



NSW PUBLIC HEALTH BULLETIN NOW ON THE WEB

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AREA HEALTH SERVICES IN NSW: BASIC POPULATION DATA

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The 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 HOIST¹ 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
NSW Total		3,031,327	3,068,876	6,100,203

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

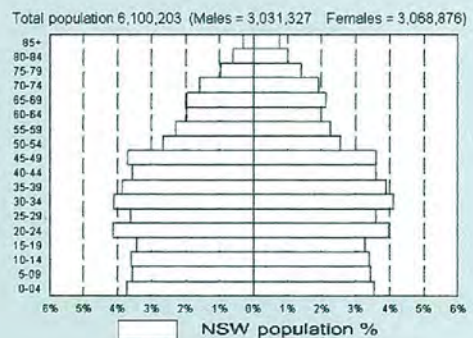


FIGURE 2: CENTRAL SYDNEY AHS

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**

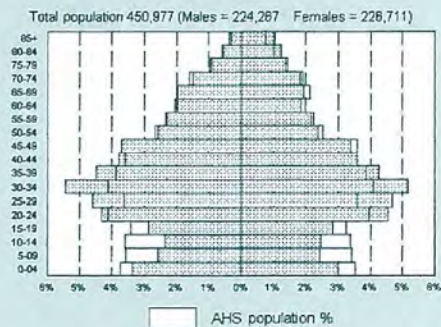
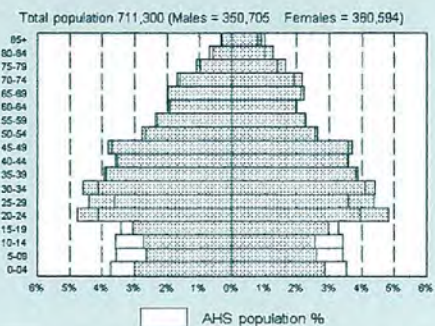


