

PUBLIC HEALTH IN NSW FROM THIS DECADE TO 2010

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Fittingly, the 10th year of publication of the *NSW Public Health Bulletin* brings us to the last year of this century and millennium. This edition of the *Bulletin* offers perspectives on some of the current major public health issues, and I note there are many similarities with those issues that were faced by public health at the beginning of the century. We have come full circle in many ways, revisiting concerns about the effect on health of the environment, communicable diseases, poverty, under-employment, social deprivation and childhood exposures. Indeed, the need for a strong public health effort has never been greater.

Maintaining and promoting a healthy environment is likely to become an increasingly important and complex public health issue. The recent 15th scientific meeting of the International Epidemiology Association, titled *Epidemiology for Sustainable Health*, focused on the effect of adverse global environmental change on human health. I was impressed by the substantial quantity and quality of evidence demonstrating that adverse environmental change is affecting public health. Epidemiological modelling of the impact of environmental change on health is now focusing on predicting adverse health effects in different parts of the world. Most concerning were results that suggest that even if the measures currently being introduced, or considered, to address greenhouse gas emissions and global warming were fully achieved, substantial change—enough to have adverse health effects—could still occur. The meeting certainly reinforced a need for a stronger focus on promoting healthier environments as a key priority in public health. I was also struck by the apparent minimal involvement of public health expertise in the study of the effects of global environmental changes.

Here in NSW are we better prepared for the next 10 years than we were at the beginning of this decade? I believe we are.

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Ten years ago the Public Health Network was established to strengthen the public health function throughout NSW. At that time it consisted of the Epidemiology Branch of the NSW Department of Health, and the newly-created Public Health Units. It has come to describe a much wider network of public health practitioners from health promotion, public health laboratories, and academia. This network has attracted and retained many talented public health workers, and its productivity is reflected not only in innovative project work and scientific publication, but also in commentary on current policy initiatives, and in finding pragmatic solutions to issues such as the training of an effective public health workforce.

Maintaining a sense of an active critical mass and unity of purpose is difficult for any group that is not collocated and that reports to different management structures. However, this network has been able to do that better than many, and this is reflected in the successful coordination of public health effort across NSW, a capacity highlighted during public health emergencies.

As part of exploring the future of public health directions in NSW, we are examining how the expertise contained within the network can make a wider contribution to policy development, and encompass more of the public health activities of the Area Health Services (AHS). The Divisions of Population Health, established in several AHS in recent

years, have brought together public health functions such as public health units, health promotion units, and health services planning units. These Divisions have helped AHS execute their population health responsibilities, allowing better coordination and effective joint working between these groups. As we look to ways to further strengthen the network, we will examine the potential benefits that this model may offer public health, organisationally, if adopted statewide. Another task over the next decade will be to develop and implement a quality improvement framework appropriate to public health based on principles of effectiveness, appropriateness, equity and accountability.

The NSW Public Health Officer Training Program, also 10 years old this year, has produced a cohort of high-level multi-skilled public health workers with practical experience. Many of its graduates have filled places in the Public Health Network. Importantly, the program and the network have supported the dissemination of the broader concept of population health. Re-accredited in 1999 by the NSW Vocational Education Training and Accreditation Board, it is a significant credit to the program that we have received several requests by outside professional public health groups to adopt or adapt the program's competencies for their own training purposes. Recently we have identified specific workforce needs and targeted some of the training

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PRESSURES AND FUTURE TRENDS IN PUBLIC HEALTH AROUND THE WORLD

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A few years ago, the Pan-American Health Organization (PAHO) published a book entitled *The Crisis of Public Health*. In it, the authors suggested that public health as a community has become inward looking, focusing more on obscure methodological questions and less on the contribution of epidemiology to policy. They worried that

an often misunderstood field would become even less relevant.

The Crisis of Public Health sparked an intense debate about the training and functions of public health practitioners, and it continues to this day. Who should these people be and what skills do they need? The question of what will they be working on has been less well explored.

The following observations about the pressures in public health now, and some ideas about future trends, are drawn from 12 years work with and visits to public health colleagues in more than 30 countries in Europe, Africa, Latin America and Asia. While acknowledging that only a fool forecasts the future, and that proposing classifications is a sure invitation to be vilified, I offer the following three broadly grouped categories as starting points to analyse where public health is now and where it may be headed.

1. ENVIRONMENTAL AND DEMOGRAPHIC CHANGES AND PRESSURES

Within this category, three features strike me as being increasingly important. One is the rapid shift in almost all countries in the balance between young people, those of

working age and the elderly. While the exact nature of the change varies widely, there is no question that intergenerational tension concerning society's resource choices will increase in the future. This tension is usually expressed in terms of how to care for the elderly, but, for some countries (notably in Asia), the problem has more to do with a relatively declining working-age group supporting large numbers of both young people requiring education and older people requiring care. As traditional family-based social structures change, solutions will increasingly require dialogue among citizens, government and the private sector. Public health has much to say about the relative value of education and about what kinds of care should be provided late in life.

Another major area within this category is that of emerging and re-emerging communicable diseases. Especially in more developed countries, public health had congratulated itself on 'solving' the problem of infectious disease. We could turn our attention to non-communicable and lifestyle-related illnesses. However, AIDS and chronic HIV infection, a resurgence of tuberculosis, and recent outbreaks of Ebola, Legionnaire's disease and Japanese encephalitis remind us that viruses, bacteria and other micro-organisms remain powerful enemies. Public health must be active, not only in identifying these pathogens, but in developing effective strategies to combat them.

While we have long known about links between environmental contamination and human illness such as cancer, evidence is beginning to emerge of disturbances to human reproduction as a result of long-term exposure to man-made environmental toxins. Beyond disease, these signs may be the first warnings that we have truly made our planet unfit for life as we know it. In their recent book *Our Stolen Future*, Theo Colborn, Dianne Dumanoski and John Peterson Myers explore the emerging science of endocrine disruption: how some synthetic chemicals interfere with the ways hormones work in humans and wildlife. The epidemiology in this area is still in its infancy and clearly calls for a renewed public health effort.

2. CHANGING HEALTH SYSTEMS

Around the world, health systems are changing because of financial and technological pressures. In this brave new world oriented to outcomes and accountability, public health can play a central role in assessing the effect of expenditure and result. Personally, I am a great optimist and believe that increased competition and transparency can only result in better care and healthier people. However, for public health workers to play an active role in achieving these outcomes, they must engage in a new kind of debate that is more economics- and management-oriented than many have cared to be involved with in the past.

The International Finance Corporation, the World Bank's private-sector arm, recently announced the results of a study which showed that between 30 and 70 per cent of

health care in the average developing country is either financed or provided privately. Major banks such as Chase Manhattan and Rabobank actively invest in health care projects. Privatisation and corporatisation are favorite policy tools around the globe. Much public health thinking (especially in Europe and North America) is still influenced by a belief that the ultimate health system model involves public financing and provision. To influence positively the emerging model of partnership among public and private sectors, public health specialists in these regions will have to cast off their preconceived ideas of the private sector and actively evaluate the contribution to be made by all sectors.

Having said that, it is also important for public health to act as a 'health conscience' and remind society of the need for equality of access to health care, for investments in basic prevention and health promotion, and of the reasons for programs such as vaccination and environmental and occupational health. There is no excuse to abandon well proven public health activities.

