

2 Background

In 1998 the National Centre for Epidemiology and Population Health (NCEPH) at the Australian National University and the Australian Institute of Health and Welfare (AIHW) published a report for the Commonwealth Department of Health and Family Services on expenditure on health services for Aboriginal and Torres Strait Islander people in 1995–96. This report was groundbreaking. Until that report, neither Australia nor any other industrialised country had actually estimated the health services expenditure for its Indigenous peoples.

The 1995–96 data showed that, for all types of health services and for all sources of funds, recurrent expenditure for and by Aboriginal and Torres Strait Islander people was about \$853 million. Per person, total spending for Aboriginal and Torres Strait Islander people was \$2,320, 8% higher than the health services per person expenditure by and for other Australians.

In order to ascertain what changes, if any, there had been in health services expenditure for Aboriginal and Torres Strait Islander people since 1995–96, the Office of Aboriginal and Torres Strait Islander Health of the Department of Health and Aged Care (DHAC), contracted the Institute, in association with Professor John Deeble of NCEPH, to estimate health services expenditure in 1998–99. This work was done under the umbrella of a decision of the Australian Health Ministers' Conference that regular estimates should be made of health services expenditure for Aboriginal and Torres Strait Islander people.

Terms of reference

The terms of reference of the consultancy were to:

- (a) estimate expenditure on Aboriginal and Torres Strait Islander health in comparison with expenditure on the health of the rest of the Australian population for the 1998–99 year, within the categories of government, regions, States and Territories and to assess whether the care is primary or secondary/tertiary health care;
- (b) compare expenditure on Aboriginal and Torres Strait Islander health with expenditure for other Australians of like socioeconomic status, including analysis of health status linked to health expenditure by income group for both Aboriginal and Torres Strait Islander people and other Australians;
- (c) assess the validity of data received from contributing agencies; and
- (d) compare patterns of expenditure on health care by Commonwealth, State and Territory Governments for Aboriginal and Torres Strait Islander people and other Australians, between 1995–96 and 1998–99.

Thus the main purposes of the study were to first prepare a report that identified expenditure on Aboriginal and Torres Strait Islander health, in comparison with

expenditure on the health of the rest of the Australian population for the 1998–99 year. The second purpose was to conduct a comparative analysis of findings from the previous report on 1995–96 health expenditure and the current 1998–99 report. This comparison was to take into account such differences as population growth, growth in general health services expenditure, changes in methodology and improvements in data.

Data for this report were collected from the Commonwealth Department of Health and Aged Care (DHAC) and from State and Territory health authorities. Estimates of Aboriginal and Torres Strait Islander Medicare and Pharmaceutical Benefits Scheme (PBS) usage and expenditure were obtained from the Bettering the Evaluation and Care of Health (BEACH) survey.

The comparison of the health expenditures and health status of Aboriginal and Torres Strait Islander people with non-Indigenous people of like socioeconomic status was undertaken by the Centre for Aboriginal and Economic Policy Research (CAEPR) at ANU. The results of this analysis will be published separately.

Demographic information

Economic and demographic factors impact on health service requirements. Aboriginal and Torres Strait Islander people comprise 2.2% of Australia's total population, with more than 50% residing in New South Wales and Queensland. Estimates of the Aboriginal and Torres Strait Islander population are confounded by an increasing propensity to identify as such, and by changes in census enumeration procedures. The low projection of the Aboriginal and Torres Strait Islander population used in this report assumes that the propensity to identify as an Aboriginal and/or Torres Strait Islander person which applied at the time of the 1996 Census did not change. Appendix 2 discusses the population estimates used within this report in greater detail.

Aboriginal and Torres Strait Islander people have a much younger age structure than the population as a whole. For instance, 39% of the Aboriginal and Torres Strait Islander population was aged under 15 years in 1998–99 compared with 21% of the total population, whereas 2.6% of the Aboriginal and Torres Strait Islander population was aged over 65 years, compared with 12.2% of the total population. A large proportion of Aboriginal and Torres Strait Islander people resides in remote and very remote areas of Australia—27.5%, compared with 2.6% of the total population. In contrast, 81.5% of Australia's population are located in highly accessible areas, whereas only 42.7% of the Aboriginal and Torres Strait Islander population lives in this region.