FIGURE 3: SOUTH EASTERN SYDNEY AHS

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**



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FIGURE 4

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

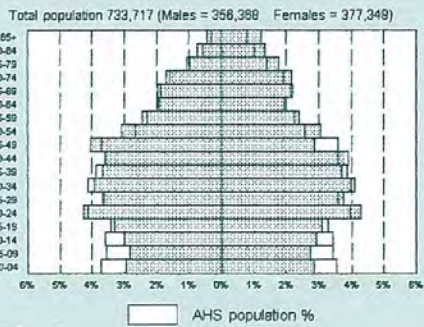


FIGURE 4: NORTHERN SYDNEY AHS

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**

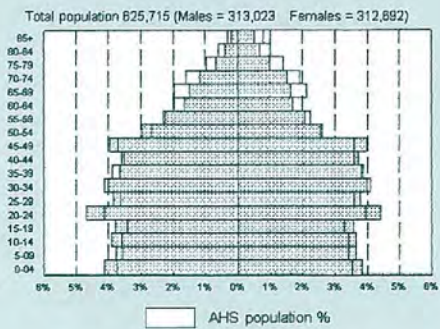


FIGURE 5: WESTERN SYDNEY AHS

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**

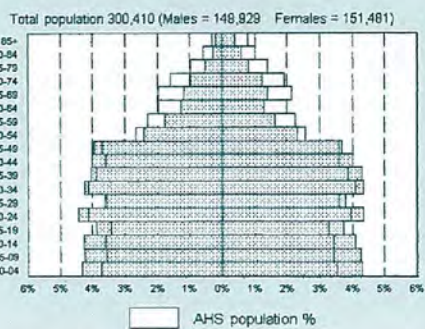


FIGURE 6: WENTWORTH AHS

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**

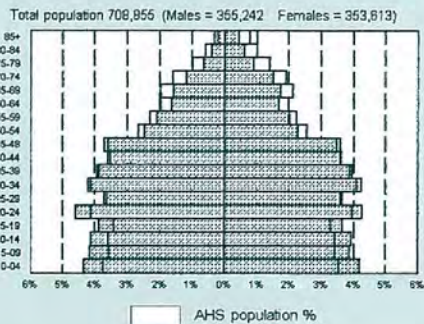


FIGURE 7: SOUTH WESTERN SYDNEY AHS

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**

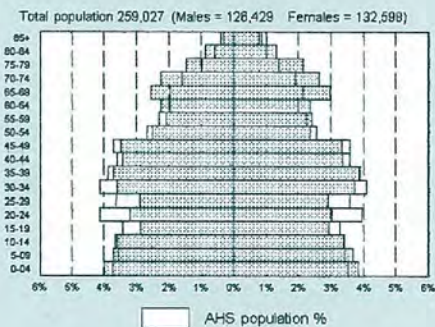


FIGURE 8: CENTRAL COAST AHS

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**

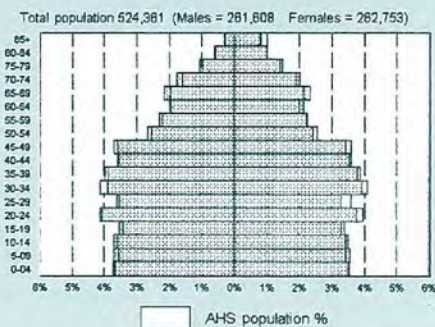


FIGURE 9: HUNTER AHS

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**

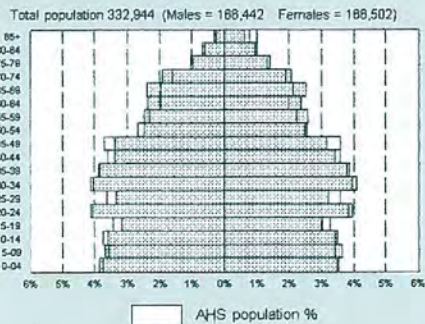


FIGURE 10: ILLAWARRA AHS

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**

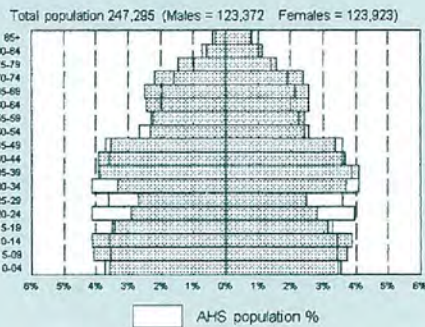


FIGURE 11: NORTHERN RIVERS AHS

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**

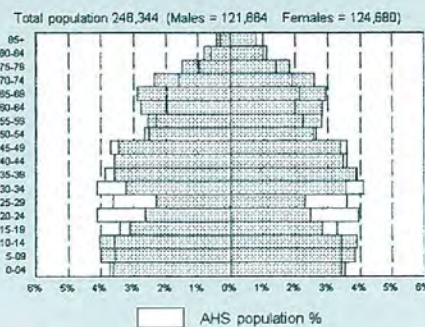


FIGURE 12: MID NORTH COAST AHS

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**

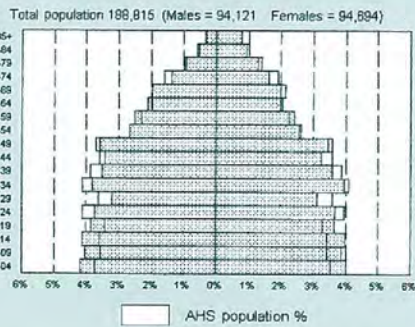


FIGURE 13: NEW ENGLAND AHS

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**

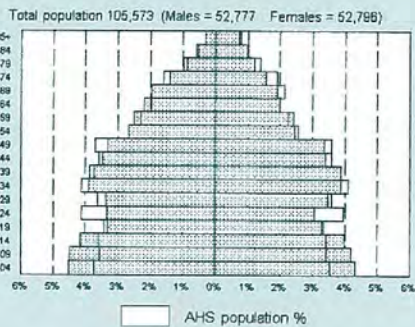


FIGURE 14: MACQUARIE AHS

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**

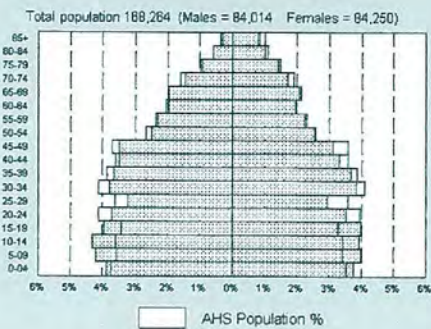


FIGURE 15: MID WEST AHS

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**

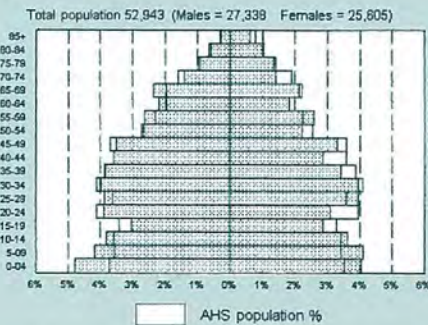


FIGURE 16: FAR WEST AHS

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**

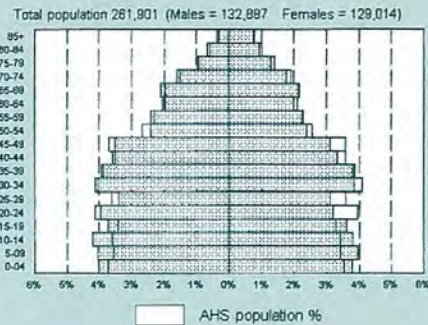


FIGURE 17: GREATER MURRAY AHS

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**

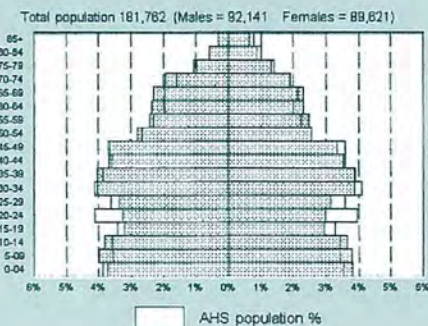


FIGURE 18: SOUTHERN AHS

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@gwsm.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.

Marilyn Wise

Deputy Director,

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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THE DISCUSSION PAPER

The discussion paper begins with an analysis of the recent history of some of Australia's initiatives to promote health. A series of case studies highlights the achievement of significant outcomes including:

- reductions in mortality and morbidity;
- improvements in health-related behaviours;
- improvements in environments associated with health; and
- improvements in communities' capacity to bring about health-related changes in their environments.

A brief review of the significant developments in Australia's capacity to promote health in recent years reveals a large number of documents and programs that have been instrumental in setting directions to guide the health promotion efforts of health and other sectors. Notable examples include:

- the *Health for All Australians* report;
- the National Better Health Program;
- the National Women's Health Program;
- the National Aboriginal Health Strategy;
- the National Drug Strategy;
- the revised national health goals and targets; and
- the National HIV/AIDS Program.