3. EXTERNAL FORCES

Public health, like all fields of human endeavour, is affected by the currents of globalisation. Two facets of change are creating current pressures and defining the future: the growing access to information and the increasingly complex forces that affect health status. One of the most positive outcomes of the rapid dissemination of information is a more empowered consumer. It is a good outcome that patients ask more questions and are more demanding, even if it makes health care providers' jobs more difficult. In the United States, it is not uncommon for a patient to walk into a doctor's office with an advertisement for a new drug and demand a prescription. Improved information access and management can also yield better quality care. Public health both produces and interprets the raw data that becomes health information. Therefore, it is essential that the public health community is active in both information creation and fostering health literacy among the general population.

Public health specialists have always known that health is largely created outside the formal health care sector. Education, environment, income and lifestyle, among other factors, play significant roles in determining an individual's or a community's health. However, today's increasingly complex world has created new health determinants, some good, some less so. For example, the growing popularity of physical fitness is a welcome public health trend, but the wide distribution of highly sugared fizzy drinks in countries where oral hygiene is still rudimentary is much less so. How to maximise the beneficial aspects of globalisation for the public's health while minimising the negative aspects remains a key future challenge for us all. ☛

LICIT AND ILLICIT DRUG USE IN NSW

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INTRODUCTION

This is the first in a series of articles providing a commentary on drug and alcohol use in NSW. The series will provide an overview of the use of both licit and illicit drugs in NSW with special features on licit drugs (alcohol and tobacco) and illicit drugs (heroin and other drugs), with information sourced primarily from the 1998 National Drug Strategy Household Survey (NDSHS).

BACKGROUND

Drug-related harm

It is estimated that more than 22,000 deaths and more than a 250,000 hospitalisations in Australia during 1997 were drug-related.¹ Licit drugs accounted for more than 96 per cent of these. However, 831 deaths and more than 11,000 hospitalisations were related to the use of illicit drugs. A recent annual estimate of the direct health care cost of drug dependence and the harmful use of licit and illicit drugs in Australia was more than one billion dollars: \$833 million for tobacco, \$145 million for alcohol, and \$43 million for heroin and other drugs.²

The National Drug Strategy

The National Drug Strategy (NDS) is a comprehensive, integrated approach to the problem of harmful use of licit and illicit drugs.³ The strategy aims to improve health, and social and economic outcomes, by preventing the harmful use of drugs and reducing the effects of licit and illicit drugs in Australia. The NSW Department of Health was a founding member of the strategy and continues to be an active participant.

METHODS

The National Drug Strategy Household Survey

The 1998 NDSHS was the most comprehensive survey of licit and illicit drug use ever undertaken in Australia, and was the sixth survey in a series that commenced in 1985. Between June and September 1998, 10,030 Australians aged 14 years and older participated in the survey, including 1,486 in NSW. Respondents were asked about their knowledge of drugs and attitudes towards drugs, drug consumption and related behaviours. Details of the NDSHS methodology have been published elsewhere.¹ In this report, NSW data are presented and compared to data for the rest of Australia, where this is available.

RESULTS

Licit and illicit drug use in NSW

In NSW in 1998, alcohol was the most frequently used drug with 78.6 per cent of respondents consuming alcohol recently (that is, within the past 12 months), a pattern similar to that in 1995 (Table 1). In comparison, 25.1 per cent of respondents had used tobacco recently, a small decrease from 1995 (26.3 per cent).

More than 46 per cent of respondents in NSW reported having tried at least one illicit drug, up from 39.3 per cent in 1995. Recent drug use in 1998 also increased (12 per cent) from 1995, with one in five respondents having used at least one illicit drug in the previous 12 months. Based on these data, it is estimated that there were 995,915 recent illicit drug users in NSW in 1998. More males than females used illicit drugs recently; however, the rate among females increased by 47 per cent from 11.7 per cent in 1995 to 17.2 per cent in 1998.

The most commonly used illicit drug was marijuana, with 39.4 per cent reporting having ever used the drug and 16.8 per cent using it in the past 12 months. In NSW since 1995, there has been a 25 per cent increase in recent marijuana use, less than the national increase of 39 per cent. Recent heroin use in NSW was reported by less than one per cent of survey respondents with no increase since 1995. While the lifetime use of amphetamines in NSW was low, the reported rate increased by 91 per cent, from 4.6 per cent in 1995 to 8.8 per cent in 1998.

In Sydney, the rate of recent illicit drug use (20.9 per cent) was lower than in all other capital cities, with the exception of Hobart (19.4 per cent). In comparison, the rate of ever having tried at least one 'hard' drug (for example, heroin, amphetamines, etc) in Sydney (16.3 per cent) was higher than in most other Australian capital cities, while recent 'hard' drug use (6.1 per cent) in Sydney was lower than in Melbourne, Perth and Darwin.

Preferred drugs

The type of drugs respondents in NSW reported to prefer were the same as for the rest of Australia. The most popular drug in NSW was alcohol, followed by tobacco (Table 2). More than 50 per cent of males in NSW reported alcohol as their preferred drug compared with 35.3 per cent of females. In contrast, 42.3 per cent of females preferred not to consume drugs, either licit or illicit, compared to 28.3 per cent of males. The most popular illicit drug in NSW was marijuana; however, this was slightly less popular in NSW than for the rest of Australia (4.4 per cent).

Age of initiation of drug use

Between 1995 and 1998, the mean age at initiation of drug use in NSW remained fairly stable (Table 3). In 1998, alcohol users in NSW typically began drinking at an earlier age (15.7 years) than consumers of other drugs, while

TABLE 1

LIFETIME AND RECENT USE OF LICIT AND ILLICIT DRUGS BY PERSONS AGED 14 YEARS AND OVER, NSW AND OTHER AUSTRALIA,* 1995 AND 1998

Drug/behaviour	Lifetime use, %†				Recent use, %†			
	1995		1998		1995		1998	
	Aus	NSW	Aus	NSW	Aus	NSW	Aus	NSW
Tobacco	64.8	64.6	68.2	62.0	27.5	26.3	27.2	25.1
Alcohol	88.5	86.6	92.2	87.7	78.1	79.0	81.8	78.6
Marijuana	31.6	30.3	39.1	39.4	13.2	13.4	18.4	16.8
Analgesics‡	10.9	15.1	11.9	10.4	3.3	4.0	5.6	4.3
Tranquillisers‡	3.3	3.1	6.7	5.2	0.8	0.4	3.4	2.2
Steroids‡	0.6	0.4	0.8	0.9	0.2	0.1	0.2	0.4
Barbiturates‡	1.5	0.7	1.7	1.4	0.3	—	0.3	0.2
Inhalants	2.5	2.1	3.9	3.9	0.5	0.4	0.8	0.9
Heroin	1.6	1.0	2.3	2.0	0.3	0.6	0.8	.06
Methadone§	**	**	0.5	0.5	**	**	0.2	—
Amphetamines‡	6.4	4.6	8.6	8.8	1.9	2.5	3.5	3.8
Cocaine	3.3	3.5	3.5	5.9	0.9	1.1	1.0	2.1
Hallucinogens	5.5	5.6	9.9	10.0	1.6	2.4	3.2	2.6
Ecstasy	2.3	2.5	4.4	5.3	0.7	1.1	2.5	2.1
Injected illegal drugs	1.3	1.4	2.4	1.4	0.4	1.0	0.9	0.4
None of the above	7.4	8.3	5.5	9.0	14.0	16.2	12.9	16.4

* 'Other Australia' refers to all jurisdictions other than NSW.

† 'Lifetime use' refers to use at least once in a person's lifetime; drugs 'recently used' refers to use in the last 12 months.

‡ For non-medical purposes.

§ Non-maintenance.

