

National summary of the 1999 jurisdictional reports against the Aboriginal and Torres Strait Islander health performance indicators

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Aboriginal and Torres Strait Islander
Health performance indicators**

**The National Health Information Management Group for Australian Health
Ministers' Advisory Council, prepared and funded by the Commonwealth Office
for Aboriginal and Torres Strait Islander Health**

Canberra

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Foreword

This is the second report against the interim set of national performance indicators for Aboriginal and Torres Strait Islander health, and was commissioned by the Australian Health Ministers' Advisory Council (AHMAC) to review its efforts and achievements in this area. It has been compiled by the Australian Institute of Health and Welfare (AIHW), on behalf of AHMAC and the National Health Information Management Group (NHIMG), using separate reports for 1999 submitted by all jurisdictions.

This report is the result of work on the development of national Aboriginal and Torres Strait Islander health performance indicators that has been occurring over the past 6 years. The set of interim performance indicators reported against in this report was agreed to by Health Ministers in 1997, and the first report was based on data collected in 1998 in all jurisdictions.

The report reflects a genuine national commitment to accountability by State, Territory and Commonwealth Governments in the area of Aboriginal and Torres Strait Islander health.

While some improvements in the ability to report against the indicators are evident in this year's report, the gaps and deficiencies noted in the first report remain:

- data quality problems affecting most jurisdictions (although to varying degrees);
- definitional problems associated with many of the performance indicators; and
- lack of available data or methods for collecting data for several of the indicators.

In particular, the identification of Aboriginal and Torres Strait Islander people in routine data collections is still the single most significant quality issue detracting from meaningful reporting against the indicators. All jurisdictions must continue their efforts to improve data quality and their ability to report comprehensively against the indicators.

When Health Ministers agreed to the interim set of performance indicators, it was also agreed that a project would be undertaken to further refine the performance indicators. The Cooperative Research Centre for Aboriginal and Tropical Health was contracted to undertake the refinement of the performance indicators, including the development of indicators to cover mental health, with the intention that the refined set would be used for the 2000 reporting round. The refined set was endorsed by AHMAC on 19 October 2000.

AHMAC and NHIMG remain committed to improving statistics on Aboriginal and Torres Strait Islander health, and will now be advised by a new sub-committee under NHIMG, the National Advisory Group on Aboriginal and Torres Strait Islander Health Information and Data. The advisory group will focus on the improvement of the quality and availability of data and information on Aboriginal and Torres Strait Islander health and health service delivery. The group will also continue the implementation of the Aboriginal and Torres Strait Islander Health Information Plan, and oversee the reporting against the performance indicators and targets for Aboriginal and Torres Strait Islander health.

Robert Stable

Chair

Australian Health Ministers' Advisory Council

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Executive summary

Category one: Life expectancy and mortality

Measurement of the first two sets of indicators, mortality and morbidity, is particularly affected by the problems of identifying Indigenous status in the relevant administrative data collections. Only four jurisdictions (Western Australia, South Australia, the Northern Territory, and Queensland) were able to report against the mortality indicators. The data confirm that, at least in the four reporting jurisdictions, Aboriginal and Torres Strait Islander people have lower life expectancy and higher mortality than non-Indigenous Australians. Also, Indigenous males have lower life expectancy and higher mortality than Indigenous females. Death rates of Indigenous people range from 1.7 to 3.8 times those of comparable non-Indigenous groups. There is no reason to suspect that the situation would be different in the non-reporting jurisdictions.

A number of the indicators measure death rates by cause, focusing on some of the most common causes of death for Aboriginal and Torres Strait Islander people. Death rates from ischaemic heart disease and from injury and poisoning, the two main causes of death, are two to three times greater among the Indigenous population. The death rates from pneumonia, diabetes, and (for females) cancer of the cervix were lower, but the ratios of Indigenous to non-Indigenous rates were even greater in most cases. The Indigenous male death rates for ischaemic heart diseases, injury and poisoning, and pneumonia were higher than the female rates, while the female rates tended to be higher for rheumatic heart disease and diabetes.

Category two: Morbidity

The first group of morbidity indicators are notification rates for certain diseases: pertussis, measles, hepatitis B, meningococcal infection, gonorrhoea, and syphilis. Only two jurisdictions (Western Australia and the Northern Territory) reported against these. For pertussis, the rates for Indigenous children in Western Australia were double the rates for non-Indigenous children, while in the Northern Territory the opposite was the case. There were only a small number of measles notifications, so comparisons between Indigenous and non-Indigenous rates are not meaningful. For hepatitis B and meningococcal infection, the rates among the Indigenous people in both jurisdictions were much higher than for the non-Indigenous population. For the two sexually transmitted diseases, gonorrhoea and syphilis, the notification rates for the Indigenous population were more than 10 times higher than the non-Indigenous rates.

Another morbidity indicator is the proportion of low birth weight infants. Most of the jurisdictions were able to report the proportions of low birth weight infants born to Indigenous mothers, and several also provided a comparative figure for infants of non-Indigenous mothers. These comparisons show that between 7% and 15% of infants born to Indigenous mothers weigh less than 2,500 grams, compared to about 6% of other infants.

A third type of morbidity indicator is hospital use, expressed as hospital separation rates. Four jurisdictions were able to report these rates (Western Australia, South Australia, the Northern Territory, and Queensland). Nearly all of the all-cause separation rate ratios in

these jurisdictions were greater than 1.0, indicating that Indigenous people were more likely to be hospitalised than non-Indigenous people. The separation rate ratios for diabetes were especially marked, around 12 in Western Australia and 7 in South Australia and among females in the Northern Territory. The ratios for tympanoplasty were very high for females in Western Australia (8) and males in South Australia (7).

Category three: Access

This set of indicators includes measures of the travel time to services, allocation of resources for services, mixture of services, and Indigenous participation in service management. The jurisdictions were unable to provide data for most of these indicators, in part because of the lack of agreed definitions. However, some information from the 1999 Community Housing and Infrastructure Needs Survey is included in the report for the indicators on travel time to health facilities. One indicator, the extent of community participation in health services, was reported by qualitative information, with all jurisdictions providing descriptions of progress in this area.

Category four: Health service impacts

The indicators in this group are designed to gauge the 'outputs' of health services aimed at improving the health of Aboriginal and Torres Strait Islander people. The outputs measured range from health promotion expenditure, cervical cancer screening, immunisations, development of protocols for effective management of chronic diseases, accident and emergency activity, and primary care activity. All jurisdictions provided qualitative information and some expenditure figures on their health promotion programs for Aboriginal and Torres Strait Islander people. Similar information was provided on the development of systems to detect and manage chronic conditions. However, very little quantitative information was available for measures of Pap smear, immunisation, and vaccination rates, accident and emergency activity rates, and Indigenous proportions in GP consultations.

Category five: Workforce development

Information on the number of Indigenous students graduating from and training in health courses is available from some jurisdictions, and this is complemented in the report with national data from the Commonwealth Department of Education and Training. These data show that while the number of Indigenous students completing health training in higher education institutions declined slightly from 1997 to 1998, the number enrolled increased by about 11%. Over the same period, the number completing vocational training increased nearly 40%, and the number enrolled increased by 28%. There were similar increases in the numbers of students completing and enrolling in Aboriginal Health Worker courses. Altogether there were over 1,500 Indigenous students completing training and over 7,000 enrolled in 1998.

Several jurisdictions provided data on the number of vacant positions in health services for Indigenous people, but only two (Western Australia and the Northern Territory) were able to report on vacancies in hospitals with high (25% of separations) usage by Aboriginal and Torres Strait Islander people. Several jurisdictions (Victoria, Tasmania, and the Australian Capital Territory) reported that none of their hospitals met this criterion, and thus this indicator is not relevant to them. Little information could be provided on the proportion of

doctors and nurses who identified as Aboriginal and/or Torres Strait Islander, in part because such information is not routinely collected in the registration of nurses and doctors.

Category six: Risk factors

Health risk factors included in this category are smoking, overweight, and excess alcohol consumption. These were last measured in the 1994 National Aboriginal and Torres Strait Islander Survey (NATSIS), and thus little new information was available for this report. On smoking, the Commonwealth provided national figures from this survey, showing that 54% of Indigenous males and 46% of Indigenous females over age 13 smoked. The Northern Territory has re-analysed the NATSIS data and found that at all ages lower proportions of the Indigenous people in the Northern Territory are overweight or obese than are Indigenous people in the rest of Australia. The contrast is particularly striking at older ages, and the Northern Territory report speculates that this is 'possibly as a result of a much later change in lifestyle and nutrition here than elsewhere in Australia'. On alcohol consumption, several sources reported that Indigenous people are more likely than non-Indigenous people to abstain from alcohol, but those who do drink alcohol are more likely to do so at unsafe levels.

Category seven: Intersectoral issues

The jurisdictions reported that they generally did not collect the kind of data required. Some information is collected nationally for the indicators on household poverty and disruption of essential utilities, and these have been included in the report.

Categories eight and nine: Community involvement and Quality of service provision

For the final two categories of indicators the jurisdictions provided qualitative reports. These reports indicated that progress is continuing in the establishment of forums to discuss Indigenous health issues, the development of community planning mechanisms to implement regional strategies, and improving access to the mechanisms for formal notification of adverse incidents for Indigenous people.

Progress in improving reporting

Most of the jurisdictions noted that the review of the indicators being undertaken by the Cooperative Research Centre will improve capacity to report. The review should help to clarify the definitions and methodological issues for many of the indicators, and also identify the appropriate agencies responsible for reporting on specific indicators.

Comments were also made by most jurisdictions about the continuing issue of adequate identification of Aboriginal and Torres Strait Islander people in their administrative databases. In some cases, the jurisdictions reported that they were working with the Australian Bureau of Statistics to implement appropriate measures to achieve this, particularly for the registration of births and deaths. Improved recording of Indigenous status was mentioned by some jurisdictions as the main factor for better reporting on the mortality, morbidity, health service impacts, and workforce indicators.

Introduction

Aim

The aim of this report is to provide a summary of the State, Territory and Commonwealth reports received in late 1999 against the interim set of National Aboriginal and Torres Strait Islander Health Performance Indicators. Reporting against these indicators serves two functions: (1) to encourage jurisdictions to measure and monitor their progress in improving the health of Aboriginal and Torres Strait Islander people, and (2) to allow jurisdictions to report on efforts to improve the quality and accuracy of their data collections.

The 1999 report builds on the foundations of the 1998 report (NHIMG 2000). A new template for reporting against the interim indicators has improved the scope and quality of the input.

As in the 1998 national summary report, there is some discussion of the data quality issues related to the indicators. A separate chapter at the end of this report includes comments from the jurisdictions on their progress in reporting against the indicators. However, this report does not discuss possible improvements of the indicators, as this is being addressed by the refinement of the indicators being carried out by the Cooperative Research Centre for Aboriginal and Tropical Health.

Scope of the report

This report focuses on indicators that were agreed to by Health Ministers, and is not a complete picture of the state of Aboriginal and Torres Strait Islander health. While the indicators cover a wide range of health issues for Indigenous Australians, some areas are not covered. Mental health is one such area, although indicators are being developed for this. Another gap is the lack of time-series data for many of the indicators.

There is a range of documents, particularly the statistical reports published by the Australian Bureau of Statistics (ABS) and the Australian Institute of Health and Welfare (AIHW), that provide a more complete picture and more detailed statistics on the state of Aboriginal and Torres Strait Islander health. In contrast to those reports, this one is intended to be used specifically by AHMAC to review its efforts and achievements in Aboriginal and Torres Strait Islander health.

The report is limited by the availability of data relevant to the indicators in State, Territory and Commonwealth collections. Some jurisdictions were able to report against more indicators than in the previous report. For example, the Commonwealth reported on the extent of community participation in health services (Indicator 3.6), the establishment of a forum representing the Aboriginal health sector (Indicator 8.1), and the level of critical incidents reporting and complaint mechanisms of health services (Indicator 9). For some indicators, it was possible in this report to include other relevant data, from sources such as the ABS. These have been included as supplementary tables under the relevant indicators.

Preparation of the report

The data provided in the State, Territory and Commonwealth reports allow for broad reporting at a national level and for comparisons between jurisdictions. However, there are

problems with data quality for some items. These have been noted as appropriate in the report.

Efforts were made to represent most data provided by jurisdictions, regardless of their quality, to demonstrate that the data are at least available, even though they cannot all be analysed at this stage. Where jurisdictions provided some estimate but stated that it was not suitable for publication, or where some explanation was given for why an estimate was not provided, the note 'Reliable data not yet available' is entered into the relevant table.

Data have not been presented without the agreement of jurisdictions.

Quality and limitations of the indicators

When the indicators were developed and agreed to for reporting, it was also acknowledged that a number of the indicator definitions required further refinement. Each indicator in the interim set was assigned a value of 1-5, in terms of current usefulness, clarity of definition, validity and reliability:

1. Indicators that are well defined, commonly used and are straightforward to report against.
2. Indicators that are reasonably well defined but which need further work regarding either their usefulness, interpretation, reliability or validity.
3. Indicators that may be reportable but require substantial additional work regarding usefulness, interpretation, reliability and/or validity.
4. Indicators that are not likely to be reportable in their current form and which may require major developmental work.
5. Indicators that are unlikely to be useable or reportable in the foreseeable future. This is not to suggest that what the indicator is trying to monitor is unimportant but that another indicator may be better.

The 1998 national summary report noted this status for each indicator, but this has not been repeated in this report.

As noted above, the process of reporting against the indicators has uncovered a number of limitations. First, some of the indicators are not applicable to all jurisdictions. For example, Indicator 5.4 requires reporting of the 'number of vacant funded FTE positions for doctors, nurses and Aboriginal Health Workers in hospitals where greater than 25% of separations are Aboriginal and Torres Strait Islander people on a given date'. As Victoria has pointed out, there are no hospitals in that State for which Aboriginal and Torres Strait Islander people comprise more than 25% of separations. Similarly, the 'proportion of communities, with usual populations of less than 100, within one hour usual travel time to primary health care services' (Indicator 3.8) is probably only applicable to Aboriginal and Torres Strait Islander people living in relatively remote parts of the country. For the Australian Capital Territory, the size of the Indigenous population is too small to meaningfully measure some of the indicators, and this has been noted in the relevant tables.

Second, collection of appropriate data for the indicators varies between the jurisdictions. While all jurisdictions are committed to reporting against the indicators, it is recognised that establishing suitable databases will take a number of years. For example, agreements need to be developed between State/Territory health authorities and Aboriginal Community Controlled Health Organisations to ensure the provision of data to meet reporting requirements.

A third type of limitation relates to the appropriate assessment of indicators measuring mortality or morbidity, particularly when the number of cases involved is quite small. Estimation of the Indigenous to non-Indigenous ratios for these indicators requires the use of indirect standardisation, rather than the more commonly used direct standardisation procedure. A related aspect is the confidence that can be placed on estimates derived from small numbers. Both of these aspects were examined in the project aimed at refining the indicators.

Explanatory notes

- The indicator definitions did not specify the reference year for the data sources and consequently, there are differing data sources across jurisdictions for a number of the indicators. In some jurisdictions there are relatively small numbers of cases for some indicators and thus these jurisdictions need to group several years of data for proper reporting. It is very difficult to compare data across different years and this needs to be taken into consideration when examining the results.
- Where jurisdictions provided results for more than one year or period, the most recent data have been included. No attempt has been made to present national trends over time.
- All age-adjusted rates in the report have been directly standardised by the States and Territories to the Australian total population from the 1991 Census, except as noted.
- Table numbering corresponds to the indicator numbers. It was not possible and/or appropriate to present tables for each indicator, so there are gaps in the numerical sequence of tables. A number of supplementary tables, using data other than those provided by the jurisdictions, have been included in this report and are numbered sequentially, beginning with S1.

Technical note: population used in calculation of rates

Most of the mortality and morbidity indicators in this report (Categories 1 and 2) are *rates* and are therefore calculated by dividing the number of *events* (deaths or hospital separations) by the *population* at risk, multiplied by an appropriate *base* (usually 1,000 or 100,000) for the given rate. The results are then *standardised* to account for differences in age structure, either between geographical sections of the population or between different years.¹

The difficulty in providing these measures is in obtaining accurate information for both parts of the equation: deaths (the numerator), and the population at risk (the denominator). In the case of the latter, the ABS provides estimates of the Indigenous population by sex and age for each jurisdiction. These estimates are based on the previous national census (the latest being in 1996) with adjustments for under-counting (including non-response to the question on Indigenous status), temporary visitors, residents temporarily outside the jurisdiction, and for births, deaths and migration between the dates of the census and the estimate. For the Indigenous population, the estimates are considered 'experimental', because 'satisfactory data on births deaths and migration are not generally available and

¹ The 1991 population of Australia is used as the 'standard' population.

because of the volatility of counts of the Indigenous population between censuses' (ABS & AIHW 1999:12).²

The impact of this 'volatility of counts ... between censuses' is mentioned by the Northern Territory in its 1999 report as an issue in attempting to construct time series of data. The increase in the number of Indigenous people counted in the 1996 census was greater than expected, and the ABS subsequently revised upwards its previous estimates for the 1991-96 period, but has not backdated the adjustments prior to 1991. The Northern Territory report states, 'As a consequence, the resulting sudden increase in population size post 1991 might be contributing to a spurious view that the differential [in mortality measures] between Aboriginal and non-Aboriginal people might be decreasing.'

Technical note: Queensland communities

In the case of Queensland, three figures have been provided for some mortality and morbidity indicators: discrete Aboriginal communities, discrete Torres Strait Islander communities, and 'all Indigenous', defined as follows:

Aboriginal communities – Aboriginal Deed of Grant in Trust (DOGIT) communities and the Aurukun and Mornington Island Statistical Local Areas (SLAs). These communities may include some non-Indigenous residents, believed to be less than 10% of the total population.