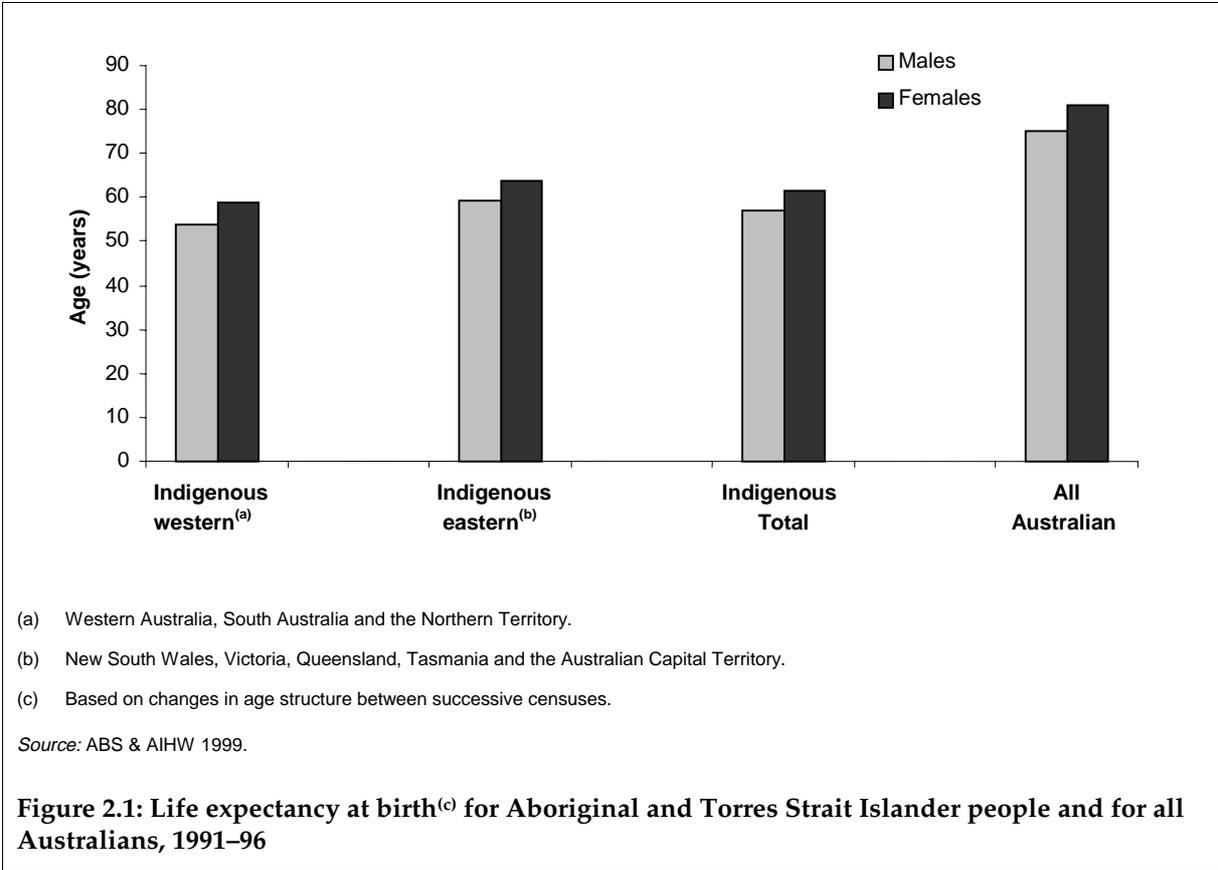
Health status and the assessment of need

Aboriginal and Torres Strait Islander people have a greater requirement or need for health services than do other Australians because of their relatively poorer health status. They experience higher infant mortality rates, higher age-specific death rates

for every age group and higher levels of serious illness. The following section provides context for the estimates of the Aboriginal and Torres Strait Islander people’s proportion of government and total health expenditure addressed in this report.

