

A POPULATION HEALTH APPROACH TO MEN'S HEALTH

GUEST EDITORIAL

John Macdonald

*Professor of Primary Health Care
University of Western Sydney, Richmond*

The concept of 'population health', though nowhere strictly defined, generally includes a concern for an integrated approach to the health of various sub-groups of given populations. We can find population health approaches to older people, women, children, and indigenous communities. But men? This issue of the *NSW Public Health Bulletin* looks at men's health from the perspective of population health and highlights the steps that are being taken to improve the health of men in New South Wales.

The characteristics of a population health approach are:

- a social view of health, which acknowledges biological influences but also encompasses consideration of the social determinants of health;^{1,2,3}
- a conceptualisation of health and health services that represents a balance between prevention and treatment, with an emphasis on appropriate care according to need, but with an equal emphasis on the generally neglected areas of prevention and promotion of wellbeing.⁴ Essential to this approach is the effort to combine in a systematic way the management of disease with actions that foster wellbeing (that is, health actions that are *salutogenic*);^{5,6}
- the incorporation of the elements of the World Health Organization's *Health for All* declaration,⁷ notably a concern for equity; an acknowledgment of the role that other sectors play in creating sustainable environments for health; and the participation of the population;
- a concern for evidence-based policies and programs.

A Canadian Health Authority recently suggested, of a population health strategy, that:

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'Much is to be gained by applying the population health approach. Once we accept that our health is determined by a wide variety of factors—factors that often fall outside of our traditional way of thinking of health—then, and only then, can we step outside the box and begin to understand the true health and wellbeing of our communities.'⁸

What would it mean to step outside the box and adopt a population health approach to men's health?

To begin with developing 'evidence-based' policies. Many non-evidence-based assumptions continue to prevail in men's health. The discourse that has so far influenced policy development has tended to be in the mode of male deficiency: 'men don't take care of themselves', 'men don't go to the doctor', 'men are not in touch with their feelings', 'men don't communicate about their health'. To this already gloomy picture are added further stories about male deficiency: men and violence, and men as perpetrators.

What would an approach to men's health that fostered wellbeing involve? I have already suggested that there is a definite cultural and professional focus, at least in the Caucasian community, on the pathological; not only on the clinical pathologies of the diseases that afflict men such as prostate cancer, testicular cancer, and cardiovascular disease but also on the behavioural pathologies as well. In this issue, Gizzi and Monaem examine the epidemiology of men's diseases. The statistics most often referred to are men's lower life expectancy and higher rates of suicide than women. This latter statistic is one that has galvanised considerable reflection and action, though the 'why?' of the high incidence of male suicide in Australia, among the highest in the world, is a question that vexes us all. As for 'men behaving badly', or the social pathologies, certainly there are issues that need to be dealt with but they should not become the central focus of men's health.

Men's health is a public health issue of considerable topicality that is attracting increasing attention in Australia and overseas. The First World Congress on Men's Health was held in November 2001 in Vienna, and saw the International Society for Men's Health established. Further, the *International Journal of Men's Health* has recently been launched in the United States.

It is sometimes said that Australia follows where other countries lead, notably the United States and the United Kingdom. In men's health, however, NSW is—in global terms—giving a lead both in direction and intent towards a population health approach. This issue of the Bulletin commences with reviews of two major policy initiatives by the NSW Department of Health. In the first article, Kakakios describes the Department's policy *Moving Forward in Men's Health*,⁹ published in 1999, which leads the way in Australia. In the second article, Williams and Kakakios describe the Department's *Aboriginal Men's Health Implementation Plan*, which was developed

through extensive consultations with indigenous men, their communities, and other stakeholders.

