased to a level between 3 and 6 times the current national average per capita expenditure to achieve equitable access to effective care'. Current expenditures on primary care services fall well short of these benchmarks, although there have been some important successes in recent years, such as the Section 100 provisions to improve access to pharmaceuticals in remote regions. Experience over recent years has demonstrated increased funding can lead to significantly improved level of service provision in Aboriginal and Torres Strait Islander primary care services. Targeted

Australian government spending has increased significantly in recent years and there are further significant increases committed for the period to 2009-10. It is vital to ensure increased investments in services for Aboriginal and Torres Strait Islander peoples:

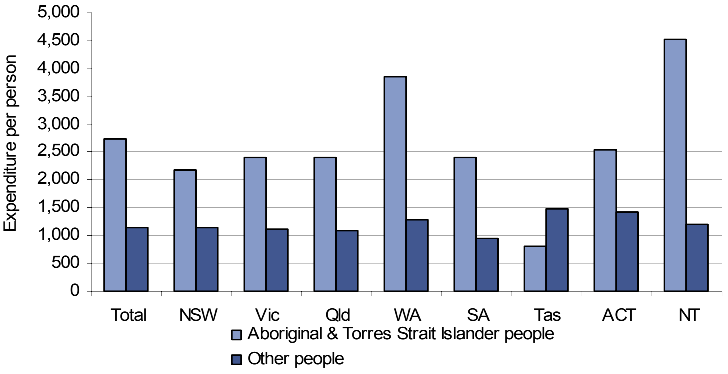
- are directed to effective interventions and approaches, including an effective system of primary health care
- enable Aboriginal and Torres Strait Islander peoples to access health services including Aboriginal and Torres Strait Islander, mainstream and specialist services
- are allocated appropriately to reflect need and costs of service delivery across regions and recognise costs of service delivery, particularly in remote areas
- are used efficiently and strategically to build capacity in the services and the workforce providing for the needs of Aboriginal and Torres Strait Islander peoples.

Increased investments are required across primary care and secondary/tertiary care, although the priority is to strengthen a system of comprehensive primary care. Other gaps notable in the analysis of expenditures and services include dental services and access to private specialist services.

Figure 137 – Average health expenditure per person for Aboriginal and Torres Strait Islander and other people, in constant prices, Australia, 1995–96, 1998–99 and 2001–02

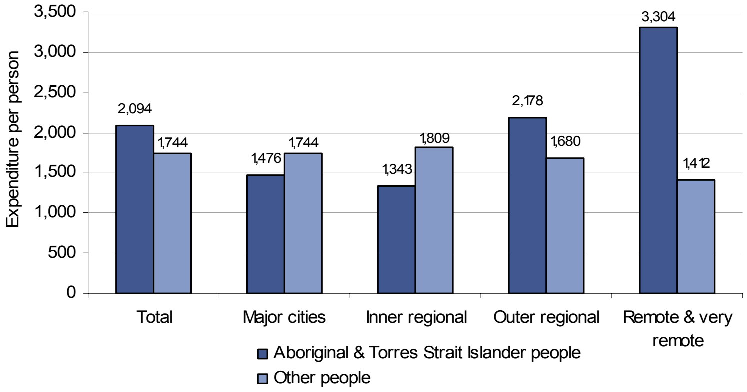
Source: AIHW 2005

Figure 138 – Estimated state and territory health expenditure per person for Aboriginal and Torres Strait Islander and other people 2001–02



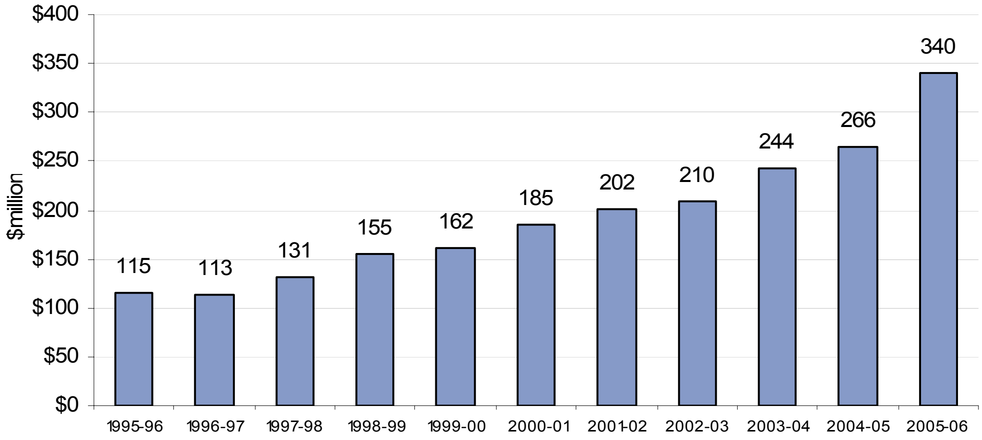
Source: AIHW 2005

Figure 139 – Estimated health expenditure on selected health services per person for Aboriginal and Torres Strait Islander and other people, by remoteness, 2001–02



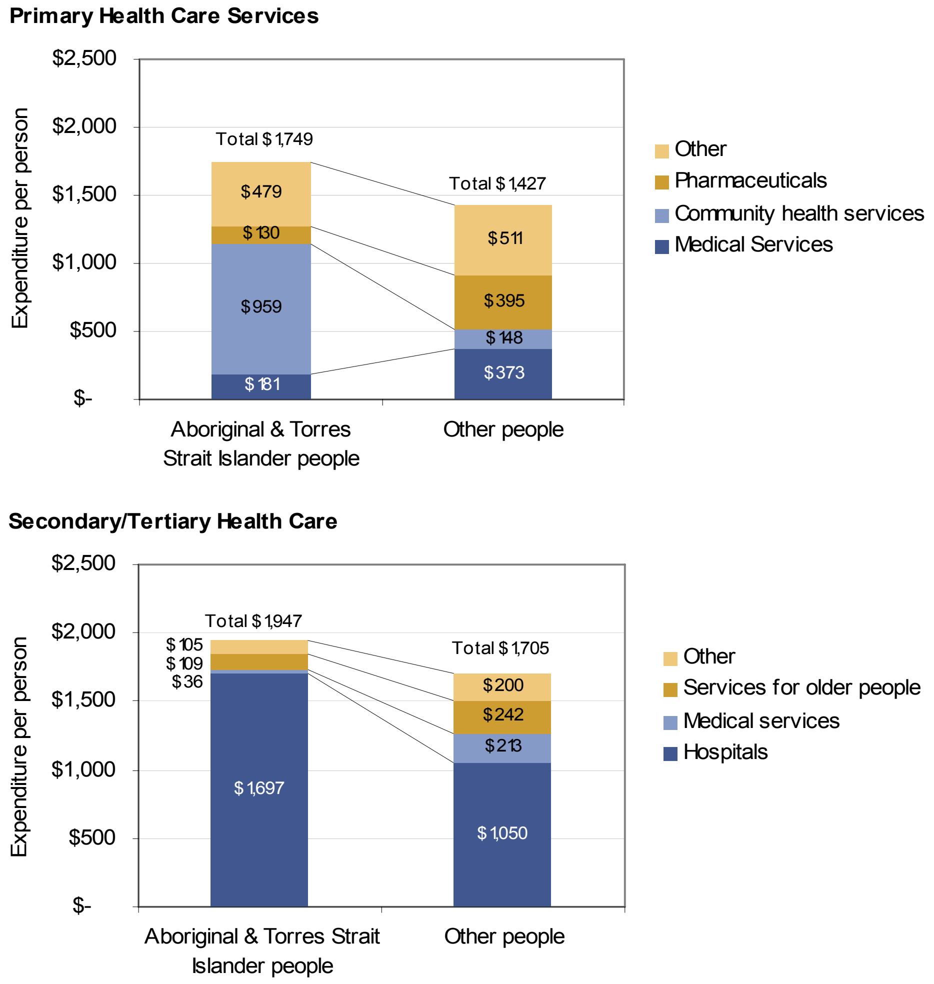
Source: AIHW 2005

Figure 140 – Expenditure by the Australian Government on Indigenous specific health programs, 1994-96 to 2005-06



Source: Australian Government Department of Health and Ageing

Figure 141 – Average health expenditure per person for Primary health care and Secondary/Tertiary health care services, Aboriginal and Torres Strait Islander and other people, Australia, 2001–02



Source: AIHW 2005

3.16 Recruitment and retention of clinical and management staff (including GPs)

WHY IS IT IMPORTANT?: The capacity to recruit and retain appropriate staff is critical to the sustainability of Aboriginal and Torres Strait Islander primary health care services, particularly in rural and remote areas. Recruitment and retention is also an important issue for mainstream services and general practitioners in rural and remote areas.