** Not asked in 1995.

tobacco users initiated use at a slightly older age (16.1 years) in NSW than the rest of Australia (15.5 years). Women generally initiated licit or illicit drug use at an earlier age than men did, particularly heroin, in which the mean age at commencement was 16.5 years for females compared to 21.6 for males in 1998.

Between 1995 and 1998, the age of initiation for the use of the drug ecstasy decreased by 18 per cent from 23.9 to 19.5 years; however, the age of initiating heroin use increased from 15.0 to 18.1 years (1995 data for heroin use were subject to extreme sampling variability because of the small sample size). Compared to the rest of Australia, people in NSW in 1998 were slightly older when they first used tobacco but younger when initiating heroin, amphetamine, cocaine, hallucinogen and ecstasy use.

Injecting illicit drugs

Between 1995 and 1998, the proportion of the NSW population who had recently injected drugs halved from 1.0 to 0.4 per cent. Males (49.1 per cent) who had injected drugs were more likely than females (18.8 per cent) to

have first injected amphetamines. Conversely, females (69.1 per cent) were more likely to have first injected heroin than males (39.0 per cent).

DISCUSSION

Generally, there has been little change in the pattern of drug use in NSW over the past three years, with alcohol and tobacco remaining the primary drugs of choice. However, since 1995, there have been increases in marijuana and amphetamine use, a decrease in the age of people initiating ecstasy use, and a decline in the proportion of people reporting that they recently inject drugs.

While this report provides useful information, the data have a number of limitations. Firstly, non-private dwellings, institutional settings (including prisons) and homeless people were excluded from the sample. Also, because users of illicit drugs are, by definition, committing illegal acts, they are reluctant to reveal their drug use. Consequently, the prevalence of illicit drug use and related behaviours is expected to be underestimated. Despite these limitations, the information gained from the NDSHS is important for the NSW Department of Health. It will form

TABLE 2**PREFERRED DRUG OF CHOICE BY SEX, PROPORTION OF POPULATION AGED 14 YEARS AND OVER, NSW AND OTHER AUSTRALIA,* 1998**

Drug	Males		Females		Total	
	Aus	NSW	Aus	NSW	Aus	NSW
Tobacco	15.5	13.3	17.2	18.2	16.4	15.8
Alcohol	50.0	52.0	37.9	35.3	43.9	43.5
Amphetamines†	0.2	0.1	0.3	–	0.3	0.1
Marijuana	6.0	4.6	2.9	3.3	4.4	3.9
Heroin	0.4	0.1	0.1	–	0.3	–
Cocaine	0.1	0.2	0.2	0.1	0.1	0.2
Hallucinogens	0.3	0.3	0.1	0.1	0.2	0.2
Ecstasy	0.5	0.9	0.4	0.6	0.5	0.8
None	26.8	28.3	41.0	42.3	34.0	35.4

* 'Other Australia' refers to all jurisdictions other than NSW.
† For non-medical purposes.

TABLE 3**NOVICE DRUG USERS,* MEAN AGE (IN YEARS) AT INITIATION OF LICIT OR ILLICIT DRUG USE, NSW AND OTHER AUSTRALIA,† 1995 AND 1998**

Drugs	Males				Females				Total			
	1995		1998		1995		1998		1995		1998	
	Aus	NSW	Aus	NSW	Aus	NSW	Aus	NSW	Aus	NSW	Aus	NSW
Tobacco	15.4	15.5	15.6	16.5	15.2	15.7	15.4	15.7	15.3	15.6	15.5	16.1
Alcohol	15.0	15.8	15.4	16.1	15.8	15.8	15.8	15.3	15.4	15.8	15.6	15.7
Marijuana	17.2	15.7	16.4	16.4	17.4	16.1	16.7	16.8	17.3	15.8	16.6	16.7
Heroin	20.6	0.0	22.8	21.6	21.0	15.0 [‡]	18.6	16.5	20.8	15.0 [‡]	21.0	18.1
Amphetamines	20.2	18.5	20.0	18.9	19.6	20.0 [‡]	19.6	17.0	20.0	18.9	19.9	18.3
Cocaine	21.6	21.4	23.0	22.0	21.2	22.0 [‡]	21.7	19.1	21.5	21.5	22.4	20.8
LSD/Synthetic hallucinogens	18.4	17.6	18.7	18.1	19.7	18.8	19.0	17.5	18.9	17.9	18.8	17.9
Ecstasy	19.6	23.9	20.8	19.6	21.3	–	20.4	19.2	20.4	23.9	20.7	19.5

* Respondents aged less than or equal to 30 years; first use in the previous 3 years.
† 'Other Australia' refers to all jurisdictions other than NSW.
‡ Estimate subject to extreme sampling variability.

part of the baseline measuring of drug use by which actions arising from the 1999 NSW Drug Summit will be evaluated.⁴

CONCLUSION

Future articles in this series will discuss the use of specific licit and illicit drugs in greater detail, and the NSW Department of Health's response to the issues will be outlined. The focus will be on heroin use and related overdoses, other illicit drug use behaviours, and alcohol and tobacco use.

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REFERENCES

1. Australian Institute of Health and Welfare, (Drug Statistics Series). *1998 National Drug Strategy Household Survey: First Results*. AIHW catalogue number PHE 15. Canberra: AIHW, 1999.
2. Collins DJ, Lapsley HM. *The social costs of drug abuse in Australia*. National Drug Strategy, Monograph Series No.

30. Canberra: Commonwealth Department of Human Services and Health, 1996.
3. Ministerial Council on Drug Strategy. National drug strategic framework 1998–99 to 2002–03. Canberra: Ministerial Council on Drug Strategy, 1998.
4. NSW Drug Summit 1999. Government Plan of Action. Sydney: NSW Government, 1999. ISBN 7313 5400 1. ☒

Further information on national statistics, response rates, estimation procedures, reliability of estimates and comparability to the 1995 survey are available in the AIHW Drug Statistics Series,¹ which is also accessible on the AIHW internet site www.aihw.gov.au.

GENERAL PRACTICE ACTIVITY IN AUSTRALIA 1998–1999

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A report of the first year's data from the Bettering the Evaluation And Care of Health program (BEACH), a continuous national survey of general practice activity, was released recently by the General Practitioners Statistics and Classification Unit. The unit is a collaborating unit of the University of Sydney's Family Medicine Research Centre and the Australian Institute of Health and Welfare. The program began in April 1998 and is currently funded by a consortium of six organisations: the Commonwealth Department of Health and Aged Care, the Department of Veterans' Affairs, the National Occupational Health and Safety Commission, AstraZeneca Australia, Roche Products, and Rhône Poulenc Rorer. It aims to provide an up-to-date source of information about the patients seen in general practice, the problems managed, and the treatments provided. This article describes the rationale for the collection of the data and some of the preliminary results.

Because about 85 per cent of the population visit a general practitioner (GP) in any one year, general practice data can provide a good indication of the health of the community.¹ Each year, approximately 1,000 randomly selected GPs participate in BEACH. Each GP records the details of 100 consecutive doctor–patient encounters (any professional interchange between a patient and a general practitioner). The first year's data set includes information about 96,901 such consultations (after post-stratification weighting). Reasons for the encounter, problems managed, referrals, non-pharmacological management and investigations are classified according to the *ICPC-2: International Classification of Primary Care (Version 2)*,² and coded more specifically in *ICPC-2 PLUS*.³ Prescribed pharmaceuticals are coded to brand level. They are classified according to an in-house classification, the Coding Atlas for Pharmaceutical Substances and to the *Anatomical Therapeutic Chemical Classification Index*.⁴ Additional data elements include strength of prescribed

drug and regimen (course of therapy) from which one can derive a prescribed daily dose.