The poor health status of Aboriginal and Torres Strait Islander people, particularly compared with other Australians, is well documented. The infant mortality rate is a key indicator of a community’s health. The infant mortality rate for all Australians for 1995–97 was 6.05 infant deaths per 1,000 live births for males and 4.95 infant deaths per 1,000 live births for females (ABS 2000c). The infant mortality rate for 1995–97 for Aboriginal and Torres Strait Islander people in those States which have relatively reliable mortality data—that is, the Northern Territory, Western Australia and South Australia—was 18.7 infant deaths per 1,000 live births for males and 17.3 infant deaths per 1,000 live births for females. This is 3.1 times the rate for all Australian infant males and is 3.5 times the rate for all Australian infant females (ABS 2000c).

The proportion of babies born with low birthweight is much higher. In 1994–96, about 12% of babies born to Aboriginal and Torres Strait Islander mothers were of low birthweight, compared with about 6% of babies born to non-Indigenous mothers. Of the 84 maternal deaths in Australia for the period 1991–93, nine were Indigenous mothers and 75 were non-Indigenous mothers. This gave a maternal mortality rate per 100,000 births of 41 for Indigenous mothers and 10 for non-Indigenous mothers (NHMRC 1998).



Aboriginal and Torres Strait Islander life expectancies are increasing more slowly than non-Indigenous life expectancies. In the period 1991–96, life expectancy at birth for all Australians was 75.2 years for males and 81.1 years for females. In the same period, life expectancy for Aboriginal and Torres Strait Islander people was 56.9 years for males and 61.7 years for females (Figure 2.1). These life expectancies are comparable to those for all Australian males at the beginning of the twentieth century and Australian females in the 1920s (ABS & AIHW 1999).

The age-specific death rates for the years 1995–97 were higher in every age group for Aboriginal and Torres Strait Islander males and females than for Australians as a whole (Table 2.1). Within the age groups 35–44 and 45–54, Aboriginal and Torres Strait Islander people died at rates six to seven times higher than those experienced by all Australians.

Table 2.1: Age-specific death rates^(a) for the Aboriginal and Torres Strait Islander population and the total Australian population, 1995–97

Age group (years)	Males			Females		
	Indigenous rate ^(b)	Australian rate ^(c)	Rate ratio ^(d)	Indigenous rate ^(b)	Australian rate ^(c)	Rate ratio ^(d)
Less than 1	1,873	605	3.1	1,731	495	3.5
1–4	114	38	3.0	102	27	3.7
5–14	60	18	3.3	29	14	2.0
15–24	275	103	2.7	69	36	2.0
25–34	574	132	4.4	226	49	4.6
35–44	1,107	172	6.4	627	89	7.0
45–54	1,923	343	5.6	1,288	215	6.0
55–64	3,869	988	3.9	2,566	559	4.6
65–74	5,976	2,805	2.1	4,704	1,525	3.1
75 and over	11,334	9,086	1.2	8,889	7,074	1.3

(a) Rates are per 100,000. Based on year of occurrence.

(b) Data for deaths of people identified as Aboriginal and/or Torres Strait Islander for usual residents of Western Australia, South Australia and the Northern Territory combined.

(c) Data are for all of Australia, including deaths identified as of Aboriginal and/or Torres Strait Islander people.

(d) Aboriginal and Torres Strait Islander rate divided by Australian rate.

Source: ABS 2000c.

Standardised mortality rates (SMR) are a measure of health status. An SMR greater than one (>1) for Aboriginal and Torres Strait Islander Australians shows an ‘excess’ mortality compared with the total Australian population. The SMR for Aboriginal and Torres Strait Islander males and females for 1995–97 was 3.0. The observed deaths were based on figures from Western Australia, South Australia and the Northern Territory, while the expected deaths were based on all-Australian rates for all States and Territories (ABS 2000c). SMRs are commonly used as an indicator of the relative need for health services, but do not adequately address the capacity to benefit from health service resources. They are a measure of relative health status, but the chance of dying is not well correlated with actual health service needs,

especially when the age structures of the two populations being compared are quite different.