FINDINGS: In June 2004, there were 1,850 full-time equivalent health staff and 1,030 full-time equivalent administrative and support staff positions within Aboriginal and Torres Strait Islander primary health care services funded by the Australian Government. An estimated seven per cent of health positions and two per cent of administrative and support staff positions were vacant. In the four years from June 2000, Australian Government funding to these services increased by 38% in real terms and there has been a corresponding increase of 27% in the workforce. Full-time equivalent doctor positions and nurse positions have increased by 37% and 44% respectively. Over this period there has been little change in the vacancy rate which is a positive trend given the large increases in positions.

In June 2004, 50 Aboriginal and Torres Strait Islander health worker positions were vacant, 27 positions for nurses and 17 positions for social and emotional well-being workers. The highest proportion of health staff vacancies were for dentists (11%), allied health professionals (9%) and nurses (9%). Health staff vacancies were 10% of full time equivalent positions for services located in very remote areas compared with 6% in major cities and 7% in inner and outer regions. Of the 138 health staff positions that were vacant, 43% had been vacant for 26 weeks or more, while 33% of the 24 administrative and support staff vacancies had been vacant for 26 weeks or more.

A survey of the rural workforce conducted in November 2004 found that of the 3,801 general practitioners working in rural Australia an estimated 33% had been in the current practice for two years or less. In remote regions between 51% (remote centres) and 49% (other remote areas) had been in the current practice for two years or less. A study of GPs conducted in 2001 found that important factors determining general practice retention in rural and remote areas were: professional considerations, particularly on-call arrangements; professional support; variety of rural practice; local availability of services; and regional attractiveness (Humphreys, Jones & Mara 2002).

IMPLICATIONS: The National Strategic Framework for Aboriginal and Torres Strait Islander Health identified the development of a competent health workforce as a key result area, with strategies required to improve the training, supply, recruitment and retention of appropriately skilled health professionals, health service managers, and health policy officers in both mainstream and Aboriginal health services. Action areas identified include increasing numbers of Aboriginal and Torres Strait Islander peoples working across all health professions and improving the effectiveness of training, recruitment and retention of other health professionals in these services. The need for more effective measures to train, recruit and retain both non-Indigenous and Indigenous Australian staff working in Aboriginal and Torres Strait Islander health is also acknowledged in the Aboriginal and Torres Strait Islander Health Workforce National Strategic Framework.

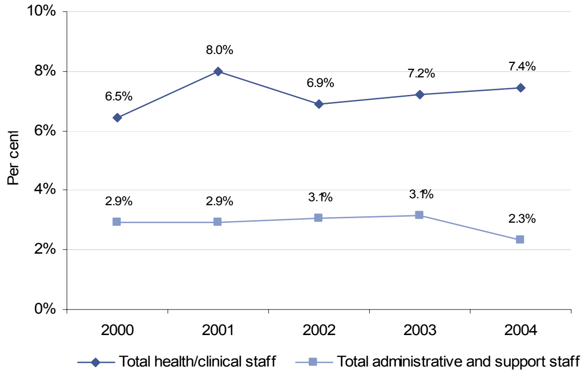
Recruitment and retention issues are most significant for Aboriginal and Torres Strait Islander health services and mainstream services located in rural and remote Australia. Various initiatives have been established to address workforce recruitment and retention for general practice, pharmacists and other professionals located in rural and remote regions. However as one group has commented '…the evidence base underpinning these [initiatives] remains small. The initiatives should be carefully prospectively examined to ascertain their effectiveness and to develop the relevant evidence base' (Glasgow, Sibthorpe & Gear 2005).

Recognition of Aboriginal and Torres Strait Islander health as an identifiable specialty is considered by some to be important in improving services and retaining highly skilled clinicians.

The measures adopted for this area for the first health performance report deal with just two aspects of a complex set of issues. They suggest there are challenges for Aboriginal and Torres Strait Islander primary health care services in recruiting particularly clinical staff to meet the growth in the sector. There are no data on state and territory health services in equivalent circumstances, although it is known there are significant recruitment and retention issues for these services. Little is known about how the turn-over of staff in Aboriginal and Torres Strait Islander primary health care services compares with mainstream services.

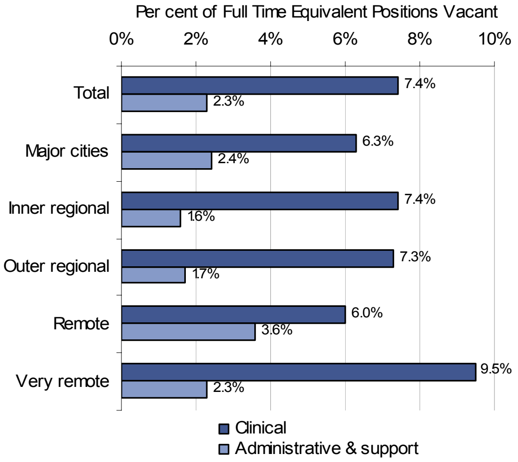
While there has been significant and sustained growth in staff employed by Aboriginal and Torres Strait Islander primary health services, there are emerging challenges. A major issue is the capacity to offer salaries for their doctors that are competitive compared with metropolitan private practice. Larger community controlled services tend to be more successful in recruiting and retaining clinical staff reflecting a larger funding base and infrastructure.

Figure 142 – Vacancies as a percentage of total positions (FTE) in Aboriginal health care services, June 2000 to June 2004



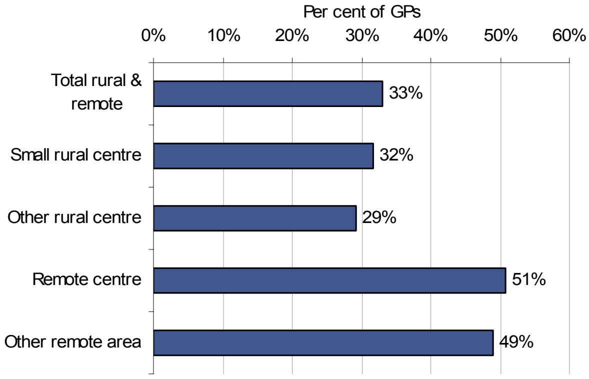
Source: AIHW analysis of Service Activity Reporting

Figure 143 – Vacancies as a percentage of total positions (FTE) in Aboriginal health care services, by remoteness area, June 2004



Source: AIHW analysis of Service Activity Reporting

Figure 144 – Proportion of GPs in practice for two years or less, by remoteness areas, November, 2004



Source: AIHW analysis of Rural Workforce Agency Annual Survey 2004

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Technical Appendix

This appendix provides more detailed information on data sources and methods.

MAIN SOURCES

Many of the data in this report are drawn from a small number of national data collections and surveys. These include the following:

National Aboriginal and Torres Strait Islander Health Survey (NATSIHS): The NATSIHS overcomes many of the problems of under identification in the administrative data collections as the Indigenous status question is asked of all respondents. The NATSIHS sample was specifically designed to select a representative sample of Aboriginal and Torres Strait Islander Australians and thus overcome the problem inherent in most national surveys with small and unrepresentative Indigenous samples. The NATSIHS also uses the standard Indigenous status question. Information recorded in this survey is essentially 'as reported' by respondents. Responses may be affected by imperfect recall or individual interpretation of survey questions. Any data that is self-reported is likely to underestimate circumstances of which the respondent is unaware e.g. certain health conditions, or where they may feel frightened or be unwilling to tell the data-collector e.g. weight, drug use. Non-Indigenous comparisons are available through the National Health Survey (NHS). The NHS was conducted in major cities, regional and remote areas, but very remote areas were excluded from the sample. In remote communities, there were some modifications to the NATSIHS content in order to address language and cultural appropriateness in traditional communities, as well as to assist respondents in understanding the concepts. Some questions were excluded and some reworded. Also paper forms were used in remote areas and computer assisted interview (CAI) instruments were used in non-remote areas. Further information on NATSIHS data quality issues can be found in the national publication (ABS Cat. No. 4715.0).

The National Aboriginal and Torres Strait Islander Social Survey (NATSISS): The 2002 NATSISS sample was specifically designed to select a representative sample of Aboriginal and Torres Strait Islander Australians and thus overcome the problems inherent in most national surveys with small and unrepresentative Indigenous samples. The NATSISS uses the standard Indigenous status question. Information recorded in this survey is essentially 'as reported' by respondents, and hence may differ from that which might be obtained from other sources or by using other collection methodologies. Responses may be affected by imperfect recall or individual interpretation of survey questions. Non-Indigenous comparisons are available through the General Social Survey. Further details can be obtained from ABS (2002).

Community Housing and Infrastructure Needs Survey (CHINS): The 2001 CHINS collected data on connection to services for permanent dwellings in discrete Indigenous communities that were managed by Indigenous housing organisations. In 2001, CHINS information was collected on 616 Indigenous organisations which managed a total of 21,287 permanent dwellings. The majority of those dwellings were located in the Northern Territory (6,715), Queensland (5,673), New South Wales (4 079) and Western Australia (3,273). The CHINS covers discrete Indigenous communities, including approximately 108,000 Aboriginal and Torres Strait Islanders or 24% of the total Indigenous population. CHINS data is only collected every 5 years. The data is collected from key personnel in Indigenous communities and housing organisations knowledgeable about housing and infrastructure issues. This collection is not a population survey.

