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## NSW PUBLIC HEALTH BULLETIN NOW ON THE WEB

Starting with the January-February 1996 edition, the *NSW Public Health Bulletin* will be published in electronic format as well as on print medium. The *Bulletin* can now be accessed via the Internet from the NSW Health Department's World-Wide Web (WWW) site. The Universal Resource Locator (URL) for this site is <http://www.health.nsw.gov.au>. Readers should follow the links to the Public Health Division pages and then to the *Public Health Bulletin*. As they are produced, other documents and reports published by Public Health Division of the NSW Health Department will be made available from these same WWW pages.

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## AREA HEALTH SERVICES IN NSW: BASIC POPULATION DATA

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**T**he new structure of rural health services came into effect on March 16, 1996. It comprises eight rural Area Health Services (AHS), replacing 23 District Health Services.

Epidemiology Branch of the Public Health Division maintains the HOIST<sup>1</sup> data system in a way which makes it relatively straightforward to reaggregate existing data around the new rural AHS structures. As an example of the value of maintaining data in a well-structured statistical database, the data analysis for this paper was completed within several hours from the time the new rural AHS structures were announced.

This article summarises the basic population data for the current Area Health Service structure in NSW. Apart from the changes in rural areas, it also presents data for the revised boundaries of Central Sydney AHS, which now includes Canterbury Local Government Area (LGA), and for the merged South Eastern Sydney Area Health Service. Basic population data for the new administrative structures are given in Table 1, which also shows the previous administrative groupings.

### METHOD

One of the population data sets in the HOIST system contains estimates of the resident population of NSW by five-year age group and sex for each LGA in NSW, and for Area and District Health Services, at June 30 and December 31,

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**TABLE 1**

ESTIMATED POPULATIONS OF AREA HEALTH SERVICES, NSW, 1995

CURRENT AREA HEALTH SERVICE	FORMER ADMINISTRATION	ESTIMATED POPULATION JUNE 30, 1995		
		Males	Females	People
Central Sydney AHS	Central Sydney AHS Canterbury LGA	224,267	226,711	450,978
Northern Sydney AHS	Northern Sydney AHS	356,368	377,349	733,717
South Eastern Sydney AHS	Eastern Sydney AHS Southern Sydney AHS (less Canterbury LGA)	350,705	360,594	711,299
Western Sydney AHS	Western Sydney AHS	313,023	312,692	625,715
Wentworth AHS	Wentworth AHS	148,929	151,481	300,410
South Western Sydney AHS	SW Sydney AHS	355,242	353,613	708,855
Central Coast AHS	Central Coast AHS	126,429	132,598	259,027
Hunter AHS	Hunter AHS	261,608	262,753	524,361
Illawarra AHS	Illawarra AHS	166,442	166,502	332,944
Northern Rivers AHS	Tweed DHS, Richmond DHS, Clarence DHS	123,372	123,923	247,295
Mid North Coast AHS	Mid North Coast DHS Macleay-Hastings DHS Lower North Coast DHS	121,664	124,680	246,344
New England AHS	Barwon DHS New England DHS North West DHS	94,121	94,694	188,815
Macquarie AHS	Macquarie DHS Castlereagh DHS	52,777	52,796	105,573
Mid West AHS	Central West DHS, Evans DHS, Lachlan DHS (less Bland LGA)	84,014	84,250	168,264
Far West AHS	Far West DHS, Orana DHS, Wentworth LGA, Balranald LGA	27,338	25,605	52,943
Greater Murray AHS	Riverina DHS, Murrumbidgee DHS, Hume DHS, Bland LGA, Murray DHS (less Wentworth LGA, Balranald LGA)	132,887	129,014	261,901
Southern AHS	South Coast DHS, Southern Tablelands DHS, Monaro DHS	92,141	89,621	181,762
<b>NSW Total</b>		<b>3,031,327</b>	<b>3,068,876</b>	<b>6,100,203</b>

**Area health services in NSW:****► Continued from page 19**

from 1972 to 1995. The latest estimate was extracted and recoded to the new AHS structure to produce the population pyramids shown in Figures 1 to 18. These are based on estimates produced by the Australian Bureau of Statistics in 1993, extrapolated to 1995 by continuation of age-sex-specific percentage growth between the 1991 census and the 1993 estimate.