Torres Strait Islander communities – all communities in the Torres SLA, which includes about 20% non-Indigenous residents.

All Indigenous – includes all Queenslanders who identify as Aboriginal or Torres Strait Islander.

In the case of the first two groups, 'Aboriginal communities' and 'Torres Strait Islander communities', the data are provided on a geographic basis, including all persons living in the respective areas, and not just those identifying as Aboriginal and/or Torres Strait Islander.

² The ABS provides two series of estimates, a 'high' and a 'low' series. The difference is substantial. For example, from the base number of 386,000 Indigenous people in 1996, the 'high' estimate for 1999 is 452,600, 10% greater than the 'low' estimate of 410,600 (ABS & AIHW 1999:150-3). For the purposes of this report, the jurisdictions have agreed to use the 'low' series.

Category one: Life expectancy and mortality

Mortality is an important measure of the health status of a population, in part because death is the ultimate outcome of poor health status or behaviour. Mortality measures may not be sensitive to subtle changes in health status, and there may be relatively long delays between improvements in health and reductions in mortality. Nevertheless, an analysis of deaths by age, sex, and cause still provides a useful indication of the pattern of health in a community (Cunningham & Paradies 2000:1).

Information on the number of deaths is obtained from death registration systems in the States and Territories. The number of registered deaths of Indigenous people each year is known to be lower than the number of 'expected' deaths (based on experimental life tables), due the lack of adequate identification of Indigenous people at the time of the registration of death (ABS & AIHW 1999:166-7). The level of this under-reporting of deaths varies between jurisdictions, with Western Australia, South Australia, and the Northern Territory having the smallest discrepancies. The ABS has therefore advised that only the deaths data from these three jurisdictions can be used in estimating Indigenous mortality. Queensland introduced an improved Death Information Form in 1996 to capture Indigenous origin. It is expected that this will improve the quality of the deaths data from that State so that in a few years time its deaths data can be included with the data of the other three jurisdictions.

Most of the indicators in this section are shown in the tables below with data for only these four jurisdictions. Some of the other jurisdictions provided data for these indicators, but noted that the numbers were not reliable enough to be published.

Indicator 1.1: Life expectancy at birth by sex

Life expectancy at birth is a widely-used summary measure of health and wellbeing. It is interpreted as the number of years of life a person born in the reference year can expect to live, if they experience the current age-specific death rates. Given the problems experienced in accurately measuring the death rates for the Aboriginal and Torres Strait Islander population, life expectancy indicators are difficult to calculate. Three jurisdictions have attempted these calculations using various methodologies (Table 1.1), with the others reporting that attempts to do so with their data at this stage would not provide meaningful estimates. The estimates shown have not changed very much since the last report.

Table 1.1: State/Territory estimated life expectancy at birth for Indigenous persons, by sex

State/Territory	Reporting period	Males	Females
New South Wales		Reliable data not yet available	
Victoria	1992-96	57.1 - 67.2	62.9 - 72.5
Queensland		Reliable data not yet available	
Western Australia	1996-98	61.5	67.5
South Australia		Not reported	
Tasmania		Reliable data not yet available	
Australian Capital Territory	Indigenous population too small for meaningful calculations		
Northern Territory	1995-97	58.3	63.8

The ABS has estimated life expectancy at birth for the Indigenous population at the national level using indirect methods, based on comparisons of the age structure of the population at the two censuses, a technique used in many developing countries with similar problems of data quality. The estimates for the 1991-96 period were 56.9 years for males and 61.7 years for females, considerably lower than the comparable figures for the whole Australian population for that period (75.2 years for males and 81.1 years for females), and similar to those for Australians born at the beginning of the twentieth century (55 years for males and 59 years for females) (ABS & AIHW 1999:134; AIHW 2000:208).³

Indicator 1.2a: Age-standardised all-causes mortality rates by sex

Indicator 1.2b: Age-specific all-causes mortality rates by sex

Indicator 1.3a: Age-standardised all-causes mortality rate ratio by sex

Indicator 1.3b: All-causes age-specific rate ratio by sex

Indicator 1.4: The chance of dying between 20 and 54 years by sex

The death rates (deaths per 100,000 population) for Indigenous Australians were uniformly higher than those of non-Indigenous Australians. The rates for the Indigenous population are shown in Tables 1.2a (the overall age-standardised rates for males and females) and 1.2b (the rates for broad age groups for each sex), while the comparisons with the non-Indigenous population are in Tables 1.3a and 1.3b. The comparisons are expressed as 'death rate ratios', in which the death rate for the Indigenous population is divided by the comparable rate for the non-Indigenous population. All the values of these ratios are greater than 1.0.

The overall death rates reported in 1999 for Indigenous males and females in Queensland and for Indigenous males in South Australia were considerably lower than the comparable rates in the 1998 reports, while the other rates shown are similar to those in the previous report or are unchanged. The differences may be due to the way the data are collected or reported, or to the way the age-standardisation was carried out.

Indicator 1.4, 'the chance of dying between 20 and 54 years by sex', is designed to capture early adult mortality. As with Indicator 1.1, this indicator is based on values from a life table, which are not possible to obtain at the State/Territory level with much accuracy. Two jurisdictions, Western Australia and the Northern Territory, have attempted to make these estimates (Table 1.4). The figures reported for the Northern Territory are the same as in the 1998 report, with Indigenous men aged 20 having a 27% chance of dying before reaching 55 years, while for Indigenous women the figure was 16%. For non-Indigenous people in the Northern Territory, the comparable chances were much lower: 7% for men and 2% for

³ The ABS has recently produced draft experimental life tables for the Indigenous population in the period 1995-97, including estimates of life expectancy at birth for Western Australia, South Australia, and the Northern Territory (ABS 2000a). These estimates are still in development, and thus not shown here.

women. Western Australia also reported the chances of dying for Indigenous people between ages 20 and 54 years: 29% for males and 16% for females.

Table 1.2a: All-cause age-standardised death rates by sex and State/Territory (per 100,000)

State/Territory	Reporting period	Males		Females	
		Indigenous	Non-Indigenous	Indigenous	Non-Indigenous
New South Wales			Reliable data not yet available		
Victoria			Reliable data not yet available		
Queensland:					
Aboriginal communities	1994-98	1,777		1,561	
Torres Strait Islander communities			Reliable data not yet available		
All Indigenous Queenslanders	1998	1,509	774	1,156	470
Western Australia	1996-98	1,619	726	1,080	479
South Australia	Not stated	1,435	683	996	595
Tasmania			Reliable data not yet available		
Australian Capital Territory		Indigenous population too small for meaningful calculations			
Northern Territory	1995-96	2,140	810	1,630	530

Table 1.2b: All-cause age-specific death rates by sex and State/Territory (per 100,000)

State/Territory	Reporting period	Males		Females		
		Indigenous	Non-Indigenous	Indigenous	Non-Indigenous	
New South Wales			Reliable data not yet available			
Victoria			Reliable data not yet available			
Queensland:						
Aboriginal communities	1994-98					
0-14 yrs		281		177		
15-24 yrs		762		318		
25-44 yrs		849		523		
45-64 yrs		2,980		1,855		
65+ yrs		6,067		7,282		
Torres Strait Islander communities			Reliable data not yet available			
All Queenslanders ^a	1998					
0-14 yrs		197	71	110	52	
15-24 yrs		339	93	76	44	
25-44 yrs		753	158	338	70	
45-64 yrs		2,316	579	1,519	337	
65+ yrs		6,960	4,953	6,246	3,793	
Western Australia	1996-98					
0-4 yrs		405	127	267	84	
5-24 yrs		130	58	62	21	
25-44 yrs		774	127	310	62	
45-64 yrs		2,103	482	1,457	278	
65+ yrs		7,390	4,754	5,562	3,823	
South Australia	1993-97					
0-4 yrs		350	143	238	95	
5-24 yrs		164	58	32	27	
25-44 yrs		642	147	405	69	
45-64 yrs		2,220	612	1,216	343	
65+ yrs		6,506	5,162	4,226	4,009	
Tasmania			Reliable data not yet available			
Australian Capital Territory		Indigenous population too small for meaningful calculations				
Northern Territory	1994-96					
0-4 yrs		491	198	491	237	
5-24 yrs		177	79	41	28	
25-44 yrs		930	211	491	48	
45-64 yrs		3,070	707	1,835	351	
65+ yrs		7,591	4,989	7,824	3,694	

a Figures for 'All Queenslanders (non-Indigenous)' are for the total population (Indigenous and non-Indigenous).

Note: These data should be used with caution, as the numbers of deaths in the numerators may be quite small and subject to large annual fluctuations.

Table 1.3a: All-cause age-standardised death rate ratios^a by sex and State/Territory

State/Territory	Reporting period	Males	Females
New South Wales		Reliable data not yet available	
Victoria		Reliable data not yet available	
Queensland			
Aboriginal communities	1994–98	3.5	3.8
Torres Strait Islander communities		Reliable data not yet available	
All Indigenous Queenslanders	1998	3.0	3.3
Western Australia	1996–98	2.3	2.3
South Australia	1993–97	2.1	1.7
Tasmania		Reliable data not yet available	
Australian Capital Territory		Indigenous population too small for meaningful calculations	
Northern Territory	1994–96	2.0	2.6

a The ratio of Indigenous death rates to non-Indigenous death rates. Ratios for Western Australia and the Northern Territory are based on direct standardisation and those for Queensland on indirect standardisation; South Australia not stated.

Table 1.3b: All-cause age-specific death rate ratios^a by sex and State/Territory

State/Territory	Reporting period	Males	Females
New South Wales	Reliable data not yet available		
Victoria	Reliable data not yet available		
Queensland:			
Aboriginal communities	1994-98		
0-14 yrs		3.9	3.4
15-24 yrs		8.2	7.2
25-44 yrs		5.4	7.5
45-64 yrs		5.1	5.5
65+ yrs		1.2	1.9
Torres Strait Islander communities	Reliable data not yet available		
All Indigenous Queenslanders	1998		
0-14 yrs		2.8	2.1
15-24 yrs		3.7	1.7
25-44 yrs		4.8	4.9
45-64 yrs		4.0	4.5
65+ yrs		1.4	1.6
Western Australia	1996-98		
0-4 yrs		3.2	3.2
5-24 yrs		2.3	3.0
25-44 yrs		6.1	5.0
45-64 yrs		4.4	5.2
65+ yrs		1.6	1.5
South Australia	1993-97		
0-4 yrs		2.5	2.5
5-24 yrs		2.9	1.2
25-44 yrs		4.4	5.9
45-64 yrs		3.6	3.8
65+ yrs		1.3	1.1
Tasmania	Reliable data not yet available		
Australian Capital Territory	Indigenous population too small for meaningful calculations		
Northern Territory	1994-96		
0-4 yrs		2.5	2.1
5-24 yrs		2.2	1.5
25-44 yrs		4.4	10.2
45-64 yrs		4.3	5.2
65+ yrs		1.5	2.1

^a The ratio of indigenous death rates to non-Indigenous death rates.

Table 1.4: Chance of dying between 20 and 54 years of age by sex and State/Territory (per cent)

State/Territory	Reporting period	Males	Females
New South Wales		Reliable data not yet available	
Victoria		Reliable data not yet available	
Queensland		Reliable data not yet available	
Western Australia	1996-98	29	16
South Australia		Reliable data not yet available	
Tasmania		Reliable data not yet available	
Australian Capital Territory	Indigenous population too small for meaningful calculations		
Northern Territory	1994-96	27 (16)	6 (2)

Note: Figures in parentheses for the Northern Territory indicate the percentage for the non-Indigenous population.

Indicator 1.5: Number of stillbirths to Aboriginal and Torres Strait Islander mothers per 1,000 total births to Aboriginal and Torres Strait Islander mothers

The stillbirth rate (or foetal death rate) is the number of foetal deaths (or stillbirths) per 1,000 live births in the reference year. A foetal death is defined as the birth of a foetus weighing at least 400 grams (or, where birth weight is unavailable, of at least 20 weeks gestation), which shows no sign of life.

Foetal deaths (along with live births) are recorded as part of the perinatal data collected in each State and Territory. In these collections, the Indigenous status of the mother is recorded, but not the status of the foetus. Thus it is not possible to report information (including stillbirth) on babies born to Indigenous fathers and non-Indigenous mothers.

The Indigenous stillbirth rates in 1999 (Table 1.5) ranged from 9.2 per 1,000 total births in Victoria (for the period 1992-98) to 21.6 in South Australia (for 1998). In all jurisdictions, the Indigenous rates were higher than for the non-Indigenous population, with the differences most marked in South Australia and the Northern Territory. The difference was quite small in Victoria; however, the report from that jurisdiction noted that recent studies have demonstrated that the level of under-identification of Aboriginal and Torres Strait Islander women giving birth in Victoria as reported by midwives was higher than had been previously recognised, with midwives only identifying 54% of the total number of births to Aboriginal and Torres Strait Islander women in 1996.

These figures can be compared to those for 1994-96 published by the AIHW National Perinatal Statistics Unit (NPSU). The NPSU data are based on the perinatal data collections in each jurisdiction, and thus also experience the problems of under-reporting of Indigenous status of births noted above. The rates in the 1999 reports from New South Wales, Victoria, Queensland, and Western Australia are close to those published by the NPSU (Table S1). South Australia and the Northern Territory reported higher Indigenous stillbirth rates than did the NPSU. The differences may be due to data editing and subsequent updates of the State and Territory databases (Day et. al 1999:6).

Table 1.5: Stillbirth rate (per 1,000 total births) by Indigenous status of mother by State/Territory

State/Territory	Reporting period	Indigenous	Non-Indigenous
New South Wales	1998	10.2	6.8
Victoria	1992-98	9.2	7.0
Queensland:			
Aboriginal communities	1995-98	10	
Torres Straits Islander communities		Reliable data not yet available	
All Queenslanders	1998	14	7 ^a
Western Australia	1996-98	15.0	6.5
South Australia	1998	21.6	6.1
Tasmania		Reliable data not yet available	
Australian Capital Territory	1994-97	11.6	8.4
Northern Territory	1997	17.3	5.5

a Figures for 'All Queenslanders (non-Indigenous)' are for the total population (Indigenous and non-Indigenous).

Table S1: Foetal deaths per 1,000 total births by State/Territory of birth and Indigenous status of mother, 1994-96

State/Territory	Indigenous	Non-Indigenous
New South Wales	10.9	5.9
Victoria	9.9	7.4
Queensland	15.5	6.9
Western Australia	15.0	7.1
South Australia	15.0	6.8
Tasmania	n.a.	6.9
Australian Capital Territory	10.5	8.2
Northern Territory	14.8	6.6
Australia	13.9	6.7

n.a. Data not available.

Source: Day et al. 1999:74

Indicator 1.6: Death rate of Indigenous Australians from birth to 1 year of age

Data on infant mortality (deaths of persons under 1 year of age per 1,000 live births) in the Indigenous population is reported only by three jurisdictions – Queensland, Western Australia, and the Northern Territory. The other jurisdictions were unable to provide publishable estimates due to the data quality issues discussed above (poor Indigenous identification in birth and death registrations).

Infant mortality in the Aboriginal and Torres Strait Islander population in Queensland was about 16 per 1,000 births in 1998. For the period 1995–97, the rate was 16 in Western Australia and 22 in the Northern Territory (Table 1.6). The rates in Queensland, Western Australia and the Northern Territory were about 2.5 to 3 times greater than for the non-Indigenous population.

The AIHW reported Indigenous infant mortality rates for the Northern Territory, Western Australia and South Australia combined in 1995–97 as 18.7 for males and 17.3 for females. The male rate was 3.1 times the rate for non-Indigenous Australians in those jurisdictions, and the female rate was 3.5 times higher (AIHW 2000:210).

Table 1.6: Death rate of Indigenous Australians from birth to 1 year of age by State/Territory (deaths per 1,000 live births)

State/Territory	Reporting period	Indigenous	Non-Indigenous
New South Wales		Reliable data not yet available	
Victoria		Reliable data not yet available	
Queensland:			
Aboriginal communities	1995–98	18	6 ^a
Torres Strait Islander communities		Reliable data not yet available	
All Queenslanders	1998	16	6 ^a
Western Australia	1995–97	16	4
South Australia		Reliable data not yet available	
Tasmania		Reliable data not yet available	
Australian Capital Territory	Indigenous population too small for meaningful calculations		
Northern Territory	1995–97	22	7

a Figures for 'All Queenslanders (non-Indigenous)' are for the total population (Indigenous and non-Indigenous).

Indicator 1.7a-d: Age-standardised mortality rates for (a) ischaemic heart disease and rheumatic heart disease; (b) injury and poisoning; (c) pneumonia; and (d) diabetes, by sex for Aboriginal and Torres Strait Islanders and non-Aboriginal and Torres Strait Islanders

Indicator 1.7e: Age-standardised mortality rates for cancer of the cervix among Aboriginal and Torres Strait Islander women and non-Aboriginal and Torres Strait Islander women

A recent ABS publication (Cunningham & Paradies 2000:31) notes that for about three-quarters of the deaths of Indigenous Australians (based on data from Western Australia, South Australia, and the Northern Territory for 1995–97), the underlying cause (in order of magnitude) was circulatory diseases (such as heart diseases and stroke), injuries (such as motor vehicle accidents, homicide, and suicide), neoplasms (cancer), respiratory diseases (such as pneumonia and influenza), and endocrine diseases (such as diabetes). The same report comments that 'Although these same causes were responsible for the majority of

deaths in Australia as a whole, they occurred at greater rates among the Indigenous population'. The indicators in this section (Tables 1.7a to 1.7e) report the mortality rates (deaths per 100,000) for some of these underlying causes, but because of the death registration problems for Indigenous people mentioned above, data from only four jurisdictions (Queensland, Western Australia, South Australia, and the Northern Territory) are considered adequate for publication. Furthermore, there may be low numbers of deaths due to specific causes in a given year, so fluctuations in rates from year to year can be expected. To overcome this, some of the rates shown use deaths during 3 or 4 recent years in the numerator.