National Perinatal Data Collection: Birth notification forms are completed for all births of 20 weeks or more gestation, or a birthweight of 400 grams or more. The Perinatal National Minimum Data Set includes all births in Australia in hospitals, birth centres and the community. All jurisdictions collect the Indigenous status of the mother for each baby. However, this statistic does not measure the Indigenous status of the baby. Studies linking perinatal data with birth registration data and hospital admissions show that Indigenous data is under-reported. However, there has not been a systematic audit of the accuracy of these data across the nation. Therefore, at this stage, it is not possible to quantify or adjust for errors in identification. All jurisdictions are working towards improving the quality of the Indigenous status data. Data on Indigenous status are not reported for Tasmania as the not stated category for Indigenous status is included with the non-Indigenous category. The not stated category for Indigenous status is high for Tasmania (around 75%) and low for the other jurisdictions, not more than 0.5%. The not stated category for birthweight was found to be small nationally in the evaluation of the Perinatal National Minimum Data Set. Therefore, the exclusion of not stated for birthweight will not have a significant impact on these data. A standard data item for Indigenous status is specified in the Perinatal National Minimum Data Set. However, at this stage not all state and territories use this standard wording for the Indigenous status question on their forms. This impacts on the quality and comparability of the data collected. As part of the development of this performance measure it will be important to collect information on how the Indigenous status question has changed over time at the jurisdiction level and when the standard Indigenous status question (as outlined in the latest edition of National Health Data Dictionary, AIHW 2004b) was introduced into state/territory datasets. This will inform decisions on the accuracy/appropriateness of time series analysis and comparisons between jurisdictions. The state/territory of birth was provided for all births in each state/territory. State level data is based on place where birth occurred, not place of usual residence.

Cross-border issues need to be considered e.g. in the ACT complicated pregnancies from surrounding NSW may be referred to the ACT and hence there may be poorer outcomes attributed to ACT births. Because of this, and the small numbers involved, care should be taken in interpreting data from the Australian Capital Territory

AIHW National Hospital Morbidity Data: This is a data collection including all completed admitted patient episodes in public and private hospitals across Australia. The number and pattern of hospitalisations can be affected by differing admission practices among the jurisdictions and from year to year, and differing levels and patterns of service delivery. Some jurisdictions have slightly different approaches to the collection and storage of the standard Indigenous status question and categories in their hospital collections. The not stated category is missing from several collections. The incompleteness of Indigenous identification means the number of hospital separations recorded as Indigenous is an underestimate of hospitalisations of Aboriginal and Torres Strait Islander peoples. The extent to which the identification of Indigenous Australians occurs in data collections is referred to as coverage. While the identification of Indigenous hospitalisations is incomplete in all states and territories, four jurisdictions (Qld, WA, SA and NT) have been assessed as having adequate identification in 2003–04 (AIHW 2005). It has therefore been recommended that aggregate Indigenous hospital separations reporting be limited to SA, WA, NT and Qld. The proportion of the Indigenous population covered by these 4 jurisdictions is 60%. The following caveats have been recommended:

- Interpretation of results should take into account the relative quality of the data from the jurisdictions included (currently a degree of Indigenous under-identification in WA and relatively marked Indigenous under- identification in Qld data).
- Data for these 4 jurisdictions over-represent Indigenous populations in less urbanised and more remote locations.
- Hospitalisation data for 4 jurisdictions should not be assumed to represent the hospitalisation experience in the other jurisdictions.

AIHW National Mortality Database: The mortality rate for Indigenous Australians can be influenced by identification of Indigenous deaths, late registration of deaths, and changes to death forms and/or processing systems. Due to the small size of the Indigenous population, these factors can significantly impact on trends over time and between jurisdictions.

All jurisdictions comply with the standard wording for the Indigenous status question and categories for their death registration forms. However, New South Wales, Victoria, South Australia, the Northern Territory and the Australian Capital Territory all have slightly different wording to the national standard for the instruction on those with both Aboriginal and Torres Strait Islander origin. While the wording is only slightly different, it would be ideal to have all jurisdictions asking the question in exactly the same way.

Almost all deaths in Australia are registered. However, the Indigenous status of the deceased is not always recorded, or recorded correctly. The incompleteness of Indigenous Australian identification means the number of deaths registered as Indigenous is an underestimate of deaths occurring in the Aboriginal and Torres Strait Islander population. As a result, the observed differences between Indigenous and non-Indigenous mortality are under-estimates of the true differences.

The extent to which the identification of Indigenous Australians occurs in data collections is referred to as coverage. While there is incomplete coverage of Indigenous deaths in all states and territory registration systems, four jurisdictions (Queensland, South Australia, Western Australia and the Northern Territory) have been assessed by the Australian Bureau of Statistics and the Australian Institute of Health and Welfare as having better coverage. Longer term mortality trend data is limited to three jurisdictions (South Australia, Western Australia and the Northern Territory) with 10 years of reasonable coverage of Indigenous deaths in their recording systems. The quality of the time series data is also influenced by the late inclusion of a not stated category for Indigenous status in 1998. Prior to this time, the not stated responses were probably included with the non-Indigenous. The ABS calculated the implied coverage of Indigenous Australian deaths for the period 2000-04 using population estimates:

NSW - 46%, Victoria - 35%, Qld - 53%, SA - 66%, WA - 72%, NT - 94%, Tasmania and ACT were not calculated due to small numbers, Australia - 57%

DATA DEVELOPMENT

There are well documented problems with the quality and availability of data about Aboriginal and Torres Strait Islander health issues. These limitations include the quality of data on all key health indicators including mortality and morbidity, uncertainty about the size and composition of the Indigenous population and a paucity of available data on other health related issues such as access to health services.

The following information has been provided by the jurisdictions to provide information on action being undertaken in relation to data collection.

Australian Government

The Australian Government is committed to improving the availability of good quality Indigenous health data. Through the National Advisory Group on Aboriginal and Torres Strait Islander Health Information Development (NAGATSIHID), the Australian Government is actively engaged with State and Territory Governments, the Australian Bureau of Statistics (ABS) and the Australian Institute of Health and Welfare (AIHW) to improve

Indigenous health statistics. NAGATSIHID has guided data development through the implementation of the 1997 Aboriginal and Torres Strait Islander Health Information Plan. The Health Performance Framework will establish priorities for data development linked to policy objectives.

Current projects

There are several current projects aimed at improving Indigenous identification in administrative data collections. These include:

A project jointly funded by the Office for Aboriginal and Torres Strait Islander Health and the National Health and Medical Research Council to improve the identification of Indigenous Australians in 5 key administrative datasets including mortality, births, perinatal, hospital and GP datasets such as Medicare and Bettering the Evaluation and Care of Health (BEACH). This project is being undertaken by the Australian Institute of Health and Welfare.

A project being undertaken by the AIHW with the support of the jurisdictions under the auspices of the Statistical Information Management Committee to implement recommendation 17 of the report *Improving the quality of Indigenous identification in hospital separations data* (AIHW, 2005f). This will involve piloting new methods to identify the accuracy of Indigenous identification in hospital data and to drive improvements in identification.

A Voluntary Indigenous Identifier was introduced into the Medicare database from November 2002. By October 2006, 140,971 people had identified as Aboriginal, Torres Strait Islander or both. Work is underway to further publicise and encourage Indigenous identification in Medicare data.

Under the auspices of NAGATSIHID, with funding from the Australian Government, the ACT is managing a consultancy project looking at the feasibility of increasing the completeness of the Indigenous status field within the ACT cancer, pap smear and communicable disease registries through the inclusion of the standard question for Indigenous status on the pathology request forms. This project will also assess whether any aspects of this could be implemented nationally.

The ABS has developed an ongoing six-yearly Indigenous health survey program (with additional funding from the Department of Health and Ageing). They have also funded an ongoing six-yearly Indigenous social survey program. The Community Housing and Infrastructure Needs Survey has been run every five years with funding from the Australian Government Department of Families, Community Services and Indigenous Affairs and OATSIH.

The ABS has developed a network at the regional level aimed at improving the collection and dissemination of statistics in partnership with Indigenous communities.

New South Wales

In NSW, Aboriginal status is collected in a range of health datasets, including the Midwives Data Collection, ABS Mortality data, the Admitted Patients Data Collection, the Emergency Department Information System, the Notifiable Diseases Data collection, the NSW Health Survey Program, and the Central Cancer Registry data collection.

The asking of, and recording of, Indigenous status is mandatory for core data collections such as the Midwives Data Collection and the Admitted and Non-admitted Patient Data Collections. The NSW Health 2005 policy (PD2005_547) on identifying Indigenous status is mandatory in all facilities and Area Health Services.

Until the identification of Aboriginality in NSW morbidity data is quantified, concern has centred on the assumed under-identification of Aboriginality and the representativeness of separations that are identified as being for Aboriginal people.