**RESULTS**

The figures which follow are population pyramids in which the percentage of the total population in a geographic area

for each age-sex combination is shown, with males on the left, females on the right, by five-year age groups. The area of each pyramid is the same, no matter whether it refers to the total population of NSW (6.1 million) or to that of the Far West AHS (52,943). The figures show the relative age and sex distributions of each population.

The overall NSW population pyramid is superimposed on each figure, with the distribution for the AHS shown shaded. Unshaded sections of each bar show percentages where the AHS has a smaller proportion of that age-sex group than for NSW as a whole. When the AHS has a greater proportion than NSW as a whole, there is a marking within the shaded bar to indicate the NSW proportion. The major differences are described in the text with each figure.

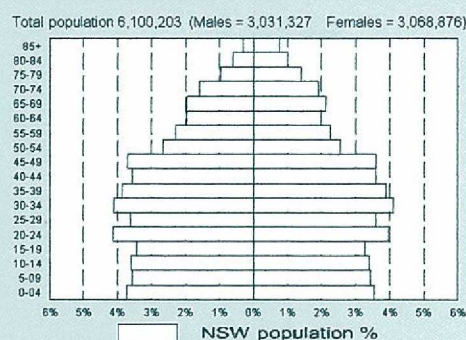


### FIGURE 1: NSW TOTAL

This overall distribution for NSW is used as a reference distribution for each of the other figures. It shows the basic shape of a low birth-rate population, with perhaps a central bulge in the 20-49 age ranges representing immigrant populations. Broadly speaking, the ages 0-49 are almost equally represented within the population, at about 3-4 per cent for each five-year group, and thereafter the proportions decline.

### FIGURE 1

#### ESTIMATED POPULATION, NSW, JUNE 30, 1995



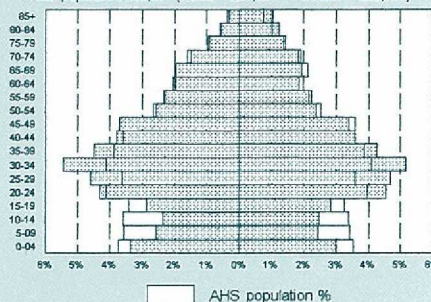
### FIGURE 2: CENTRAL SYDNEY AHS

This distribution highlights the relatively small proportions of children and adolescents aged 0-19, and the larger proportions of younger adults 20-39. Note that this population includes the Canterbury LGA (formerly in Southern Sydney AHS).

### FIGURE 2

#### RELATIVE POPULATION DISTRIBUTIONS CENTRAL SYDNEY AHS VERSUS NSW, JUNE 30, 1995

Total population 450,877 (Males = 224,267 Females = 226,711)



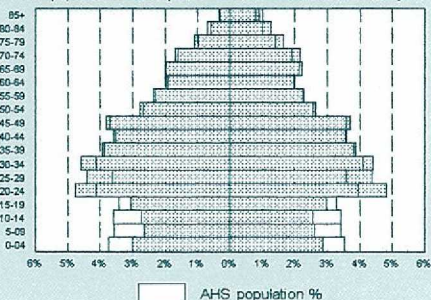
### FIGURE 3: SOUTH EASTERN SYDNEY AHS

This distribution is similar to that of Central Sydney AHS (Figure 2). It highlights the relatively small proportions of children and adolescents aged 0-19, and the larger proportions of younger adults aged 20-34.

### FIGURE 3

#### RELATIVE POPULATION DISTRIBUTIONS SOUTH EASTERN SYDNEY AHS VERSUS NSW, JUNE 30, 1995

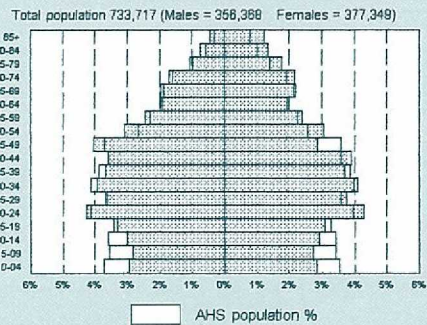
Total population 711,300 (Males = 350,705 Females = 360,594)