Then follows the article by Gizzi and Monaem, which uses some of the readily-available sources of data such as the *Report of the Chief Health Officer 2000* to present some prominent epidemiological features of men's health in NSW. A priority in all men's health must, of course, be boy's health. There is concern about the suicide rate among young men, and about the pathologising of boys' behaviour at school. Australia is second only to the United States in the quantity of medical prescriptions to boys to 'regulate' their behaviour. Fletcher describes the current health status of boys in his article *The Wellbeing of Boys*. Following this description, Fletcher, Higginbotham and Dobson describe a study of men's identification of their health needs conducted in Newcastle. The results of this study suggests similarities for both men and women with regard to health concerns about stress, tiredness, and weight problems.

In their article, Nielsen, Katrakis, and Raphael of the NSW Department of Health's Centre for Mental Health describe mental health problems affecting men, and note the need for equitable access to health services that meet gender specific needs. They mention that the Centre for Mental Health is to hold a forum concerning men and mental health in 2002.

Since mid-1999, the NSW Department of Health has funded the Men's Health Information and Resource Centre (MHIRC). The aim of the Centre is to promote programs and research that foster the health and wellbeing of men and boys, and it is situated at the University of Western Sydney's Richmond Campus. Crawford, Brown, and McDermott outline the work of the MHIRC in their article. Following this, Woods looks at men's use of primary care services, and at just how male-friendly those services are. Sliwka describes the Men's Health Representatives Network in her article, which includes a contact list for men's health representatives in the area health services.

In future issues of the *NSW Public Health Bulletin*, there will be an opportunity to present further research, describe policy initiatives, and discuss issues in men's health in greater detail. We welcome contributions to those issues. For further information, and to obtain the Bulletin's guidelines for authors, contact Michael Giffin at mgiff@doh.health.nsw.gov.au.

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MEN'S HEALTH—THE WAY FORWARD

Michael Kakakios

*Primary Health and Community Care Branch
NSW Department of Health*

Gender-based inequities in the health of women have been acknowledged by policy makers and health service planners since the mid-1980s.¹ However, it has only been in recent years that inequalities in health outcomes for men have received attention, and gender-based issues in men's health have been examined for potential solutions.²

Until recently, there has been little inquiry into understanding what 'good practice' in men's health really means. Perhaps more concerning is the presumption that, as health services do not appear to fully recognise and respond to women's health needs, they must—by implication—be meeting the health needs of men. However, little research has been done to find out what men respond to in the way of the location of health services, attitude of service providers, methods of practice, ways of presenting information, and the physical environment of the health services to be provided.²

Despite these particular difficulties, the issue of men's health and wellbeing is gaining attention in the community. Perhaps most significantly, men themselves are becoming increasingly aware of their health needs, are showing a greater willingness to talk about those needs and are acting in positive ways to improve their health.

Most of the current activities that support men's health are based at the local level—among health professionals such as community nurses and health promotion officers—and are focused on issues involving primary health care. However, it should be noted that in almost all cases these local initiatives must struggle for access to much-needed resources.

In response to the need for statewide leadership in men's health, the NSW Department of Health developed and launched the policy framework *Moving Forward in Men's Health*.³ This article describes that policy, which summarises current information about men's health, and presents an analysis of the known determinants that influence the health of men across their life-cycle.

BACKGROUND

In Australia, the first step towards developing a men's health policy was taken by the Commonwealth

Department of Human Services and Health in 1996 when it launched its *Draft National Men's Health Policy*.⁴ Unfortunately, no final policy on men's health was completed. However, funding was provided by this Department for a number of initiatives including a biennial national men's health conference; the development of a men's health research agenda; and a national centre of excellence in male reproductive health.⁵

Work towards the development of a men's health policy in NSW commenced in 1997. Research conducted by the NSW Department of Health at the time revealed that no country in the world had produced a men's health policy. Since then, in addition to NSW, discussion papers have been developed by:

- the Health Department of Western Australia, *Men's Health Policy and Discussion Paper* (1997);⁶
- the Department of Human Services of South Australia, *The Health and Well Being of Men in South Australia: A Discussion Paper* (2000).⁷

Developments in men's health within Australia are mirrored in the United Kingdom; and more so in the United States, where work is under way—with the support of US Congress—to establish a national Office of Men's Health to work in partnership with the Office of Women's Health.