A number of initiatives are in place targeting the collection and recording of Indigenous status in some of these collections. The NSW Department of Health works in collaboration with the NSW Registrar of Births, Deaths and Marriages to provide quality and timely data for birth and death events occurring in NSW public hospitals. The Department of Health also maintains a close working relationship with the ABS to provide quality demographic data, with a particular focus on mortality. NSW Health has also implemented the Collecting Patient Registration Information Training Program in NSW public hospitals to facilitate the identification and recording of Indigenous status. This program has been reviewed for community health.

NSW Health is undertaking collaborative work with AIHW and OATSIH to audit the level of identification of Aboriginality in NSW hospital data. This project involves:

- AIHW developing a methodology for conducting surveys of the Indigenous status of hospital patients. AIHW will also develop a sampling technique for States.
- Surveys will be undertaken either by the State or an AIHW engaged consultant.
- AIHW will analyse the data to determine the under/over identification estimates for hospitals.
- This will facilitate adjustment to information on which expenditure estimates are calculated for the 2004-05 expenditure report currently being compiled.

Northern Territory

The Department of Health and Community Services is in the process of rolling out a number of e-health initiatives across the Northern Territory that will have major implications for the use and collection of data. These improvements will assist in the provision of seamless care for health consumers. Short outlines for current initiatives are as follows:

Health Connect, the ability to share electronic summaries of patient records will be rolled out across the Northern Territory focusing on Aboriginal populations in remote communities and urban townships. It is expected that this will be of major benefit in terms of mobile populations, or those from rural and remote accessing services in regional towns or cities.

Secure provider-to-provider information communications network, will ensure that specific information regarding prescriptions and clinical referral information can be communicated electronically amongst service providers. This will assist in a seamless care in relation to managing transition from GP's/Clinics to appointments with specialists. The system will also allow for consumers' medication prescriptions to be sent ahead of time to appropriate services.

Electronic medications and discharge summary information will be forwarded to communities of residence, so that information will be locally available for consumers on their return to country.

Primary Care Information System. This new initiative will automatically alert service providers about patients to be recalled for follow-up treatments/services, providing a technological advantage to making service delivery easier. It will involve the implementation of a whole of life electronic health record across all DHCS operated Remote Health Clinics, replace paper-based records and facilitate extensive coded clinical data collection for each service episode. This system has the capacity to capture all required national Aboriginal and Torres Strait Islander health performance indicator data.

All these programmes are expected to be rolled out over the next 2-3 financial years.

Aboriginal Health Key Performance Indicator (AHKPI) project, the Northern Territory was initiated by the Aboriginal Health Forum (AHF) to develop to structure a collection and reporting of 19 agreed Key Performance Indicators that cover both DHCS Remote Health Centres and Aboriginal community controlled health services.

The project is managed cooperatively by the NTG, the Department of Health and Ageing and AMSANT under the auspices of the AHF Banner. This project is expected to 'go live' on 1 July 2007.

South Australia

Improving Identification of Indigenous People in SA Department of Health Data Collections

In 2005 the SA Department of Health commissioned a review by an outposted ABS officer of Indigenous identification in many departmental data collections. This review focussed on assessing compliance with nationally agreed standards for identifying Indigenous people and made recommendations to assist in achieving such compliance.

An implementation action plan is being developed addressing the recommendations of the project report. This plan will determine the order in which recommendations should be addressed and a timetable for implementing agreed actions. The plan is being developed in consultation with key stakeholders.

The plan will include actions such as providing further training and improved reference material to staff involved in data collection. The project has a wide scope and is aimed at improving identification in hospital based collections, primary health care collections and disease registers.

SA Aboriginal Health Partnership data and information project

The SA Aboriginal Health Partnership has recently endorsed a project proposal to facilitate improvements in the quality and availability of SA specific Aboriginal health and wellbeing data through a whole of government and cross-sector strategy.

This project will liaise with health service agencies, other SA government agencies (including departments responsible for family and community welfare, education and justice), Community Controlled agencies and designated private health providers to contribute to coordinated and consistent reporting of Aboriginal health and wellbeing data.

Specifically, focus will be on collection and reporting of Aboriginal wellbeing data based on Indigenous Areas (IARE) to assist in more relevant local area service design.

A further outcome of this project will be the inclusion of a dedicated Aboriginal data warehouse 'chapter' (within the SA Department of Health) for a more rich evidence base for system and service design and delivery across sectors and across government.

'Knowing the Business" - SA Aboriginal Health Indicators 2005

Indigenous Areas were utilised as a basis to report Aboriginal Health indicator data in 'Knowing the Business" - SA Aboriginal Health Indicators 2005. This report illustrates the benefits of data collection and reporting using Indigenous Areas (IARE) and can be accessed via the Internet at: http://www.health.sa.gov.au/Default.aspx?tabid=58 .

Tasmania

There are three aspects that, over the next year, Tasmania will be seeking to review/address.

Tasmania will be seeking to improve self identification rates in Tasmanian data.

It has been recognised that information systems used, need considerable work to bring relevant information together more coherently.

Tasmania needs to look at and improve the training that our data collectors receive to enable them to seek better participation by the providers of data.

Victoria

Data collection

In Victoria, Aboriginal status is a mandatory field in all major health datasets. The Victorian Admitted Episodes Dataset (VAED), the Victorian Emergency Minimum Dataset (VEMD), the Perinatal Morbidity Statistics System (PMSS) and Maternal and Child Health Service contain good quality data on Aboriginal identification. Aboriginal identification is also collected through the Alcohol and Drug Information System (ADIS), the Notification of Infectious Diseases System (NIDS) and Community Health program Registered Client Database (SWITCH) but is of poorer quality.

Issues

The major issue with Victorian data is the difficulty in identifying a very small proportion within a large urban population.

A second issue is that many Aboriginal babies in Victoria have an Aboriginal father and non-Aboriginal mother and are not captured by standard identification procedures.

Measures to improve data

Hospital separations

In July 2004 the Improving Care for Aboriginal and Torres Strait Islander Patients (ICAP) program was implemented. The program combined two previously separate funding streams: the Aboriginal Hospital Liaison Officer program and the Weighted Inlier Equivalent Separation (WIES) co-payment for admitted Aboriginal patients. The Aboriginal Hospital Liaison Officers continue to provide a separate data collection, which validates the data submitted through the VAED and PMSS.

The WIES co-payment was increased from 10% to 30% WIES in July 2004, and this has resulted in an increase in the number of Aboriginal separations recorded at some hospitals with previously low numbers of identified Aboriginal patients. Three Project Officers are employed to implement ICAP in the metropolitan and regional areas, and this includes facilitating training sessions on the importance of the correct identification of Aboriginal patients. More Aboriginal Hospital Liaison Officers and Planning/Policy Officers have been employed since the inception of this program and this has also contributed to improvements in data collection. The impact of this initiative is evident in the separations for Aboriginal patients in the 2004/05 and 2005/06 periods.

Changes in access to data systems have meant that more frequent monitoring of Aboriginal hospital separations is possible, and errors can be discovered and rectified.

Two new fields were added to the standard Aboriginal status question from July 2005, in order to reduce the number of records defaulting to “Not Aboriginal or Torres Strait Islander”. “Question unable to be asked” is used in emergency situations and for unaccompanied patients unable to answer, particularly due to injury or mental health issues. “Patient refused to answer” has been used as expected at hospitals with large Emergency Departments. Some instances of misuse were identified and have been corrected.

A system error which allowed babies of Aboriginal mothers to be recorded as non-Aboriginal has also been corrected.

Deaths

The Australian Bureau of Statistics has been working to improve the registration of Aboriginal deaths as Aboriginal.

Western Australia

Western Australia has agreed to undertake a project funded by the Australian Government Department of Health and Ageing to improve Indigenous identification entitled *Estimating an under/over identification factor relating to Indigenous hospital patients.*

The Information Collection and Management Directorate has recently recruited a Coding Education officer who can run refresher training in collecting data on Indigenous identification.

The Directorate is also planning an exercise to compare Indigenous status from the Midwives Notification System with indigenous status on associated hospital records.

HEALTH STATUS AND HEALTH OUTCOMES (TIER 1)

1.01 Low birthweight infants

Data on birthweight is collected as part of the Perinatal National Minimum Data Set. It includes live births of 20 weeks gestation or more, or of 400 grams or more birth weight. Low birthweight is defined as less than 2,500 grams. Data relates to the Indigenous status of the mother only and therefore underestimates Indigenous births. Indigenous and non-Indigenous data excludes births where the mother’s Indigenous status is not stated.

Figure 2 and Table 1: Average annual change is estimated using linear regression analysis. Excludes Tasmania as the category ‘not stated’ Indigenous status was unable to be distinguished from the category non–Indigenous.

Figure 3: State level data are based on place where birth occurred, not place of usual residence. Cross-border issues need to be considered here e.g. a high proportion of births in Australian Capital Territory hospitals are to mothers usually resident in New South Wales. Data are presented in three year groupings due to small numbers each year. These groupings represent three calendar years.