There has also been significant development in the infrastructure supporting public health and health promotion. The establishment of the Australian Institute of Health and Welfare and the National Health Information Agreement have been important steps to improve the quantity and quality of data. The Public Health Research and Development Committee, the Health Advancement Standing Committee and the Aboriginal and Torres Strait Islander Health Standing Committee represent initiatives to enhance the research and policy advice available to guide health promotion. The Public Health Education and Research Program has played an important part in the development of a well-educated workforce. The establishment of several issue- or population-specific subcommittees of the Australian Health Ministers' Advisory Council has also contributed to the health sector's capacity to promote health. Finally, the National Health Policy and a growing focus on reorienting health systems toward the achievement of health outcomes are signs of a growing political commitment to improving the health of the population.

The review found that, while there has been significant progress in developing an effective infrastructure for promoting health in Australia, there remain several important steps to be taken to improve the quality and effectiveness of health promotion in Australia.

Although there is growing political commitment to promoting the health of the population, the health debate in Australia is still dominated by concerns about health care services. Hospital waiting lists and access to services appear to be the predominant concerns of communities and politicians alike. In comparison, there is relatively limited pressure on politicians and health service managers to

develop programs and provide resources for health promotion.

In the absence of strong political commitment, there is no binding commitment by the States and Territories to work with the Commonwealth and other national agencies to promote health. The system does not, therefore, provide its managers with a mandate, or rewards, for improving the health of the population.

As there is neither a national body responsible for establishing coordinated national priorities for health promotion nor any mechanism or criteria for defining overall priorities, several bodies have established their own. Consequently, many national priority issues have emerged that are the focus of the Commonwealth Department of Human Services and Health, or by States and Territories, or by both. But program delivery structures and resources are not, in many cases, linked to the achievement of the priorities.

In the absence of agreed priorities, there is considerable overlap in program delivery, practice is often not based on good evidence, innovation is favoured over the systematic delivery of proven programs across the whole population, and it is impossible to identify, accurately, the total health promotion effort being made across the country. Further, it is impossible to evaluate the effort, in terms of the quality of program delivery, its likely reach and its likely ability to be sustained.

The analysis found, too, that there are still gaps in the infrastructure that supports program design and delivery. The emphasis of research remains on describing the nature and extent of health problems, and on obtaining answers to the question "does it work?". There is only very limited research funding available to assist in identifying effective means of delivering effective programs across whole populations, or to define the conditions under which such delivery can occur, or to identify the conditions that must operate in the health system to ensure it supports the delivery of effective health promotion. These questions are of particular concern in relation to improving indigenous health.

The current workforce development program does not address the range of educational needs of the whole of the health workforce. While there have been impressive improvements in the number of graduate programs for public health and health promotion specialists, much less attention has been given to the public health and health promotion training needs of the rest of the health workforce. And again, the specific training needs of the indigenous health workforce, of health workers of non-English speaking background, and of geographically isolated health workers have not been addressed adequately.

Finally, although it is clear the greatest health gains are likely to be achieved through the health sector's working effectively with other sectors, the health sector has not developed its capacity to work in this way. While the potential is great and is increasingly recognised, only limited efforts have been made to develop intersectoral strategies at the national level.

The following recommendations are suggested by the discussion paper:

- build a broad political and community constituency for health promotion;

- develop a national, systematic approach to promoting the health of the population;
- improve the effectiveness of health promotion practice; and
- establish a system to review and account for progress.

Further, the document points to the need for a more systematic national effort to bring about changes in the living, recreational and working environments that determine people's health. It recommends that:

- the Federal Minister for Human Services and Health deliver a "health of the nation" address to Parliament;
- a national health promotion charter with Commonwealth, State and Territory signatories be developed, defining a common set of principles and the respective roles and responsibilities of Australia's major health institutions in promoting health;
- a national public health policy be developed and endorsed by the Federal, State and Territory Health Ministers;
- the Australian Health Ministers' Advisory Council (AHMAC) be charged with responsibility to set national directions for, and allocate resources to, health promotion described in terms of the outputs to be purchased;
- national strategies be developed in each of a small number of issue-based national priorities; and
- all Australian governments commit themselves to a mechanism of accountability for health gain.

It also recommends that:

- the Australian Institute of Health and Welfare (AIHW) be funded to undertake significant new developments of national measures of health promotive policies and environmental attributes,

- health promotion resources, health promotion program outputs of national significance and health-related indicators;
- a stronger academic research base for health promotion be fostered through the full range of necessary academic disciplines, through the Public Health Education and Research Program (PHERP), through more support for intervention and dissemination research, through the NHMRC's Public Health Research and Development Committee (PHRDC), and a targeted program of enhanced research training;
- the capacity of the NHMRC to deliver evidence-based policy advice on health promotion be further enhanced, supported by a Cochrane-style centre; and
- the Commonwealth Department of Human Services and Health and AIHW implement a framework for evaluation of the national health promotion effort.

Finally, the paper recommends that:

- the Commonwealth Department of Human Services and Health establish intersectoral policy groups to develop healthy public policy in partnership with other sectors;
- the Commonwealth Department of Human Services and Health rationalise its program infrastructure in accordance with national priorities and develop a system to link proposed action to resource allocation; and
- through PHERP, an enhanced program of specialist education be established in public health and health promotion, generic health workforce training, and continuing education and training initiatives targeting significant groups in other sectors.

Copies of the paper may be obtained from the NHMRC Health Advancement Standing Committee Secretariat, phone: (06) 289 7296 or fax: (06) 289 7167.



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HEALTH & URBAN AIR QUALITY IN NSW

Science, Policy and the Community

Sydney: June 3-4, 1996

NSW HEALTH



On June 3-4, 1996 the Health & Urban Air Quality in NSW conference, a joint initiative of the NSW Health Department and the NSW Environment Protection Authority (EPA), will be held at the Parramatta Riverside Theatres, Parramatta, NSW.