The most convenient way to summarise the information in these indicators is to compare the age-standardised rates for the Indigenous with the non-Indigenous population. Death rates from ischaemic heart disease and from injury and poisoning, the two main causes of death, are 2-3 times greater among the Indigenous population. The death rates from the other causes included here (pneumonia, diabetes, and cancer of the cervix for females) were lower, but the ratios of Indigenous to non-Indigenous rates were even greater in most cases. The ABS report on Indigenous mortality (Cunningham & Paradies 2000) uses 'standardised mortality ratios' to compare Indigenous mortality by underlying cause of death with the non-Indigenous population. The findings are summarised in Table S2. These figures indicate that the major areas of health disparity for the Indigenous population are endocrine disorders (mainly diabetes), genitourinary diseases (mostly kidney failure, a common outcome of diabetes), and respiratory diseases (mainly pneumonia).

Table 1.7a: Age-standardised death rates for ischaemic heart disease and rheumatic heart diseases by sex, Aboriginal and Torres Strait Islander status and State/Territory (per 100,000)

State/Territory	Reporting period	Male		Female	
		Indigenous	Non-Indigenous	Indigenous	Non-Indigenous
Ischaemic heart disease					
New South Wales			Reliable data not yet available		
Victoria			Reliable data not yet available		
Queensland:					
Aboriginal communities	1994-98	407		328	
Torres Strait Is. communities			Reliable data not yet available		
All Queenslanders	1998	323	185 ^a	322	103 ^a
Western Australia	1996-98	371	159	166	94
South Australia	1993-97	309	167	192	135
Tasmania			Reliable data not yet available		
Australian Capital Territory		Indigenous population too small for meaningful calculations			
Northern Territory	1994-96	216	177	150	73
Rheumatic heart disease					
New South Wales			Reliable data not yet available		
Victoria			Reliable data not yet available		
Queensland:					
Aboriginal communities	1994-98	0		27	
Torres Strait Is. communities			Reliable data not yet available		
All Queenslanders	1998	17	2 ^a	19	2 ^a
Western Australia	1996-98	9	1	31	2
South Australia	1993-97	10	1	14	2
Tasmania			Reliable data not yet available		
Australian Capital Territory		Indigenous population too small for meaningful calculations			
Northern Territory	1994-96	28	3	28	0

a Figures for 'All Queenslanders (non-Indigenous)' are for the total population (Indigenous and non-Indigenous).

Notes

1. ICD-9 codes used for ischaemic heart disease: 410.0-414.9.
2. ICD-9 codes used for rheumatic heart disease: 393.0-398.9.

Table 1.7b: Age-standardised death rates for injury and poisoning by sex, Aboriginal and Torres Strait Islander status and State/Territory (per 100,000)

State/Territory	Reporting period	Males		Females	
		Indigenous	Non-Indigenous	Indigenous	Non-Indigenous
New South Wales			Reliable data not yet available		
Victoria			Reliable data not yet available		
Queensland:					
Aboriginal communities	1994-98	289		113	
Torres Strait Is. communities			Reliable data not yet available		
All Queenslanders	1998	179	65 ^a	58	25 ^a
Western Australia	1996-98	161	57	53	21
South Australia	1993-97	159	57	57	23
Tasmania			Reliable data not yet available		
Australian Capital Territory		Indigenous population too small for meaningful calculations			
Northern Territory	1994-96	191	109	90	36

a Figures for 'All Queenslanders (non-Indigenous)' are for the total population (Indigenous and non-Indigenous).

Note: ICD-9 codes used for injury and poisoning: E800-E999 (WA: E800-E869, E880-E929, E950-E999).

Table 1.7c: Age-standardised death rates for pneumonia by sex, Aboriginal and Torres Strait Islander status and State/Territory (per 100,000)

State/Territory	Reporting period	Males		Females	
		Indigenous	Non-Indigenous	Indigenous	Non-Indigenous
New South Wales			Reliable data not yet available		
Victoria			Reliable data not yet available		
Queensland:					
Aboriginal communities	1994-98	104		74	
Torres Strait Is. communities			Reliable data not yet available		
All Queenslanders	1998	85	25 ^a	21	15 ^a
Western Australia	1996-98	123	22	64	17
South Australia	1993-97	57	12	25	15
Tasmania			Reliable data not yet available		
Australian Capital Territory		Indigenous population too small for meaningful calculations			
Northern Territory	1994-96	111	18	100	22

a Figures for 'All Queenslanders (non-Indigenous)' are for the total population (Indigenous and non-Indigenous).

Note: ICD-9 codes used for pneumonia: 480-486 (Queensland: 466.0-466.1, 480.0-486.9, 770.0-770.1; Western Australia: 480.0-487.0).

Table 1.7d: Age-standardised death rates from diabetes by sex, Aboriginal and Torres Strait Islander status and State/Territory (per 100,000)

State/Territory	Reporting Period	Males		Females	
		Indigenous	Non-Indigenous	Indigenous	Non-Indigenous
New South Wales		Reliable data not yet available			
Victoria		Reliable data not yet available			
Queensland:					
Aboriginal communities	1994-98	118		138	
Torres Strait Is. communities		Reliable data not yet available			
All Queenslanders	1998	168	16 ^a	145	11 ^a
Western Australia	1996-98	83	16	147	11
South Australia	1993-97	108	16	133	14
Tasmania		Reliable data not yet available			
Australian Capital Territory		Indigenous population too small for meaningful calculations			
Northern Territory	1994-96	86	20	127	19

a Figures for 'All Queenslanders (non-Indigenous)' are for the total population (Indigenous and non-Indigenous).

Note: ICD-9 codes used for diabetes: 250.0-250.9.

Table 1.7e: Age-standardised death rates from cancer of the cervix, by Aboriginal and Torres Strait Islander status and State/Territory (per 100,000)

State/Territory	Reporting period	Indigenous females	Non-Indigenous females
New South Wales		Reliable data not yet available	
Victoria		Reliable data not yet available	
Queensland:			
Aboriginal communities	1994-98	38	
Torres Straits Is. communities		Reliable data not yet available	
All Queenslanders	1998	10	3 ^a
Western Australia	1996-98	23	3
South Australia	1993-97	8	2
Tasmania		Reliable data not yet available	
Australian Capital Territory		Indigenous population too small for meaningful calculations	
Northern Territory	1994-96	29	8

a Figures for 'All Queenslanders (non-Indigenous)' are for the total population (Indigenous and non-Indigenous).

Note: ICD-9 codes used for cancer of the cervix: 180.0-180.9.

Table S2: Standardised mortality ratios of the Indigenous population for various causes of death, 1995-97

Cause of death by major category (ICD-9 codes)	Males	Females
Circulatory diseases (390-459)	2.9	2.5
Injury (E800-E999)	3.2	3.5
Respiratory diseases (460-519)	5.2	6.0
Neoplasms (140-239)	1.4	1.4
Endocrine, metabolic and nutritional diseases (240-279)	6.1	12.0
Digestive diseases (520-579)	5.1	5.5
Mental disorders (290-319)	4.1	3.0
Certain perinatal conditions (760-779)	2.5	2.3
Infectious and parasitic diseases (001-139)	4.1	6.5
Genitourinary diseases (580-629)	6.7	7.9
Nervous system diseases (320-389)	2.6	1.1
Congenital anomalies (740-759)	2.2	2.1
All causes	3.0	3.0

Source: Cunningham & Paradies 2000:31.

Category two: Morbidity

Morbidity measures form a part of the total picture of the health status of a community. There are a number of measures of morbidity: incidences of a condition (number of new cases in a given time period); prevalence of a condition (number of cases at a point in time); and impact measures such as health service use, for example, hospitalisations.

As with the mortality measures in Category 1, the measurement of morbidity also relies on accurate estimates of the numbers of people affected and the numbers in the population. Thus the problems in estimating mortality among Aboriginal and Torres Strait Islander peoples also occur in estimating morbidity. The numerators in many of the rates used in this section are drawn from sources such as hospital admissions, midwife records, school nurse records, and notifications of communicable diseases. The problems of adequately identifying Indigenous people in these records are similar to those for birth and death registrations mentioned in the previous chapter. The denominator is the Indigenous population, which also is an estimate subject to an unknown degree of error, as mentioned in the Introduction.

The indicators selected for reporting on morbidity include notification rates for a number of communicable diseases (Indicators 2.1 and 2.2), percentage of children with hearing loss (Indicator 2.3), proportion of newborns with low birthweight (Indicator 2.4), and hospital separation rates for a number of diseases and conditions (Indicators 2.5 and 2.6). Additional 'prevalence' measures (the overall level of a disease or condition within the community) are often reported for the Australian population as a whole, based on information collected through population health surveys. However, such information is difficult to obtain for the Indigenous population. For example, the 1995 National Health Survey attempted to include an adequate sample of Indigenous respondents in order to obtain such measures, but problems with the survey meant that these results were only valid for Indigenous people in non-remote areas. The sampling procedure also does not allow for estimates for the Indigenous population at the State or Territory level.

Indicator 2.1a: Notification rates for selected vaccine preventable diseases: pertussis, measles, hepatitis B

Indicator 2.1b: Notification rate for meningococcal infection

Indicator 2.2: Crude notification rates for gonorrhoea and syphilis by sex

As in the 1998 report, most of the jurisdictions were unable to report notification rates for the communicable diseases indicators (selected vaccine-preventable diseases, meningococcal infection, and gonorrhoea and syphilis), with some reporting counts only, and noting that there was still a high level of under-reporting of Indigenous status in their notifications data. Western Australia and the Northern Territory reported crude notification rates (that is, the rates are not standardised by age) for the selected vaccine preventable diseases (Table 2.1a), with Western Australia reporting the data by sex, while the Northern Territory reported for both sexes combined.

For pertussis, the rates for Indigenous children in Western Australia were double the rates for non-Indigenous children, while in the Northern Territory the opposite was the case.⁴ There were only a small number of measles notifications, so comparisons between Indigenous and non-Indigenous rates are not meaningful. For hepatitis B (Table 2.1a) and meningococcal infection (Table 2.1b), the rates among the Indigenous people in both jurisdictions were much higher than for the non-Indigenous population. The Northern Territory reported that 'Notifications of hepatitis B remain higher in Aboriginal people but the number identified in children remains low, reflecting the success of the universal infant hepatitis B vaccination program'. There also is some difficulty in interpreting trends in hepatitis B, as notifications of hepatitis B do not necessarily represent recently acquired disease.

For the two sexually transmitted diseases used as indicators in this report, gonorrhoea and syphilis, the notification rates for the Indigenous population were more than 10 times higher than the non-Indigenous rates (Table 2.2). The notification rates in the Northern Territory were also much higher than those in Western Australia, with the exception of the rate for gonorrhoea among Indigenous males. Some of these differences, or the magnitude of them, may be due to different methods of detecting and reporting such diseases. For example, the Northern Territory report notes that notifications for gonorrhoea have increased in the last three years, particularly for Aboriginal women. The rate for this group increased from 1,413 in 1996 to 2,265 per 100,000 in 1998, and the number of notifications has nearly doubled. The Northern Territory report notes that 'This is thought to be due to improved sensitivity of testing using polymerase chain reaction (PCR), adoption of more acceptable methods of testing (using tampons) and increased population screening'.

⁴ The Northern Territory reported that higher rates for pertussis among non-Indigenous people have been observed for most years in that jurisdiction. There were 18 cases among non-Indigenous residents and 4 among Indigenous residents in 1998.

Table 2.1a: Crude notification rates (per 100,000) for selected vaccine-preventable diseases, by sex, Aboriginal and Torres Strait Islander status and State/Territory

State/Territory	Reporting period	Males		Females		Total population	
		Indigenous	Non-Indigenous	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous
Pertussis							
New South Wales				Notification counts supplied, not rates			
Victoria				Reliable data not yet available			
Queensland				Reliable data not yet available			
Western Australia	1996-98	64	27	73	30	68	28
South Australia				Notification counts supplied, not rates			
Tasmania				Reliable data not yet available			
Australian Capital Territory				Indigenous population too small for meaningful calculations			
Northern Territory	1998					8	13
Measles							
New South Wales				Notification counts supplied, not rates			
Victoria				Reliable data not yet available			
Queensland				Reliable data not yet available			
Western Australia	1996-98	3	3	0	3	1	3
South Australia				Notification counts supplied, not rates			
Tasmania				Reliable data not yet available			
Australian Capital Territory				Indigenous population too small for meaningful calculations			
Northern Territory	1998					0	1
Hepatitis B							
New South Wales				Notification counts supplied, not rates			
Victoria				Reliable data not yet available			
Queensland				Reliable data not yet available			
Western Australia	1996-98	123	15	37	5	100	12
South Australia				Notification counts supplied, not rates			
Tasmania				Reliable data not yet available			
Australian Capital Territory				Indigenous population too small for meaningful calculations			
Northern Territory	1998					30	2

Table 2.1b: Crude notification rates (per 100,000) for meningococcal infection, by sex, Aboriginal and Torres Strait Islander status and State/Territory

State/Territory	Reporting period	Males		Females		Total population	
		Indigenous	Non-Indigenous	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous
New South Wales				Notification counts supplied, not rates			
Victoria				Reliable data not yet available			
Queensland				Reliable data not yet available			
Western Australia	1996-98	14	3	6	2	10	2
South Australia				Notification counts supplied, not rates			
Tasmania				Reliable data not yet available			
Australian Capital Territory				Indigenous population too small for meaningful calculations			
Northern Territory	1998					30	1

Table 2.2: Crude notification rates (per 100,000) for gonorrhoea and syphilis, by sex, Aboriginal and Torres Strait Islander status and State/Territory

State/Territory	Reporting period	Males		Females	
		Indigenous	Non-Indigenous	Indigenous	Non-Indigenous
Gonorrhoea					
New South Wales				Notification counts supplied, not rates	
Victoria				Reliable data not yet available	
Queensland				Reliable data not yet available	
Western Australia	1996-98	1,616	14	1,254	7
South Australia				Notification counts supplied, not rates	
Tasmania				Reliable data not yet available	
Australian Capital Territory				Indigenous population too small for meaningful calculations	
Northern Territory	1998	1,457	138	2,265	119
Syphilis					
New South Wales				Reliable data not yet available	
Victoria				Reliable data not yet available	
Queensland				Reliable data not yet available	
Western Australia	1996-98	66	3	71	1
South Australia				Notification counts supplied, not rates	
Tasmania				Reliable data not yet available	
Australian Capital Territory				Indigenous population too small for meaningful calculations	
Northern Territory	1998	659	7	503	3

Indicator 2.3: Percentage of Aboriginal and Torres Strait Islander children at school entry having greater than 25dB hearing loss averaged over three frequencies

Hearing loss among Aboriginal and Torres Strait Islander children is believed to be widespread. It can be the result of repeated bouts of otitis media, and is thought to be more severe among Indigenous children due to crowded housing conditions and lack of access to primary health care. Hearing loss often leads to increased learning difficulties and behavioural problems in school, adding to existing social disadvantage experienced by Indigenous people.

As noted in the 1998 report, programs to screen children at school entry for hearing loss have not been established, and thus no jurisdictions were able to report on this indicator. Several jurisdictions have reported progress on developing such programs. A school entrant health study has been trialed in one metropolitan region of Victoria. In Western Australia, a state-wide otitis media strategy focused on early childhood education is currently being piloted. The Northern Territory has recently revised its School-age Child Health Surveillance Policy, and produced a manual and video to assist with the implementation of the program in remote communities. The report from the Northern Territory also notes that in 'School screening [hearing tests] conducted by the Rural Audiologist in the Darwin Remote region have reported that approximately 60% of screened children have hearing disease and hearing loss'.

Indicator 2.4: Proportion of Aboriginal and Torres Strait Islander newborns with birth weight less than 2,500 grams

Low birth weight (less than 2,500 grams) is an important indicator of an infant's probability of survival and of future health problems (ABS & AIHW 1999:85). A contributing cause of low birth weight is poor nutrition or health status of the mother. Birth weight is routinely collected for nearly all births in the midwives data collections, but adequate Indigenous identification of the newborn is still problematic: the data on births are collected according to the Indigenous status of the mother, without regard to the status of the father, and thus exclude an unknown number of Indigenous children. Furthermore, as noted under Indicator 1.5 above, under-identification of Indigenous women in the midwives data collections may also result in incorrect estimates of the proportion of Indigenous babies with low birth weight.

Most of the jurisdictions were able to report the proportions of low birth weight infants born to Indigenous mothers, and several also provided a comparative figure for infants of non-Indigenous mothers. These comparisons show that between 7% and 15% of infants born to Indigenous mothers weigh less than 2,500 grams, compared to about 6% of other infants (Table 2.4). Low birth weight for Indigenous mothers was more pronounced in the Queensland Aboriginal communities, South Australia, and the Northern Territory. Differences from the 1998 report are only marginal for most of the reporting jurisdictions.

