Aboriginal and Torres Strait Islander Health Performance Framework 2006 report

Detailed analyses

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Executive Summary

This report contains detailed analyses underlying the summary data presented in the Aboriginal and Torres Strait Islander Health Performance Framework 2006 report (AHMAC 2006). The Aboriginal and Torres Strait Islander Health Performance Framework (HPF) is designed to provide the basis to monitor the impact of the National Strategic Framework for Aboriginal and Torres Strait Islander Health (NSFATSH) and inform policy analyses, planning and program implementation. The HPF consists of 70 measures covering three Tiers—health status and outcomes, determinants of health and health systems performance.

A summary of the key findings are outlined below.

Health status and health outcomes

A number of measures are used to describe the health status and health outcomes of Aboriginal and Torres Strait Islander peoples in a range of health issues. These include life expectancy, self-assessment of health, disability, low birthweight, morbidity rates and mortality rates.

Getting better

Trends over time show improvements in several important measures of health of Aboriginal and Torres Strait Islander people.

- **All cause mortality.** Between 1991 and 2003, in the three jurisdictions for which there is 12 years of adequate coverage of Indigenous deaths, all cause mortality rates have declined by 16% for Indigenous males and 6% for Indigenous females.
- **Deaths from circulatory disease.** Over the period 1997–2003, there were significant declines in mortality rates from circulatory diseases among Indigenous Australians resulting in a significant closing of the gap between Indigenous and non-Indigenous mortality from circulatory disease (from a rate ratio of 1.9 to 1.6)
- **Infant mortality** has declined by 44% and perinatal mortality by about 55% between 1991 and 2003.
- **Hospitalisations from pneumonia** for Indigenous children aged 0–4 years declined at an average annual rate of around 2 per 1,000 between 1998–99 to 2003–04 which was greater than the decline observed for non-Indigenous children.

Areas of concern

- **Low birthweight** has remained around twice as common for Aboriginal and Torres Strait Islander babies as for other Australian babies
- **Ear disease.** There has been little change in the prevalence of ear and hearing problems among Indigenous children aged 0–14 years between 2001 and 2004–05. In 2004–05, approximately 10% of Indigenous children aged 0–14 years reported having ear or hearing problems compared with 3% of non-Indigenous children of the same age
- **Acute Rheumatic Fever and Rheumatic Heart Disease.** Data from the Top End of the Northern Territory and Central Australia indicate that the incidence rates of Acute Rheumatic Fever and the prevalence of Rheumatic Heart Disease are substantially higher

in the Indigenous population compared to the non-Indigenous population and there is no indication that these rates are falling

- **End Stage Renal Disease.** The incidence rate of end stage renal disease among the Indigenous population has increased by 120% between 1991 and 2004
- **Oral health.** Indigenous children experience higher levels of tooth decay and lower levels of access to dental care than non-Indigenous children. Trends data from the Northern Territory indicate that there has been no improvement in the dental health of Aboriginal and Torres Strait Islander children over the last decade
- **Sexually transmissible infections.** Rates of chlamydia and gonorrhea have increased significantly between 1994 and 2004 and the incidence of HIV infection has increased slightly in recent years for Aboriginal and Torres Strait Islander peoples.

Determinants of health

A range of factors can impact on health including environmental factors such as functional housing and overcrowding, health behaviours such as smoking and alcohol use, socioeconomic factors such as educational participation and attainment, employment, income and housing tenure, and community/cultural factors such as safety and crime, child protection, transport and access to traditional lands.

Getting better

There have been improvements in several key health determinants in recent years including:

- **School retention.** Indigenous school retention rates to Year 10 and Year 12 have steadily increased over the last 5 years
- **Literacy and numeracy** levels have improved at years 3, 5 and 7, particularly for reading and writing
- **School completion.** The proportion of Indigenous people who have completed Year 12 has increased between 2001 and 2004–05 (from 18% to 21%)
- **Unemployment** rates are more than twice as high among Indigenous Australians as amongst other Australians, unemployment has however declined somewhat between 1994 and 2002 (from 30% to 20%)
- **Home ownership.** The proportion of Aboriginal and Torres Strait Islander people who own their own home has increased from 22% in 1994 to 27% in 2002.