The BEACH relational database is described diagrammatically in Figure 1. All variables can be directly related to GP and patient characteristics and to the encounter. Reasons for encounters have only an indirect relationship with problems managed. All types of management are directly related to the problem being treated.

At the majority of encounters (57.7 per cent), the patient was female, and approximately 25 per cent were in each of the following age groups: < 25 years, 25–44 years, 45–64 years and 65+ years. The patient was new to the practice in 9.2 per cent of encounters. Almost half the encounters were with patients who held some form of health care concession card (47.3 per cent) and a further 3.4 per cent were with persons who held a Department of Veterans' Affairs concession card. Patients from a non-English speaking background represented 14.5 per cent of encounters. Information was also collected on consultations with indigenous people.

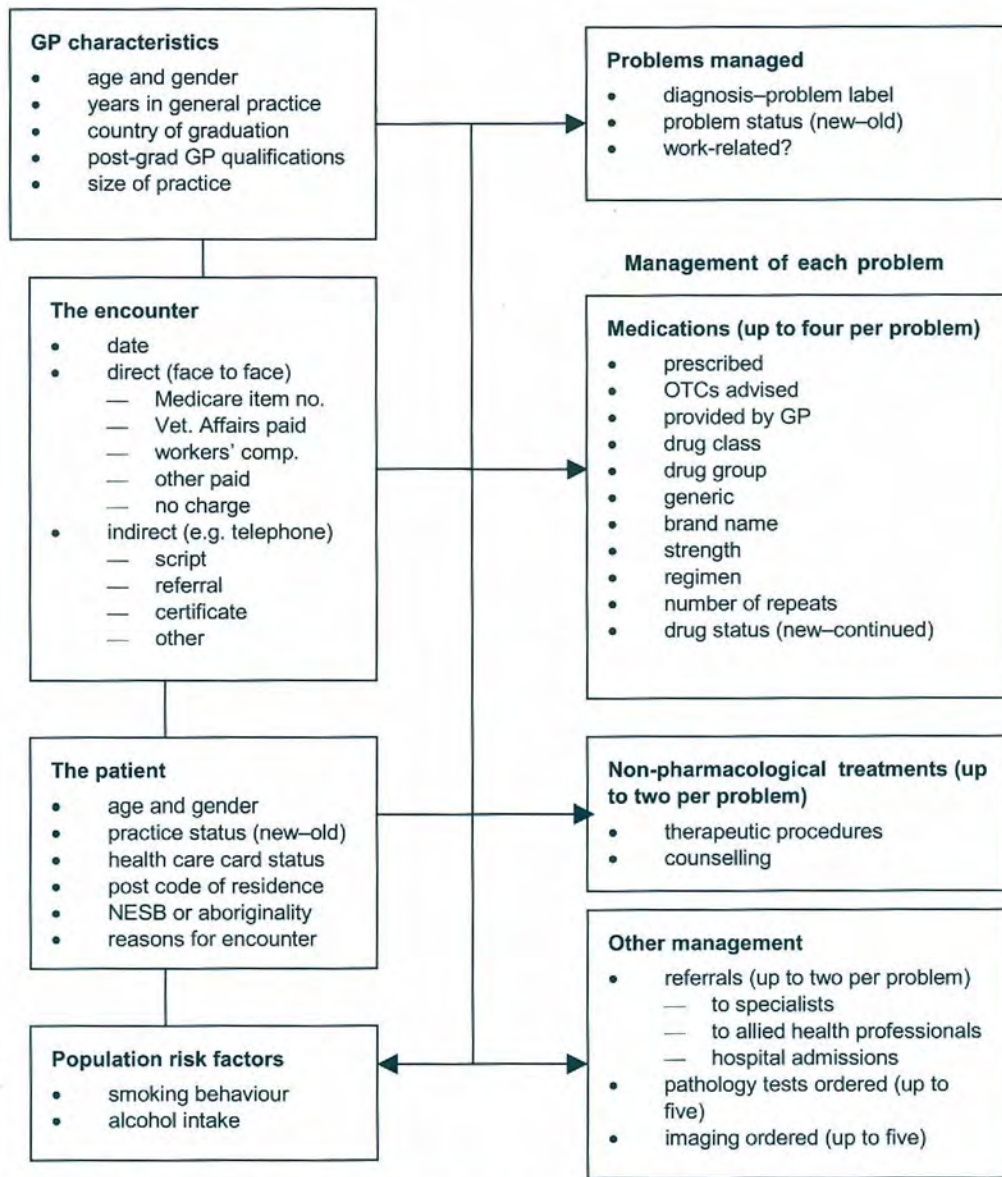
The most common reasons for a patient to initiate an encounter were a need for a prescription, a check-up, and immunisation–vaccination, together with symptoms such as cough, throat and back complaints.

Problems (N=140,824) were managed at a rate of 145 per 100 encounters and almost half of these were new to the patient. The problems most often managed in general practice were respiratory or musculoskeletal in nature or associated with the skin or the cardiovascular system. (Table 4). The most common individual problems were hypertension (8.3 per 100 encounters), upper respiratory tract infection (6.8) and immunisation–vaccination (5.2 per 100). Depression (3.5 per 100 encounters) had risen from tenth to fourth in relative frequency since 1990–91, while immunisation–vaccination had risen from sixth to third position.⁵ The GPs regarded 2.7 per cent of all problems to be work-related.

Medications were prescribed (85.3 per cent), advised for over the counter purchase, or supplied by the GP at a rate

FIGURE 1

THE BEACH RELATIONAL DATABASE



Source: *General practice activity in Australia 1998–99*.⁶

of 109 per 100 encounters, or 75 per 100 problems managed. Approximately half the problems were managed without a prescribed medication. Commonly prescribed medication groups included antibiotics (17.8 per cent), drugs for cardiovascular treatment (14.8 per cent) and for the central nervous system (12.0 per cent). The most frequently prescribed individual medications were paracetamol (five per cent of medications), amoxicillin (three per cent), and

paracetamol or codeine (2.7 per cent). Considerable change had occurred since 1990–91 in prescribing patterns, particularly where new medications had become available.

Non-pharmacological problem management was provided at a rate of 25.4 per 100 encounters, and these were more commonly clinical (for example, advice and counselling) than procedural in nature.

TABLE 4

DISTRIBUTION OF PROBLEMS MANAGED ACROSS ICPC-2

Problem managed	Rate per 100 encounters (N=96,901)	95% confidence intervals
Respiratory	24.3	(23.6–25.0)
Musculoskeletal	16.9	(16.3–17.5)
Skin	16.5	(16.0–17.0)
Circulatory	16.1	(15.4–16.8)
General & unspecified	13.2	(12.7–13.7)
Psychological	10.5	(10.0–11.0)
Digestive	10.2	(9.9–10.5)
Endocrine & metabolic	8.8	(8.4–9.2)
Female genital system	6.3	(5.9–6.6)
Ear	4.9	(4.7–5.1)
Pregnancy & family planning	4.1	(3.7–4.4)
Neurological	4.0	(3.8–4.2)
Urology	2.8	(2.7–3.0)
Eye	2.8	(2.7–3.0)
Blood	1.7	(1.5–1.9)
Male genital system	1.4	(1.3–1.5)
Social problems	0.8	(0.6–0.9)
Total problems	145.3	(143.5–147.2)

Figures do not total 100% because more than one problem may have been managed at each encounter.
Source: *General practice activity in Australia 1998–99*.⁶

The patient was referred to another health professional at 7.8 per cent of encounters. Referrals to specialists (7.4 per 100 encounters) outnumbered those to allied health professionals (3.0 per 100), referrals to surgeons and physiotherapists being most common in each group. Hospital admissions were arranged at a rate of 0.7 per 100 encounters, suggesting that more than 700,000 such admissions are organised nationally by GPs each year. GPs ordered at least one pathology test at 13.2 per cent of encounters, while imaging was ordered at 6.3 per cent.