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**FIGURE 4**

**RELATIVE POPULATION DISTRIBUTIONS  
NORTHERN SYDNEY AHS VERSUS NSW, JUNE 30, 1995**

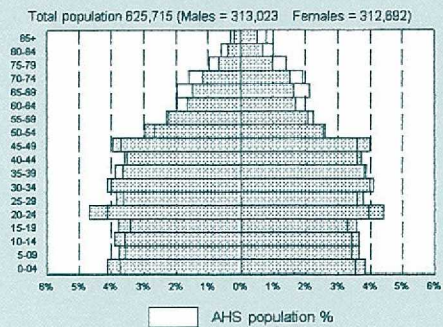


**FIGURE 4: NORTHERN SYDNEY AHS**

This distribution highlights a relatively "older" population, with a smaller proportion of children and adolescents aged 0-14.

**FIGURE 5**

**RELATIVE POPULATION DISTRIBUTIONS  
WESTERN SYDNEY AHS VERSUS NSW, JUNE 30, 1995**

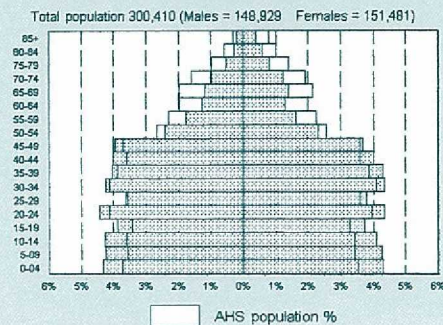


**FIGURE 5: WESTERN SYDNEY AHS**

This distribution is much the same as that of NSW as a whole, but with higher proportions in younger age groups and lower proportions in the older age groups.

**FIGURE 6**

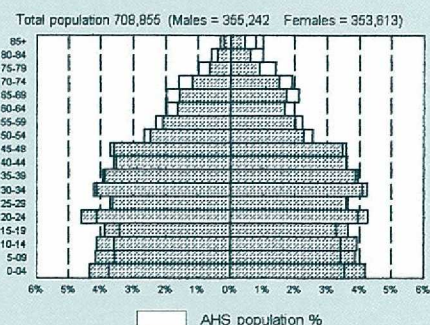
**RELATIVE POPULATION DISTRIBUTIONS  
WENTWORTH AHS VERSUS NSW, JUNE 30, 1995**



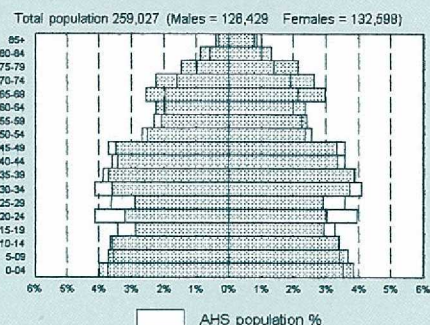
**FIGURE 6: WENTWORTH AHS**

This distribution is fairly typical of a "growth" area with relatively few people in the 50-plus age groups and many in the 0-14 age groups.

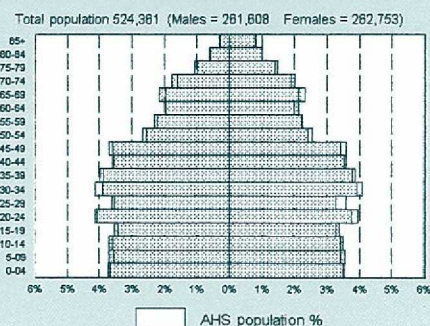


**FIGURE 7****RELATIVE POPULATION DISTRIBUTIONS  
SOUTH WESTERN SYDNEY AHS VERSUS NSW, JUNE 30, 1995****FIGURE 7: SOUTH WESTERN SYDNEY AHS**

This distribution is similar to that for a growth area like Wentworth AHS (Figure 6) but with a slightly higher proportion in the older age groups. Since South Western Sydney includes areas of population growth west of Liverpool and around Campbelltown as well as the "older" areas of Bankstown and Liverpool, it is less homogeneous than Wentworth AHS.