GENDER DIFFERENCES IN HEALTH

Our gender influences our understanding and experience of health, how we use health services, and our ultimate health outcomes.¹ Gender also influences the decisions made by those responsible for providing services. Studies conducted in Australia and other western countries have identified that men:

- use health services at a lower rate (especially early intervention and prevention services);⁸⁻¹⁰
- experience higher rates of cardiovascular disease and cancer;⁸⁻¹⁰
- experience higher rates of accidents and injuries, including suicide.⁸⁻¹³

A variety of risk behaviours—such as smoking and drinking, driving dangerously, and undertaking dangerous jobs—are significant contributors to poorer health status; but these should not be seen in isolation from the socioeconomic context in which men live and work.¹⁴

Factors such as occupation and level of income, unemployment, and personal relationships interact with ethnicity, sexual and cultural identity, and age to influence and determine health status and health behaviours.¹⁴⁻¹⁸

THE WAY FORWARD

Moving Forward in Men's Health has been developed by the NSW Department of Health to provide a policy framework for men's health in NSW. Specifically, *Moving Forward in Men's Health*:

affirms:

- the importance of men's health as an issue;
- a commitment to improving men's health;
- the need to target those men in the community who are most in need;

identifies and promotes:

- ways in which health agencies and other agencies can develop partnerships to improve the health of men;
- examples of men's health projects and programs;

provides direction and support:

- to area health services and to projects in the local community;
- to health professionals who see a need to 'do something' in men's health but do not know how or where to begin;
- for further research into reasons why men and women have differing health outcomes, and what interventions may be required to prevent disease and injury and to promote good health in men;

recommends how:

- the health of men can be improved;
- health services may be better structured and coordinated to meet the needs of different groups men.

Moving Forward in Men's Health also presents a number of strategies that are aimed at promoting and protecting men's health in NSW. These are grouped into the following key focus areas:

Making health services more accessible and appropriate for men

As members of the NSW community, all men are able to access a range of public and private health services including general practitioners, community-based health services, and hospitals. However, there is strong evidence that women utilise existing health services more often and more effectively than men.⁸ According to unpublished Medicare data provided to the NSW Department of Health by the Commonwealth Department of Health and Family Services in 1998, access to medical practitioners is almost identical between boys and girls up to age 14.¹⁹ From the ages of 14 to 44 women access medical practitioners at a much higher rate, largely explained as being due to issues

concerning contraception and childbirth.¹⁹ However, beyond age 44 the differences persist.¹⁹

Men tend to delay seeking health assistance longer than women. This may partially explain high death rates for men, particularly in the 35-44 age group; men may have ignored (or not recognised) symptoms and delayed seeking help for years, and by the time they do seek help, their condition may have progressed.

Developing supportive and healthy environments

Many of the environments where men live and work do not support healthy lifestyles or healthy behaviours. Developing supportive and healthy environments is about creating a positive environment in which men's health issues can be raised both by health workers and by men themselves. A supportive environment also promotes stronger networks for social support for men and establishes better pathways for seeking help.

Improving coordination and collaboration of services

To make any improvement in men's health status, health professionals and services need to work together and look outside the health system to foster collaborative partnerships with both government and non-government agencies. The potential for collaborative partnerships, which can have a positive effect on the health of men and the wider community, are numerous: workplace safety programs, driver and road safety campaigns, innovative approaches to sporting and recreational activities to reduce injuries, partnerships with a range of media to raise awareness on specific issues for men.

Research and information

The statistics describing the patterns of men's mortality are well documented. Contributing factors include risk-taking behaviour, smoking, lack of physical activity, diet and mental illness. Recent evidence suggests that a man who experiences feeling a lack of control over his life also experiences negative effects on his health.^{20,21} The major challenge for research is to look at why these risk factors are so common among men, and what health promotion and other interventions are effective in addressing them. Research on social and behavioural issues, as well as clinical issues, is needed.²²⁻²⁴

Workforce development and training

A fundamental aspect of providing quality health care is ensuring that the health workforce is informed and appropriately trained. An important and cost-effective step to improve men's health, which uses existing health resources, is training existing health care professionals, as well as students of tertiary medical and health science courses, to work better with men and consider the specific health needs of men. This training should be available to all health care professionals, including clinicians, community health workers, health promotion workers, and primary health care workers.