Health & Urban Air Quality in NSW will see the release and discussion of results from the Health and Air Research Project undertaken by the Department of Health as well as details of the Metropolitan Air Quality Study, undertaken by the EPA.

The conference also provides an opportunity to contribute to the NSW Air Quality Management Plan, a whole of government approach to the challenge of improving air quality, being developed by the EPA.

The conference will be opened by the Minister for Health, Dr Andrew Refshauge, and feature a range of international and Australian keynote speakers, including:

- Professor Ross Anderson, Head of the Department of Public Health Sciences, St George's Hospital Medical School, London;
- Associate Professor Simon Chapman, Deputy Director, Department of Public Health and Community Medicine, University of Sydney/ Westmead Hospital;
- Dr Andrew Penman, Director, Centre for Disease Prevention, NSW Department of Health; and
- Ms Lisa Corbyn, Assistant Director-General, NSW Environment Protection Authority.

Further details and registration brochures are available from the Conference Secretariat on telephone (02) 876 8300 or facsimile (02) 876 4100. The postal address is: PO Box 104, Beecroft NSW 2119.

THE NSW PUBLIC HEALTH OFFICER TRAINING PROGRAM PLACEMENTS, 1996

Four Public Health Officers successfully completed their competencies and left the program in January 1996.

They were:

Magnolia Cardona
Kerry Chant
Jennifer Chipps
Leena Gupta

All four have been successful in securing positions and we wish them well in their careers.

Five new trainees joined the program in February 1996. They are:

Katharine Jong
Seham Tawfick Girgis
Anthony Hogan
Mary Osborn
Michele Puech.

TABLE 3

1996 PUBLIC HEALTH OFFICER PLACEMENTS

YEAR	NAME	FIRST PLACEMENT FEB-AUG	SECOND PLACEMENT AUG-JAN
1st	Katharine Jong	Health Services Evaluation Clinical Policy & Practice Public Health Division	Health Services Evaluation Clinical Policy & Practice Public Health Division
1st	Seham Tawfick Girgis	South Eastern Public Health Unit South Eastern Area Health Service	South Eastern Public Health Unit South Eastern Area Health Service
1st	Mary Osborn	Clinical Effectiveness Branch Centre for Clinical Policy & Practice Public Health Division	Clinical Effectiveness Branch Centre for Clinical Policy & Practice Public Health Division
1st	Michele Puech	Health Needs Assessment & Health Outcomes Unit (NAHOU) Division of Population Health Central Sydney Area Health Service	Health Needs Assessment & Health Outcomes Unit (NAHOU) Division of Population Health Central Sydney Area Health Service
1st	Anthony Hogan	South Western Sydney Public Health Unit Division of Public Health South Western Sydney Area Health Service	Epidemiology Unit Division of Public Health South Western Sydney Area Health Service
2nd	Deborah Baker	Chronic Diseases Branch Centre for Clinical Policy & Practice Public Health Division	Chronic Diseases Branch Centre for Clinical Policy & Practice Public Health Division
2nd	Stephen Conaty	Environmental Health Centre for Disease Prevention & Health Promotion Public Health Division	Far West Remote Health Training Unit Far West Health Service
2nd	Glenis Lloyd	Far West Remote Health Training Unit Far West Health Service	To be determined
2nd	Geoffrey Sayer	Leave without pay	Leave without pay
3rd	Suzanne Blogg	North Coast Public Health Unit Richmond Health Service	To be determined
3rd	Hugh Burke	Aboriginal Health Branch NSW Health	Aboriginal Health Branch NSW Health
3rd	Tony Butler	Leave without pay	To be determined
3rd	Valerie Delpech	Leave without pay	To be determined
3rd	Veth Guevarra	Maternity leave	Central Sydney Public Health Unit Division of Population Health Central Sydney Area Health Service
3rd	Stephen Hooppell	South West Public Health Unit Greater Murray Area Health Service	To be determined
3rd	Gerard Fitzsimmons	Cancer Unit Clinical Effectiveness Branch Centre for Clinical Policy & Practice Public Health Division	Cancer Unit Clinical Effectiveness Branch Centre for Clinical Policy & Practice Public Health Division
3rd	Jeannine Liddle	Department of Epidemiology & Public Health The New Children's Hospital, Westmead	Department of Epidemiology & Public Health The New Children's Hospital, Westmead

PUBLIC HEALTH ABSTRACTS

Professor James S. Lawson, Professor and Head of the School of Health Services Management at the University of NSW, has prepared the following public health items from the literature.

QUALITY OF AUSTRALIAN HOSPITALS – VARIABLE

The results of the 1994 Quality in Australian Health Care Study have been published in full. A review of about 14,000 admissions to 28 hospitals in NSW and South Australia showed that 16.6 per cent of the admissions were associated with an "adverse event" which resulted in disability or a longer stay and was considered to be caused by health care management. Some 51 per cent of the adverse events were considered preventable.

There has been debate about the validity of the methods used in this study (retrospective review of the records), however, regardless of any such limitations, McNeil and Leeder comment that "any reasonable review of the study would acknowledge its key finding: that among a randomly selected series of hospital records examined by experienced medical practitioners a substantial number were judged to display substandard care that resulted in injury to patients". Appropriate review and reform is needed.

Wilson RM, Runciman WB, Gibberd RW et al. The quality in Australian Health Care Study. *Med J Aust* 1995; 163:458-471.
McNeil JJ, Leeder SR. How safe are Australian hospitals? *Med J Aust* 1995; 163:472-475.