Table 2.4: Proportions (%) of low birth weight (less than 2,500 g) for live babies born to Aboriginal and Torres Strait Islander mothers by State/Territory

State/Territory	Reporting Period	Indigenous	Non-Indigenous
New South Wales	1998	9.4	5.3
Victoria	1996-98	11.8	6.5
Queensland:			
Aboriginal communities	1994-98	16.6	
Torres Strait Is. communities	1994-98	7.5	
All Queenslanders	1997/98	11.3	6.1 ^a
Western Australia	1996-98	12.2	5.9
South Australia	1998	15.4	
Tasmania	Reliable data not yet available		
Australian Capital Territory	1997	7.0	6.9
Northern Territory	1997	14.9	6.4

a Figures for 'All Queenslanders (non-Indigenous)' are for the total population (Indigenous and non-Indigenous).

Indicator 2.5: Age-standardised all-causes hospital separation rate ratios by sex

Indicator 2.6: Age-standardised hospital separation rate ratios for (6a) acute myocardial infarction, (6b) injury and poisoning, (6c) respiratory diseases, (6d) diabetes, and (6e) tympanoplasty, by sex

Another widely used indicator of morbidity status in a population is the level of hospital use, the standard measure of which is the 'separation rate' – the number of hospital separations per 100,000 persons in the population. A hospital separation is defined as an episode of care ending in the patient being discharged, dying, transferring to another hospital or changing type of care (AIHW 2000:271).⁵ Although separation rates are not directly linked with incidence or prevalence measures for diseases and conditions (as not all occurrences of a disease or condition will lead to hospital admission, and an individual may be hospitalised more than once for the same condition in a given time period), they do give some indication of the relative magnitude of some health problems in a community. As with other health data on the Aboriginal and Torres Strait Islander population, under-reporting of Aboriginal and Torres Strait Islander status is an issue for hospital separation statistics in all jurisdictions.⁶

⁵ The terms 'hospital admission' or 'hospitalisation' are often used synonymously with 'hospital separation', although the latter is the technical term used, because key information about the episode of care (principal diagnosis and principal procedure) is often not identified at time of admission.

⁶ The Aboriginal and Torres Strait Islander Health Information Plan (ATSIIHWIU 1997) recommended that estimates be made of the completeness of identification of Indigenous people in hospital

Nearly all of the all-cause separation rate ratios, as shown in Table 2.5, were greater than 1.0, indicating that Indigenous people were more likely to be hospitalised than non-Indigenous people. Two jurisdictions, Western Australia and South Australia, provided the ratios separately for emergency separations, and these figures indicate that Indigenous people were three to five times more likely to be hospitalised for emergency reasons than were non-Indigenous people.

Table 2.5: All-cause age-standardised hospital separation rate ratios^a by sex and State/Territory

State/Territory	Reporting period ^b	Elective		Emergency		All	
		Males	Females	Males	Females	Males	Females
New South Wales	1997/98	Reliable data not yet available					
Victoria		Reliable data not yet available					
Queensland ^c							
Aboriginal communities	1997/98					3.3	3.5
Torres Strait communities	1997/98					1.0	1.2
All Indigenous Queenslanders	1997/98					1.5	1.8
Western Australia	1995/96– 1997/98	1.2	2.0	4.6	5.5	2.6	3.1
South Australia	Not stated	1.9	4.0	3.2	3.1	2.5	3.6
Tasmania		Reliable data not yet available					
Australian Capital Territory		Indigenous population too small for meaningful calculations					
Northern Territory	1998					1.9	2.0

a The ratio of Indigenous to non-Indigenous hospital separation rates. Ratios for New South Wales, Western Australia and the Northern Territory are based on direct standardisation and those for Queensland on indirect standardisation; South Australia not stated.

b Hospital data are usually collected on a financial year basis, thus periods shown as 1997/98 refer to the financial year 1 July 1997 to 30 June 1998; periods shown as 1995/96–1997/98 refer to the three financial years 1 July 1995 to 30 June 1998. The report from the Northern Territory gives 1998 as the reporting period.

c Queensland reported hospital separations data but advised that the data be used with great caution, due to the unknown level of under-reporting of Indigenous status. The data from the discrete Aboriginal and Torres Strait Islander communities also can only be used with great caution due to a number of data quality issues.

Indicators have also been agreed for hospitalisations due to specific diseases or conditions known to be prominent among the Indigenous population (Indicators 2.6a–e): acute myocardial infarction (heart attack), injury and poisoning (including motor vehicle accidents), respiratory diseases, diabetes, and tympanoplasty (ruptured ear drum). These indicators are expressed as ratios between the rates for the Indigenous and non-Indigenous populations. As noted in the 1998 report, the ratios for diabetes hospital separations are particularly high, around 12 in Western Australia and 7 in South Australia and among females in the Northern Territory (Table 2.6). The ratios for tympanoplasty were very high for females in Western Australia (8) and males in South Australia (7).

separations data. The Aboriginal and Torres Strait Islander Health and Welfare Information Unit has undertaken this project and published a report on the results (Gray 1999).

Table 2.6: Age-standardised hospital separation rate ratios^a for selected causes by sex and State/Territory

State/Territory	Reporting period ^b	Males	Females
Acute myocardial infarction (ICD-9-CM principal diagnosis code: 410)			
New South Wales	Reliable data not yet available		
Victoria	Reliable data not yet available		
Queensland			
Aboriginal communities	1997/98	4.7	7.6
Torres Strait Is. communities	1997/98	0.9	3.5
All Indigenous Queenslanders	1997/98	4.0	2.0
Western Australia	1995/96–1997/98	2.3	3.0
South Australia	Not stated	1.6	1.7
Tasmania	Reliable data not yet available		
Australian Capital Territory	Indigenous population too small for meaningful calculations		
Northern Territory	1998	2.1	4.3
Injury and poisoning (ICD-9-CM principal external cause code: E800–999^c)			
New South Wales	Reliable data not yet available		
Victoria	Reliable data not yet available		
Queensland			
Aboriginal communities	1997/98	4.1	6.5
Torres Strait Is. communities	1997/98	1.1	1.1
All Indigenous Queenslanders	1997/98	2.0	1.5
Western Australia	1995/96–1997/98	3.4	4.6
South Australia	Not stated	2.9	2.9
Tasmania	Reliable data not yet available		
Australian Capital Territory	Indigenous population too small for meaningful calculations		
Northern Territory	1998	2.2	3.3
Respiratory diseases (ICD-9-CM principal diagnosis code: 460–519)			
New South Wales	Reliable data not yet available		
Victoria	Reliable data not yet available		
Queensland			
Aboriginal communities	1997/98	8.9	8.7
Torres Strait Is. communities	1997/98	2.1	1.9
All Indigenous Queenslanders	1997/98	2.3	2.1
Western Australia	1995/96–1997/98	4.5	5.2
South Australia	Not stated	3.1	3.6
Tasmania	Reliable data not yet available		
Australian Capital Territory	Indigenous population too small for meaningful calculations		
Northern Territory	1998	3.3	4.1

(continued)

Table 2.6 (continued): Age-standardised hospital separation rate ratios^a for selected causes by sex and State/Territory

State/Territory	Reporting period ^b	Males	Females
Diabetes (ICD-9-CM principal diagnosis code: 250)			
New South Wales	Reliable data not yet available		
Victoria	Reliable data not yet available		
Queensland			
Aboriginal communities	1997/98	12.0	20.5
Torres Strait communities	1997/98	10.4	18.2
All Indigenous Queenslanders	1997/98	6.2	8.1
Western Australia	1995/96–1997/98	12.7	11.9
South Australia	Not stated	6.3	8.7
Tasmania	Reliable data not yet available		
Australian Capital Territory	Indigenous population too small for meaningful calculations		
Northern Territory	1998	2.3	7.0
Tympanoplasty (ICD-9-CM principal procedure code: 19.4–19.6^c)			
New South Wales	Reliable data not yet available		
Victoria	Reliable data not yet available		
Queensland			
Aboriginal communities	1997/98	0.8	3.1
Torres Strait communities	1997/98	1.1	0.0
All Indigenous Queenslanders	1997/98	1.3	1.0
Western Australia	1995/96–1997/98	5.6	8.4
South Australia	Not stated	6.6	3.1
Tasmania	Reliable data not yet available		
Australian Capital Territory	Indigenous population too small for meaningful calculations		
Northern Territory	1998	4.4	4.7

- a The ratio of Indigenous to non-Indigenous hospital separation rates. Ratios for New South Wales, Western Australia and the Northern Territory are based on direct standardisation and those for Queensland on indirect standardisation; South Australia not stated.
- b Hospital data are usually collected on a financial year basis, thus periods shown as 1997/98 refer to the financial year 1 July 1997 to 30 June 1998; periods shown as 1995/96–1997/98 refer to the three financial years 1 July 1995 to 30 June 1998. NT report gives 1998 as the reporting period.
- c Western Australia used ICD-9-CM code E800–995 for injury and poisoning, and 19.5–19.55 for tympanoplasty; South Australia and the Northern Territory not specified.

Category three: Access

Improving the access of Aboriginal and Torres Strait Islander individuals and communities to health services is a universal goal of all jurisdictions. Access to health services can be defined in a number of ways, and the nine indicators used in this section of the report attempt to cover a variety of these definitions. These include measures of the travel time to services, allocation of resources for services, mixture of services, and Indigenous participation in service management.

Indicator 3.1: Proportion of Aboriginal and Torres Strait Islander people whose ordinary residence is <30 minutes routine travel time from a full-time permanent primary care service by usual means of transport

Indicator 3.2: Proportion of Aboriginal and Torres Strait Islander peoples whose ordinary residence is <one hour travel time from a hospital that provides acute inpatient care with the continuous availability of medical supervision

The 1998 report was unable to provide data on Indicators 3.1 and 3.2, which involve travel time to primary care service (3.1) or hospital (3.2) respectively. Collection of information on 'travel time' has not been routinely undertaken. For the 1999 report, several jurisdictions reported the information on 'distance' from health facilities which was collected in the 1994 National Aboriginal and Torres Strait Islander Survey. More recently, data from the 1999 Community Housing and Infrastructure Needs Survey (CHINS) have become available (ABS 2000b). This survey, which covered 1,291 discrete Indigenous communities across Australia, measured the distance from the community to the nearest hospital and other health facilities. The survey found that 69% of the communities (or 54% of people) were located 100 kilometres or more from the nearest hospital. Of the communities located 100 km or more from the nearest hospital, just over one-half (53%) had access to emergency air medical services. Other findings were that 53% of communities (90% of people) were located less than 25 km from a first aid clinic, and 41% of communities were located less than 25 km from a community health centre.

Indicator 3.3: Overall per capita annual expenditure by governments on primary, secondary and tertiary health care services for Aboriginal and Torres Strait Islander people compared with expenditure for the total population

This indicator is designed to reflect resource allocation by governments on Aboriginal and Torres Strait Islander people relative to the total population. There are a number of difficulties in reporting on this indicator, including the issue of under-identification of

Indigenous people in health databases (such as for hospital separations and clinic patients). Some jurisdictions are able to report the amount of funding for programs specifically for Indigenous communities and individuals, while acknowledging that this is not a true measure of 'overall expenditure'.

The 1998 report used figures for 1995–96 published in *Expenditures on health services for Aboriginal and Torres Strait Islander people* (Deeble et al. 1998) for this indicator. Expenditure was estimated separately for the Indigenous and non-Indigenous populations of each jurisdiction according to four types of health care (acute care, mental health, nursing homes, and community health services). It is anticipated that the Australian Institute of Health and Welfare will produce this report every 2 years, with the next one due expected to be completed in January 2001. The updated information should be available for the next round of reporting by jurisdictions.

Indicator 3.4: Case fatality ratio of hospital separations to deaths for sentinel conditions for Aboriginal and Torres Strait Islander people compared with non-Aboriginal and Torres Strait Islander people

This indicator attempts to illustrate access to health services for life-threatening conditions by measuring the proportion of hospital separations for 'sentinel conditions' (acute myocardial infarction and pneumonia) that end in death. The 1998 report was unable to provide information on this indicator, noting that 'there appear to be differences in the ways the individual measures [from three jurisdictions] were calculated'. Confusion regarding how to report on this indicator has continued, along with difficulties in adequate identification of Indigenous status in hospital records, and thus it is still not possible to provide meaningful information. Four jurisdictions did provide some data, but comparison between them is not possible, due to differences in the definitions (including the ICD-9-CM codes used) and calculation methods. Some jurisdictions also noted that the numbers of hospital deaths of Indigenous people for these conditions were too small, even when aggregated over several years, for meaningful estimates to be made.

Indicator 3.5: Proportion of primary care services, and the resources allocated to these services

An explanation of this indicator noted in some jurisdictional reports is that it should measure the extent to which primary health care for Aboriginal and Torres Strait Islander people is community controlled, and the capacity of such services to provide primary health care. However, considerable confusion about the meaning of the indicator is evident in the various reports. It is not clear from the indicator name what 'proportion' is required (what is the numerator and denominator), and thus there is some ambiguity about what information is to be reported. Some of the reports pointed to the need for agreed definitions of 'primary [health] care' and 'resources'.

Another issue arises from the specifications for the indicator, which state that 'Health services should be classified into those services managed by (a) incorporated Aboriginal health organisations; (b) community councils; (c) State/Territory governments'. The report from the Commonwealth Government notes that 'This indicator does not suggest that there

should be parity between funding proportion per service type and number of services per service type, because different level of resources will be utilised by different types of services'.

The Commonwealth was able to report that 84% of the funding for primary health services from the Office of Aboriginal and Torres Strait Islander Health (OATSIH) were provided to Aboriginal health organisations, 1% to community councils, and 11% to State/Territory/Local governments (a residual 4% was to other organisations).

Several jurisdictions provided information on the amount of funding to Aboriginal Community Controlled Health Organisations, assuming that these mainly provide primary health services, however defined. Others provided descriptive information about the number and geographic distribution of health services targeting Indigenous people, and of the development of community involvement in such services.

Indicator 3.6 Extent of community participation in health services

This indicator is designed for descriptive, as opposed to quantitative, reporting, and thus there is a range of responses from the jurisdictions. Because it is a descriptive indicator, comparisons over time and between jurisdictions are not appropriate.

The main points from each jurisdiction are summarised below:

New South Wales: 'There is a high level of community participation in the planning and development of health services for Aboriginal people'.

Victoria: The report provides detailed examples of community involvement through a 'partnership approach' at the state, regional and local level.

Queensland: '...there are major across-government initiatives to improve the capacity of Indigenous communities to manage their own affairs and to participate in a meaningful way in service delivery, including health'; however, '...the breadth of activity reduces the capacity to report in detail'.

Western Australia: 'The extensive community-based and community-driven planning processes undertaken in the six regions of Western Australia in 1999 incorporated community consultations informed by available local level data. The resulting plans will be used at the regional level to obtain further community input to priority setting and service implementation'.

South Australia: '...the South Australia Aboriginal Health Partnership Agreement...is providing resources to strengthen and encourage community participation in decision making processes for Aboriginal Community Controlled Health Services. Aboriginal community participation is also facilitated through membership on the Board of Management of each Aboriginal Community Controlled Health Service'.

Tasmania: Each agency providing health services 'aims to give the community an opportunity to participate in the policy and decision making processes as well as participate in the planning processes'.

Australian Capital Territory: 'The ACT Aboriginal and Torres Strait Islander Health Forum has representatives from the local Aboriginal Medical Service, the local Youth Corporation, and Aboriginal Health Workers. The Forum is responsible for the production and implementation of the ACT Aboriginal and Torres Strait Islander Regional Health Plan'.

Northern Territory: The report notes that 'A range of approaches are used to increase community participation in health services and the facilitation of skill development in the

community', and then provides examples of these approaches. For example, some area health boards are now 'responsible for the financial management and purchase of health services' in their areas, and some of the Coordinated Care Trials are 'providing an opportunity for Aboriginal people to undergo training and development in health administration and service management'.

Indicator 3.7: Representation of Aboriginal and Torres Strait Islander people on health/hospital boards, and whether membership is mandated by terms of reference

This indicator is designed to capture the extent to which Indigenous people participate in the policy setting and resource allocation for health services, and the management and delivery of those services. The responses indicate different interpretations of 'hospital/health service board', and also different practices in the jurisdiction regarding the collection of such data.

New South Wales reported that 17 of its 20 health service boards had at least one Indigenous member. In the previous reporting period, all 20 boards reported at least one Indigenous member. While Indigenous membership is not mandated by the relevant legislation, the State Government has a commitment to increasing the number of people from minority groups on such boards.

Victoria reported that, of a total of 132 boards of management (public hospitals, regional hospital networks, and independent community health centres), only three were known to have an Indigenous member. There was no mandatory requirement that an Indigenous person be appointed to these boards, and also no requirement for recording and reporting of Indigenous status of the members.

In Western Australia, 8 out of the 48 hospital boards had participation by Indigenous people. The majority of hospital boards in South Australia have a position identified for an Indigenous person, but not all these positions are filled. The Regional Aboriginal Health Advisory Committees were working to fill these vacancies.

In the Australian Capital Territory, two of the 19 health boards have Indigenous members. The two with Indigenous membership were the ACT Aboriginal and Torres Strait Islander Health Forum and the Sexual Health and Blood Borne Diseases Advisory Committee. Indigenous membership is mandated only on the first of these two.

The Northern Territory reported that Indigenous people were on three of the five public hospital boards, with such representation being 'strongly encouraged' rather than mandatory.

Indicator 3.8: Proportion of communities with usual populations of less than 100 people within one hour usual travel time to primary health care services

As with Indicators 3.1 and 3.2 above, this indicator attempts to measure distance (in terms of travel time) to health services. This particular indicator focuses on this distance factor for small Indigenous communities. Most jurisdictions reported that no data were available to measure this indicator.