Areas of concern

- **Overcrowding.** In 2004–05, Indigenous adults were five times more likely to live in overcrowded homes than other adults
- **Income.** In 2004–05, approximately 42% of Aboriginal and Torres Strait Islanders were in the bottom 20% of incomes and there has been little increase in the mean equivalised household income of Indigenous Australians between 1994 and 2002
- **Victims of violence.** Aboriginal and Torres Strait Islander people are much more likely to be the victims of violence than other people. The proportion of Indigenous Australians aged 15 years and over who reported being a victim of physical or threatened violence in the last 12 months has increased from 13% in 1994 to 24% in 2002. These rates are likely

to be an underestimate of the true level of violence experienced by Aboriginal and Torres Strait Islander peoples

- **Imprisonment.** Between 2000 and 2005, the proportion of Aboriginal and Torres Strait Islander adults who were in prison increased significantly from 1,265 per 100,000 to 1,561 per 100,000 population
- **Child abuse and neglect.** The rate of substantiated child protection notifications for Aboriginal and Torres Strait Islander children has increased substantially in all jurisdictions except Western Australia since 1998–99 and is between 3 and 4 times higher than for other children
- **Smoking.** Around half of Aboriginal and Torres Strait Islander adults are current daily smokers and this rate has not changed in the last decade
- **Risky alcohol consumption.** Aboriginal and Torres Strait Islanders are less likely to consume alcohol than non-Indigenous Australians, however of those who consume alcohol, around 50% consume it at long-term risky or high risk levels
- **Substance use.** The proportion of Indigenous adults in non-remote areas who reported using substances in the last 12 months increased from 25% in 2002 to 28% in 2004–05
- **Overweight and obesity.** Approximately 60% of Indigenous adults were overweight or obese in 2004–05, which is an increase from 1995 and 2001.

Health system performance

There is a range of data available on the performance of the health system in relation to Aboriginal and Torres Strait Islander peoples.

Getting better

- **Availability of staff and number of services.** There has been an increase in the number of Aboriginal and Torres Strait Islander primary health care services in recent years and greater availability of staff
- **Usual source of care.** A high percentage of Aboriginal and Torres Strait Islander people report that they usually go to the same GP or medical service (91%)
- **Access to prescription medicines** for Aboriginal and Torres Strait Islander peoples has improved through the section 100 arrangement for remote areas. Aboriginal and Torres Strait Islander primary health care services and the average expenditure per person for the Indigenous population by the Australian Government on the Pharmaceutical Benefits Scheme almost doubled between 1995–96 and 1998–99.

Areas of concern

Gaps remain in health system performance and access to services for Aboriginal and Torres Strait Islander peoples.

- **Antenatal care.** While a high proportion of Aboriginal and Torres Strait Islander women access antenatal care (between 84% and 98% of Indigenous mothers attended at least one antenatal care session in 2003 in the five jurisdictions for which data are available), data suggest that it occurs later and less frequently than for other women
- **Access to health care.** In 2004–05, while Aboriginal and Torres Strait Islander peoples reported accessing health care at similar rates to other Australians (around 46%), there

were differences in the types of health care accessed. For example, Indigenous Australians were twice as likely to visit casualty/outpatients but half as likely to see a dentist

- **Barriers to accessing health care include:** cost, transport, availability and sustainability of services. In 2004-05, 15% of Indigenous people did not visit a doctor when they needed to, with transport/distance being a major reason, especially in remote areas. Other reasons included cost, waiting time and being too busy. Approximately 21% of Indigenous Australians did not visit a dentist when needed because of cost
- **Key hospital procedures.** There are large disparities between the Indigenous and non-Indigenous population in access to certain key hospital procedures which cannot be explained by diagnosis, age, sex or place of residence and this situation has not improved in recent years. Between July 2002 and June 2004, excluding care involving dialysis, 53% of hospital separations for Aboriginal and Torres Strait Islander peoples in public hospitals had a procedure recorded compared to 70% of hospital separations for other people
- **Discharge from hospital against medical advice.** There have been significant increases in the rate at which Aboriginal and Torres Strait Islander peoples are discharged from hospital against medical advice in recent years. For the period 2002–03 to 2003–04, Aboriginal and Torres Strait Islander peoples were discharged from hospital against medical advice at 19 times the rate of other Australians
- **Avoidable hospitalisations through health care.** Between 2000–01 to 2003–04, hospitalisation rates for ambulatory care sensitive conditions have increased for Indigenous Australians and the relative gap between Indigenous and non-Indigenous Australians for these conditions has widened (from a rate ratio of 4.3 to 5.9)
- **Mental health services.** In 2003–04, there were around twice as many contacts with community mental health care services for Aboriginal and Torres Strait Islander people as for other people
- **Health workforce.** Aboriginal and Torres Strait Islander people continue to be under-represented in the health workforce and in training for various health professions. In 2001, Aboriginal and Torres Strait Islander peoples accounted for only 0.9% of the total health workforce and in 2004, only 1.3% of all undergraduate students enrolled in tertiary health-related courses, and 3.9% of all people in the vocational, education and training sector, were Aboriginal or Torres Strait Islander
- **Health expenditure.** In 2001–02, on a per person basis, average health expenditures for Aboriginal and Torres Strait Islander peoples was 18% higher than expenditures for other Australians which was less than that reported in 1998–99.