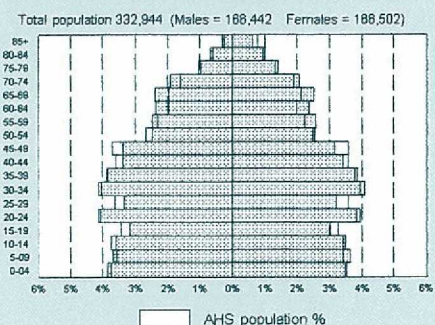
**FIGURE 8****RELATIVE POPULATION DISTRIBUTIONS  
CENTRAL COAST AHS VERSUS NSW, JUNE 30, 1995****FIGURE 8: CENTRAL COAST AHS**

This distribution shows relatively more children aged 0-9, fewer younger people aged 15-29 and larger proportions of people aged 60-plus than NSW as a whole.

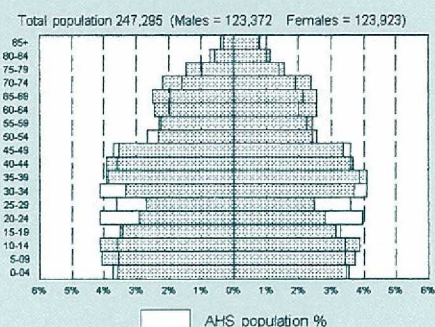
**FIGURE 9****RELATIVE POPULATION DISTRIBUTIONS  
HUNTER AHS VERSUS NSW, JUNE 30, 1995****FIGURE 9: HUNTER AHS**

This distribution is very close to that of NSW as a whole, a characteristic which is regularly noted about the Hunter AHS.

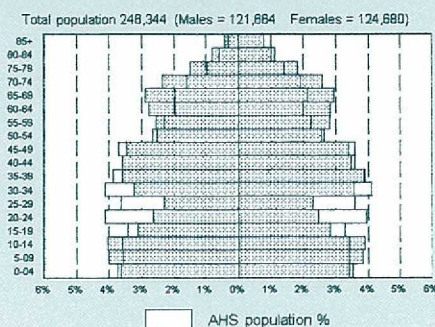
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**FIGURE 10****RELATIVE POPULATION DISTRIBUTIONS  
ILLAWARRA AHS VERSUS NSW, JUNE 30, 1995****FIGURE 10: ILLAWARRA AHS**

Like the Hunter AHS (Figure 9), the Illawarra AHS is very similar to NSW as a whole in its population distribution.

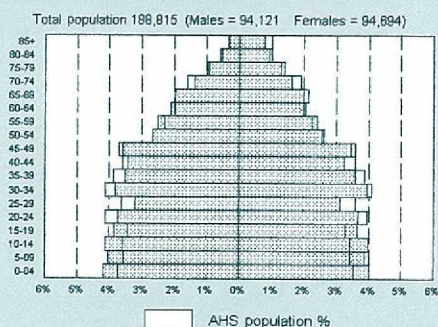
**FIGURE 11****RELATIVE POPULATION DISTRIBUTIONS  
NORTHERN RIVERS AHS VERSUS NSW, JUNE 30, 1995****FIGURE 11: NORTHERN RIVERS AHS**

Compared with NSW as a whole, this distribution shows more children aged 5-14, fewer young adults aged 20-34, and more people in the age range 60 and above. It is broadly similar to that for the Central Coast AHS (Figure 8).

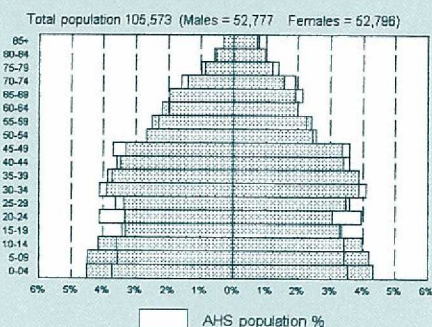
**FIGURE 12****RELATIVE POPULATION DISTRIBUTIONS  
MID NORTH COAST AHS VERSUS NSW, JUNE 30, 1995****FIGURE 12: MID NORTH COAST AHS**

This distribution is similar to that for the Central Coast AHS (Figure 8) and the Northern Rivers AHS (Figure 11). Compared with NSW as a whole, there are more children aged 5-14, fewer young people aged 15-34, and more people aged 55 and over.