The high hospital admission rates for Aboriginal and Torres Strait Islander people are documented in Chapter 4. These utilisation rates indicate greater levels of morbidity among Aboriginal and Torres Strait Islander people. These rates are not, however, an ideal indicator of morbidity as barriers to access such as the lack of available hospital beds may influence utilisation. Furthermore, incomplete identification of Aboriginal and Torres Strait Islander people within hospital records restricts the usefulness of these data for accurately assessing the sorts of morbidity associated with their admission. Circulatory diseases, injury, neoplasms, respiratory diseases and endocrine diseases together accounted for over three-quarters of deaths identified as Indigenous in Western Australia, South Australia and the Northern Territory combined in 1995–97. While these causes of death were similar for all the Australian population, deaths from these and most other causes occurred at greater rates for Aboriginal and Torres Strait Islander people than for other Australians.

The Australian Bureau of Statistics reported from the 1995 National Health Survey (NHS) on a variety of health risk factors that were more predominant in the Aboriginal and Torres Strait Islander population than the non-Indigenous population in the non-sparsely settled areas of Australia. For example, among adults aged 18 years or more, Aboriginal and Torres Strait Islander people were more likely (40%) than non-Indigenous people (34%) to report taking no exercise for sport, recreation or fitness in the two weeks prior to interview (ABS 1999). Based on self-reported measurements of height and weight provided in the 1995 NHS, Aboriginal and Torres Strait Islander adults aged 18 years and over were about twice as likely to be categorised as obese as non-Indigenous people (ABS 1999). Aboriginal and Torres Strait Islander males and females were also more likely to be smokers; smoking was reported by 56% of Indigenous males, and 46% of Indigenous females, compared with 27% of non-Indigenous males and 20% of non-Indigenous females (ABS 1999).

Although a greater proportion of Aboriginal and Torres Strait Islander people in non-sparsely settled areas abstained from alcohol in the week prior to the NHS interview (41% of Indigenous males and 60% of Indigenous females compared with 34% of non-Indigenous males and 54% of non-Indigenous females), a greater proportion of Aboriginal and Torres Strait Islander people were at a high level of risk with respect to alcohol use. The NHS classified 13% of Aboriginal and Torres Strait Islander males and 3% of Aboriginal and Torres Strait Islander females as being at a high level of risk, compared with 5% of non-Indigenous males and 1% of non-Indigenous females (ABS 1999).

It should be noted that, due to concerns about the quality of the data in the NHS for Aboriginal and Torres Strait Islander people who lived in sparsely settled areas, ABS excluded the data for people living in these areas from the analysis reported above. This excluded 18% of the Aboriginal and Torres Strait Islander population and 0.5% of the non-Indigenous population.

Adding to the risk of ill health is the effect of diseases that are characteristically seen in underdeveloped nations, such as endemic skin infections, rheumatic fever, leprosy and trachoma. The prevalence of these diseases is often underestimated in Australia,

and they almost exclusively affect Aboriginal and Torres Strait Islander people (DHAC 2000b).

Need and the allocation of resources

Various socioeconomic factors contribute to ill health (DHAC 1999c). Drawing on information from the 1990 National Health Survey and the 1994 National Aboriginal and Torres Strait Islander Survey, the first report on expenditures on health services for Aboriginal and Torres Strait Islander people (Deeble et al. 1998) examined government health expenditure per person for all Aboriginal and Torres Strait Islander people, and for all Australians by quintile of equivalent family income. The results allowed an examination of government expenditures per capita for Indigenous and non-Indigenous people of like socioeconomic status. When relative income position was taken into account, public expenditures on the health of Aboriginal and Torres Strait Islander people appear to have been similar to that for non-Indigenous people in the same income group. Both groups have relatively poor health status. However, the health of the Aboriginal and Torres Strait Islander population is considerably worse and because it is at such a low level, the opportunities to improve it are considerable.