Of equal importance is encouraging a greater participation of males in the health promotion and community health workforces.

Moving Forward in Men's Health recognises the importance of capacity building to respond to issues of men's health and wellbeing issues. Examples of this in the policy include:

- supporting the development of a *NSW Men's Health Information and Resource Centre*;
- establishing an annual 'men's health week';
- establishing a small but important *Men's Health Innovation Fund*;
- identifying a men's health contact in each area health service.

Ultimately, the policy seeks to ensure that it is compatible with other health policy developments in areas such as alcohol, tobacco and illicit drugs, youth health, women's health, gender policy and *Healthy People 2005*.

CONCLUSION

Moving Forward in Men's Health recognises that most of the improvements to be made in men's health rely on all sectors of the community, and all health and other agencies, working together in partnership. If that partnership is to be successful, men must be involved throughout the entire process of development and delivery of men's health services.

Copies of *Moving Forward in Men's Health* can be downloaded from the NSW Department of Health's Web site at www.health.nsw.gov.au.

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THE ABORIGINAL MEN'S HEALTH IMPLEMENTATION PLAN

Vladimir Williams and Michael Kakakios
Primary Health and Community Care Branch
NSW Department of Health

Despite an overall improvement in the health of the NSW population, Aboriginal men continue to suffer mortality and morbidity at much higher rates than non-Aboriginal men. Aboriginal men have a reduced quality of life, and unacceptably high rates of illness and premature death. The success of efforts to improve their health has been limited because these efforts have often failed to recognise that Aboriginal men experience health and illness differently from non-Aboriginal men, and that they also approach and use health services in a different manner. These differences are culturally-determined, and have a significant influence on the health outcomes of Aboriginal men. This article examines some of the risk factors and risk behaviours that influence the health of Aboriginal men; describes a community consultation with Aboriginal men in NSW; discusses what is known to 'work' in Aboriginal men's health; and outlines the *Aboriginal Men's Health Implementation Plan*, an intersectoral partnership approach that engages Aboriginal men in the process of planning, designing, and delivering health programs and services.

ABORIGINAL MEN'S HEALTH: RISK FACTORS AND RISK BEHAVIOURS

Alcohol and substance abuse

Alcohol abuse is a major problem facing Aboriginal men, both for their individual health and for the safety of their communities. Aboriginal men start drinking at a younger age, and consume alcohol at more hazardous levels more frequently, than Aboriginal women. Among Aboriginal people, abuse of illicit substances is more prevalent among men. Marijuana, amphetamines, and hallucinogens are the drugs predominantly tried and used by Aboriginal men. Intravenous drug use in the Aboriginal population is predominantly undertaken by men.

Exposure to violence

Aboriginal people are more likely to be the victims of violence and crime than the non-Aboriginal population. Aboriginal people in capital cities are more likely to report having been physically attacked or verbally threatened than Aboriginal people in other urban or rural areas. Aboriginal men are more likely to report being attacked or verbally threatened than Aboriginal females.

Incarceration

Aboriginal men are imprisoned at a higher rate than non-Aboriginal men; the average age of Aboriginal inmates is younger than the total prison population; and the reason for imprisonment is often drug-related. When they enter the criminal justice system, the health of Aboriginal men is poorer than that of non-Aboriginal men.

Mental health

Among Aboriginal men, mental illness is a contributing factor to issues such as high incarceration rates, violence, and deaths in custody; and is often associated with lower socioeconomic status. Many mental health problems are also related to substance abuse, destructive behaviours, as well as the loss of a sense of self worth.