Introduction

This report presents the detailed analyses undertaken by the Australian Institute of Health and Welfare that were used to support the policy report—The *Aboriginal and Torres Strait Islander Health Performance Framework, 2006 report.* The report was the first report against the Aboriginal and Torres Strait Islander Health Performance Framework (HPF) produced by the Department of Health and Ageing which provides a baseline to monitor progress against the National Strategic Framework for Aboriginal and Torres Strait Islander Health 2003 to 2013.

The Health Performance Framework monitors progress of the health system and broader determinants of health in improving Aboriginal and Torres Strait Islander Health. The HPF comprises three tiers of performance as follows:

Tier 1—health status and health outcomes. This Tier covers measures of prevalence of health conditions (eg circulatory disease, diabetes), human function (eg disability), life expectancy and well-being and deaths. This Tier aims to provide an overall indication of current health status and recent trends in the health status of Aboriginal and Torres Strait Islander peoples on a range of health issues. These issues include child and maternal health, chronic diseases, injury, communicable diseases, social and emotional wellbeing and overall health status.

Tier 2—determinants of health. This Tier consists of measures of the determinants of health which focus on factors outside the health system that impact on the health of Aboriginal and Torres Strait Islander peoples. The domains covered in this Tier include socioeconomic status (eg income and education), environmental factors (eg overcrowding), community capacity (eg child protection), health behaviours (eg risky alcohol consumption and dietary behaviours) and person-related factors (eg prevalence of overweight and obesity). Such factors have been shown to have a strong association with both disease and ill-health.

Tier 3—health systems performance. This Tier includes measures of the performance of the health system including population health, primary health care and secondary/tertiary care services. Six domains are covered: effectiveness of health services, responsiveness of health services to Aboriginal and Torres Strait Islander communities and individuals, accessibility of services, capability and sustainability. This Tier includes measures that deal with a range of programs and service types including child and maternal health, early detection and chronic disease management, continuous care, assess to secondary/tertiary care, the health workforce and expenditure.

The Tiers and domains of the HPF and selected measures are shown in Figure 1. There are currently 64 measures which have been developed and for which data is available. Measures that are shaded have not yet been developed but are planned for inclusion in the next report against the HPF (2008).

Figure 1 – Aboriginal and Torres Strait Islander Health Performance Framework 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 & 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
Community functioning

Life Expectancy & Wellbeing
1.14 Life expectancy at birth
1.15 Perceived health status
1.16 Median age at death
1.17 Social and emotional wellbeing

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

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

Socioeconomic Factors
2.04 Educational participation and attainment of Aboriginal and Torres Strait Islander adults
2.05 Years 10 and 12 retention and attainment
2.06 Year 3, 5 and 7 literacy and numeracy
2.07 Employment status including CDEP participation
2.08 Income
2.09 Housing tenure type
Index of disparity

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
Self reported unsafe sexual practices

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 (including cancer screening)
3.04 Chronic disease management
3.05 Differential access to key hospital procedures
3.06 Ambulatory care sensitive hospital admissions
Health promotion

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
Competent governance

Accessible
3.10 Access to services by types of service compared to need
3.11 Access to prescription medicines
Access to after hours primary health care

Continuous
3.12 Regular GP or health service
Care planning for client with preventable chronic diseases
Use of Enhanced Primary Care Items on MBS

Capable
3.13 Accreditation
3.14 Aboriginal and Torres Strait Islander people in Tertiary Education for health related disciplines

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)

Notes

1. Shading indicates the measures that have not been developed yet.
2. The **Safe** domain is measured within the National Health Performance Committee framework.

Demographic information

The Aboriginal and Torres Strait Islander population of Australia is projected to have grown to about 510,000 by mid-2007. Aboriginal and Torres Strait Islander peoples represent 2.4% of the total Australian population. They have an age structure that is significantly younger than that of other Australians. For example, Aboriginal and Torres Strait Islander peoples aged less than 15 years constitute 39% of the total Indigenous population, whereas this age group represents about 20% of the total Australian population. Conversely, those aged 65 years and over comprise only 2.8% of the Indigenous population, compared with 13% of the total Australian population.

About two-thirds of Aboriginal and Torres Strait Islander peoples live in major cities, inner and outer regional areas. However, just over a quarter reside in remote and very remote areas. The majority of Aboriginal and Torres Strait Islander peoples live in New South Wales (29% of the Indigenous population) and Queensland (27%), Western Australia (14%) and the Northern Territory (12%). Indigenous people comprise about 30% of the Northern Territory population but less than 4% in all other state/territory populations.