1.02 Top reasons for hospitalisation

Figures 4*,* 5*,* 6 *and* 7: Data for this indicator comes from the AIHW's National Hospital Morbidity Database. The principal diagnosis is the diagnosis established to be the problem that was chiefly responsible for the patient's episode of care in hospital. Rates have been directly age standardised using the 2001 Australian population. Other includes non-Indigenous hospitalisations and hospitalisations for which Indigenous status was not stated. Data are from public and most private hospitals but excludes private hospitals in the Northern Territory. Categories are based on the International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification (ICD-10-AM), 4th Revision (National Centre for Classification in Health 2004). Data are reported by state of usual residence of the patient hospitalised and are for Western Australia, South Australia, the Northern Territory and Queensland only. Hospitalisation data for four jurisdictions should not be assumed to represent the hospitalisation experience in the other jurisdictions. Data are presented in two year groupings.

1.03 Hospitalisation for injury and poisoning

Refer to notes for indicator 1.02 regarding hospitalisation data. ICD-10-AM codes S00-T98.

Table 2: ICD-10-AM codes V01-Y98. Ratio is the Indigenous rate divided by rate for non-Indigenous.

1.04 Hospitalisation for pneumonia

Refer to notes for indicator 1.02 regarding hospitalisation data. ICD-10-AM codes J12–J18.

1.05 Circulatory disease

Refer to notes for indicator 1.02 regarding hospitalisation data. ICD-10-AM codes I00-I99.

1.06 Acute rheumatic fever and rheumatic heart disease

Based on Analysis of the Top End and Central Australian Rheumatic Heart Disease Registers

1.07 High blood pressure

Figure 15: Refer to notes for indicator 1.02 regarding hospitalisation data. ICD-10-AM codes I10-I15.

Tables 6 and 7: Self reported data from the National Aboriginal and Torres Strait Islander Health Survey 2004-05 and the National Health Survey 2004-05 consisting of persons ever told has condition, still current and long term and ever told has condition, current and not long term.

1.08 Diabetes

Figures 16 and 17: Refer to notes for indicator 1.02 regarding hospitalisation data. ICD-10-AM codes E10-E14.

1.09 End stage renal disease

Figures 19-21: Calendar year reporting, data are presented in three year groupings due to small numbers each year. Rates per 1,000 population. Total rates are directly age standardised using the Australian 2001 Standard population.

1.10 Decayed, missing, filled teeth

Data on children's dental health comes from the Child Dental Health Survey (AIHW), a national survey which monitors the dental health of children enrolled in school dental services operated by health departments in all states and territories. Data on adult dental health comes from the 1994-96 National Dental Telephone Interview Survey, and from a survey of adults seeking public dental care in Australia in 2001-02. While the National Dental Telephone Interview Survey is conducted every two and a half years, the 1994-96 survey specifically focussed on Indigenous Australians, migrants and rural and remote dwellers. Time series data for caries experience among Indigenous children is available for the Northern Territory.

1.11 HIV/AIDS, hepatitis C and sexually transmissible infections

1.12 Children's hearing loss

Figure 28: Refer to notes for indicator 1.02 regarding hospitalisation data. ICD-10-AM codes H60-H95

Tables 12 and 13: Self reported data from the National Aboriginal and Torres Strait Islander Health Survey 2004-05 and National Health Survey 2004-05. Components may not add to total as persons may have reported more than one type of condition.

1.13 Disability

Data for this measure comes from the 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS). In order to include all respondents from the 2002 NATSISS (from remote and non-remote areas), the majority of tables in this measure are based on the disability populations identified using a common criteria i.e. more restrictive criteria used in remote areas.

The broader criteria are used in making comparisons with the non-Indigenous population (from the 2002 GSS), and in the more detailed tables examining disability status for Indigenous people.

1.14 Life expectancy at birth

Life expectancy estimates presented in this measure are from the ABS and are based on population estimates based on the 2001 *Census* of Population and Housing. The Bhat method was used by the ABS to construct a model life table for the Indigenous Australian population which gives an estimation of life expectancy at birth. Variations in life expectancies by Indigenous status, sex and jurisdiction should be interpreted with care as they are sensitive to differential data quality and the methods used to estimate life expectancy.

Figure 31: 'Total Australia' includes all states and territories including those not represented on the graph.

Figure 32: Life expectancy estimates for Aboriginal and Torres Strait Islander peoples are for 1996-2001 and for the total Australian population are for 1999-2001. Life expectancy estimates for First Nations and the total Canadian population are for 2000. Life expectancy estimates for Maoris and non-Maoris are for 2000-02.

1.15 Perceived health status

Self reported data from the National Aboriginal and Torres Strait Islander Health Survey 2004-05. Information for some persons aged 15-17 years was provided by a parent or guardian.

1.16 Median age at death

The median age at death represents the age at which exactly half the deaths registered (or occurring) in a given time period were deaths of people above that age and half were deaths below that age. Data for this measure comes from the AIHW National Mortality Database. Data has been analysed using the year of occurrence of death for the period 1999–2003 and year of registration of death for 2004. This is because mortality data by year of occurrence of death is a more accurate reflection of mortality during a particular year than year of registration data, however year of occurrence data for 2004 is still incomplete owing to late registrations. Care should also be exercised when analysing Indigenous median age at death, as differences in identification by age may lead to biased summary indicators such as median age at death.

Figure 38: Australia data is for Queensland, Western Australia, South Australia and the Northern Territory, Aboriginal and Torres Strait Islander peoples and non-Indigenous Australians. United States data are for United States Indians/Alaskan Natives and non-Indigenous Americans. New Zealand Data is for Maoris and the total New Zealand population

1.17 Social and emotional well-being

Figure 41, 43-44: Refer to notes for indicator 1.02 regarding hospitalisation data. ICD-10-AM codes F00-F99 G30 G47.0 G47.1 G47.2 G47.8 G47.9 099.3 R44 R45.0 R45.1 R45.4 R48 Z00.4 Z03.2 Z04.6 Z09.3 Z13.3 Z50.2 Z50.3 Z54.3 Z61.9 Z63.1 Z63.8 Z63.9 Z65.8 Z65.9 Z71.4 Z71.5 Z76.0.

Figure 42: ICD10 codes: F00-F99 G30 G47.0 G47.1 G47.2 G47.8 G47.9 O99.3 R44 R45.0 R45.1 R45.4 R48. Indigenous data are reported for Queensland, Western Australia, South Australia and the Northern Territory only. These four states and territories are considered to have the highest level of accuracy of Indigenous identification in mortality data. Data for these four jurisdictions over-represent Indigenous populations in less urbanised and more remote locations. Mortality data for four jurisdictions should not be assumed to represent the experience in the other jurisdictions. Data are presented in five year groupings due to small numbers each year. This data excludes 155 registered deaths where the Indigenous status is not stated. While most deaths of Indigenous Australians are registered, it is likely that some are not accurately identified as Indigenous. Therefore, these statistics are likely to underestimate the Indigenous all causes mortality rate. It is also difficult to exactly identify the difference between the Indigenous and non-Indigenous mortality rates due to these data quality issues. Deaths are by year of occurrence except the latest year which is based on year of registration. Age specific death rates per 100,000 using the average December populations for the relevant years. Rate ratio-rate for Indigenous divided by rate for non-Indigenous. Total includes age not stated. Total rates have been directly age standardised using the Australian 2001 Standard population.

1.18 Infant mortality rate

Figure 45: Rate per 1,000 live births. Longer term mortality trend data is limited to three jurisdictions—Western Australia, South Australia and the Northern Territory, which have over 10 years of reasonable coverage of Indigenous deaths in their recording systems. The average of births over 1993-95 in Western Australia was used for births in WA in 1991 and 1992 as there were errors in the number of births recorded in these years.

Table 18: Data are presented in three year groupings due to small numbers each year. Data excludes 434 registered infant deaths where Indigenous status was not stated over the period 1996-2004 in Australia. While most deaths of Indigenous Australians are registered, it is likely that some are not accurately identified as Indigenous. Therefore, these statistics are likely to underestimate the Indigenous infant deaths and depending on the under coverage in births may either under- or over-estimate the rates. Due to changes in the level of accuracy of Indigenous identification in the births and deaths data over time, caution should be used in interpreting changes in Indigenous infant mortality rates. It is also difficult to exactly identify the difference between the Indigenous and non–Indigenous infant mortality rates due to these data quality issues. Deaths are by year of occurrence except the latest year which is based on year of registration. A sub-total for Queensland, Western Australia, South Australia and the Northern Territory has not been provided for the period 1996-98 as Indigenous mortality data for Queensland is only reliable from 1998 onwards.

1.19 Perinatal mortality

The ABS Deaths Registration Database contains details of all deaths registered in Australia including information on foetal (stillbirths) and neonatal deaths (deaths occurring in live births up to 28 days of age) by age of the baby, sex, state/territory of birth, Indigenous status and cause of death (ICD-10).