Problem gambling

Aboriginal people spend significantly more money on gaming machines, and on all forms of gambling, when compared with non-Aboriginal people. Gambling has a significant affect on Aboriginal communities, given the higher rates of unemployment experienced by Aboriginal people and their lower levels of income. Gambling is a significant problem for Aboriginal men, for their families, and for their communities.

Male parenting

Physical and cultural dispossession, removal of children, assimilation policies, and trans-generational trauma, have all had a profound affect on the erosion of traditional child-rearing practices. High rates of incarceration, early

TABLE 1

PERFORMANCE INDICATORS FOR THE ABORIGINAL MEN'S HEALTH IMPLEMENTATION PLAN OVER A THREE YEAR PERIOD

- increase the number of Aboriginal men employed within the health system and Aboriginal medical services;
- increase in the number of Aboriginal men using primary health services;
- development of an infrastructure aimed at improving access and acceptability of health services for Aboriginal men, including: implementation of Aboriginal men's days and half days in all area health services, location of programs and services in areas with a substantial population of Aboriginal men, Aboriginal men's resource and reference groups in all area health services;
- increase the number of Aboriginal men's support groups;
- increase the provision of outreach services for Aboriginal men;
- development of a memorandum of understanding between area health services and local Aboriginal medical services concerning the sharing of resources and collaboration in promoting health services to Aboriginal men;
- increase the use, by Aboriginal men, of the Isolated Patients' Travel and Accommodation Assistance Scheme (IPTAAS).

death or disability, and confusion over the loss of the traditional role of Aboriginal men, have made it difficult for a significant proportion of Aboriginal children to receive adequate male parenting. It is anticipated that the development of specialised support programs for Aboriginal fathers will establish better health outcomes for the next generation of Aboriginal children. The role of Aboriginal elders, fathers, uncles and grandfathers—and family ties—need to be strengthened. This means promoting Aboriginal men as positive role models within their communities.

Sexual health

Aboriginal men experience higher rates of sexually transmitted infections, such as gonorrhoea and syphilis, than non-Aboriginal men. Notifications for syphilis and gonorrhoea are especially high in rural areas. The rates of HIV infection among Aboriginal men is similar to that of non-Aboriginal men; however, the trends experienced by the two groups are quite different. The HIV rate for non-Aboriginal men appears to be decreasing, while the rate for Aboriginal men is increasing. In Aboriginal communities, heterosexual contact is the primary mode of transmission of sexually transmissible infections, with some transmission occurring through injecting drug use. For Aboriginal men who identify as gay, bisexual, or transsexual, discrimination and vilification within Aboriginal communities contributes to an increased risk of alcohol abuse, substance abuse, and suicide.

Diet, nutrition and body weight

Good nutrition is essential to good health; however, being overweight increases the risk of cardiovascular disease and stroke and is a major risk factor for diabetes and some forms of cancer. Many Aboriginal men have unacceptably high levels of fat intake. When compared to the non-Aboriginal population, Aboriginal men have higher rates of obesity and moderate-to-high levels of fat intake. Aboriginal men are more likely to have one or more preventable risk factors that are directly attributed to poorer health status when compared to non-Aboriginal men.

COMMUNITY CONSULTATION WITH ABORIGINAL MEN IN NSW

Over many generations, social policies and community practices have shaped the lifestyle, and consequently the health, of Aboriginal men. Their role within their families, and within their communities, has changed dramatically with the adoption of a non-traditional lifestyle. There are few opportunities for personal achievement and recognition—high unemployment, discrimination, family disruption and breakdown, and social disadvantage, have all contributed to their poor physical and mental health status. The socioeconomic causes and effects of these changes have been well documented.