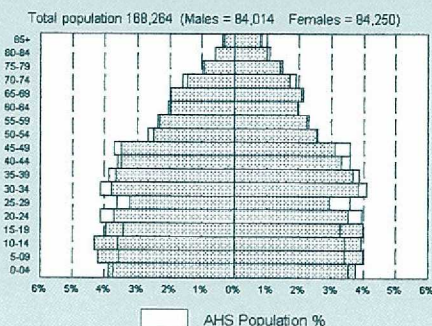


**FIGURE 13****RELATIVE POPULATION DISTRIBUTIONS  
NEW ENGLAND AHS VERSUS NSW, JUNE 30, 1995****FIGURE 13: NEW ENGLAND AHS**

This distribution shows relatively more children and adolescents aged 0-19, and fewer adults aged 20-39, than NSW as a whole.

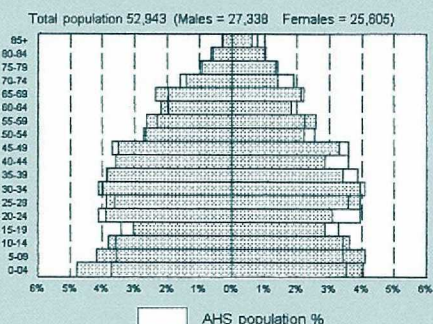
**FIGURE 14****RELATIVE POPULATION DISTRIBUTIONS  
MACQUARIE AHS VERSUS NSW, JUNE 30, 1995****FIGURE 14: MACQUARIE AHS**

This distribution has relatively more children and adolescents aged 0-15, and fewer young people aged 20-34, than NSW as a whole.

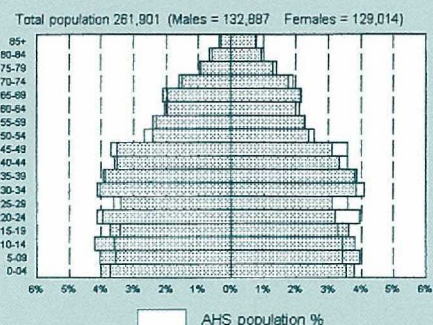
**FIGURE 15****RELATIVE POPULATION DISTRIBUTIONS  
MID WEST AHS VERSUS NSW, JUNE 30, 1995****FIGURE 15: MID WEST AHS**

This distribution shows relatively more young people aged 0-19, and fewer adults aged 20-49, than NSW as a whole.

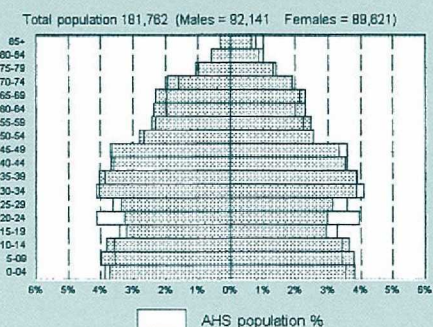
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**FIGURE 16****RELATIVE POPULATION DISTRIBUTIONS  
FAR WEST AHS VERSUS NSW, JUNE 30, 1995****FIGURE 16: FAR WEST AHS**

This distribution is one of the few to show more males than females. It has a larger number of children aged 0-14, and fewer young people aged 15-24, than NSW as a whole.

**FIGURE 17****RELATIVE POPULATION DISTRIBUTIONS  
GREATER MURRAY AHS VERSUS NSW, JUNE 30, 1995****FIGURE 17: GREATER MURRAY AHS**

Like that of the Far West AHS, this distribution is one of the few to show more males than females. It has a larger proportion of youth aged 0-19, and relatively fewer adults aged 20-55, than NSW as a whole.

**FIGURE 18****RELATIVE POPULATION DISTRIBUTIONS  
SOUTHERN AHS VERSUS NSW, JUNE 30, 1995****FIGURE 18: SOUTHERN AHS**

This distribution shows relatively more children and adolescents aged 0-14, and fewer young people aged 15-29, than NSW as a whole.



## DISCUSSION

The main value of these population pyramids is to give a quick visual guide to the general demographic features of the populations of the Area Health Services in NSW. The descriptive accounts of the more obvious variations may help to draw attention to age-related health issues that may be of more importance in one AHS than another, and certainly the more extreme differences demonstrate the importance of standardising health indicators before making comparison between Areas.