A breakdown of encounters by state based on the patient's postcode of residence demonstrated sufficient sample size for New South Wales, Victoria, Queensland and Western Australia to conduct individual state-based analysis. Encounters with patients resident in New South Wales numbered 35,768, and an overview of the NSW data-set is provided in the report.

CONCLUSION

The potential usefulness of this rich database is immense for those interested in health services research, population health, health economics or quality of health care. The data can be combined with hospital separation data, Australian Bureau of Statistics National Health Survey data, NSW Health Survey data, and other health information to provide a more comprehensive picture of the health of the community.

REFERENCES

1. Deeble J. Medical Services Through Medicare. *National Health Strategy Background Papers*, Macklin J, ed. Canberra: National Health Strategy Unit, 1991.
2. Classification Committee of the World Organization of Family Doctors 1997. *ICPC-2: International Classification of Primary Care (Version 2)*. Oxford University Press, 1997.
3. Britt H. A new coding tool for computerised clinical systems in primary care—ICPC PLUS. *Aust Fam Physician* 1997; 26 (Suppl. 2): S79–S82.
4. WHO Collaborating Centre for Drug Statistics Methodology. *Anatomical Therapeutic Chemical (ATC) classification index with defined daily doses (DDDs)*. Oslo: World Health Organization, 1998.
5. Bridges-Webb C, Britt H, Miles DA, Neary S, Charles J, Traynor V. Morbidity and treatment in general practice in Australia 1990–1991. *Med J Aust* 1992; 157: S1–S56.
6. Britt H, Sayer GP, Miller GC, Charles J, et al. *General practice activity in Australia 1998–99*. Canberra: Australian Institute of Health and Welfare, 1999. ☞

For further information about the BEACH program and *General practice activity in Australia 1998–99*, contact Associate Professor Helena Britt, Director, Family Medicine Research Centre, Acacia House, Westmead Hospital, Westmead NSW 2145. Telephone: (02) 9845 8150, fax: (02) 9845 8155, email: gpsc@fmru.org.au, or at the Website: www.fmru.org.au.

CANCER IN NSW: INCIDENCE AND MORTALITY 1996

Marylon Coates and Bruce Armstrong
NSW Cancer Council, Sydney

This article highlights some of the information available from the latest report of cancer incidence and mortality in NSW,¹ published by the NSW Cancer Council in July 1999. A decrease in deaths due to cancer mortality was confirmed for both men and women. This fall was mainly due to decreases in rates of death from cancers of the stomach, rectum and pancreas in both sexes; lung cancer in men; and breast and gynaecological cancers in women. The number of new cases (incidence rate) of prostate cancer fell in 1995 and 1996. This followed a dramatic increase in rates between 1988 and 1994 associated with widespread use of prostate specific antigen testing.

THE 1996 REPORT

Cancer has been a notifiable disease in NSW since 1 January 1972. Notifications are provided by patient care institutions, such as hospitals, and by pathology laboratories. The annual report of cancer incidence and mortality contains:

- numbers and rates
- leading cancers
- most common cancers by age
- childhood cancers
- trends and projections
- information about specific cancers, including five-year survival and regional variation
- age-specific tables of incidence and mortality
- appendices about the Cancer Registry, coding practices, the demography of NSW, statistics and publications.

MOST COMMON CANCERS

For 1996, 26,230 new cases of cancer and 11,707 deaths due to cancer were registered. Prostate, lung, melanoma of skin, colon and rectum were the five most common cancers in men. Breast, colon, melanoma of skin, lung and rectum were the five most common cancers in women.

TRENDS IN INCIDENCE AND MORTALITY

Between 1973–1977 and 1996, the incidence rates of cancer of all sites combined rose by 37 per cent for males and 27 per cent for females. The major contributors to this increase were prostate cancer and melanoma in men and breast cancer in women. Notable trends described in the report included the following:

- Prostate cancer incidence rates fell in 1996 following rapid increases between 1988 and 1994.
- Rates for lung cancer continued to decrease in males and were similar in females to the high rates in the previous three years.
- Cervical cancer was only two-thirds as common as in the mid-1970s.

- For all cancers, mortality rates have fallen annually since 1986 by 0.9 per cent in males and 0.6 per cent in females. Age-adjusted mortality in men is currently the lowest it has been since the NSW Cancer Registry began operation, and it is the lowest in women since 1980.
- The large increases in incidence of cancers of the prostate in men and breast in women have not been reflected in mortality rates, but the changes in mortality from stomach, pancreatic, and lung cancers and mesothelioma are similar to those in incidence.

Figures 2 and 3 are drawn from the report and show the average annual changes in cancer incidence and mortality from 1986 to 1996.

SURVIVAL

Five-year relative survival rates range from more than 95 per cent for cancers of the lip, testis and thyroid, to less than 10 per cent for mesothelioma and cancers of the liver and pancreas. Detailed information on survival rates from cancer is available in *Survival from Cancer in NSW in 1980 to 1995*.²

REGIONAL VARIATION

By and large, cancer incidence is fairly uniformly distributed throughout NSW. However:

- rates of melanoma were high in all coastal Health Services north of Sydney
- rates of lung cancer were high in males from Central, Western and South Western Sydney
- rates of lung cancer were low, but rates of breast cancer were high, in Northern and South Eastern Sydney.

Detailed information on regional variation is available in *Cancer Maps for NSW: Variation by Local Government Area, 1991 to 1995*.³