PRIMARY PREVENTION OF STROKE

Stroke is a major cause of death and disability in Australia. The outcome of a patient with a treated stroke may never be as good as that of someone in whom a stroke is prevented. Extensive reviews of past research into the risk factors for stroke have been completed. The conclusions are:

- hypertension is a major risk factor for stroke;
- smoking tobacco raises the risk of stroke by 1.5;
- diabetes is a risk factor independent of risk factors commonly associated with diabetes (such as hypertension, obesity);
- obesity is a major risk factor mainly because of its association with other risk factors such as hypertension and atherosclerosis. Recent studies have shown that the distribution of fat is a predictor of stroke. Excess abdominal fat as measured by the hip to waist ratio is a specific risk;
- a sedentary lifestyle raises the risk of stroke mainly because exercise reduces related risk factors. Specifically, exercise: decreases the aggregability of platelets; increases sensitivity to insulin; increases high-density lipoprotein cholesterol levels, and lowers blood pressure;
- moderate intake of alcohol probably reduces the risk of stroke. On the other hand, high consumption of alcohol increases the risk; and
- increased consumption of fruit and vegetables appears to reduce the risk of stroke possibly through the action of anti-oxidants (beta carotene and vitamins E and C).

It remains unclear whether aspirin is beneficial in the primary prevention of stroke. Current information is insufficient to permit a definite statement about the risk of stroke in women who use the new formulation oral contraceptives. Post-menopausal hormone replacement therapy appears to reduce the risk of stroke. There has been a reduction in the prevalence of hypertension, smoking and

high cholesterol levels in the Australian population in the past two decades but the prevalence of physical inactivity and diabetes has remained the same and obesity levels have increased.

Bronner LL, Kanter DS, Manson JE. Primary prevention of stroke. *New Eng J Med* 1995; 333:1392-1400.

EXCESS VITAMIN A MAY CAUSE BIRTH DEFECTS

Vitamins are essential to good health, yet the consumption of excessive amounts of some vitamins, particularly A and D, can lead to toxicity. Rothman et al have added to the body of evidence that suggests that too much vitamin A in pregnant women may lead to birth defects. On the other hand, it is recommended that all women capable of becoming pregnant take folic acid daily to prevent the serious and common birth defects of spina bifida and anencephaly.

Oakley GP, Erickson JD. Vitamin A and birth defects. *New Eng J Med* 1995; 333:1414.

Rothman KJ et al. Teratogenicity of high vitamin A intake. *New Eng J Med* 1995; 333:1369.

BED SHARING AND SUDDEN INFANT DEATH SYNDROME

Despite its reported benefits, bed sharing has been linked with sudden infant death syndrome in several studies among Caucasian subjects. However, 90 per cent of the world's babies share beds with their mothers and the lowest rates of infant death syndrome are in Japan and Hong Kong where bed sharing is the norm. A controlled study in California has confirmed there is no risk in bed sharing.

Klonoff-Cohen H et al. Bed sharing and the sudden infant death syndrome. *Br Med J* 1995; 311:1269.

CANCER IN NSW: PATTERNS CONTINUE TO CHANGE

Data on the incidence of, and mortality from, cancer over the past 20 years in NSW have been published. Because cancer is mainly a condition of old age, the age-specific trends are more important than global trends which, despite age standardisation, are dominated by deaths in old people. In younger males (below 60 years) there is a rise in deaths due to cancer of the prostate, melanoma and non-Hodgkin's lymphoma and a fall in lung cancer. In younger females (below 60 years) there has been a rise in deaths due to cancer of the breast, melanoma and lung cancer and a fall due to colorectal and cervical cancer.

McCredie M et al. Changes in cancer incidence and mortality in NSW. *Med J Aust* 1995; 163:520.

PUBLIC HEALTH WORKFORCE IS DIVERSE, COMPLEX

Between 1988 and 1993 there was a great expansion in the number of participants in Master of Public Health courses. During this period 5,922 students entered, and 3,088 graduated from, such courses. A study conducted at the Centre for Public Health at the University of NSW has provided details of the public health workforce. The definition of the public health workforce was "people who are involved in protecting, promoting and or restoring the collective health of whole or specific populations (as distinct from activities directed to the care of individuals)". The workforce defined in this manner is characterised by diversity and complexity and includes managers, planners,

Continued on page 32 ▶

Public Health Abstracts:

► Continued from page 31

doctors, nurses, allied health professionals, health promoters and educators, scientists, epidemiologists, technicians, counsellors, inspectors, researchers and teachers. The task of meeting the educational needs of such a diverse and complex workforce is immense. It is suggested that a partnership between those who provide education and those involved in practice is the way of the future.

Rotem A et al. The public health workforce education and training study. *Aust J Public Health* 1995; 19:437.

CANCER OF THE PENIS FALLS IN UNCIRCUMCISED MEN

The virtual absence of cancer of the penis in circumcised men has been a matter of debate for more than 50 years. A Danish study is therefore of great interest as it shows that despite the near abolition of circumcision in Denmark, cancer of the penis has declined substantially. The suggested reason for this decline is the improvement in hygiene in the Danish community since the 1940s.

Frisch M et al. Falling incidence of penis cancer in an uncircumcised population. *Br Med J* 1995; 311:1417.