Table 19: Includes all foetuses and babies delivered weighing at least 400 grams or if birthweight is unavailable at gestational age of 20 weeks or more. Cause of death data should be used with caution as the level of identification by cause is unknown. These data exclude 27 perinatal deaths for the main condition in foetus/ neonatal infant and 20 perinatal deaths for the main condition in mother where the Indigenous status was not stated. While most perinatal deaths of Indigenous perinatal babies are registered, it is likely that some are not accurately identified as Indigenous Australians. Therefore, these statistics are likely to underestimate Indigenous perinatal deaths and depending on the level of under-identification in births may either under- or over-estimate the rates.

It is difficult to exactly determine the difference between the Indigenous and non-Indigenous perinatal mortality rates due to these data quality issues. Deaths are by year of occurrence of death. 'Other conditions' include: infectious and parasitic diseases, neoplasms, diseases of blood and blood-forming organs, endocrine, nutritional and metabolic diseases, mental and behavioural disorders, diseases of the nervous system, circulatory system, respiratory system, diseases of the digestive system, diseases of the musculoskeletal system and connective tissues, diseases of the genitourinary, and other symptoms, signs and abnormal findings, injury and poisoning, external causes. The sum of the components will total more that the total number of deaths and 100% as more than one condition may be reported for each death.

Figure 46: Due to the changes in the level accuracy of Indigenous identification in the births and deaths data over time, caution should be used in interpreting changes in Indigenous perinatal mortality rates.

1.20 Sudden infant death syndrome

Data for this indicator comes from the AIHW National Mortality Database. Data are presented by state/territory of usual residence rather than state/territory of death.

Figure 48: There is a consistent time series of population estimates from 1991. Due to changes in the classification and coding of causes of death from ICD–9 (used up until 1996) to ICD–10 (used from 1997 onwards) which affects the comparability of the data, the analysis reported for this indicator has been done for two time periods - 1991-96 and 1997-03. Data for 2004 was not used because of late registration of some deaths.

Table 20: ICD10 code: R95. Refer to notes above for comments and issues in relation to mortality indicators.

1.21 All-causes age standardised deaths rates

Data for this indicator comes from the AIHW National Mortality Database. Data are presented by state/territory of usual residence rather than state/territory of death. Refer to notes above for comments and issues in relation to mortality indicators.

Table 21: Deaths are by year of occurrence except the latest year which is based on year of registration. Implied coverage is the estimation of the proportion of Indigenous deaths accurately identified as Indigenous in the mortality data collections – estimated to be 58% nationally. Note: Tasmania and Australian Capital Territory implied coverage rates were not calculated due to small numbers. Indirectly age standardised using the average Indigenous June populations for the relevant years.

Figure 50: Rates have been directly age standardised using the 2001 Australian population.

Figure 51: This data excludes 3,020 registered deaths where the Indigenous status is not stated.

1.22 Leading causes of mortality

Data for this indicator comes from the AIHW National Mortality Database. Data are presented by state/territory of usual residence rather than state/territory of death. Refer to notes above for comments and issues in relation to mortality indicators.

Tables 22 and 23: Other causes includes: Disease of the blood and blood forming organs and certain disorders involving the immune system; mental and behavioural disorders; diseases of the eye and adnexa, diseases of the ear and mastoid process; diseases of the skin and subcutaneous tissue; diseases of the musculoskeletal system and connective tissue; diseases of the genitourinary system (excluding kidney diseases); pregnancy, childbirth and the puerperium; congenital malformations, deformations and chromosomal abnormalities; symptoms, signs and abnormal clinical findings not elsewhere classified.

1.23 Maternal mortality

Maternal deaths of Aboriginal and Torres Strait Islander women expressed as a rate per 100,000 Indigenous confinements and rate ratio. Data for this measure come from the publications Maternal Deaths 1997-1999 and Maternal Deaths 2000-2002, published by the AIHW National Perinatal Statistics Unit (Slaytor, Sullivan & King 2004; Sullivan & King 2006).

In line with international conventions, the maternal mortality rate (MMR) is calculated using direct and indirect deaths, excluding incidental deaths and uses the total number of confinements of at least 20 weeks gestation or 400 gram birthweight as the denominator.

Information identifying Indigenous status has been available since 1970 but only for cases classified as direct maternal deaths. Information identifying Indigenous status for indirect and incidental deaths has been collected only since 1991. It has therefore been possible to calculate the maternal mortality rate for Aboriginal and Torres Strait Islander women since 1991.

Maternal deaths where Indigenous status was 'unknown' have been included in rates with non-Indigenous deaths prior to the 1997–99 triennium. All calculations of maternal mortality by Indigenous status from the 1997–99 triennium exclude deaths where Indigenous status is unknown. In 1997–99, Indigenous status was reported for 77 (89%) of the 87 maternal deaths.

Figure 52 and Table 24: Rates per 100,000 confinements calculated using direct and indirect deaths only. For 1991-93 and 1994-96, the non-Indigenous maternal mortality rate includes non-Indigenous deaths and deaths where Indigenous status is unknown. For 1997-99 and 2000-02, deaths where Indigenous status is unknown have been excluded. Ratios are the Indigenous maternal mortality rate divided by non-Indigenous maternal mortality rate. Excludes incidental deaths.

1.24 Avoidable and preventable deaths

Data for this indicator comes from the AIHW National Mortality Database. Data are presented by state/territory of usual residence rather than state/territory of death. Refer to notes above for comments and issues in relation to mortality indicators.

Figure 53 and 54: There is a consistent time series of population estimates from 1991. Due to changes in the classification and coding of causes of death from ICD–9 (used up until 1996) to ICD–10 (used from 1997 onwards) which affects the comparability of the data, the analysis reported for this indicator has been done for two time periods - 1991-96 and 1997-2003. Data for 2004 was not used because of late registration of some deaths.

Table 25: Other includes: Tuberculosis, Hepatitis, HIV/AIDS, viral pneumonia and influenza, thyroid disorders, illicit drug disorders, epilepsy, hypertensive heart disease, aortic aneurysm, obstructive uropathy and prostatic hyperplasia, DVT with pulmonary embolism, asthma, peptic ulcer disease, acute abdomen/ appendicitis/intestinal obstruction/cholecystits/lithiasis/ pancreatis/hernia, chronic liver disease, complications of perinatal period, falls, fires/burns, accidental poisonings, drownings.

DETERMINANTS OF HEALTH (TIER 2)

2.01 Access to functional housing with Utilities

Table 55: Results based on the period 12 months prior to the CHINS 2001. Testing means water samples were sent away for testing. Town supply means that a discrete Indigenous community is not responsible for the water supply, which is often maintained by a water authority or local shire council. Town supply does not refer to communities with a reticulated water supply from a dam, river or other source, which the community is responsible for maintaining. Victoria and Tasmania not identified separately for confidentiality reasons but included in the total.

Figure 56: Categories comprise, respectively, households without a working bath or shower; without working washing machine and/or laundry tub; without working stove/oven/cooking facilities and a kitchen sink and a working refrigerator; without a working toilet.

2.02 Overcrowding in housing

Table 26: 'Renter mainstream public housing/SOMIH' includes households in public housing and State Owned and Managed Indigenous Housing. 'Renter Indigenous /mainstream community housing' includes households in mainstream and Indigenous Community Housing. 'Private and other renter' includes those renting privately with landlord not in same household and those renting from a real estate agent, relatives, employers, caravan park owners/managers and other landlords not elsewhere classified. 'Total' includes households living rent-free, those in rent-buy schemes and those with tenure type not stated.

2.05 Years 10 and 12 retention and attainment

Table 30: Retention rate = Years 10 and 12 students as a proportion of the corresponding cohort from the first year of secondary schooling (Year 7/8). While most students are recorded, it is likely that some are not accurately identified as Indigenous Australians. Therefore, these statistics are likely to underestimate the number of Aboriginal and Torres Strait Islander students. In addition, the standard Indigenous status question has not yet been implemented in some jurisdictions. The following factors have not been taken into account in these statistics: students repeating a year of education, migration and other net changes to the school population, enrolment policies (including year start high school which contributes to different age/grade structures between states and territories), inter-sector transfer and interstate movements of students. In small jurisdictions, relatively small changes in student numbers can create apparently large movements in retention rates. The inclusion or exclusion of part-time students can also have a significant effect on apparent retention rates, especially in SA, Tas. and the NT which have relatively large proportions of part-time students. Data for WA have been affected by changes in scope and coverage over time. Some ACT rates exceed 100%, largely reflecting the movement of students from non-government to government schools in Years 11 and 12, and of NSW residents from surrounding areas enrolling in ACT schools.

2.08 Income

Equivalence scales are used to adjust the actual incomes of households in a way that enables the analysis of the relative economic wellbeing of people living in households of different size and composition. When household income is adjusted according to an equivalence scale, the equivalised income can be viewed as an indicator of the economic resources available to each individual in a household. For a lone person household, it is equal to income received.

In this measure, a 'modified OECD' equivalence scale has been used, the scale widely accepted among Australian analysts of income distribution. This scale allocates 1.0 point for the first adult (aged 15 years or over) in a household; 0.5 for each additional adult; and 0.3 for each child. Equivalised household income is derived by dividing total household income by the sum of the equivalence points allocated to household members.