Structure of this report

Chapter 1 presents analyses for Tier 1—health status and health outcomes; Chapter 2 presents analyses for Tier 2—determinants of health status, and Chapter 3 presents analyses for Tier 3—health system performance. The layout for each measure is constant and includes a definition according to the technical specifications, a section on the data sources used, analyses undertaken, additional information and data quality issues. For each measure, analyses are presented by age, sex, state/territory and remoteness. Time trends are presented where possible for years that have adequate identification of Indigenous people in their recording systems. For some measures, data are also presented by selected health and population characteristics to examine the relationships between health and socioeconomic factors. International comparisons with New Zealand, the United States and Canada are presented for some measures.

Data sources and methodology

Data in this report come from a number of different administrative data sets and surveys. A table of all data sources used for each measure of the Framework is presented at Appendix 1.

Administrative data sets used in the report include administrative data related to health such as the AIHW National Hospital Morbidity Database, the AIHW National Mortality Database, the AIHW National Perinatal Data Collection, Australia and New Zealand Dialysis and Transplant Registry and the National Notifiable Diseases Surveillance System; administrative data related to education such as the ABS National Schools Statistics Collection, DEST Higher Educations Statistics Collection and the National Centre for Vocational Education Research database; administrative data related to crime and justice such as the Juvenile Justice National Minimum Dataset and the AIC National Homicide Monitoring Program; administrative data related to community services such as the AIHW Community Mental Health Care Database and the AIHW National Child Protection Data collections; and administrative data related to other government services and programs such as the Service Activity Reporting Database, Australian Childhood Immunisation Register and Medicare database.

Surveys that were used to obtain data include Indigenous specific surveys such as the National Aboriginal and Torres Strait Islander Health Survey, the National Aboriginal and Torres Strait Islander Social Survey, the Community Housing Infrastructure Needs Survey and the Western Australian Aboriginal Child Health Survey; and mainstream surveys such as the Census of Population and Housing, the Bettering the Evaluation and Care of Health (BEACH) survey, the ABS National Prison Census and the AIHW National Drug Strategy Household Survey.

Age-standardised rates and ratios have been used in many of the indicators as a measure of morbidity in the Indigenous population relative to other Australians. Ratios of this type illustrate differences between the rates of morbidity among Indigenous people and those of other Australians, taking into account differences in age distributions. All age-standardised rates and rate ratios have been calculated using the direct standardisation method and the 2001 Australian population as the standard population.

Time series analyses presented throughout this report have used linear regression analysis to determine whether there have been significant increases or decreases in the observed rates over the period. Many of the tables also include a * to indicate that rates for the Indigenous and non-Indigenous populations are statistically different from each other at the $p<.05$ level.

Data limitations

There are a number of limitations of available data presented in this report that should be noted when interpreting data analyses and making comparisons across jurisdictions and over time. The main issue in most administrative data collections is the under-identification of Aboriginal and Torres Strait Islander peoples. Under-identification is a major problem in mortality, hospital morbidity and communicable disease data, particularly in some states and territories. Data analysis has therefore been limited to jurisdictions with adequate identification of Indigenous people for these data collections. For hospital separations and recent mortality data, these jurisdictions are Queensland, Western Australia, South Australia and the Northern Territory. Longer term mortality trend data are limited to three jurisdictions—Western Australia, South Australia and the Northern Territory, which have over 10 years of adequate identification of Indigenous deaths in their recording systems. Data on communicable diseases from the National Notifiable Disease Surveillance System includes data from Western Australia, South Australia and the Northern Territory which have been assessed as having adequate identification.

The incompleteness of Indigenous identification means the number of hospital separations, deaths and disease notifications recorded as Indigenous are an underestimate of the true level of morbidity and mortality of Aboriginal and Torres Strait Islander people. As a result, the observed differences between the Indigenous and non-Indigenous populations are underestimates of the true differences.

Surveys are also subject to a number of data limitations. Under-identification can be an issue for some surveys. For example, the Bettering the Evaluation and Care of Health (BEACH) survey has a high number of 'not stated' responses to the Indigenous identification question which suggests the survey consistently undercounts the number of Indigenous people visiting doctors. A problem for some national surveys such as the BEACH and National Drug Strategy Household Survey is that they have small samples of Indigenous people. Survey data are also subject to sampling and non-sampling errors. In most tables in this report, estimates with large relative standard errors, which is a measure of the sampling

variability, have been footnoted to indicate that they should be used with caution or are considered too unreliable for general use.

There are also data limitations surrounding international comparisons for some of the measures. These include the lack of an accurate denominator for the Indigenous population (mainly due to undercounting) and the lack of agreement over which is the best population denominator to use when they exist (for example, whether to use single ethnic response groups or multiple ethnic response groups). There are differences in how Indigenous status is defined in the different countries. There have also been frequent modifications to the ethnicity question recorded in the censuses in some of these countries.