Several jurisdictions reported that some data sources could be used for this purpose. Victoria reported that all Indigenous communities were within one hour travel time of a primary health care service. The Northern Territory reported that data from the Aboriginal Community Health Information Project in Central Australia found that 86% of the communities in that region with less than 100 population (a total of 79 outstations and one small community) were located within one hour's drive of a primary health care service. The Commonwealth reported that the 1994 National Aboriginal and Torres Strait Islander Survey found that 76% of all Indigenous households were less than 100 km from an Aboriginal Medical Service or Medical Aid Post.

As noted above in the discussion of Indicators 3.1 and 3.2, the 1999 Community Housing and Infrastructure Needs Survey (CHINS) measured the distance from the community to the nearest hospital and other health facilities. The published tables from that survey (ABS 2000b) used a population of 50 as the cut-off for 'small communities'. The survey found that 53% of all communities (90% of all people) were located less than 25 km from a first aid clinic, and 41% of all communities were located less than 25 km from a community health centre.

Indicator 3.9: Per capita recurrent expenditure by governments on health care services to communities with populations of less than 100 people, as compared with expenditure for the general population

This indicator examines the amount of health resources expended on small communities compared to expenditure for the whole population. However, the comment in the 1998 national summary report that 'there are no processes to collect the data' for this indicator is still applicable. The Northern Territory noted that 'The major limitation on reporting on per capita expenditure in small communities is the availability of accurate population and budget allocation at the community level'.

Category four: Health service impacts

The eight indicators included in this category are designed to gauge the 'outputs' of health services aimed at improving the health of Aboriginal and Torres Strait Islander people. The outputs measured range from health promotion expenditure, cervical cancer screening, immunisations, development of protocols for effective management of chronic diseases, accident and emergency activity, and primary care activity.

Indicator 4.1: The expenditure on, and description of, health promotion programs specifically targeting Aboriginal and Torres Strait Islander people

One part of this indicator is the monetary support of jurisdictions for programs to address key risk factors among Aboriginal and Torres Strait Islander people, while the other part is a description of such programs. Some jurisdictions have been able to provide total expenditure on Indigenous health promotion with some descriptive information, others have been able to divide this amount according to specific programs, but two (Tasmania and the Australian Capital Territory) were unable to provide information for this indicator.

The expenditure figures provided are not always consistent with the size of the Indigenous population in each jurisdiction, indicating that 'health promotion activities' may be interpreted differently. In addition, while expenditure details for programs that have been identified as 'health promotion' are considered to be reliable, other programs that are mainly service delivery oriented (and therefore have been excluded from the current expenditure estimate) may also have a 'health promotion' component. The actual expenditure on 'health promotion' may therefore be under-reported.

New South Wales: \$1.9 million was allocated to the Aboriginal Health Promotion program during 1998–99. As in the previous year, this was partially used for state-wide initiatives and partially allocated to Area Health Services for local initiatives. Details are not available of other funds possibly spent on health promotion for Indigenous people from general health promotion programs or from the general budget. The development of a clearing house for Aboriginal health promotion initiatives as proposed in the NSW Aboriginal Health Strategic Plan could improve the capacity to report.

Victoria: \$3.2 million was spent by the Department of Human Services and VicHealth on Koori-specific health promotion initiatives during 1998–99. Approximately half the VicHealth funding in 1998–99 consisted of small grants for specific community health and health promotion projects around a number of health and wellbeing topics, with the remainder providing funding for two larger projects: the Koori Health Research and Community Development Unit at the University of Melbourne; and development of a cross-cultural awareness program for mainstream health service providers throughout Victoria.

Queensland: At least \$300,000 was spent directly on Indigenous health promotion projects as part of a total of \$3.4 million spent on specific Aboriginal and Torres Strait Islander public health programs and services. An additional \$1.1 million was spent on mainstream programs with specific relevance to or with a specific component on Indigenous health.

Western Australia: Health promotion programs for the whole population are directed at high priority health conditions such as diabetes and cardiovascular health, and also at

contributing factors such as smoking and nutrition, with tailored component sub programs for those population groups at risk. A cost breakdown of the Indigenous components of these broader population programs is not available. The Office of Aboriginal Health purchased population-based health promotion programs to the value of \$1.4 million in 1998-99.

South Australia: The Department of Human Services is responsible for part funding of programs within Community Controlled Aboriginal Health Services. Health Service Agreements have been implemented within health services (mainstream and Aboriginal Community Controlled); reporting on Health Service Agreements is expected at the end of the 1999-2000 financial year. \$445,000 was allocated to Health Promotion Programs for the period 1998-99, including cervical screening, sexual health and other health programs.

Northern Territory: \$3.9 million was spent on Aboriginal and Torres Strait Islander specific health promotion programs during 1998-99. The three areas funded are nutrition, 'Strong Women, Strong Babies, Strong Culture', and a range of substance-use areas, including smoking, alcohol, drink driving, petrol sniffing, and marijuana.

Commonwealth: Nearly \$2 million was spent in 1998-99 for programs that have been identified as 'health promotion'. However, some programs, which are mainly service delivery oriented (and have therefore been excluded from the current expenditure estimate), may have a 'health promotion' component. The actual expenditure on 'health promotion' may therefore be under-reported.

Examples were provided by the jurisdictions of some of their health promotion programs specifically targeting Indigenous communities and focusing on the key contributors of ill-health and the common causes of death. A selection of these are noted here, following the outline used in the 1998 national summary report.

Diabetes

- Victoria allocated \$85,000 in 1998-99 as the final part of a three year program for diabetes education, the development of a diabetes resource kit, education and training for health workers, and counselling and advice for diabetics and their families. This final year's funding was for printing and distribution of the resource material, and the training of Koori Health Workers in the use of the resources.

Drugs and alcohol

- In Victoria, Koori Community Drug and Alcohol Workers are based in local Aboriginal organisations, working according to a harm minimisation model. Services are provided for both adults and young people. During 1998-99, \$638,000 was spent on this program. The Koori Community Drug and Alcohol Resource Centres undertake a similar role as the Koori Community Drug and Alcohol Workers with the additional major function of providing a 'safe place' with 24-hour access for Koori people to reduce their level of alcohol or drug intoxication. \$1,119,000 was provided for this program in 1998-99. \$12,000 was provided for the production of a video to promote awareness of different ways of tackling alcohol and drug abuse in the Aboriginal community.
- The Northern Territory allocated \$644,000 for alcohol-related programs in 1999-2000. Funding includes a range of health promotion activities such as the Aboriginal Living with Alcohol Program, a number of Health Promoting Youth Grants, updating of the 'Believe In Yourself: Be Strong' video, and the production of alcohol kits for Aboriginal Health Workers. Community-based activities in Alice Springs and Katherine address the problems of petrol sniffing (\$55,000) and materials have been developed to provide

communities with information and education about cannabis (\$70,000). The Aboriginal Smoking Strategy (\$164,000) provides for education and awareness-raising strategies about smoking as well as minimal intervention techniques and assistance with making changes. Incentive funds and health promotion school grants are available for community initiatives addressing smoking among students.

- Commonwealth funding has been provided for a number of Indigenous-specific, community-based illicit drug prevention projects under the Community Partnerships Initiative (CPI). The CPI will contribute to the prevention and reduction of illicit substance use by young people by mobilising communities and fostering relationships between governments and the broader community. To date, three Indigenous projects have been funded to a total of \$324,610 over 3 years (\$103,777 in 1998–99).
- The Commonwealth Office for Aboriginal and Torres Strait Islander Health (OATSIH), in collaboration with the HIV/AIDS and Hepatitis C Section of the Population Health Division of the Department of Health and Aged Care, funded an Indigenous Injecting Drug User National Forum (\$50,000). The purpose of this forum was to bring together service providers for Indigenous injecting drug users to ascertain the best means of targeted hepatitis C prevention and education with this group.
- OATSIH is currently developing training packages to increase the awareness, skills and knowledge of Indigenous health workers in responding to the needs of illicit drug users and their families, and a resource kit to assist Indigenous communities plan and undertake community action to prevent illicit drug use and related harm.

Cervical cancer screening

- In Victoria, \$90,000 was spent in 1998–99 on strategies within the Koori community including a Koori Health Worker, a women's health workshop for health workers from across the State, a women's camp and a range of other educational and support initiatives. Projects supporting rural Koori women's access to both Aboriginal and mainstream cervical cancer screening programs continued.

Nutrition

- In the Northern Territory, \$1.6 million was allocated for the program to appoint and train community nutrition workers and improve the provision of nutritious food in remote community stores.
- In Victoria, projects relating to nutrition are generally combined with other topics such as exercise and health lifestyles. In 1998–99, \$30,000 was provided for nutrition-related projects including healthy cooking, a Community Nutrition Program camp, a community garden project, a women's exercise and nutrition group, and an elders' camp that included nutrition-related activities.
- The National Aboriginal and Torres Strait Islander Nutrition Strategy and Action Plan is being developed as an integral part of the National Public Health Nutrition Strategy. The Strategy and Action Plan will focus on nutrition promotion and the priority areas of overweight and obesity, increased consumption of fruit, vegetables and legumes, maternal and child health, as well as food supply and access and other capacity-building activities in Indigenous nutrition.

Child and maternal health

- In the Northern Territory, \$568,000 was allocated for the 'Strong women, Strong babies, Strong culture' program in 1999–2000.

- In Victoria, for the third and final year \$2,670 was provided for a young women's parenting skills camp and \$20,000 was provided to the Victorian Aboriginal Health Service for an immunisation program through the maternal and child health nurses. A further \$254,000 was provided for maternal and child health services specifically for the Koori community in rural and urban areas. A parenting support network in the Ballarat area was funded \$6,000.

Sexual health

- The Victorian Aboriginal Health Service was allocated \$100,000 in 1998–99 for its HIV/STD/Hepatitis C program. The Service also received a grant of \$34,000 in 1999 from the Commonwealth for AIDS research.
- The Commonwealth allocated \$8 million in 1999–2000 for the implementation of the National Indigenous Australians' Sexual Health Strategy. Projects funded under the Strategy include education and promotion initiatives.
- The Commonwealth is also supporting the Indigenous Gay and Transgender Project, with funding of \$150,000 in 1999 through OATSIH. The focus of the project currently is on building capacity in AIDS Councils and Aboriginal Health Services to better address the needs of this client group.

Indicator 4.2: Number of Pap smears among Aboriginal and Torres Strait Islander females aged 18–70 years as a proportion of the female Aboriginal and Torres Strait Islander population in that age group

The proportion of Indigenous adult females having Pap smears is an indicator of their access to screening services for cervical cancer. Most jurisdictions stated that it was not possible to report on this indicator because of the lack of Indigenous identification in their Pap smear registers. The 1998 national summary report indicated that it may be possible to obtain information on Pap smear screening from the 'Bettering the Evaluation and Care of Health' (BEACH) survey of general practice. However, BEACH is a sample survey of general practice encounters, not a patient-based register or census-type data collection, and therefore cannot capture data on all Pap smears. For example, Pap smears may be done by a specialist after referral from the general practice doctor, or may take place in reproductive health or other clinics, rather than in general practice settings.

New South Wales reported that a number of initiatives have been introduced to increase the number of Indigenous women having Pap smears. In partnership with the Aboriginal Health and Medical Research Council, a poster and brochure were developed and widely distributed and training material was developed for Aboriginal Health Workers.

South Australia noted that it was working to address the issue of identification of Aboriginality in the register.

The Northern Territory reported that, as rural areas tend to have lower Pap smear rates than urban areas, and as two-thirds of Aboriginal women live in rural areas, it can be assumed that coverage rates are generally low for Aboriginal women. Over the two years 1997 and 1998, Pap smear participation rates varied from two-thirds of women aged 20–69 years in Alice Springs and Darwin urban areas to only 38% in the Barkly region.

Indicator 4.3: Proportion of Aboriginal and Torres Strait Islander children aged 2 years and 6 years old that are fully immunised as recorded in the Australian Childhood Immunisation Register (ACIR)

The Australian Childhood Immunisation Register (ACIR) commenced in January 1996, and contains immunisation records of children in each jurisdiction. It should therefore be possible to obtain good information on immunisation coverage by age for target groups, such as Indigenous children. However, Indigenous status is not a mandatory data item in this collection, and therefore it is not possible for jurisdictions to report against this indicator using the ACIR. In addition, information on fully immunised children at age 6 years will not be available from the ACIR until 2002 (6 years after date of commencement).

The Commonwealth noted that, as at June 1999, 76% of all children (Indigenous and non-Indigenous) aged between 24 months and 27 months in Australia were 'fully immunised',⁷ ranging from a high of 84% in the Australian Capital Territory to a low of 67% in the Northern Territory.

Several jurisdictions noted that the Aboriginal Community Controlled Health Organisations have not given the ACIR permission to release the information on immunisation of Indigenous children, and one stated that some of the Aboriginal community controlled health services who obtain vaccines from the health department are not currently providing reports to the ACIR.

The Northern Territory reported immunisation coverage from its own Childhood Immunisation Database (CID). The Northern Territory noted that true coverage rates tend to be more accurately reflected by the CID than the ACIR. However, the rates determined by the CID were likely to underestimate true coverage, particularly for older children who were immunised at a time when the importance of maintaining a centralised immunisation database was not fully appreciated. The coverage rates in rural parts of the Northern Territory, where the population is predominantly Aboriginal, are considered by the Northern Territory to be good indicators of the coverage of Aboriginal children. According to this source, 64% of 6-year-old children in 1998 were fully immunised. The region with the lowest coverage, 43%, was East Arnhem, where most children are Indigenous. However, in other regions of the territory (Darwin, Katherine, Alice Springs), 6-year-old children in rural areas had higher rates of full immunisation than those in urban areas.

Indicator 4.4: Proportion of Aboriginal and Torres Strait Islander people aged older than 50 years who have received pneumococcal vaccine in the last 6 years

At present, there is no national register of pneumococcal immunisation. These vaccines are provided mainly to persons age 50 years and over in high risk populations, including Indigenous persons, in an effort to prevent pneumonia morbidity and mortality. 1999 was

⁷ 'Fully immunised' means the child has received all the immunisations on the National Health and Medical Research Council schedule, including the appropriate number and timing of vaccinations for diphtheria, tetanus, pertussis, poliomyelitis, *Haemophilus influenzae* type b (Hib), measles, mumps, and rubella.

the first year of the National Indigenous Influenza and Pneumococcal Program. Under this program, Commonwealth funds were provided to States and Territories for the purchase of influenza and pneumococcal vaccines for Aboriginal and Torres Strait Islander people who are over 50 years and those 15–50 years who are at high risk of disease. The States and Territories were asked to provide reports of coverage rates, but most of them were unable to do this.

The Northern Territory reported that it had data for pneumococcal vaccinations given to Aboriginal people in the last 5 years in Darwin, Barkly, and Alice Springs. The estimated vaccine coverage for Indigenous persons aged 50 years and over in those areas was 77%.

Indicator 4.5: Proportion of children aged between 2 and 6 years who are fully immunised against hepatitis B, as recorded in the Australian Childhood Immunisation Register (ACIR)

Hepatitis B vaccine is not yet included in the definition of 'fully immunised' for children, and thus is not covered by Indicator 4.3. The National Health and Medical Research Council endorsed the use of hepatitis B vaccine for infants in 1997, and recommended that it be offered to infants from groups with a carrier rate of over 2%, which includes Indigenous persons.

As discussed above under Indicator 4.3, the Australian Childhood Immunisation Register (ACIR) is a data source for use in reporting childhood immunisation coverage. However, it is not possible for jurisdictions to report hepatitis B immunisation coverage for Indigenous children for the same reasons mentioned above under Indicator 4.3: lack of Indigenous identification in some immunisation records; restrictions on release of data from ACIR to the jurisdictions; and lack of compliance with reporting by some providers.

The Northern Territory provided estimates of coverage for all children ages 12–14 months and 6 years, by region. These data indicate that 79% of the younger group and 88% of the older group were immunised against hepatitis B. As with the 'fully immunised' indicator noted above, coverage was higher in rural areas than in urban areas, implying that coverage for Indigenous children was higher than the 'all children' figures.

Indicator 4.6: Extent of support for the development and implementation of protocols and effective detection and management systems for conditions such as asthma, diabetes, cardiovascular disease, chronic renal disease, chronic respiratory conditions and hypertension

Early detection and management of chronic conditions is a recognised component of health care systems. Due to the higher levels of such conditions among Aboriginal and Torres Strait Islander communities, there is an imperative to ensure such programs are in place and are actively supported by the relevant authorities.

New South Wales reported that it has developed guidelines and standards for the management of ischaemic heart disease, stroke, diabetes and asthma, and published consumer guides on these conditions. These are general documents and are not specifically

targeted at Indigenous people. However, a model of best-practice diabetes prevention and care services for Indigenous people is being developed.

Victoria reported that its Advisory Council on Koori Health has not discussed the issue of detection and management of chronic diseases among the Indigenous community.

In Queensland, protocols for management of chronic diseases among Indigenous people are being developed through a variety of mechanisms including funding of non-government organisations, contracting of planning documents, and development of health outcomes plans.

Western Australia stated that national protocols for these chronic conditions are used in that State. In addition, the WA Aboriginal Coordinated Care Trial has included the development of protocols and care plans specific for Indigenous people. In 1999 a comprehensive guide to Aboriginal health was issued to medical practitioners to provide a guide to issues, practices and implications in 12 key health conditions.

In the Northern Territory, the Territory Health Service has developed a Preventable Chronic Disease Strategy (PCDS) which aims to reduce the prevalence and impact of five main chronic diseases: diabetes, hypertension, ischaemic heart disease, renal disease, and chronic obstructive airways disease. Implementation of the strategy has included multiple interrelated activities, with the initial focus on health services for remote Aboriginal people.