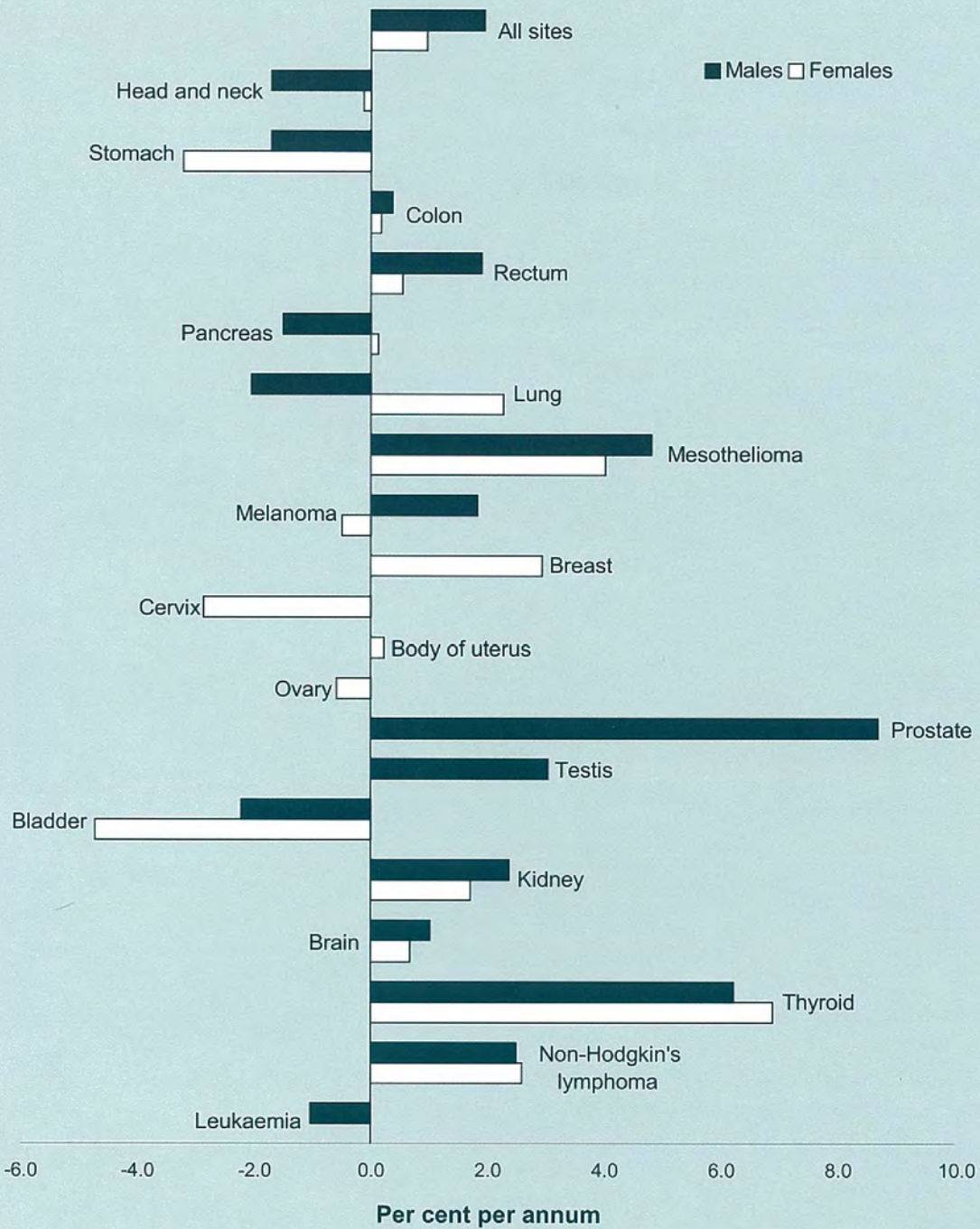
REFERENCES

1. Coates MS, Armstrong BK. *Cancer in New South Wales: Incidence and Mortality 1996*. Sydney: NSW Cancer Council, 1999.
2. Supramaniam R, Smith D, et al. *Survival from Cancer in NSW in 1980 to 1995*. Sydney: NSW Cancer Council, 1999.
3. Lewis N, Nguyen H, et al. *Cancer Maps for NSW: Variation by Local Government Area, 1991 to 1995*. Sydney: NSW Cancer Council, 1999. ☒

Further information can be found under 'Statistics' on the Cancer Council's Web site at www.nswccc.org.au. A printed copy of *Cancer in New South Wales: Incidence and Mortality 1996* can be ordered from the NSW Cancer Council, Locked Mail Bag 1, King's Cross NSW 1340, or by telephone: (02) 9334 1902.

FIGURE 2

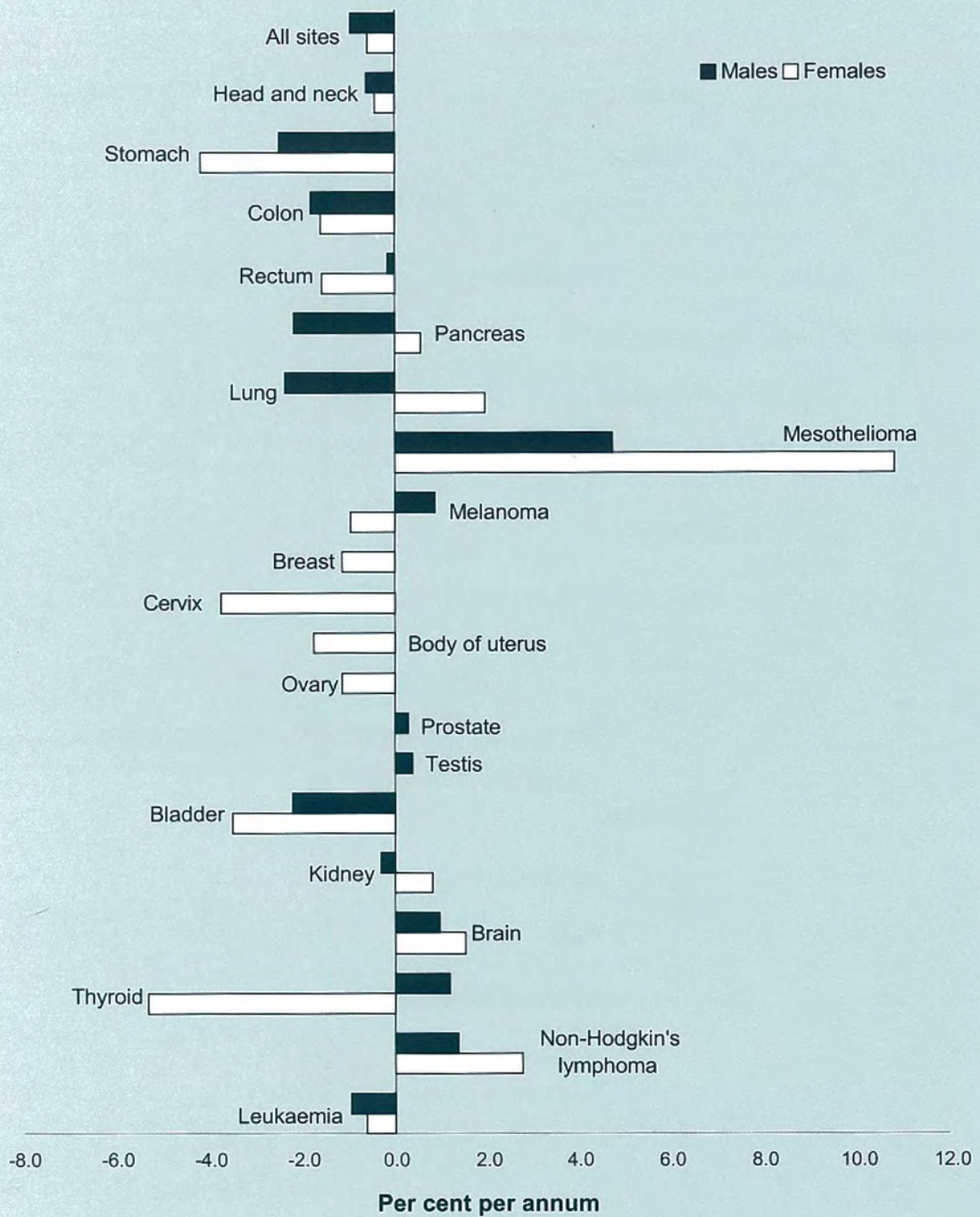
ANNUAL CHANGES IN CANCER INCIDENCE RATES, NSW, 1986-1996



Source: *Cancer in New South Wales: Incidence and Mortality 1996*.¹

FIGURE 3

ANNUAL CHANGES IN CANCER MORTALITY RATES, NSW, 1986-1996



Source: *Cancer in New South Wales: Incidence and Mortality 1996*.¹

THE HEALTH AND WELFARE OF AUSTRALIA'S ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLES 1999

Joan Cunningham

*Epidemiologist, National Centre for Aboriginal and Torres Strait Islander Statistics
Australian Bureau of Statistics, Darwin*

The publication *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples 1999* is the second edition in this two-yearly series of reports that provide a comprehensive statistical overview of the health and welfare of indigenous people. While the focus of the publication is mainly national, state comparisons have been included where possible. In addition, information has been incorporated about community-initiated programs that seem to be having a positive effect on health at the local level.