PREGNANCY AND THE TIMING OF INTERCOURSE

The likelihood that conception will occur on any given day of the menstrual cycle in relation to ovulation can most reliably be determined from data on women in whom only a single act of intercourse could have resulted in conception. A sophisticated study involving highly motivated women in the US has shown that among healthy women trying to conceive, nearly all pregnancies can be attributed to intercourse during a six-day period ending on the day of ovulation. The timing of intercourse in relation to ovulation has no influence on the sex of the baby.

Wilcox AJ et al. Timing of intercourse in relation to ovulation. *New Eng J Med* 1995; 333:1517.
Simpson JL. Pregnancy and the timing of intercourse. *New Eng J Med* 1995; 333:1563.

CESSATION OF SMOKING LEADS TO INCREASES IN OBESITY

The proportion of adults who are overweight has risen markedly in the past two decades. A large study has shown that in part this is due to the substantial reduction in tobacco smoking. Although the health benefits of stopping smoking are undeniable, weight gain is a problem.

Flegal KM et al. The influence of smoking cessation on the prevalence of overweight in the US. *New Eng J Med* 1995; 333:1165.

DOMESTIC GERIATRIC ASSESSMENTS KEEP CLIENTS AT HOME

A controlled trial of geriatric assessments which included nursing and medical care has been shown to keep clients at home and out of nursing homes at twice the rate of clients who are not assessed and supported. This finding from a US study may not be news in Australia but the use of experimental techniques in the field of aged care is new and useful.

Stuck AE et al. A trial of in-house geriatric assessments for elderly people living in the community. *New Eng J Med* 1995; 333:1184.

NOTIFICATION TRENDS

In January 1996 notifications were higher than historical levels for arboviral infection and hepatitis A. Notification trends for arboviral infection were discussed in the December 1995 issue of the *Public Health Bulletin* and for Hepatitis A in the January-February 1996 issue. Both are discussed further below.

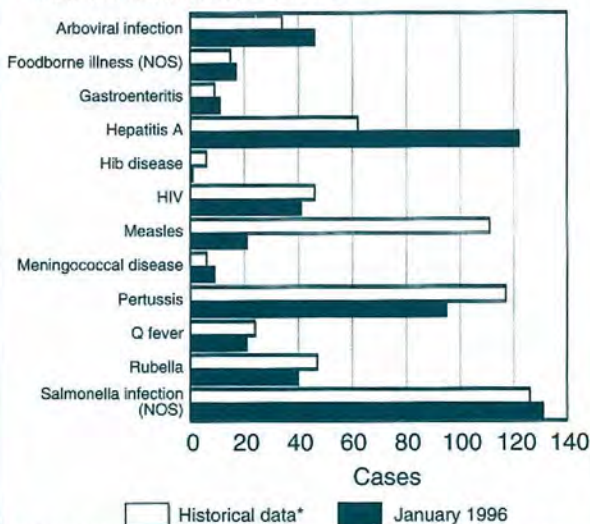
Notification rates were lower than historical levels in January 1996 for *Haemophilus influenzae* type b (Hib) infection, measles and pertussis (Figure 19).

ARBOVIRAL INFECTION

There has been a marked increase in notifications of arboviral infection since January 1996 (Figure 20, Table 4). Most notifications were by the Northern Districts Public Health Unit (PHU) and the North Coast PHU. The Hunter

FIGURE 19

SELECTED INFECTIOUS DISEASES:
NSW JANUARY NOTIFICATIONS, 1996
COMPARED WITH HISTORICAL DATA

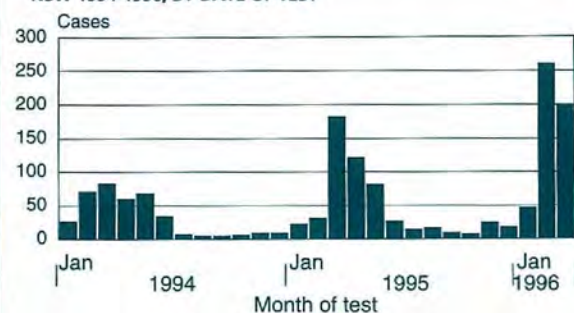


*Historical data: the average number of notifications diagnosed in the same month in the previous three years.

Source: IDSS

FIGURE 20

ARBOVIRAL INFECTION NOTIFICATIONS
NSW 1994-1996, BY DATE OF TEST



For data received by March 31, 1996

Source: IDSS

PHU, South West PHU and Western NSW PHU also reported increased numbers of notifications. Notifications have been predominantly for Ross River virus.

The rise in notifications on the North Coast of NSW follows increases in mosquito populations after heavy rainfall and king tides. The increased notifications from other areas in NSW follow heavy rains in Queensland and subsequent flooding affecting the major inland rivers of NSW and Queensland over recent months. The Darling, Namoi and Bogan rivers were particularly affected.

HEPATITIS A

As noted in the January-February 1996 issue of the *Bulletin* there has been a steady rise in notifications of hepatitis A from inner Sydney areas since October 1995. However, notifications appear to have peaked in January 1996 (Figure 21). In January there were 122 notifications of hepatitis A, of which 54 cases were reported by the Eastern Sydney PHU. In February 1996, 94 cases were reported, of which 24 were from the Eastern Sydney PHU. Central Sydney PHU, Northern Sydney PHU and Western Sydney PHU reported similar, but less marked, increases over the same period.