The Commonwealth reported a number of initiatives. In 1998-99, the Office of Aboriginal and Torres Strait Islander Health provided funding to 32 organisations to implement Patient Information and Recall Systems, enabling these services to improve the early detection, management and follow-up of disease and health problems. Funding was provided for an Aboriginal diabetes and nutrition coordinator based with the National Aboriginal Community Controlled Health Organisation (\$120,000), and for a pilot project to assess the reliability and usefulness of near-patient diabetes monitoring equipment in community controlled Aboriginal medical services (\$543,000). Funding was also provided to the Australian Kidney Foundation to assist health care providers in developing culturally appropriate strategies to effectively address early detection, management and treatment of chronic renal disease in at least two Aboriginal communities in the Northern Territory, Queensland and New South Wales (\$595,000).

Indicator 4.7: Age-standardised Aboriginal and Torres Strait Islander and non-Aboriginal and Torres Islander accident and emergency activity rates for lacerations, fractures, trauma, respiratory infections, skin infections and nutritional disorders

Information on presentations at emergency departments of hospitals for lacerations, fractures, and trauma would be useful in gauging the levels of accidents and violence in a community. Presentations for respiratory infections, skin infections and nutritional disorders may reflect the community's living conditions.

Some jurisdictions reported that they do have in place systems to collect information on emergency department activity. Only New South Wales has collected data on emergency activity by Indigenous status, but noted that Indigenous identification in the data was not sufficient for it to be used for this indicator. Furthermore, the New South Wales data collection had gaps in coverage, with rural hospitals particularly under-represented.

Another limitation of the collection is the lack of a standard code list to classify presenting problems.

The Australian Capital Territory and the Northern Territory reported that they are now collecting data on emergency activity including Indigenous status, but the collections are still being refined and improved.

Indicator 4.8: Proportion of total consultations by condition and by care provider

Consultations with primary care providers are another indicator of health service inputs. There are a variety of such providers; however, making the collection of such information difficult. As noted in the 1998 report, Indigenous controlled health services collect this information for their own purposes, but no jurisdictions were able to report these data. The only data from the Aboriginal Medical Service was reported by the Commonwealth, showing that in the 1997-98 period, 102 Aboriginal Medical Services provided approximately 860,000 episodes of care. Information on the patient's condition or problem is not recorded in this database.

The Northern Territory reported consultations by health practitioners in 20 Territory Health Services centres in Central Australia in 1998. These data show that 31% of visits include consultations with Aboriginal Health Workers, 78% with nurses, and 11% with medical practitioners. The total is greater than 100%, because during one visit a person may have more than one consultation.

Another form of primary care is that provided by community health centres. New South Wales reported that the Community Based Health Information System is to be introduced in 2001 and it is expected that information will be available the following year. This system will not include general practitioners or Aboriginal Medical Services.

The 1998 report noted that the BEACH survey (Bettering the Evaluation and Care of Health) of general practice activity would include the identification of patients according to Indigenous status, and thus may be able to provide estimates of the use of general practice services by Indigenous people. The BEACH report for 1998-99 includes a section on 'Encounters with Indigenous people' (Britt et al. 1999:134-9). There are several limitations to the BEACH data for Indigenous people that preclude their use in this report. While the sample may accurately represent GPs in Australia, it is not known if Indigenous encounters are so represented. Also, the small size of the sample limits its use for analysing GP encounters with Indigenous people at the State/Territory level.

Category five: Workforce development

Seven indicators were selected to examine workforce issues affecting the delivery of health services to Aboriginal and Torres Strait Islander people. Several of these indicators seek to understand the role that Indigenous people have in the health system, while others look at workforce vacancies. One indicator is designed to measure the commitment of hospitals to awareness of Indigenous cultural issues regarding health.

Indicator 5.1: Number of Aboriginal and Torres Strait Islander people who have (a) graduated in the previous year; and (b) are in training in key health-related fields

Indicator 5.2: Number and proportion of Aboriginal Health Workers who graduated in the previous year or are participating in accredited training programs

The number of recent Indigenous graduates and enrolments in health training is a useful measure of the participation of Indigenous people in delivering health services. Two types of training are considered under Indicator 5.1: training at institutions of higher education, and vocational training (for example, at technical colleges). For Indicator 5.2, training of Aboriginal Health Workers is the focus. However, in the reports from some jurisdictions it is difficult to separate 'vocational training' from 'training of (or for) Aboriginal Health Workers', and therefore the discussion of the two indicators is combined here.

Information on the number of students involved in higher education is collected by the Commonwealth Department of Education, Training and Youth Affairs, while information on those undertaking vocational training and Aboriginal Health Worker training is collected by the National Centre for Vocational Education Research. The Commonwealth obtained these figures for 1997 and 1998 (Table S3). While the number of Indigenous students completing health training in higher education institutions declined slightly from 1997 to 1998, the number enrolled increased by about 11%. Over the same period, the number completing vocational training increased nearly 40%, and the number enrolled increased by 28%. There were similar increases in the numbers of students completing and enrolling in Aboriginal Health Worker courses. Altogether there were over 1,500 completing training and over 7,000 enrolled in 1998.

As with other administrative data on the Indigenous population, there is an unknown level of under-enumeration of Indigenous people in these figures.

Table S3: Number of Aboriginal and Torres Strait Islander people who have completed or who are enrolled in health courses in higher education and vocational training institutions, Australia, 1997 and 1998

Type of course	Completed		Enrolled	
	1997	1998	1997	1998
Higher education	198	193	784	868
Vocational training	810	1,204	4,212	5,378
Aboriginal Health Worker training	145	182	679	895

Source: Department of Education, Training and Youth Affairs and National Centre for Vocational Education Research, cited in 1999 report from the Commonwealth.

The data reported by the Commonwealth are national totals only, with no breakdown by State/Territory. Some of the States and Territories provided the numbers graduating and training in tertiary and vocational courses and in Aboriginal Health Worker training, as shown in Table 5.2. The comparability of these numbers is not always certain, however. For example, New South Wales provided a breakdown of the numbers of students graduating and in training as Aboriginal Health Workers according to Indigenous status (the figures reported here are only those who identified as Indigenous), but this information was not included in the reports from other jurisdictions.

Table 5.2: Number of Aboriginal and Torres Strait Islander students graduating and training in health courses, as reported by States and Territories

State/Territory	Tertiary and vocational education		Aboriginal Health Worker training	
	Graduating	In training	Graduating	In training
New South Wales (1998)	58 ^a	327 ^b	53	186
Victoria (1998)	20	42	No program	
Queensland	Not reported		Not reported	
Western Australia (1999)	52	83	15	184
South Australia	Not reported		17	72
Tasmania	Not reported		Not reported	
Australian Capital Territory (1999)	Not reported	9	Not reported	
Northern Territory (1998)	28	209 ^c	56	50 ^b

a 1997 data; tertiary only.

b Tertiary only.

c 1999 data.

Indicator 5.3: The proportion of vacant funded full-time equivalent (FTE) positions for doctors, nurses and Aboriginal Health Workers in (a) Aboriginal health services, and (b) other organisations providing primary care for Aboriginal and Torres Strait Islander people on a given date

Knowledge of the proportion of positions in the health workforce that are vacant can assist in understanding the gaps existing in the capacity to provide health services. A high proportion of vacant positions will negatively affect the amount and quality of services that can be provided. However, the jurisdictions were unable to provide much information on this indicator.

The Commonwealth was able to provide data on the numbers of positions in Commonwealth-funded Aboriginal Health Services (463 Aboriginal Health Workers, 182 nurses, and 97 doctors), but did not provide a breakdown of these numbers by State/Territory, and does not collect information on vacancies in these positions.

Western Australia reported results from a 1999 survey of Western Australian Government Health Services and Aboriginal Community Controlled Health Organisations. About half the services were able to respond, and thus the results should be seen as indicative only. The results showed that 2% of doctor positions, 5% of nurse positions and 11% of Aboriginal Health Worker positions were vacant.

South Australia reported that, as at 22 February 2000, there were two vacancies out of 110 Aboriginal Health Worker positions, and no vacancies among the 8 enrolled nurse and 6 registered nurse positions.

The Australian Capital Territory reported that there are no vacant positions for doctors, nurses or Aboriginal Health Workers in the local Aboriginal Health Service and that there are no other organisations providing primary care specifically for Aboriginal and Torres Strait Islander people.

The Northern Territory reported that, at 1 September 1998, there were vacancies for 7 doctors, 10.5 remote nurses, and 32 Aboriginal Health Workers in six out of seven districts; data were not available for the seventh district. These figures were not provided as proportions of the relevant workforce. The report comments as follows:

There have been serious problems with employment of Aboriginal Health Workers throughout the Northern Territory in previous years. In 1999 the situation stabilised with approximately half as many vacancies for Aboriginal Health Workers as there were in 1997. The high turnover of remote area nurses remains a significant problem while the number of doctors working in remote areas has increased considerably in the Northern Territory over the last 5 years.

Indicator 5.4: Number of vacant funded FTE positions for doctors, nurses and Aboriginal Health Workers in hospitals where greater than 25% of separations are Aboriginal and Torres Strait Islander people on a given date

This is another indicator looking at workforce vacancies, in this case, vacant medical staff positions in hospitals where more than one-quarter of the separations are for Indigenous

people. Several jurisdictions (Victoria, Tasmania, and the Australian Capital Territory) reported that none of their hospitals met this criterion of Indigenous people comprising more than 25% all separations.

Western Australia obtained data for this indicator through a survey of government hospitals, with a 50% response rate. With this in mind, Western Australia was able to report that 5% of positions for doctors, 8% for nurses, and 16% for Aboriginal Health Workers were vacant.

The Northern Territory reported that, despite the very high staff turnover rates in all hospitals, there were relatively few vacancies as at 1 September 1998: 8 doctors, 7 nurses (at Tennant Creek) and 1 Aboriginal Health Worker.

Indicator 5.5: Number of Aboriginal and Torres Strait Islander identified positions in the health sector

This indicator attempts to measure the support or commitment of health service providers to employing Aboriginal and Torres Strait Islander staff. As noted in the 1998 national summary report, it is difficult to report on this indicator because some jurisdictions are legally restricted from having 'identified' positions. Several of the jurisdictions reporting this year (1999) that they had such positions noted that the term 'identified' means that Aboriginality is an essential criterion for the position.

New South Wales was able to enumerate Aboriginal Health Coordinators, Aboriginal Health Education Officers, Aboriginal Hospital Liaison Officers, and Aboriginal Employment Coordinators in the Area Health Services. However, the total number of Aboriginal identified positions in the health sector could not be estimated, as there were other identified positions in Area Health Services, Statewide Health Services, Aboriginal Medical Services, the State health department, and non-government organisations that could not be enumerated.

Queensland reported that it had 287.73 (full-time equivalent) positions described as 'Indigenous specific', as opposed to 'identified'.

Western Australia has provision for 'Aboriginal identified' positions, but noted that this concept 'is not readily understood by health service personnel'. Western Australia obtained data for this indicator through a survey of government health services and Aboriginal Community Controlled Health Organisations, with the low response rate (50%) indicating that the results are an understatement of the true number of positions. With this caveat in mind, at least 96 positions in government health services were 'Aboriginal identified', along with 8 positions in one Aboriginal Medical Service.

The Australian Capital Territory reported five identified positions.

In the Northern Territory there are no 'identified' positions for Indigenous persons, but it is the 'intent' that positions such as Aboriginal Health Promotion Officer, Aboriginal Liaison Officer, and Aboriginal Mental Health Worker be filled by an Indigenous person. In 1998 the Territory Health Services lists 292.5 such health sector positions, 165 of which are Aboriginal Health Worker positions. A further 249 Aboriginal Health Worker positions exist outside Territory Health Services.

The Commonwealth Department of Health and Aged Care had 14 identified positions in 1998. The Department has an Indigenous Cadetship Program, but was unable to recruit new cadets for it in 1999.

The remaining three jurisdictions (Victoria, South Australia, and Tasmania) reported that they did not have 'identified' positions.

Indicator 5.6: Proportion of doctors and nurses who identify as Aboriginal and/or Torres Strait Islander

As noted in the 1998 report, however, it is difficult to obtain information on the proportion of doctors and nurses who identify as Indigenous, because such identification is either not required by the relevant registration boards, or because identification is suspected of being greatly understated. For several jurisdictions it is possible to gain some idea of these proportions from various equal employment opportunity (EEO) surveys, but such surveys are often limited to the government-employed workforce.

New South Wales obtains information on Indigenous status of nurses in its Nursing Workforce Annual Survey, which is to be completed by enrolled and registered nurses when completing or renewing their registration. The question has only been asked every 5 years. The most recent data are for 1994, and were included in the 1998 report (0.3% of registered nurses and 1.0% of enrolled nurses identifying as Indigenous). The 1999 results should be available for the next report, and it is planned to include the question on identification annually in the future. The results of a 1998 EEO survey of public sector employees indicate that 0.3% of senior nurses, 0.5% of registered nurses, and 0.2% of medical practitioners were Indigenous, but the quality of these data are questionable due to a low response rate.

A Queensland EEO survey, which had a 57% response rate, found that 0.4% of persons employed in the 'medical stream' were Indigenous, as were 1.2% of those employed in the 'nursing stream'.

Western Australia also has an EEO survey of government employees, but the report notes that 'EEO survey responses are low and respondents are reluctant to identify themselves as [Indigenous] due primarily to confidentiality concerns, particularly in rural areas'.

The Northern Territory had only anecdotal information on the number of Indigenous doctors and nurses.

Another category of health personnel, not included in this indicator, is Aboriginal Health Worker. The Northern Territory reported that it is the only jurisdiction to register this type of health worker, and also is the only one to provide a career structure for them. As at August 1998 there were 414 Aboriginal Health Workers registered in the Northern Territory.

Indicator 5.7: Proportion of accredited hospitals for which the accreditation process required Aboriginal and Torres Strait Islander cross-cultural awareness programs for staff to be in place

This indicator is designed to capture the support within hospital staff training programs for cross-cultural awareness. It is not designed to measure the proportion of hospitals which have Indigenous cultural awareness training programs in place, rather the proportion required by their accreditation board to have such programs. No jurisdiction provided information on *accredited* hospitals with such programs, because it is not part of the requirements of the Australian Council on HealthCare Standards accreditation guidelines for hospitals.

New South Wales reported on the requirement in the State's performance agreements with the 20 Health Services to have cross-cultural awareness training programs in place. As of 1999 all 20 had implemented such programs, compared to 15 in the previous report.

Western Australia reported that it had surveyed hospitals to obtain this information. Although the response rate was less than 50%, the proportion responding that they were required to have such programs was 70%.

Tasmania noted the 'cross-cultural awareness training within the hospitals is one of the Aboriginal Liaison Officer's roles'.

The Australian Capital Territory stated that, while there are no specific criteria addressing Aboriginal and Torres Strait Islander issues in the accreditation guidelines, there is a standard that 'Rights, responsibilities and ethical issues relating to patients and consumers are actively addressed'.

The Northern Territory reported that, while the accreditation process does not mandate cross-cultural awareness programs for staff, the need for such programs is implied in the requirements for consumer satisfaction. An Aboriginal Cultural Awareness Program is in place in all Northern Territory hospitals and throughout the health service. This program offers four levels of training and three self-directed learning packages in order to cater for staff with different levels of contact with or influence over Aboriginal services.

Category six: Risk factors

This section reports information on three major determinants of poor health, or 'risk factors': smoking, overweight, and excess alcohol consumption. There are other major health risk factors, such as lack of exercise and poor nutrition, but these three have been selected because they are particularly important among Indigenous Australians.

Indicator 6.1: Proportion of Aboriginal and Torres Strait Islander people aged greater than 13 years who currently smoke, by age and sex

The main source of data for information on smoking levels among Indigenous people is the National Aboriginal and Torres Strait Islander Survey, conducted in 1994. Two jurisdictions (Victoria and the Northern Territory) reported the results of this survey for the 1998 national summary report. The Commonwealth has now provided national figures from this survey, showing that 54% of Indigenous males over age 13 and 46% of females smoked. The proportion of smokers in various age groups was 10% of persons aged 13-14 years, 48% of those aged 15-24 years, 68% of those aged 25-44 years, and 41% of those aged 45 years and over.

Several jurisdictions reported that it may be possible to obtain data for this indicator in the future from the 2001 National Health Survey, or through state-level health surveys. However, some jurisdictions also noted the small samples of Indigenous people in such surveys made it difficult to derive reliable estimates of the proportions who smoked.

Indicator 6.2: Proportion of Aboriginal and Torres Strait Islander people with a body mass index (BMI) greater than 25, by sex and age

Body mass index (BMI) is an internationally recognised measure to determine overweight or obese status in adults. The index is constructed by dividing an individual's weight in kilograms by his or her height in metres squared. An index value of 30 or greater indicates obese status, while a value between 25 and 30 indicates overweight. The most recent data for this measure are from the 1994 National Aboriginal and Torres Strait Islander Survey (NATSIS), and were reported (by sex) for each jurisdiction in the 1998 report.

The 1998 report stated that the NATSIS results showed that 28% of Indigenous males and 19% of females (no age specified) were overweight, with a further 20% of males and 20% of females obese. Another study reports the NATSIS results for Indigenous adults aged 18 years (which is considered to be the appropriate lower age for the BMI) and above. For this group, about 25% of Indigenous males and 28% of Indigenous females were classified as obese, compared to about 19% of all Australian males and females aged 19 years and over, as measured in the 1995 National Nutrition Survey. In addition, Indigenous people in non-remote areas were nearly twice as likely as their non-Indigenous counterparts to be classified as obese, after adjusting for age (ABS & AIHW 1999:51-2).