Equivalised gross household income quintiles are groupings of 20% of the total population of Australia when ranked in ascending order according to equivalised gross household income. The population used for this purpose includes all people living in private dwellings, including children and other persons under the age of 15 years.

Equivalised household income quintile boundaries for the total population as derived from the 2002 GSS are: lowest quintile less than $264 per week; second quintile $265-$426 per week; third quintile $427-$611 per week; fourth quintile $612-$869 per week; highest quintile $870 or more per week. These have been applied to both the Indigenous and non-Indigenous populations.

2.10 Dependency ratio

The dependency ratio is the percentage of the population aged under 15 years and aged 65 years and over, divided by the percentage of the population aged 15-64 years. The dependency ratio for the Indigenous population is mainly influenced by the proportion of children, whereas the dependency ratio for the non-Indigenous population is much more strongly influenced by the proportion of older people. Therefore it is necessary to look at the youth dependency ratio (percentage of the population aged under 15 years divided by the percentage of the population aged 15-64 years) and age dependency ratios (percentage of the population aged 65 years and over divided by the percentage of the population aged 15-64 years) separately for the Indigenous and non-Indigenous populations.

2.13 Contact with the criminal justice system

Table 38: Age standardised rate per 100,000 adult population. Rates for NSW exclude ACT prisoners held in NSW. Rates for ACT include prisoners held in NSW as well as prisoners held in ACT. The ratio of Indigenous to non-Indigenous imprisonment is calculated by dividing the Indigenous age standardised proportion by the non-Indigenous age standardised proportion.

Figure 77: Rates are per 1,000 prison population and have not been age standardised.

2.14 Child protection

Table 39: The data presented on child protection substantiations relate to those notifications received by departments responsible for child protection and support services. Only child protection matters that were notified to state and territory child protection and support services are included in this national collection. Notifications made to other organisations, such as the police or non-government welfare agencies, are included only if these notifications were also referred to state and territory child protection and support services. Rates from Tasmania and the Australian Capital Territory should be interpreted with care due to the small numbers. Any fluctuation in the numbers of children has a large impact on the rates. Indigenous data were not available from Victoria in 1998–99. Data for the 1998–99 financial year were not available from the Northern Territory. The data for 2002–03 and previous years should not be compared. New South Wales implemented a modification to the data system to support legislation and practice changes during 2002-03 which would make any comparison inaccurate. The decline in the number of substantiations is due to the decreased number of notifications. New South Wales was able to provide limited data for 2003-04 due to the introduction of a new client information system.

Rates calculated using ABS Indigenous population estimates and projections (low series) based on the 2001 Census. Improvements in the quality of the data on Indigenous status are one of the major issues to be considered when analysing trends for Aboriginal and Torres Strait Islander children. Increases in the rates of Aboriginal and Torres Strait Islander children in the child protection system over time may be due to improvements in the quality of the data. Children aged 17 years were not included in this table. The substantiation rate for 17 year olds is, compared to the rate for younger children, very low. Including 17 year olds would decrease the average substantiation rate for all age groups in an unrepresentative way.

Table 40: This table does not include Indigenous children who were living independently or whose living arrangements were unknown. The relationship of the caregiver to children placed with other caregivers was not available and these children were placed in the 'other Indigenous caregiver' category.

2.17 Tobacco use

Age standardised proportions. The National Health Survey did not collect in Very Remote Australia.

2.18 Tobacco smoking during pregnancy

Excludes births where the mother's Indigenous status was not stated. State level data is based on place where birth occurred, not place of usual residence. Cross-border issues need to be considered here e.g. a high proportion of births in ACT hospitals are for mothers resident in NSW. For SA, 'smoked' includes women who quit before the first antenatal visit. 15.2% of women who gave birth in the ACT in 2003 were non-ACT residents. Care must be taken when interpreting percentages. For NT, smoking status was recorded at the first antenatal visit. Rate ratio is equal to the rate for Indigenous mothers divided by the rate for non-Indigenous mothers. Proportions are directly age standardised using the Australian female population aged 15-44 years who gave birth in 2003.

2.19 Risky and high risk alcohol consumption

Figures 88, 89, 90: Risk level based on Australian Alcohol Guidelines 2000. Abstainers are no alcohol consumed in last 12 months. Risk level based on consumption in week prior to interview. Total includes persons whose risk level was reported as 'not known'. Includes persons who consumed alcohol >1 week, but <12 months ago. Includes persons who reported time since last consumed alcohol 'not known'.

2.20 Drug and other substance use including inhalants

Table 43: Data from the 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS).

2.21 Level of physical activity

2.22 Dietary behaviours

Figure 95: Recommended usual daily vegetable intake = 5 or more serves per day. Recommended usual daily fruit intake = 2 or more serves of fruit per day. Low usual daily vegetable intake = one or less serves per day including not eating vegetables at all. Low usual daily fruit intake = one or less serves per day including not eating fruit at all. Recommended usual daily vegetable intake not available for 2001 as there was no category for 5 serves or more.

2.23 Breastfeeding practices

Table 45: Includes length of time child has been breastfed not known. Includes breastfeeding status not known.

2.24 Prevalence of overweight and obesity

HEALTH SYSTEM PERFORMANCE (TIER 3)

3.01 Antenatal care

Data for this measure comes from the state/territory based Perinatal Collections ('Midwives Collections'). Each state and territory has a perinatal collection based on birth notification forms completed by midwives and other staff, using information obtained from mothers and other hospital records (the Midwives Collection). Jurisdictions record some aspects of most antenatal care, but the data collected varies by jurisdiction.

3.02 Immunisation (child and adult)

Data for this measure comes from the National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) and the Australian Childhood Immunisation Register (ACIR).

Figure 105: Data not available for children at age 6 years for 2001. 3-month cohorts, for cohorts born between 1 July and 30 September 2004, 1 July and 30 September 2003, and 1 July and 30 September 1999 respectively.

Figure 106: 3-month cohorts, for cohorts born between 1 July and 30 September 2004, 1 July and 30 September 2003, and 1 July and 30 September 1999 respectively.

3.03 Early detection and early treatment

Figure108: These adult health checks were introduced in May 2004 as a biennial assessment. Data provided is for the period 1 July 2005 to 30 June 2006. Rates are calculated using the average of 2005 and 2006 Indigenous population projections for those aged 15-54 years. Monthly patterns of take-up for this item had become more stable by July 2005. Health Assessment for older patients were introduced in November 1999. Data provided is for the period 1 July 2005 to 30 June 2006. Rates are calculated using the average of 2005 and 2006 Indigenous population projections for those aged 55 years and over.

Figure 109: The participation rate is the number of women screened in the reference period, divided by the number of women in the reference period based on ABS Estimated Resident Populations. Rates are directly age standardised to the 2001 Australian population.

3.04 Chronic disease management

Data on chronic disease management comes from the Service Activity Reporting data collection (SAR) which is collected annually from Australian Government funded Aboriginal and Torres Strait Islander primary health care services. Response rates to the SAR by Aboriginal and Torres Strait Islander primary health care services were between 97% and 99% during the period 2002/03 to 2004/05. The SAR collects service level data on health care and health related activities by survey questionnaire over a 12 month period. While this data collection provides valuable information, it needs to be recognised that there are limitations that have to be considered when using these data. Particular issues include:

- the SAR only includes Aboriginal and Torres Strait Islander health organisations that receive at least some Australian Government funding to facilitate access to primary health care
- the SAR questionnaire collects a broad set of indicators for the services and did not aim to provide a comprehensive set of statistics on the activities of the services or their needs
- data provided are often estimates and while these are thought to be reasonable, there has been no audit to check the accuracy of these figures.

In relation to the statistics for this performance measure - these data provide a rough guide to service activity in this area but do not attempt to measure quantity or quality.

3.05 Differential access to key hospital procedures

Refer to notes for indicator 1.02 regarding hospitalisation data. Proportions are directly age standardised using the age and cause specific rates of other Australians.

Figure 113: Per cent refers to the proportion of hospitalisations with Coronary Heart Disease as the principal diagnosis receiving either coronary angiography or coronary revascularisation.

3.06 Ambulatory care sensitive hospital admissions

Refer to notes for indicator 1.02 regarding hospitalisation data. ICD-10-AM codes J10 J11 J188 A35 A36 A37 A80 B05 B06 B161 B169 B180 B181 B26 G000 M014 J45 J46 I50 I110 J81 E101 E102 E103 E104 E105 E106 E107 E108 E110 E111 E112 E113 E114 E115 E116 E117 E118 E130E131 E132 E133 E134 E135 E136 E137 E138 E140 E141 E142 E143 E144 E145 E146 E147 E148 J20 J41 J42 J43 J44 J47 I20 I240 I248 I249 D501 D508 D509 I10 I119 E40 E41 E42 E43 E550 E643E86 K522 K528 K529 N390 N10 N12 N11 N136 K250 K251 K252 K254 K255 K256 K260 K261 K262K264 K265 K266 K270 K271 K272 K274 K275 K276 K280 K281 K282 K284 K285 K286 L03 L04 L08 L980 L88 L983 N70 N73 N74 H66 H67 J02 J03 J06 J312 K02 K03 K04 K05 K06 K08 K098 K099 K12 K13 K35 K36 K37 O15 G40 G41 R56 R02. Note some of these codes are for principal diagnosis only, some are for principal or associated diagnosis, and some are principal diagnosis with the exclusion of some procedure codes.