In developing the *Aboriginal Men's Health Implementation Plan* an extensive community consultation process was undertaken with Aboriginal men across NSW. The community consultation culminated in a two-day Aboriginal Men's Health Forum, which was held in July 2000 at the Gazebo Hotel, Elizabeth Bay, Sydney. The community consultation confirmed that:

- Aboriginal men are less likely to use primary health care services, resulting in increased presentations for secondary and tertiary health care;
- they are more likely to feel disempowered within their communities because of limited education and employment opportunities, because of reduced authority and status, and because of the loss of traditional ceremonial activity;
- they may not want to use health care services because they are seen as places of death. As a result Aboriginal men may wait until the onset of a secondary illness before seeking health care;
- considerations of gender (that is, both men's business and women's business) needs to be a part of Aboriginal program and service development, implementation, and evaluation;
- research and the planning of programs and services need to be conducted in collaboration with Aboriginal men to ensure that their health needs are better

TABLE 2

KEY WAYS OF BUILDING CAPACITY IN ABORIGINAL MEN'S HEALTH

- ensure that the issue is important for the whole community and is not just your issue;
- ensure that the whole community participates in the prioritising of their issues;
- ensure that the whole community is involved in every stage of the project, including: planning, development, implementation, evaluation, monitoring, and maintenance;
- ensure that all the key stakeholders are involved;
- keep everyone informed about the project and the process;
- remember to meet the whole community's needs and not just your own;
- consider how you will evaluate and maintain the project;
- evaluate whether you would or could do anything different next time;
- determine whether you can change policy with what you are doing.

TABLE 3**WHAT WE KNOW WORKS IN ABORIGINAL MEN'S HEALTH****Addressing men's health through separate gender strategies to women's health**

Developing separate strategies for men's health and women's health can be highly effective in the short term. If a men's health clinic is not at a main health centre but is housed a few blocks away, Aboriginal men are more at ease, are more likely to consult a male doctor for a specific problem, and are more likely to return for follow up. The concept of separate gender strategies also applies to health promotion.

Employing more men within the NSW health sector

There are fewer Aboriginal male health workers compared to Aboriginal female health workers. Aboriginal male health workers may draw Aboriginal men to primary health care facilities, because men feel more comfortable accessing services where they know they can talk to another man about men's business. Increasing the number of Aboriginal male health workers within primary health care settings is therefore desirable.

Making health services relevant for Aboriginal men, their lives and interests

The achievement of Aboriginal men in sport has been a source of great pride and many Aboriginal men are able to demonstrate community leadership through this success. Sports and fitness programs are an important part of Aboriginal community development in general. This is especially true for the health of young people, as sports and fitness programs are likely to contribute to their physical and emotional wellbeing. Physical fitness programs can form a focus for active life skills, as opposed to negative coping mechanisms such as alcohol and substance abuse and other destructive behaviours.

Providing incentives for Aboriginal men to be involved

Successful programs often provide some kind of incentive to Aboriginal men to encourage them to become involved. This might be access to the local golf course, or to the local gym; or it could be providing a meal to encourage a more informal atmosphere and sense of fellowship.

Developing services within the terms set down by local men

A program or service will have greater success if it aims to be relevant to the needs of local Aboriginal men. For example: in one area, Aboriginal men were embarrassed about seeing a female health worker in a sexual health clinic; so they worked together to establish a separate clinic in a location where they felt more comfortable. As a result attendance increased by 600 per cent.

Recognising men's role in Aboriginal society and how that role influences their health

The role of men in Aboriginal society has changed tremendously in only a few generations. Aboriginal men have experienced a loss of their traditional role in both society and family. This results in despair, shame, and a sense of inadequacy. Some men feel that they cannot contribute to their communities any more. This can be influenced by programs and services that highlight a positive role for Aboriginal men in their communities and families.

Addressing the high costs of medication

Compared to non-Aboriginal men, Aboriginal men suffer a higher burden of ill health, and have a significantly lower income, so the cost of medication is an important issue. Aboriginal men need to be informed about any benefits they are eligible for, which can reduce the cost of medication.

Increasing the numbers of medical practitioners with an understanding of, and time to deal with, Aboriginal men's needs

Local medical practitioners should be encouraged to work closely with local Aboriginal health workers, and to develop partnerships with them. In local areas it is essential to increasing the number of health practitioners who understand the needs of local men, and whom local men feel comfortable consulting.