The report from the Northern Territory for 1999 provided further information from the NATSIS results on proportions overweight and obese by age and sex, and compared these

figures for the Northern Territory to those for all Indigenous people in Australia (Table S4). These data show that at all ages lower proportions of the Indigenous people in the Northern Territory are overweight or obese than are Indigenous people in the rest of Australia. The contrast is particularly striking at older ages, and the Northern Territory report speculates that this is 'possibly as a result of a much later change in lifestyle and nutrition here than elsewhere in Australia'.

Table S4: Proportion of Indigenous persons who were overweight and obese, by sex and age group, Northern Territory and the rest of Australia, 1994 (per cent)

Sex and age group	Overweight ^a (BMI > 25)		Obese (BMI ≥30)	
	Northern Territory	Rest of Australia	Northern Territory	Rest of Australia
Males				
13–24	12	25	6	9
25–44	35	51	12	21
45–64	23	53	8	22
65+	9	26	2	7
Females				
13–24	16	25	5	11
25–44	27	39	11	19
45–64	31	54	16	28
65+	18	42	6	21

a The category 'overweight' includes those classified as 'obese'.

Source: 1994 National Aboriginal and Torres Strait Islander Survey (ABS), cited in 1999 report from the Northern Territory.

Indicator 6.3: Proportion of Aboriginal and Torres Strait Islander people who reported usually consuming more than four drinks on the occasions when they drank alcohol in the last two weeks, relative to the total numbers who reported on consumption

As noted in the 1998 report, data on alcohol consumption are not recorded as specified in the indicator (more than four drinks on one occasion in the last two weeks). Some survey data are available to measure this, but the sample sizes preclude estimates for the Indigenous population in each jurisdiction. A finding of some surveys is that Indigenous people are more likely than non-Indigenous people to abstain from alcohol, but those who do drink alcohol are more likely to do so at unsafe levels (AIHW 2000:217).

The 1994 National Drug Strategy Household Survey is a source for information on proportions of Indigenous and non-Indigenous people who drink alcohol 'regularly' (for females, more than 8 drinks in the last two weeks; for males more than 12 drinks in the last two weeks) and 'weekly' (Table S5). These figures also reflect the pattern noted above: lower proportions of Indigenous people consume alcohol weekly, but higher proportions are 'regular' drinkers.

Table S5: Patterns of alcohol consumption, Indigenous and non-Indigenous males and females, 1994

Drinking pattern	Indigenous		Non-Indigenous	
	Male	Female	Male	Female
'Regular' consumption: proportion who have had more than 8 drinks (female) or 12 (male) in the last two weeks	49%	31%	11%	6%
'Weekly' consumption: proportion of current drinkers who consume alcohol at least weekly	66%	41%	72%	52%

Source: 1994 National Drug Strategy Household Survey, cited in the 1999 report from the Commonwealth.

Category seven: Intersectoral issues

'Intersectoral issues' refers to economic conditions which are known to affect health. Two indicators have been selected to represent intersectoral issues: household income below the poverty level, and residential amenities (supplies of standard utilities).

Indicator 7.1: Proportion of households where the after-tax income available to the household after paying the mortgage or rent is less than the amount specified by the poverty line

Poverty is a multi-faceted problem, and thus can be difficult to measure. This indicator, as currently stipulated, incorporates concepts such as household income, after-tax income, net income after housing costs, and the poverty line. However, the indicator does not include the concept of household size. Due to these difficulties and the lack of clear definitions, most jurisdictions are unable to report against this indicator. In addition, the major sources for data on Indigenous poverty, the five-yearly national censuses and the National Aboriginal and Torres Strait Islander Survey, do not have information about housing costs.

New South Wales advised that recent research on measuring Indigenous poverty at the Centre for Aboriginal Economic Policy Research suggests using the proportion of households below various percentages of the Australian median income as a relative income measure of poverty (Hunter 1999:9). An 'equivalence scale' from the Organisation for Economic Cooperation and Development (OECD) is used to adjust for differences in household composition, because Indigenous households tend to be much larger than non-Indigenous households. The proportion of households with incomes that are less than 40%, 50% or 60% of the national median income are shown in Table S6. The New South Wales report comments that these data show that 'there are substantial and consistent differences between Indigenous and non-Indigenous populations, with Indigenous households considerably more impoverished'.

Table S6: Indigenous households and all Australian households with incomes below various percentages of the Australian median income, 1994-95

	Indigenous Australian households			All Australian households		
	Per cent of national median income			Per cent of national median income		
	<40%	<50%	<60%	<40%	<50%	<60%
Household's raw income	13.9	23.3	31.8	17.1	25.4	31.1
OECD scale equivalent	12.8	31.4	49.2	6.2	11.7	25.8

Note: The figures in the table represent the proportion of households with incomes that are less than 40%, 50% or 60% of the national median income.

Source: Hunter 1999:9, cited in the 1999 report from New South Wales.

Information on Indigenous households 'in poverty after housing' is available in a report by Roger Jones (1999) for the Aboriginal and Torres Strait Islander Commission (ATSIC), based on the 1996 census results (Table S7). A household whose income after paying housing costs is reduced below its non-housing income need is considered to be 'in poverty after housing'.

Due to the limitations of the method and data, the ATSI report cautions that the figures should be treated as estimates only of the level and extent of poverty in Indigenous households. The report provides estimates for each State/Territory and, where appropriate, by major urban, other urban, and rural categories. About 16% of all Indigenous households in Australia were considered to be 'in poverty after housing'. Indigenous households in rural areas are less likely to be 'in poverty after housing' (12%) than those in major urban areas (17%) and other urban areas (18%). In Western Australia only 10% of rural Indigenous households are 'in poverty after housing', and this finding is questioned by the Western Australia report, which says that 'these results need to be considered in the light of the well recognised much higher basic living costs incurred by rural and remote Western Australia households, of which Aboriginal households form a significant part'.

Table S7: Indigenous households in poverty after housing, by State/Territory and section of State, 1996 (per cent)

State/Territory	Section of State			Total
	Major urban	Other urban	Rural	
New South Wales	16.8	20.6	14.9	18.1
Victoria	15.3	20.0	14.8	17.0
Queensland	19.1	17.7	13.0	17.2
Western Australia	17.3	15.1	10.4	14.8
South Australia	18.2	17.1	11.0	16.7
Tasmania	16.5	16.4	13.8	15.6
Australian Capital Territory	13.5	na	na	13.5
Northern Territory	na	11.6	5.0	8.7
Australia	17.3	17.8	11.9	16.4

na not applicable

Source: Jones 1999:79.

Indicator 7.2: Proportion of dwellings where one or more Aboriginal and Torres Strait Islander adults is the usual resident, and over the last 4 weeks had reliable electricity or gas supplies, reliable water supplies and reliable sewerage or adequate alternatives

It is widely accepted in Australia that all households should have access on a continuous basis to essential utilities (electricity and/or gas, water, sewerage). This indicator is designed to measure if Indigenous households have access to the same standards of such services as does the general population. Information on disruptions to utility supplies was collected in the 1999 Community Housing and Infrastructure Needs Survey (CHINS). The data from this survey do not exactly match the needs of this indicator for several reasons. First, while the survey was a complete enumeration of all Indigenous *housing organisations* and discrete Indigenous *communities*, across urban and sparsely settled areas in all States and Territories, it did not include all Indigenous *households*. Second, the questions in the survey which relate to reliability of electricity, gas, water or sewerage refer to their operation in the previous 12 months, rather than the previous 4 weeks. Nevertheless, the data provide a useful picture of the supply of utilities to Indigenous communities.

The ABS has published the CHINS results (ABS 2000b), and has tabulated the information on disruptions to utilities for discrete Indigenous communities with a population of 50 or more (Table S8). These figures show that 82% of these communities had electricity interruptions in the past 12 months, 35% had water restrictions, and 60% had sewerage overflows or leakages. Indigenous communities in Queensland experienced higher levels of disruptions than in other jurisdictions.

Table S8: Disruption in supply of basic utilities during past 12 months in discrete Indigenous communities with a population of 50 or more, 1999

State/Territory	Experienced in past 12 months (per cent)		
	Power interruptions	Water restrictions	Sewerage overflows or leakages
New South Wales	64	33	55
Queensland	95	57	75
Western Australia	88	40	69
South Australia	74	30	52
Northern Territory	84	26	53
Australia^a	82	35	60

a Victoria and Tasmania included with Australia for confidentiality reasons.

Source: ABS 2000b:39, 42, 44.

Category eight: Community involvement

Two indicators in this category are designed to examine the inclusion of representatives from Aboriginal and Torres Strait Islander communities in health planning at the State and regional level.

Indicator 8.1: Establishment of a forum representing the Aboriginal health sector, Aboriginal and Torres Strait Islander Commission (ATSIC) and the State jurisdiction in each State and Territory

Forums to discuss health issues at the Commonwealth, State, or Territory level are designed to bring about participation of Indigenous communities in government health planning, resource allocation, and service delivery. The 1998 national summary report noted that at that time forums with representatives from the Indigenous health sector, the Aboriginal and Torres Strait Islander Commission (ATSIC), and the relevant Government (Commonwealth, State, or Territory) had been established in most jurisdictions, and had been meeting regularly. For this report, additional information on the progress of these forums has been provided by some jurisdictions.

Commonwealth: The National Aboriginal and Torres Strait Islander Health Council, with 13 members and chaired by the Secretary of the Department of Health and Aged Care, was reconstituted in early 1999. This represents the National Forum under the Aboriginal and Torres Strait Islander Framework Agreements. Membership is drawn from the Department of Health and Aged Care, the National Community Controlled Health Organisation, State government representatives nominated by the Australian Health Ministers' Conference, ATSIC, the Torres Strait Regional Authority, and five members with extensive experience in Aboriginal and Torres Strait Islander health.

New South Wales: The NSW Aboriginal Health Forum now has an additional role to oversee implementation of the NSW Aboriginal Health Strategic Plan, released in 1999.

Victoria: Meetings of the Victorian Advisory Council on Koori Health (VACKH) have been held every 8 weeks. These provide an opportunity for sharing of information and for joint decision making on key issues such as the processes required to develop a State plan for Koori health.

Queensland: The forum (known as the Partnership) has operated all year in Queensland with positive outcomes.

Western Australia: The Western Australia Joint Planning Forum (JPF) met in full on six occasions in 1999. In addition there were numerous other related JPF committee and JPF working meetings on a range of topics at the State level. Work in 1999 on developing the six Regional Aboriginal Health Plans involved considerable local level collaboration between ATSIC, Aboriginal Community Controlled Health Organisations, and State and Commonwealth agencies.

Tasmania: The State Forum holds quarterly meetings and the outcomes of the Agreement are progressing. A draft State Health Plan, produced by the Tasmanian Aboriginal Centre, was tabled at the final meeting for 1999.

Northern Territory: A number of positive activities under the forum agreement occurred in 1999. One of these is the Central Australian Health Planning study, which offers a framework for primary health care development in Central Australia. The Top End Indigenous Health Planning Study Committee was established early 1999 specifically to oversee a health planning consultancy of the Top End and is due for completion in December 1999.

Indicator 8.2: Cooperative community planning with the implementation of the regional planning processes

The level of Indigenous involvement in strategic community planning is examined in this indicator. Numerous examples of community planning mechanisms were cited in the 1998 national summary report, and additional ones have been provided for this year.

Commonwealth: Health regional planning is in progress in each State and Territory, facilitated by the establishment of regional planning forums under the 'Aboriginal and Torres Strait Islander Health Agreements'.⁸ Regional plans have been completed in some jurisdictions and it is expected that the remaining plans will be completed during 2000.

New South Wales: The Aboriginal Health and Medical Research Council has developed local Aboriginal health plans in consultation with Aboriginal Medical Services. Area Health Services have developed Area Aboriginal Health Strategic Plans in consultation with a wide variety of Aboriginal organisations and community groups.

Victoria: The Department of Human Services released a Koori Services Improvement Strategy (KSIS) in 1998, and implementation of the strategy commenced in most of the regions in 1999. The strategy requires regional offices to report on two key performance indicators: the establishment of regional reference groups, and the development of community service plans. The reference group in the Gippsland Region has progressed work on two projects, one on social and emotional wellbeing, and another on youth suicide prevention. In the Eastern Metropolitan Region, the group has chosen two priority areas for action in 2000, access to dental services, and access to culturally appropriate support for Indigenous families caring for children.

Queensland: Four community health plans were finalised during 1999 and a fifth begun. A 'Framework for Action' was completed identifying priorities for the Partnership and forming the basis of a submission to the Commonwealth Office of Aboriginal and Torres Strait Islander Health for funding for primary health care enhancement.

Western Australia: Cooperative community planning was undertaken in 1999 in all six Aboriginal health planning regions, and the resulting plans will be published in 2000. The regional health planning teams are expected to have an ongoing role in implementation and evaluation.

Northern Territory: The Central Australian Health Planning Study in 1997 has become a major source of planning information. This study summarises the levels of health services provided in Aboriginal communities on the basis of staff-to-population ratios. These ratios

⁸ These agreements are a set of principles for working together on Indigenous health matters, and involve in each jurisdiction the Commonwealth, the relevant State or Territory Government, the Aboriginal and Torres Strait Islander Commission, and the Indigenous community-controlled health organisation. They are operated through a State/Territory level forum, where regional planning and other coordination issues take place.

provide benchmarks against which the levels of need for primary health care are measured. In addition to identifying need, the study provides a framework for strategic development in the region.

Category nine: Quality of service provision

This final category looks at quality of health services for Aboriginal and Torres Strait Islander people. Quality measurement is difficult in all environments, and therefore only one indicator, the existence of mechanisms for complaints and critical incidents, has thus far been formulated for this category.

Indicator 9.1: Critical incident reporting and complaints mechanisms at all levels of health services

As the 1998 national summary report notes, mechanisms for formal notification of adverse incidents are in place in hospitals, but not uniformly in other types of health services. Furthermore, Indigenous people may experience difficulties in accessing these mechanisms, and also are not always identified as Indigenous in the records. A number of the jurisdictions reported progress on improving access to the mechanisms for Indigenous people.

Commonwealth: The National Health Priorities and Quality Branch has funded the development of a national health complaints information project. The project has a proposed data item on complaints relating to racism, but this is not specific to Aboriginal and Torres Strait Islander people. The Branch also funded the Australian Incident Monitoring Study to collect data on a voluntary basis on incidents occurring in acute hospital services. The data do not contain identifiers of Indigenous status.

Queensland: Cross-cultural awareness has progressed with the implementation of the Cross-Cultural Awareness Minimum Standards. The revision of the structure of Queensland Health has added a new level of accountability with the establishment of Zonal Managers. The 15 Indigenous Coordinators are being restructured to enable them to provide more strategic advice to service level managers regarding appropriate practice. Monitoring mechanisms are in the process of being developed in line with the new structure of the organisation.

Victoria: The Health Services Commissioner has acknowledged a lack of access by Indigenous people to the services of that office. A full-time Aboriginal Liaison Officer began working in the Commission office in February 1999 and, by 30 June 1999, 23 individual inquiries had been made by Aboriginal people regarding particular concerns they had about a health service. Formally, there were four complaints lodged by Aboriginal people during the 1998-99 period. The Officer and the Commissioner have been meeting with Indigenous health service users and providers.

Tasmania: The State Health Complaints Commissioner's Office has an Indigenous staff member with a generic role. General complaints about treatment within the health sector are directed to this office. Aboriginal Liaison Officers within the Department of Health and Human Services are also a contact point for Indigenous clients for all issues, including complaints.

Northern Territory: The Health and Community Services Complaints Commission is an independent statutory body, co-located within the Office of the Ombudsman for the Northern Territory. During the reporting period 1998-99, of 86 complaints received, four were from Indigenous citizens. The Commission provides special support for Indigenous

people and people from non-English-speaking backgrounds to access complaints processes. There were plans to employ two Aboriginal trainees in the Commission, but this has not occurred due to a lack of funding. Territory Health Services also has an internal complaints procedure to address client dissatisfaction and suggestions for improvement of the provision of services. Indigenous status of complainant is not recorded, although the need for an interpreter is noted.

Efforts to improve reporting

As well as reporting available data against the prescribed indicators, jurisdictions were also asked to report on measures they have taken to improve the quality of the data and their capacity to report. This part of the reporting exercise is seen by the participants as having equal importance with the actual results, as it reflects the commitment of the jurisdictions to collecting data and reporting on Indigenous health and to implementing the Aboriginal and Torres Strait Islander Health Information Plan (ATSIHWIU 1997).

The 1998 report included comments from the jurisdictions on these issues with each group of indicators. For the 1999 report, the comments are grouped together here.

Most of the jurisdictions noted that the review of the indicators being undertaken by the Cooperative Research Centre will improve capacity to report. The review should help to clarify the definitions and methodological issues for many of the indicators, and also identify the appropriate agencies responsible for reporting on specific indicators.

Comments were also made by most jurisdictions about the continuing issue of adequate identification of Aboriginal and Torres Strait Islander people in their administrative databases. In some cases, the jurisdictions reported that they were working with the Australian Bureau of Statistics to implement appropriate measures to achieve this, particularly for the registration of births and deaths. Improved recording of Indigenous status was mentioned by some jurisdictions as the main factor for better reporting on the mortality and morbidity indicators.

Mortality

New South Wales: Under-reporting of Aboriginality in standard data collections is a significant problem within the health system. There is a major initiative under way, the Aboriginal Health Information Strategy, that should help to address this in the future.