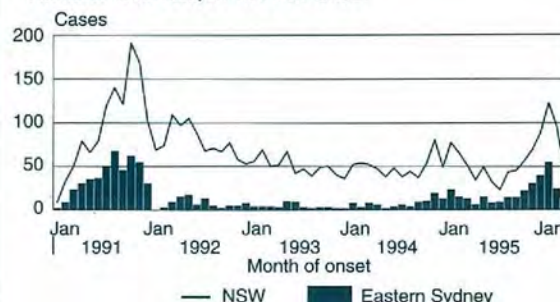
TABLE 4

INFECTIOUS DISEASE NOTIFICATIONS FOR NSW, 1996
BY MONTH OF ONSET FOR NOTIFICATIONS
RECEIVED BY FEBRUARY 29, 1996

Condition	Nov	Dec	Jan	Feb	Total
Adverse event after immunisation	2	2	9	3	16
AIDS	32	24	33	19	108
Arboviral infection	24	17	46	263	350
Cholera	-	-	1	-	1
Foodborne illness (NOS)	12	9	17	17	55
Gastroenteritis (instit.)	74	7	11	10	102
Gonorrhoea infection	37	41	45	48	171
H. influenzae infection (NOS)	1	1	-	-	2
H. influenzae meningitis	2	-	1	-	3
H. influenzae septicaemia	2	1	-	-	3
Hepatitis A - acute viral	69	86	122	96	373
Hepatitis B - acute viral	5	12	7	-	24
Hepatitis B - chronic/carrier	41	39	64	52	196
Hepatitis B - unspecified	384	313	310	288	1,295
Hepatitis C - acute viral	2	2	-	-	4
Hepatitis C - unspecified	690	694	713	637	2,734
Hepatitis D - unspecified	1	2	-	1	4
Hepatitis, acute viral (NOS)	-	-	3	-	3
HIV infection	34	35	41	32	142
Hydatid disease	2	2	1	2	7
Legionnaires' disease	3	8	4	7	22
Leptospirosis	1	1	3	3	8
Listeriosis	1	3	2	-	6
Malaria	5	4	22	22	53
Measles	36	27	21	13	97
Meningococcal infection (NOS)	-	-	1	3	4
Meningococcal meningitis	8	4	6	3	21
Meningococcal septicaemia	1	-	2	2	5
Mumps	4	1	5	6	16
Mycobacterial atypical	12	13	21	6	52
Mycobacterial infection (NOS)	8	9	14	13	45
Mycobacterial tuberculosis	36	29	27	13	105
Pertussis	131	110	95	57	393
Q fever	17	9	21	20	67
Rubella	191	96	40	31	358
Salmonella (NOS)	134	106	131	124	495
Syphilis infection	68	47	59	59	233
Typhoid and paratyphoid	1	5	7	4	17
Vibrio infection (non cholera)	-	1	-	1	2

FIGURE 21

HEPATITIS A NOTIFICATIONS
FOR NSW 1992-1996, BY DATE OF ONSET



Source: IDSS

TABLE 5

SUMMARY OF NSW INFECTIOUS DISEASE NOTIFICATIONS
FEBRUARY 1996

Condition	Number of cases notified			
	Period		Cumulative	
	Feb 1995	Feb 1996	Feb 1995	Feb 1996
Adverse reaction	1	3	4	12
AIDS	34	19	84	52
Arboviral infection	21	263	53	309
Brucellosis	-	-	-	-
Cholera	-	-	-	1
Diphtheria	-	-	-	-
Foodborne illness (NOS)	191	17	208	34
Gastroenteritis (instit.)	3	10	5	21
Gonorrhoea	39	48	73	93
H influenzae epiglottitis	-	-	-	-
H influenzae B - meningitis	-	-	2	1
H influenzae B - septicaemia	2	-	2	-
H influenzae infection (NOS)	1	-	1	-
Hepatitis A	65	96	142	218
Hepatitis B	431	340	842	721
Hepatitis C	767	637	1,555	1,350
Hepatitis D	4	1	6	1
Hepatitis, acute viral (NOS)	-	-	-	3
HIV infection	45	32	95	81
Hydatid disease	-	2	-	3
Legionnaires' disease	7	7	23	11
Leprosy	-	-	1	-
Leptospirosis	-	3	1	6
Listeriosis	4	-	4	2
Malaria	16	22	38	44
Measles	60	13	158	34
Meningococcal meningitis	6	3	8	9
Meningococcal septicaemia	5	2	6	4
Meningococcal infection (NOS)	1	3	4	4
Mumps	-	6	2	11
Mycobacterial tuberculosis	39	13	91	40
Mycobacterial - atypical	37	6	84	27
Mycobacterial infection (NOS)	2	13	8	27
Pertussis	71	57	155	152
Plague	-	-	-	-
Poliomyelitis	-	-	-	-
Q fever	21	20	42	41
Rubella	33	31	67	71
Salmonella infection (NOS)	203	124	353	255
Syphilis	71	59	163	118
Tetanus	-	-	-	-
Typhoid and paratyphoid	13	4	19	11
Typhus	-	-	-	-
Viral haemorrhagic fevers	-	-	-	-
Yellow fever	-	-	-	-