Figure 114: For chronic conditions, the period 2000-01 to 2003-04 has been used for analysis as coding changes were made to diabetes complications (the most common potentially preventable chronic condition) in July 1999 and July 2000. This meant that coding for diabetes is only consistent from 2000-01 onwards and thus data for prior years should not be included in the analysis of trends involving diabetes complications.

3.07 Discharge against medical advice

Refer to notes for indicator 1.02 regarding hospitalisation data.

3.08 Access to mental health services

Refer to notes for indicator 1.02 regarding hospitalisation data. ICD-10-AM codes F00-F99 G30 G47.0 G47.1 G47.2 G47.8 G47.9 099.3 R44 R45.0 R45.1 R45.4 R48 Z00.4 Z03.2 Z04.6 Z09.3 Z13.3 Z50.2 Z50.3 Z54.3 Z61.9 Z63.1 Z63.8 Z63.9 Z65.8 Z65.9 Z71.4 Z71.5 Z76.0.

3.09 Aboriginal and Torres Strait Islander Australians in the health workforce

Data for this measure comes from the 2001 ABS Census of Population and Housing. The Census collects information on occupation every five years. The 2001 Census used the Australian Standard Classification of Occupations (ASCO) however. this will be replaced by the Australian and New Zealand Standard Classification of Occupations (ANZCO) for the 2006 Census.

3.10 Access to services by types of service compared to need

Totals refer to those who were admitted to hospital in last 12 months, had a dental consultation, doctor consultation, visited casualty/outpatients or consulted with other health professional in last 2 weeks.

Estimate is subject to sampling variability too high for most practical purposes. Data are directly age standardised.

Figures 127 and 128: Refer to notes for indicator 1.02 regarding hospitalisation data.

3.11 Access to prescription medicines

Current prices. Includes estimates of benefits via PBS and RPBS.

Figure 130: Excludes expenditure through RPBS and highly specialised drugs dispensed from public and private hospitals. Excludes benefits paid through special supply arrangements of the PBS (other than payments to remote area AHS under Section 100 of the National Health Act 1953).

3.12 Regular GP or health service

Self reported data from the National Aboriginal and Torres Strait Islander Health Survey 2004-05.

3.13 Accreditation

Figure 134: Data are from public hospitals only. Remoteness category based on residence of patient.

Figure 135: Aboriginal and Torres Strait Islander proportions are based on ABS population estimates used in the Annual Survey of the Divisions of General Practice. There is double counting of some services where general practices reside on the border of two divisions. In that case, two Divisions may service the same practice.

3.14 Aboriginal and Torres Strait Islander peoples in Tertiary Education for health related disciplines

Higher Education Student Statistics Collection: The Higher Education Student Collection only includes information from higher education institutions in Australia as determined under the *Higher Education Funding Act 1988*. Private institutions are not required to report statistical data to DEST and are therefore outside the scope of the collection. The collection of data from private higher education institutions is being trialed. Approximately 3% of students in this data collection have a 'Not stated' Indigenous status. At the moment these are recorded as non-Indigenous, although plans are underway to separately record the 'Not stated' responses.

National Centre for Vocational Education Research: This collection gathers information from providers (in receipt of public VET funding) about activity of the VET system in Australia. The collection encompasses all delivery funded wholly or in part from public funds. In-scope activity includes all VET delivered by: technical and further education organisations, higher education institutions, other government providers (e.g. agricultural colleges), community education providers, government-funded private registered training organisations, schools funded through government allocations for VET, all other Commonwealth and state recurrent and specific-purpose funded VET, regardless of the location of the training organisation. Out-of-scope activity includes: all delivery at overseas campuses other than overseas Australia territories, all fee-for-service delivery by private training organisations, all delivery by private training organisations to full fee-paying overseas clients, all non-VET activity.

The completeness of the Indigenous status of students needs to be considered when interpreting this data. In 2003, 3.9% of government funded VET students in Australia identified themselves as Indigenous, while 13.8% of students did not report their Indigenous status.

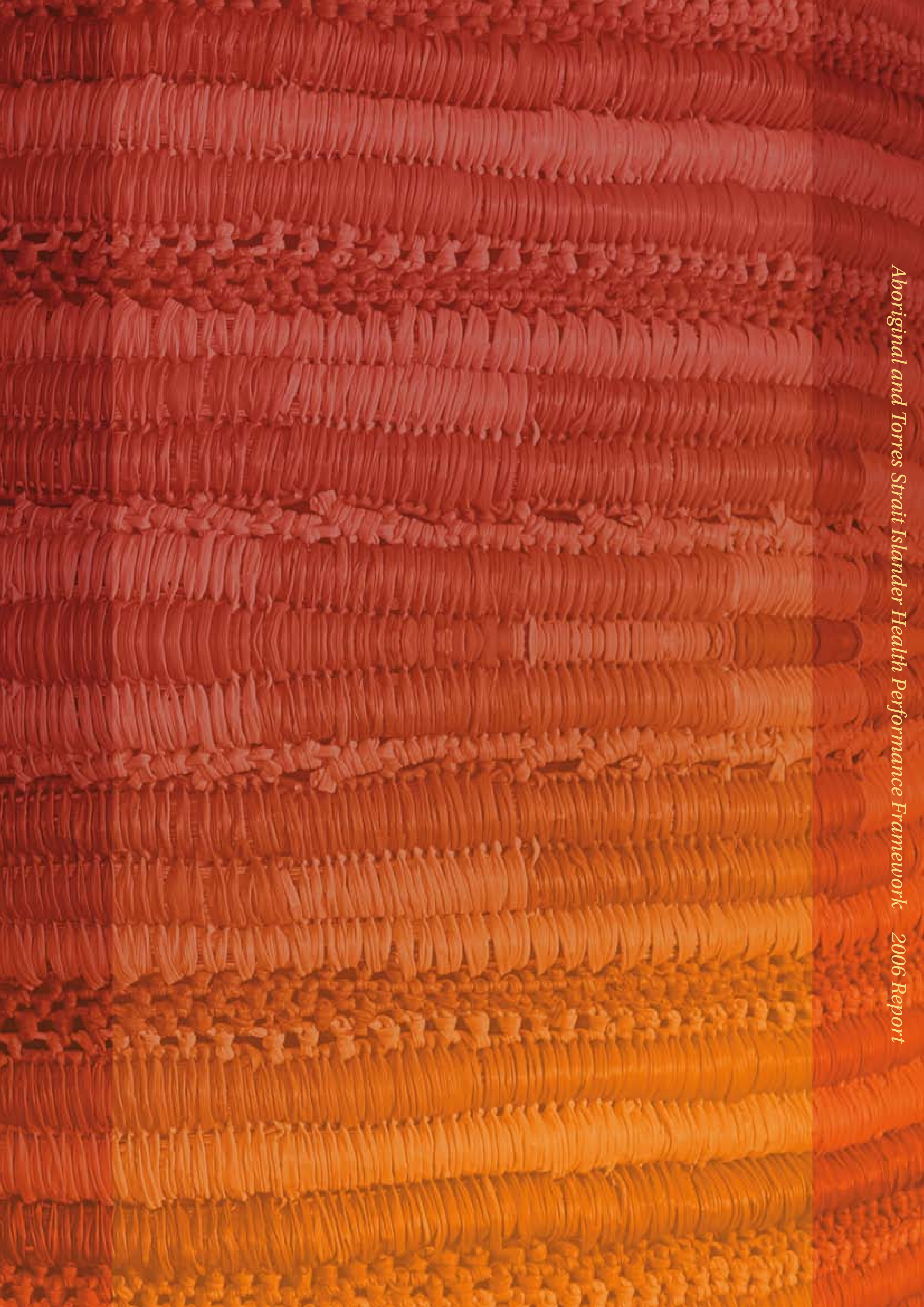
3.15 Expenditure on Aboriginal and Torres Strait Islander health compared to need

Derived from the AIHW (2005). Constant prices are calculated using the health price indexes from AIHW 2004a.

Figure 139: Selected services includes Admitted Patient Episodes, PBS, Medicare (medical only), OATSIH and Services for Older People (Australian Government expenditure only). Darwin is included as an outer regional area under ARIA+. Hobart is included as an inner regional area under ARIA+. Excludes Medicare benefits for optometry and dental services. Excludes benefits paid through special supply arrangements of the PBS (other than payments to remote area AHS under Section 100 of the National Health Act 1953).

3.16 Recruitment and retention of clinical and management staff (including GPs)

Figures 142 and 143: Number of funded FTE vacancies divided by the total FTE positions multiplied by 100.



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