Victoria: The Koori Information Planning Group was established in response to recommendations of the national Aboriginal and Torres Strait Islander Health Information Plan (ATSIHWIU 1997). The initial focus of this group has been on improving vital statistics data. Links have been established between the ABS and Indigenous agencies to facilitate regular checks of the reporting of deaths of Indigenous people by Koori Hospital Liaison Officers and by the Aboriginal Funeral Service, with information provided at the time of registration of the death. ABS staff have completed data quality audits at the Registry of Births, Deaths and Marriages verifying a sample of 500 death registrations forms using November 1998 data. All of the 1998 registered deaths on the ABS input file were then compared to the original source forms. ABS staff have also commenced visits to funeral directors prior to undertaking promotional activities on the importance of accurately recording Indigenous status. In Victoria, an additional source of information is also available on stillbirths in the Indigenous community, from the monthly reports of Koori Hospital Liaison Officers. This source of information is being used as a cross-check on the recording of Indigenous status of babies who are stillborn.

Queensland: Best practice in recording Indigenous identification is being pursued by staff training and culture awareness throughout Queensland. Specific projects are being implemented in the Torres Strait Islander communities and other remote areas to improve registration of births and deaths.

South Australia: Monitoring and training of staff is continuing in the correct procedures for recording Indigenous status at the time of death and during the registration of death certificates.

Tasmania: The Registrar of Births, Deaths and Marriages is working with funeral directors (who are required to supply death certificates) to improve data collection from third parties (i.e. doctors, family and friends of the deceased). An out-posted officer from the ABS will be placed within the agency for 6 months to do a detailed evaluation of this data item in agency collections and make recommendations for improvements.

Australian Capital Territory: The ABS is currently undertaking an audit of Aboriginal and Torres Strait Islander status on death certificates. The ABS has also recently developed pamphlets to assist undertakers and doctors in Aboriginal and Torres Strait Islander identification.

Morbidity

Several types of data are required for the morbidity indicators: disease notifications; hearing screening for children; weight at birth of newborns; and hospital separations. Many jurisdictions spoke of their efforts to improve the recording of Indigenous status in these data bases.

Disease notifications

New South Wales: Public health units, which are responsible for collecting the data, are provided with regular feedback on the degree of ascertainment of Indigenous status in the data which they have collected, broken down by condition and data source. This will allow them to target individual sources (e.g. specific pathology labs) in an attempt to improve the identification of notifications relating to Indigenous people. However, the limiting factor is the paucity of demographic information provided to pathology labs by doctors and hospitals.

Victoria: The Department of Human Services undertakes surveillance of notifiable infectious diseases under the Health (Infectious Diseases) Regulations 1990. These Regulations specify the nature and type of information to be collected about diseases of public health importance. Currently the Regulations do not specifically mention the collection of information about Indigenous status, and the form which doctors use to report notifiable diseases does not have provision for recording whether the person is Aboriginal or Torres Strait Islander. The Regulations are currently being revised and it is proposed that the notification of Indigenous status will be mandatory in future.

Queensland: A project is under way to give laboratories the capacity to collect Indigenous status and to improve the quality of data coming from general practitioners (GPs) through increased awareness and follow-up of notified cases. The proposed sexual health screening program for North Queensland (jointly funded with the Commonwealth) will provide excellent data regarding sexually transmitted diseases among Indigenous people in remote and rural areas. This has been conducted in several communities to date and data will be available when the program is complete.

Tasmania: Negotiations are required with general practitioners to collect Indigenous status data on notification forms. It is not currently known if GPs have a policy to collect Indigenous status information, and thus the willingness of GPs to do this may be variable.

Hearing screening

Queensland: Information on child hearing loss is not available and there are no long-term strategies to collect these data.

Western Australia: A state-wide otitis media strategy focusing on early childhood education is currently being piloted by the Education Department. Key agencies and stakeholders will meet in 2000 to build on the pilot and develop a comprehensive approach to identifying, addressing and reporting conductive hearing loss.

Tasmania: Some work is being conducted to promote the identification of Indigenous children entering the school system. Improvements in collecting this information will improve reporting ability.

Northern Territory: The School-age Child Health Surveillance Policy was revised during 1999. A manual and video was also produced to assist with implementation of the School-age Child Health Surveillance Program in remote communities.

Perinatal data

New South Wales: At present, births with Indigenous fathers but non-Indigenous mothers are classified as non-Indigenous. The National Perinatal Statistics Unit has determined that the collection of Indigenous paternity information should not be done through the Midwives Data Collections but rather through the birth registrations with the Registry of Births, Deaths and Marriages.

Victoria: Midwives, midwifery booking staff, and hospital admissions staff all need to have appropriate training in recording Indigenous status. In some hospitals, midwives providing information for the Perinatal Data Collection do not need to ask the Indigenous status question as the information is transferred electronically from the hospital patient record database. This means that accuracy of recording of Indigenous status in the Perinatal Data Collection is dependent on the accuracy of recording by midwifery booking staff or hospital admissions staff.

South Australia: There is ongoing awareness of the need for recording Indigenous status on birth certificates. Midwives are being used to advocate for this issue.

Tasmania: The collection of Indigenous status data is being improved in public and private hospitals due to training of admissions staff. Recently staff of the Perinatal Register have also been insisting that notification of birth forms have the Indigenous status data item filled in, and sending the form back if that item has not been provided. The data on births to Indigenous mothers is expected to become reliable from the beginning of 1999.

Australian Capital Territory: More education is required for both Indigenous communities and health professionals on the importance of correctly identifying Indigenous mothers.

Hospital data collections

New South Wales: A number of initiatives are under way to improve the recording of Indigenous status in the Inpatients Statistics Collection, including the provision of training and promotional materials to all public hospitals in New South Wales.

Victoria: Discussions have commenced on pilot projects undertaken to assess the completeness of identification of Indigenous people using the methodology developed as part of implementation of the national Aboriginal and Torres Strait Islander Health Information Plan (ATSIHWIU 1997). Pilot projects providing education and training for staff of three hospitals on recording of Indigenous status were undertaken in 1999 as part of the Koori Information Plan. Discussions have been held with the National Centre for Aboriginal

and Torres Strait Islander Statistics with a view to providing ongoing training on a wider scale in all hospitals.

Queensland: Best practice in identification is being pursued by staff training and culture awareness. Audit tools are being developed to monitor the quality of data on Indigenous status in Queensland hospitals.

Western Australia: A sample survey will be undertaken in 2000 to validate the accuracy of the recording of Indigenous status in hospital data collections.

Tasmania: Hospital staff are receiving training on how best to gather Indigenous status information. The effectiveness of the collection of the data will be systematically evaluated.

Australian Capital Territory: Checks are done on the hospital morbidity data to ensure good quality. A clinical audit on a percentage of entries is also carried out.

Access

In Victoria, a project officer has been appointed to develop a plan and implementation strategy to improve the availability and quality of information currently being provided by all Department of Human Services data collection systems in regard to the provision of health, community and housing services, and in regard to the health and wellbeing of Indigenous people.

Improvements in expenditure data are under way in several jurisdictions. New South Wales piloted the questionnaire for the second Australian Institute of Health and Welfare report on expenditure on health services for Aboriginal and Torres Strait Islander people. A working group within Queensland Health is addressing how data quality can be improved. This includes audits of hospitals to improve estimates of in-patient and out-patient expenditure.

Health service impacts

Some of the indicators in this category also rely on adequate identification of Indigenous status in the data collections, while others require further development of components such as expenditure and reporting mechanisms.

Health promotion

New South Wales: The Aboriginal Health Strategic Plan identified the need to improve the quality of health promotion programs. One of the proposed strategies is the development of a clearing house for Indigenous health promotion initiatives.

South Australia: Health service agreements have been implemented within health services (mainstream and Aboriginal community controlled), and reporting on these agreements is expected at the end of the 1999/2000 financial year.

Tasmania: An audit of health promotion programs will identify any Indigenous-specific programs. A review of health promotion programs should provide information on activities to target Indigenous peoples.

Commonwealth: The National Indigenous Australians' Sexual Health Strategy is currently undergoing a mid-term review which will assess and report on progress to date in its implementation and provide recommendations to assist in the planning and management of the next phase. Measures for improving reporting capacity will be devised in the context of the future suicide prevention and mental health initiatives.

Pap smear data

New South Wales: The capacity to report against this indicator is unlikely to improve as general practitioners and pathology laboratories do not record Indigenous status when undertaking Pap smears.

South Australia: Cervix Screening South Australia and the Aboriginal Services Division are working together to address the issue of identification of Indigenous status in the register.

Tasmania: Improved data on access to screening services by Indigenous women is dependent on improved data collection and identification of clients by general practitioners.

Australian Capital Territory: The Department of Health and Community Care is investigating changes to the Pap smear registry to include an Indigenous identifier.

Child immunisation

New South Wales: Service providers are encouraged to report Indigenous status when reporting data to the Australian Childhood Immunisation Register (ACIR). However, data are not available as the ACIR is not permitted by the National Aboriginal Community Controlled Health Organisation to provide information on vaccination rates for Aboriginal and Torres Strait Islander children to New South Wales Health. Furthermore, data would not be available until 2002 on fully vaccinated children aged 6 years as ACIR only commenced in January 1996.

Tasmania: Indigenous status is not identified in the register.

Australian Capital Territory: The Immunisation Section is currently reviewing the record form and database with the amended system to include a field to record Indigenous status. The National Immunisation Committee and the ACIR Management Committee are liaising with Indigenous health organisations regarding the release of immunisation coverage rates for this target group. For the year 2000, the Department of Health and Community Care is collaborating with Indigenous organisations to implement strategies to improve the uptake of vaccines within their communities. This will include producing culturally specific immunisation materials and improving access to services via a mobile opportunistic immunisation van. The hepatitis B vaccine immunisation record form and database will be amended to record Indigenous status when the information is supplied. Efforts to educate immunisation providers on the target groups for hepatitis B vaccine will be undertaken.

Commonwealth: The Health Insurance Commission (HIC) has established a designated Liaison Officer to manage the collection of data for children in the target group. The primary task assigned to this position is to improve the quality of data recorded on the ACIR in relation to the target group. The Department of Health and Aged Care will liaise with the HIC to investigate improving identification of the target group at the point of intervention.

Pneumococcal vaccination

New South Wales: The Commonwealth funded Influenza and Pneumococcal Vaccination Program for Aboriginal and Torres Strait Islander people began in 1999. The reporting criteria for this program were problematic and highlighted the difficulties in requiring providers to account for vaccine usage and wastage. The program is currently being evaluated. New South Wales Health is introducing a number of measures to ensure that data are improved.

South Australia: The South Australia Immunisation Coordination Unit (SAICU), in consultation with the Aboriginal Immunisation Working Party (a sub committee of the South Australia Immunisation Forum), continues to examine culturally appropriate methods

of collecting vaccine coverage data. SAICU required all immunisation providers to collect data on all pneumococcal vaccine administered (activity data only) during the 1999 season. However, data collection was poor and cannot be used for an accurate evaluation of the program.

Tasmania: A request has been made to the public health section to collect Indigenous status.

Australian Capital Territory: From 1999, pneumococcal vaccine has been funded via a bilateral agreement between ACT Health and the Commonwealth Department of Health and Aged Care for Indigenous people aged 50 years and over and those aged 15–49 years who have a chronic medical condition. Data from 1999 will be supplied by age and gender.

Northern Territory: It is planned to improve collection and recording of pneumococcal vaccination data by centralising data collection in 2000.

Commonwealth: An evaluation of the first year of the national program is currently under way. The evaluation is to make recommendations on a monitoring and evaluation framework for the program, including minimum data sets.

Primary care activity

New South Wales: The Community Based Health Information System is to be introduced in 2001 and it is expected that information will be available in 2001/02. However this will not include general practitioners or Aboriginal Medical Services.

Victoria: The Department of Human Services provided funds in 1998/99 for a consultancy report on computerised information systems for Aboriginal Community Controlled Health Organisations.

Queensland: Data will not be available in the foreseeable future unless identifiers are introduced into the Medicare data set.

Commonwealth: The Department of Health and Aged Care, with input from the Health Insurance Commission, is currently looking at improving the identification of Indigenous people on the Medicare database. Implementation of the voluntary identifier is dependent on obtaining the support of the National Aboriginal Community Controlled Health Organisation and the Aboriginal and Torres Strait Islander Commission, and the approval of the Privacy Commissioner. Assuming this can be achieved in a timely manner, full implementation is anticipated by the end of the 1999/2000 financial year. The Department is also liaising with the Australian Institute of Health and Welfare about the need to improve the capacity of the BEACH database on general practice activity to report on the health of Indigenous people, particularly in relation to presenting illness and treatment offered.

Workforce development

Indigenous identification of students and staff and database development are also mentioned by some jurisdictions as required for better reporting of the indicators in this category.

Victoria: Aboriginal health worker training will commence in 2000 with the establishment of the Victoria Aboriginal Community Controlled Health Organisation (VACCHO) as a registered training authority. A database of staffing level and staff vacancies in Indigenous community-controlled health services is being considered for basing at VACCHO.

Western Australia: Closer liaison with the tertiary education sector is required to establish standardised reporting mechanisms on numbers of students. There is less awareness in non-tertiary education organisations of reporting requirements and appropriate systems. The collection of workforce data in the State Government health sector is under review and it is

proposed that a consolidated database of all workforce data be established. This would improve data availability and integrity. Amended data definitions under the Human Resources Minimum Obligatory Reporting Requirements to be introduced in 2000 will improve the availability of data on doctors and nurses in the public sector. Strategies are being developed to improve equal employment opportunity survey response rates.

Tasmania: Training may be required to raise awareness of the need to collect Indigenous status of nurses comprehensively in the future. The local Aboriginal Health Service employs Indigenous nurses, but information on these is not available for reporting. Aboriginal Liaison Officers provide cross-cultural awareness training within the hospitals and these sessions are included in the relevant training calendars.

Northern Territory: The Australian Institute of Health and Welfare conducts a regular program of health workforce surveys through the registration boards of the health professions. Inclusion of a question on Indigenous status in this survey would be the most efficient means to collect data for this indicator.

Commonwealth: Efforts are being made with deans of medical schools on Indigenous support (entry and retention) and curriculum issues, and strategies for improved collection of data may arise from this work. The responsible area within the Higher Education Division of the Department of Education, Training and Youth Affairs conducts ongoing validation of data received. Measures are being taken to improve accessibility and provision of services to Indigenous people in vocational education and training. Implementation of the National Aboriginal and Torres Strait Islander Strategy for Vocational Education and Training will have the indirect effect of encouraging self-identification of Indigenous people, thereby improving data quality for these indicators.

Risk factors

Improved information on the risk factor indicators is dependent on the collection of adequate data. The Commonwealth reported that the ABS will be conducting another National Health Survey in 2001 which will include a nationally representative sample of Indigenous people, with results available in 2002. Several jurisdictions noted that the sample in this survey and the next National Aboriginal and Torres Strait Islander Survey would not be adequate for reporting below the national level.

New South Wales is conducting a state-wide health survey using computer-assisted telephone interviews with a randomly generated sample. However, due to the small size of the Aboriginal sub-sample the results would need to be aggregated over a number of years. The extent to which this Aboriginal sub-sample is representative of the broader Aboriginal population of New South Wales has not yet been assessed.

The Cancer Council of Tasmania conducts a triennial survey of smoking in high schools, with the most recent being in 1999. A request has been made to the Council to include Indigenous status as a data item.

Intersectoral issues

The Commonwealth said that the 1999 Community Housing and Infrastructure Needs Survey may provide some information for the housing amenities indicator. However, the survey covers only a sub-set of the Indigenous population, those in 'discrete' communities, and then only those dwellings that are classified as 'permanent'. An alternative indicator would be to use overcrowding and homelessness data derived from the last two censuses (1991 and 1996) and which are also expected to be derived from future censuses.

The Australian Institute of Health and Welfare has developed a draft set of Indigenous housing indicators which may provide a relevant health-related housing indicator.

Community involvement

Victoria reported that, as part of the Koori Health Reform Strategy, descriptive information could be gathered and reported for each region in regard to regional planning processes, along with a description of the effectiveness and value of the planning process.

In Tasmania, the Department of Health and Human Services is developing an effective consultation mechanism with the Indigenous community so as to gather input into future planning.

Quality of service provision

While there is only one indicator in this category, most jurisdictions reported on problems with or efforts to improve the relevant data.

New South Wales: Information is not available on the extent to which the mechanisms for complaints currently in place at health services are culturally appropriate.

Victoria: Outreach activities to various communities have increased the number of contacts received from Indigenous people, whether it is to provide advice or to assist the person with their complaint. Many of the people have often been satisfied that they have been able to discuss their experiences with an independent third party without wanting to take further action. Two main conclusions that have been drawn from these activities are (a) the need for working with health providers with the aim of preventing the occurrence of less than satisfactory health services for Indigenous people in the future, and (b) ensuring that when there is a need for intervention, Indigenous people are aware of the existence of the Health Services Commissioner and that processes are culturally appropriate.

Western Australia: A cultural security policy is being developed in the health service, which will lead to increased awareness and better data quality and reportability.

Tasmania: Liaison officers within the health department provide a contact point for Indigenous clients for all issues, including complaints.

Commonwealth: The National Health Priorities and Quality Branch of the Commonwealth has funded the development of a national health complaints information project. The project has a data item on complaints relating to racism but this is not specific to Indigenous people. The Branch also funded the Australian Incident Monitoring Study, until mid-1998, to collect data on a voluntary basis of incidents occurring in acute hospital services. It is not a national collection set up to provide indicators for reporting, but collects information on adverse events and their causes to enable actions to be taken to rectify problems. However, the data do not contain identifiers of Indigenous status.

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