TABLE 6

INFECTIOUS DISEASE CUMULATIVE NOTIFICATIONS FOR NSW, 1996
BY PUBLIC HEALTH UNIT RECEIVED BY FEBRUARY 29, 1996

Condition	CCA	CSA	CW	ESA	HUN	ILL	NC	ND	NSA	SE	SSA	SW	SWS	WEN	WN	WSA	U/K	Total
AIDS	3	10	-	15	3	-	2	-	12	-	1	-	2	3	-	1	-	52
Arboviral infection	2	1	9	1	16	3	62	112	3	5	1	43	2	-	46	3	-	309
Gastroenteritis (instit)	-	-	-	-	9	-	-	1	-	-	-	-	1	6	1	3	-	21
Gonorrhoea infection	2	12	2	47	1	1	3	1	4	1	5	-	2	2	6	4	-	93
Hepatitis B - acute viral	-	-	-	4	-	-	-	-	-	-	-	-	1	-	1	1	-	7
Hepatitis B - chronic/carrier	10	-	3	49	-	-	5	1	-	-	12	-	1	1	1	33	-	116
Hepatitis B - unspecified	3	76	1	19	15	9	10	2	91	2	90	2	193	7	3	75	-	598
Hepatitis C - unspecified	52	145	42	166	74	83	137	34	101	19	73	31	179	64	11	139	-	1,350
Hepatitis D - unspecified	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1
Hepatitis, acute viral (NOS)	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	1	-	3
HIV infection	-	7	-	11	-	2	-	-	3	-	3	-	4	2	-	2	47	81
Hydatid disease	-	1	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	3
Legionnaires' disease	-	1	-	-	1	-	1	-	1	2	-	-	3	1	-	1	-	11
Leptospirosis	-	-	1	-	1	-	3	-	-	-	-	-	1	-	-	-	-	6
Malaria	1	2	-	4	5	1	4	3	7	1	4	1	3	3	1	4	-	44
Meningococcal infection (NOS)	2	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	4
Meningococcal meningitis	-	-	-	-	3	2	1	-	-	-	1	-	-	-	1	1	-	9
Meningococcal septicaemia	-	-	2	-	1	-	-	-	-	-	-	-	1	-	-	-	-	4
Mycobacterial atypical	3	1	-	-	-	-	5	1	4	-	3	1	5	1	-	3	-	27
Mycobacterial infection (NOS)	2	5	-	-	8	-	4	1	-	-	2	-	-	-	-	5	-	27
Mycobacterial tuberculosis	3	4	-	2	-	-	-	-	4	-	8	-	11	-	-	8	-	40
Q fever	-	1	6	-	2	-	4	8	-	-	-	3	-	-	17	-	-	41
Syphilis infection	-	14	3	19	2	1	7	9	11	2	4	1	18	2	10	15	-	118

TABLE 7

VACCINE PREVENTABLE AND RELATED CONDITIONS, CUMULATIVE NOTIFICATIONS FOR NSW, 1996
BY PUBLIC HEALTH UNIT, RECEIVED BY FEBRUARY 29, 1996

Condition	CCA	CSA	CW	ESA	HUN	ILL	NC	ND	NSA	SE	SSA	SW	SWS	WEN	WN	WSA	Total
Adverse event after immunisation	-	-	2	-	-	-	1	-	-	6	1	-	1	1	-	-	12
H. influenzae meningitis	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Measles	-	1	1	-	-	4	-	1	1	2	4	5	4	2	1	8	34
Mumps	-	1	-	-	2	-	-	-	5	-	1	1	1	-	-	-	11
Pertussis	1	6	1	9	15	12	20	15	17	10	7	15	4	3	4	13	152
Rubella	-	17	-	-	-	7	1	-	-	1	3	-	-	14	-	28	71

TABLE 8

FOODBORNE INFECTIOUS DISEASE CUMULATIVE NOTIFICATIONS FOR NSW, 1996
BY PUBLIC HEALTH UNIT, RECEIVED BY FEBRUARY 29, 1996

Condition	CCA	CSA	CW	ESA	HUN	ILL	NC	ND	NSA	SE	SSA	SW	SWS	WEN	WN	WSA	Total
Foodborne illness (NOS)	7	5	-	-	2	-	-	1	-	-	-	2	11	-	6	-	34
Hepatitis A - acute viral	5	39	1	78	10	11	4	2	20	3	16	1	6	3	1	18	218
Listeriosis	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	2
Salmonella (NOS)	5	12	2	11	24	10	27	23	29	5	23	12	26	10	10	26	255
Typhoid and paratyphoid	-	3	-	-	2	-	-	-	-	-	1	-	3	-	-	2	11
Vibrio infection (non cholera)	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-	-	2

Abbreviations used in this Bulletin:

CSA Central Sydney Health Area, SSA Southern Sydney Health Area, ESA Eastern Sydney Health Area, SWS South Western Sydney Health Area, WSA Western Sydney Health Area, WEN Wentworth Health Area, NSA Northern Sydney Health Area, CCA Central Coast Health Area, ILL Illawarra Health Area, HUN Hunter Health Area, NC North Coast Public Health Unit, ND Northern District Public Health Unit, WN Western New South Wales Public Health Unit, CW Central West Public Health Unit, SW South West Public Health Unit, SE South East Public Health Unit, OTH Interstate/Overseas, U/K Unknown, NOS Not Otherwise Stated.

Please note that the data contained in this Bulletin are provisional and subject to change because of late reports or changes in case classification. Data are tabulated where possible by area of residence and by the disease onset date and not simply the date of notification or receipt of such notification.

PUBLIC HEALTH EDITORIAL STAFF

The editor of the Public Health Bulletin is Dr Michael Frommer, Director, Research and Development, NSW Health Department. Dr Lynne Madden is production manager.

The *Bulletin* aims to provide its readers with population health data and information to motivate effective public health action. Articles, news and comments should be 1,000 words or less in length and include a summary of the key points to be made in the first paragraph. References should be set out using the Vancouver style, the full text of which can be found in *British Medical Journal* 1988; 296:401-5.

Please submit items in hard copy and on diskette, preferably using WordPerfect, to the editor, NSW Public Health Bulletin, Locked Mail Bag 961, North Sydney 2059. Facsimile (02) 391 9029.

Please contact your local Public Health Unit to obtain copies of the *NSW Public Health Bulletin*.