When addressing the greater 'need' for health services that Aboriginal and Torres Strait Islander Australians experience compared with non-Indigenous Australians, a range of factors need to be considered, including social, cultural and economic factors. Acknowledgment should be given to the history of dispossession, alienation, ongoing poverty and disadvantage that confronts Aboriginal and Torres Strait Islander people. Understanding the educational, linguistic and lifestyle norms of Aboriginal and Torres Strait Islander people assists in providing more effective health care, as does understanding the geographical area where the service is being delivered. Factors such as income, education and social participation have been shown to play an important role in determining health status and are relevant to the delivery of health services and allocation of health resources.

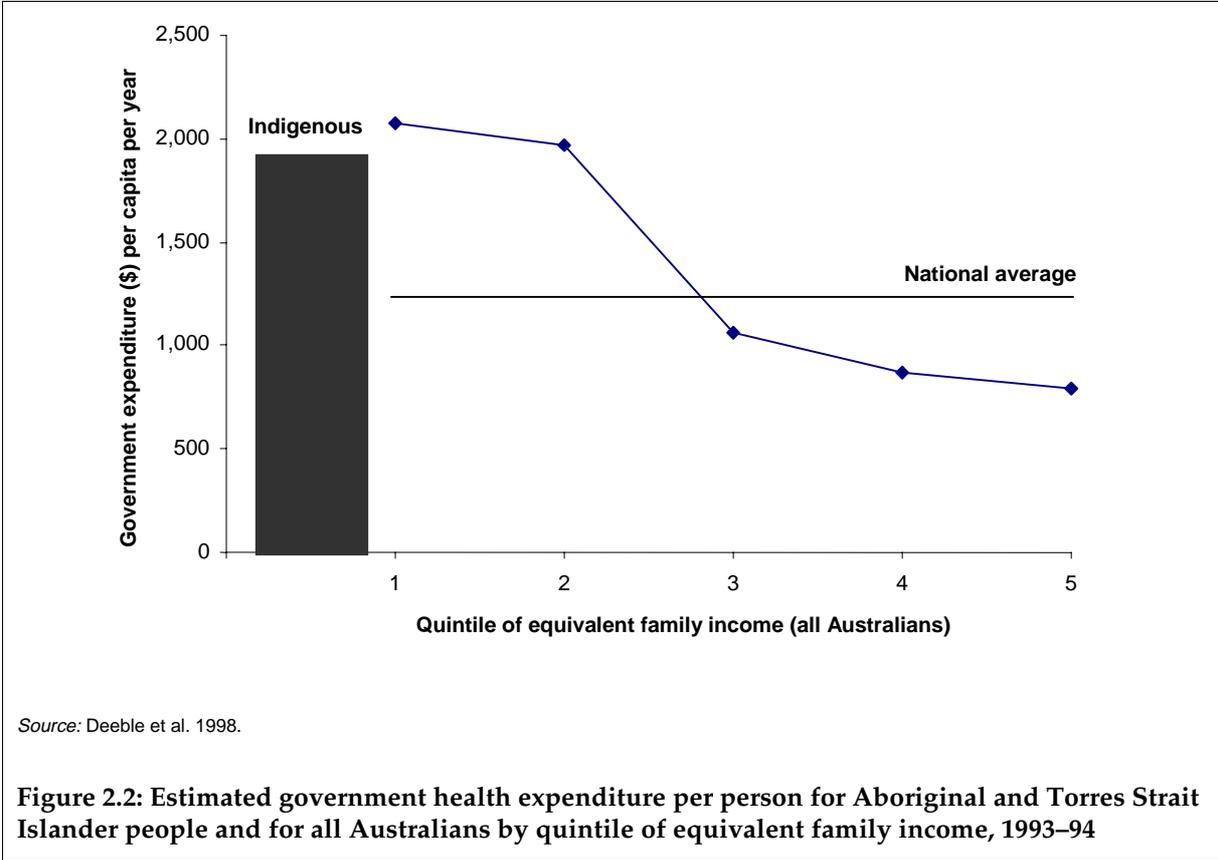
Socioeconomic analysis

The incomes of Aboriginal and Torres Strait Islander people are much lower than those of the non-Indigenous population. Information from the 1996 census revealed that the median weekly income of Aboriginal and Torres Strait Islander males aged 15 years and over was \$189, less than half that for non-Indigenous males (\$415). The difference between the medians for female incomes was less pronounced—15% lower, with Aboriginal and Torres Strait Islander females' median income at \$190, compared with \$224 for non-Indigenous females (ABS & AIHW 1999). Aboriginal and Torres Strait Islander people had lower median incomes in every occupation group and at all levels of qualification. This information is particularly important in light of analysis of health expenditures by quintile of equivalent family income included in the first report (Deeble et al. 1998). Similar research analysing the 1995 National Health Survey has been undertaken by the Centre for Aboriginal Economic

Policy Research (CAEPR) at the Australian National University and is to be published as a companion volume to this report.

The analysis in the first report showed that total expenditures on health services were larger for poorer people than for the rich, which is in line with expectations, and that public expenditures were much larger for the poor than for the rich. For instance, in the lowest income quintile governments funded 77% of total expenditure, whereas in the highest income quintile they funded 49%.

When the relative incomes of Aboriginal and Torres Strait Islander people were taken into account, it was found that public health expenditures for Aboriginal and Torres Strait Islander people as a whole were similar to that for non-Indigenous people in the same income class. Figure 2.2 represents the findings of the analysis. Estimated expenditure for all Australians is shown by quintile of equivalent family income in 1993–94 values. The total estimated per person expenditure for Aboriginal and Torres Strait Islander people is also represented.



Limitations