The report covers a range of topics including:

- aspects of the demographic, social and economic context of health and wellbeing
- the use of welfare and community services
- risk factors for health
- health service issues
- the morbidity and mortality of indigenous Australians.

A special chapter on kidney disease is also included in this edition. It explores such issues as the incidence and prevalence of kidney failure, hospitalisation and mortality due to kidney disease, and quality of life for patients with kidney disease.

The availability of data and the ability to monitor trends over time continue to be limited by:

- the quality of the identification of indigenous people in administrative data collections (for example, in hospital separations and death records)
- uncertainties in estimating the indigenous population
- the quality of some types of survey data.

A number of recent initiatives have ensured that progress is being made in these areas, and these initiatives are described in the report. ❏

Copies of *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples 1999* are available from all Australian Bureau of Statistics bookshops. Publication summaries are also available through the bookshops. A copy of the executive summary is available on the Australian Bureau of Statistics Web site at www.abs.gov.au. For further information about the contents of the publication, contact Dr Joan Cunningham by telephone: (08) 8943 2165, or by email at joan.cunningham@abs.gov.au. For more information about statistics on Australia's Aboriginal and Torres Strait Islander population, contact the National Centre for Aboriginal and Torres Strait Islander Statistics on (08) 8943 2190 or freecall 1800 633 216 (outside Darwin).

PUBLIC HEALTH IN NSW FROM THIS DECADE TO 2010

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funds to address these, for example, in aboriginal health, and drug and alcohol. However, we recognise that the Public Health Officer Training Program alone will not address all our public health training needs.

We have identified a need for more flexible training arrangements to upskill public health workers in rural and remote areas. We will need to further review our capacity to meet such challenges of the next decade as environmental change, mental health promotion, and changes in food regulation, and to tailor our training to meet those needs.

Combined with the education and training initiatives funded through the Commonwealth Public Health Education and Research Program, there has been an unprecedented growth in the public health workforce. Over the decade, public health education and training opportunities have gone from a two-course meal to a smorgasbord. There is a broad range of public health training opportunities on offer throughout the State

and this continues to expand. The down side of this may be that resources for education and training are spread thinly. In the new year, we propose to meet with providers of public health education to start examining the match between training needs and capacity in NSW. Equally important for the development of public health, we will look at ways to strengthen the links between research and practice. In doing so, we will be seeking to improve the evidence base of public health practice, including our understanding of the range and relative importance of hazards, the range and relative effectiveness of interventions, and the relative merits of those interventions in terms of reducing health inequities.

So, entering the next decade, I remain enthusiastic about working in public health and about what we can achieve. There is still plenty of scope for innovation, improvement and, through action, health gain. Roll on the next challenge! ❏

TRENDS

Infectious disease notifications through the end of October are shown in Figure 4 and Table 5. Two cases of **haemolytic uraemic syndrome** in children were reported in October, one each from the Hunter and South Western Sydney areas. Investigations into risk factors for these cases are continuing.

While notifications were still down for **arboviral infections** in October, it is likely that notifications of the mosquito-borne Ross River and Barmah Forest virus infections will increase as Christmas approaches. Therefore, it is timely to remind people living in rural or bushland areas, and people who are travelling to these

areas, to take special precautions to avoid mosquito bites, especially between now and the end of autumn. Now is the time to:

- check that your house is fully protected with functioning fly screens on all external doors and windows;
- get rid of containers of stagnant water around the house and garden where mosquitoes might breed;
- kill mosquitoes in your house with insect sprays, especially before going to bed;
- avoid exposing bare skin outdoors, especially around and after dusk and before dawn, or whenever mosquitoes are about; cover up with long sleeves and pants, and wear plenty of insect repellent.

Consecutive wet years are thought to increase the risk of more serious arboviral infections such as **Murray Valley encephalitis**, perhaps because the virus travels with birds from its usual domain in central Australia. The last outbreak of Murray Valley encephalitis in NSW occurred in 1974. Heeding the preceding advice about avoiding mosquito bites may be particularly important this summer should environmental conditions be favourable for Murray Valley encephalitis.

NSW PUBLIC HEALTH BULLETIN

The *NSW Public Health Bulletin* is a publication of the NSW Department of Health. The editor is Dr Lynne Madden, Manager, Public Health Training and Development Unit, NSW Department of Health. Dr Michael Giffin is production manager.

The *Bulletin* aims to provide its readers with population health data and information to motivate effective public health action.

Submission of articles

Articles, news and comments should be 1000 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 in the Vancouver style, described in the *New England Journal of Medicine*, 1997; 336: 309–315. Send submitted articles on paper and in electronic form, either on disc (Word for Windows is preferred), or by email. The article must be accompanied by a letter signed by all authors. Full instructions for authors are available on request from the editor.

Editorial correspondence

Please address all correspondence and potential contributions to The Editor, *NSW Public Health Bulletin*, Locked Mail Bag 961, North Sydney NSW 2059 or to Lmadd@doh.health.nsw.gov.au. Tel (02) 9391 9956, Fax (02) 9391 9232.

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Back issues can be obtained from the Public Health Training and Development Unit, Locked Mail Bag 961, North Sydney NSW 2059.

NSW INFECTION CONTROL POLICY

The NSW Department of Health recently released the **Infection Control Policy Circular 99/87**. This circular replaces the previous *Infection Control Policy Circular 95/13*. Circular 99/87 was prepared by the AIDS–Infectious Diseases Unit (AIDU) in consultation with key stakeholders in infection control including members of the Department's Infection Control Advisory Group and the Infection Control Practice Group. The policy is evidence-based and its requirements are consistent with international best practice. Changes in the new policy include:

- adopting Standard Precautions (replacing Universal Precautions);
- no longer requiring the routine use of bleach or sodium hypochlorite solutions in managing blood spills.

Since the release of the policy circular, the AIDU has received positive feedback from stakeholders who have embraced the document and its directives. Electronic copies of the policy can be downloaded from the Department's intranet site, and printed copies are available from the Better Health Centre at (02) 9816 0452. ☎

FIGURE 4

REPORTS OF SELECTED INFECTIOUS DISEASES, NSW, JANUARY 1994 TO OCTOBER 1999, BY MONTH OF ONSET

These are preliminary data: case counts in recent months may increase because of reporting delays