Broadly speaking, there are four patterns amongst these distributions. The older urban areas in Sydney (Central Sydney, South Eastern Sydney and Northern Sydney) have relatively fewer children and adolescents than the State as a whole. The newer urban areas in Sydney (Western Sydney, Wentworth and South Western Sydney) have relatively more young people in general. The Hunter and Illawarra Areas are similar to the State as a whole. All the rural areas, and the Central Coast, show a pattern of more children and adolescents and fewer young adults. The impact of "retirement" populations is also evident from the Central Coast northwards.

The population estimates given here are based on extrapolating 1993 estimates from the Australian Bureau of Statistics and will differ in minor ways from those given in other sources. Since the rural Areas are of particular interest at the present time, Table 2 gives the estimates reported in the Department's main publication on rural health, which includes projections to the year 2000.

**TABLE 2**

**ESTIMATED POPULATIONS OF RURAL AREA HEALTH SERVICES, 1994-2000**

Rural Area Health Service	This report	Caring for Health: The NSW Govt's vision for rural health	
	Estimate June 1995	Estimate 1994	Projected 2000
Northern Rivers	247,295	242,000	279,000
Mid North Coast	246,344	241,000	280,000
New England	188,815	187,000	197,000
Macquarie	105,573	104,000	109,000
Mid West	168,264	167,000	172,000
Far West	52,943	52,000	52,000
Greater Murray	261,901	257,000	266,000
Southern	181,762	178,000	197,000

## NOTE

The contact address for matters concerning this report is Mental Health Epidemiology Group, Centre for Mental Health, Public Health Division, NSW Health Department, Locked Bag 961, North Sydney 2059 (Fax: 391-9232, Internet e-mail gstew@gwsn.doh.health.nsw.gov.au).

## ACKNOWLEDGMENTS

Paul Corben provided comments on a previous draft of this report and suggested the form of data presentation.

HOIST is an acronym for Health Outcomes Information Statistical Toolkit, and has been developed since 1991 by Tim Churches, Peter Brandon, Uma Sivaraman and Kim Lim as a business tool for Epidemiology Branch of NSW Health.

1. Stewart GW, Chipps J, Sayer G. Suicide mortality in NSW: Local Government Areas. *NSW Public Health Bulletin*, in press.

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*National Centre for Health Promotion*

In July 1995 the Federal Minister for Health commissioned the National Health and Medical Research Council (NHMRC) to conduct a "comprehensive review and analysis of past and current health promotion initiatives in Australia, and of the systems within which health promotion occurs". The Health Advancement Standing Committee was charged with responsibility for conducting the review and for developing a detailed plan for the long-term role of health promotion in Australia, including key recommendations for health promotion activity.

The Health Advancement Standing Committee appointed a project team - Ms Marilyn Wise, seconded from the National Centre for Health Promotion, and Ms Jennie Lyons, seconded from the Public Health Division, Commonwealth Department of Human Services and Health. The committee commissioned five papers on specific issues:

- data collection and surveillance;
- the role of policy in promoting health;
- program infrastructure for health promotion;
- setting priorities and financing; and
- workforce development.

The project team also consulted a range of organisations and individuals. Using the commissioned papers as a base, with chapters on research, evaluation and intersectoral action for health, a discussion paper was prepared and released for public consultation in December 1995.

The discussion paper focuses on steps that must be taken to develop a more "health-promoting health system" in Australia. The paper poses the question "what does the Australian health sector need to do in order to improve the quantity, range, and effectiveness of its efforts to promote health?" Two assumptions underpinned the work. First, that the focus was to be on improving the health sector's capacity to promote health; and second, that promoting health is the responsibility of the whole health sector, not just the designated health promotion components of the sector.

The discussion paper was released for public comment after approval by the National Health Advisory Committee and the full National Health and Medical Research Council. In addition to the usual NHMRC process of inviting public comment in writing, members of the Health Advancement Standing Committee and the project team have held public meetings and have met with health sector personnel and State and Territory Health Ministers to discuss the report's findings and recommendations.

The Health Advancement Standing Committee recognised that any recommendations on improving Australia's capacity to promote the health of Aboriginal and Torres Strait Islander populations would require specific consultation with these groups and a specific review of the literature. Additional funds were set aside to implement this section of the review and a project officer, Ms Sandra Angus, joined the team in February 1996.

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