Any thorough analysis of health must extend beyond examination of the physical determinants of health status. A comprehensive discussion of the definition of health is included in Appendix 1. As discussed therein, the former National Aboriginal Health Strategy Working Party (1989) identifies the other fundamental components

of health as the social, emotional and cultural well-being of the whole community. However, in order to make the expenditure data within this report as comparable as possible with other national health data, a more limited definition of health must be adopted. This definition limits the scope of this report, restricting analyses to activities primarily directed towards improving health and treating sickness and injury. Many other factors—such as levels of employment, income and housing—have a direct bearing on the health of a community, but activities to improve these factors are not classified as health activities in the national accounts framework used in this report. The conceptual limitations implied by the relatively narrow focus of this report must remain uppermost in the minds of readers, particularly when making comparisons of Aboriginal and Torres Strait Islander and non-Indigenous health.

Other limitations, discussed at the outset of the 1995–96 report, are still obstructions to the gathering of comprehensive and accurate health expenditure information for Aboriginal and Torres Strait Islander people. Only a small proportion of health expenditure is allocated through health programs specifically for Aboriginal and Torres Strait Islander people. Most services are provided through mainstream programs that deliver admitted and non-admitted patient services, community health services, medical and pharmaceutical services and public health services. Estimation of the Aboriginal and Torres Strait Islander use of these services was difficult and subject to statistical errors. The fundamental problem of under-identification of Aboriginal and Torres Strait Islander people in mainstream service records continues, and is confounded by changing measures of the Aboriginal and Torres Strait Islander population in census data. This issue is a major focus of the National Aboriginal and Torres Strait Islander Health Information Plan (AIHW 1997).

All public health institutions are working to improve identification of Aboriginal and Torres Strait Islander people in service records. Public hospitals have been improving the accuracy of identification in their records, yet comprehensive identification of Aboriginal and Torres Strait Islander patients is still not certain. As a consequence, it was necessary to apply large under-identification factors to hospital separations data; for instance, in New South Wales an under-identification factor of 30% was applied.

In brief, the figures presented in this report for health care spending on Aboriginal and Torres Strait Islander people involve substantial estimation. Particular care should be taken in the interpretation of changes in expenditures between 1995–96 and 1998–99 as, for some areas of expenditure, different estimation methods were used in the two years. Factors such as population growth and inflation also must be considered.