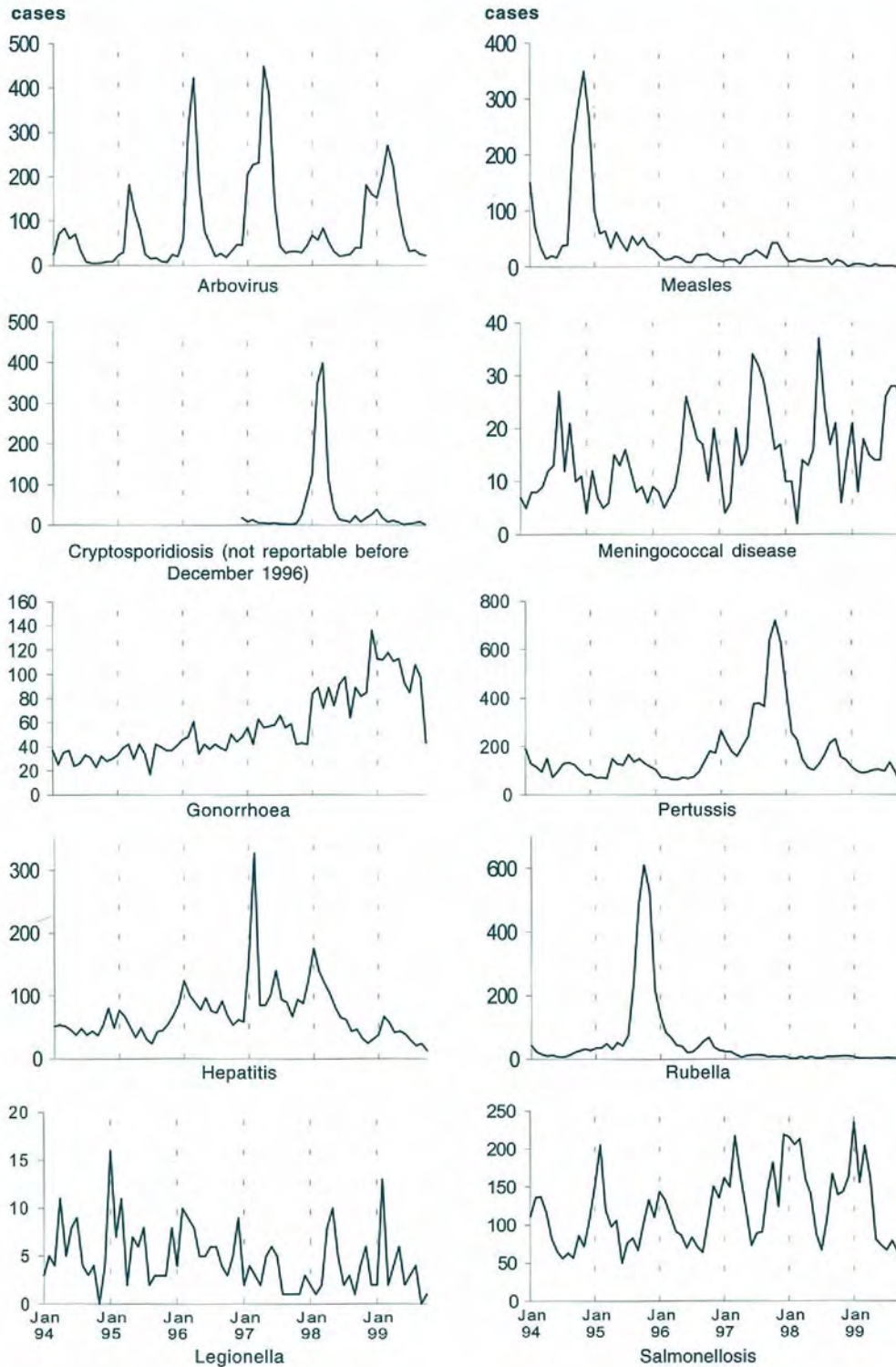


TABLE 5

REPORTS OF NOTIFIABLE CONDITIONS RECEIVED IN OCTOBER 1999 BY AREA HEALTH SERVICES

Condition	Area Health Service (1999)																	Total	
	CSA	NSA	WSA	WEN	SWS	CCA	HUN	ILL	SES	NRA	MNC	NEA	MAC	MWA	FWA	GMA	SA	for Oct†	To date†
Blood-borne and sexually transmitted																			
AIDS	1	-	-	2	-	1	-	-	1	1	-	-	-	-	-	-	-	6	115
HIV infection*	-	-	-	Reported every two months			-	-	-	-	-	-	-	-	-	-	-	-	279
Hepatitis B: acute viral*	-	1	-	-	-	-	1	1	-	3	-	-	-	-	1	-	-	7	53
Hepatitis B: other*	58	42	32	5	1	4	7	4	42	3	1	1	-	-	7	-	1	209	2,879
Hepatitis C: acute viral*	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	2	46
Hepatitis C: other*	105	41	72	48	-	27	61	19	59	30	32	13	6	24	3	21	20	595	6,822
Hepatitis D: unspecified*	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	2	14
Hepatitis, acute viral (not otherwise specified)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chancroid*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Chlamydia (genital)*	11	-	2	1	5	3	21	8	32	10	9	16	1	3	17	9	3	154	1,923
Gonorrhoea*	13	9	2	2	3	1	-	3	36	5	1	-	-	-	1	1	1	80	1,074
Syphilis	10	-	3	1	1	-	-	-	4	1	4	5	-	2	2	-	1	34	536
Vector-borne																			
Arboviral infection (BFV)*	-	-	-	-	-	-	1	1	-	3	5	2	-	-	-	2	1	15	234
Arboviral infection (RRV)*	-	-	-	-	2	1	1	5	-	2	2	1	1	-	2	-	-	17	1,039
Arboviral infection (Other)*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15
Malaria*	-	-	1	-	-	1	-	-	3	-	-	-	-	-	-	1	-	6	159
Zoonoses																			
Brucellosis*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Leptospirosis*	-	-	-	-	-	-	2	-	-	2	1	1	-	-	-	1	-	7	44
Q fever*	-	-	-	-	-	-	-	-	-	4	3	4	2	1	1	1	-	16	130
Respiratory and other																			
Blood lead level*	2	3	-	1	8	-	32	3	2	1	3	-	-	-	-	1	1	58	577
Legionnaires' Longbeachae*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11
Legionnaires' Pneumophila*	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	21
Legionnaires' (Other)*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Leprosy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Meningococcal infection (invasive)	-	2	3	3	5	3	1	2	1	1	1	2	-	2	-	-	-	26	195
Mycobacterial tuberculosis	5	3	10	-	-	-	-	3	15	2	1	-	-	-	-	-	-	40	353
Mycobacteria other than TB	8	9	-	-	-	1	3	1	2	1	4	-	-	-	-	-	-	20	336
Vaccine-preventable																			
Adverse event after immunisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20
<i>H. influenzae</i> b infection (invasive)*	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	2	12
Measles	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	28
Mumps*	-	-	-	-	1	-	-	-	1	-	1	-	-	-	-	-	-	3	26
Pertussis	3	13	4	1	11	1	14	5	9	-	8	1	6	10	-	8	3	97	1,089
Rubella*	-	-	-	-	-	-	-	2	-	1	-	-	-	-	-	-	-	3	34
Tetanus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Faecal-oral																			
Botulism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cholera*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Cryptosporidiosis*	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	-	3	115
Giardiasis*	3	4	-	3	-	2	6	3	7	3	-	4	-	1	-	4	-	40	919
Food-borne illness (not otherwise specified)	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	26
Gastroenteritis (in an institution)	50	-	-	-	5	-	26	-	-	-	-	-	-	-	-	-	-	81	406
Haemolytic uraemic syndrome	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	2	11
Hepatitis A*	2	2	7	-	1	1	1	1	2	-	1	-	-	1	-	-	-	19	387
Hepatitis E*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Listeriosis*	1	-	-	1	-	1	-	1	-	-	-	-	-	-	-	-	-	5	21
Salmonellosis (not otherwise specified)*	9	15	3	4	2	1	8	-	8	6	1	3	3	2	1	3	-	70	1,260
Typhoid and paratyphoid*	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	2	26
Verotoxin producing <i>E. coli</i> *	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* lab-confirmed cases only † includes cases with unknown postcode

CSA = Central Sydney Area
NSA = Northern Sydney AreaWSA = Western Sydney Area
WEN = Wentworth Area
SWS = South Western Sydney AreaCCA = Central Coast Area
HUN = Hunter Area
ILL = Illawarra AreaSES = South Eastern Sydney Area
NRA = Northern Rivers Area
MNC = North Coast AreaNEA = New England Area
MAC = Macquarie Area
MWA = Mid Western AreaFWA = Far West Area
GMA = Greater Murray Area

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