Working in partnership

Partnerships are about working collaboratively in an environment based on respect, trust, and equality. Aboriginal health workers across NSW need to be encouraged to provide the kinds of programs and services that most benefit Aboriginal men in their communities, through partnership between health service delivery and projects of community interest.

Developing an evidence base to improve services

Research is needed to develop an evidence base on which to improve service delivery for Aboriginal men. Issues in need of further research include: how to integrate men's health programs into existing Aboriginal primary health care services; how to increase the participation of Aboriginal and Torres Strait Islander men in the research process; how to better target research that aims to improve Aboriginal men's health; how to improve access to health services for Aboriginal males in urban, rural and remote areas; and what strategies and programs provide the best health outcomes for Aboriginal men. There also needs to be greater encouragement to publish existing research.

understood and are relevant to local needs and circumstances;

- there is a growing awareness among Aboriginal men of the difficulties they face; a greater willingness to identify and discuss issues; and a strong desire to take appropriate action to address those issues.

These issues were pursued at the 2nd National Indigenous Male Health Convention, which was held in September 2001 at the Hawkesbury Campus of the University of Western Sydney.

THE ABORIGINAL MEN'S HEALTH IMPLEMENTATION PLAN

Developing strategies to address Aboriginal men's health requires consideration of all of the complex and related issues that contribute to the social, physical and emotional health of Aboriginal men. The *Aboriginal Men's Health Implementation Plan* has been developed by the NSW Department of Health in collaboration with the NSW Aboriginal Health and Medical Research Council, the NSW Department of Aboriginal Affairs, the Corrections Health Service, and Aboriginal communities throughout NSW. The Plan is based on the principles of the NSW Department of Health men's policy document *Moving Forward in Men's Health*, and is the first of its kind in Australia.

The guiding principles of the Plan are:

- prevention and early intervention;
- focusing on supporting families and enhancing the role and function of Aboriginal men within the family;
- engaging Aboriginal men more effectively in looking after their health and the health of their communities;

- acknowledging and enhancing the considerable resilience that already exists within Aboriginal communities;
- sharing information on existing activities, programs, and services that have made a positive contribution to improving the health and wellbeing of Aboriginal men.

The key focus areas of the Plan are to:

- make health services more accessible and appropriate to Aboriginal men;
- develop supporting environments;
- improve collaboration and coordination of services;
- pursue quality research and information;
- develop and train the health workforce.

The *Aboriginal Men's Health Implementation Plan* will be implemented over the next three years. Regular progress reports will be provided to the NSW Department of Health's Executive, and to the NSW Aboriginal Health Partnership. Table 1 describes the performance indicators that have been developed to ensure effective monitoring and reporting of the Plan by Area Health Services and Aboriginal Controlled Health Services during implementation. Table 2 describes key ways of building capacity in Aboriginal men's health. Table 3 provides a brief background to what we know works in Aboriginal men's health. ☞

For more information on the *Aboriginal Men's Health Implementation Plan* please contact Vladimir Williams by telephone on (02) 9391 9546, by fax on (02) 9391 9468, or by email at vwill@doh.health.nsw.gov.au.

THE HEALTH OF MALES IN NSW

Marcello Gizzi
*Epidemiology and Surveillance Branch
NSW Department of Health*

Abdul Monaem
*Men's Health Information and Resource Centre
University of Western Sydney, Richmond*

Gender is increasingly recognised as a significant determinant of health. Not only are there marked differences in measures of health between men and women, but also among men themselves. This article briefly describes the health of males in NSW as presented in readily available sources, in particular *The Health of the People of NSW—Report of the Chief Health Officer 2000* and the *1997–1998 NSW Health Survey Report*.^{1,2}

OVERVIEW OF THE HEALTH OF MEN IN NSW

In 1998, the estimated male population of New South Wales (NSW) was 3,146,345, which was slightly less than the female population.¹ The life expectancy for males at birth in NSW in 1998 was 76.5 years compared with 81.9 year for women.¹ However, life expectancy at birth for Aboriginal and Torres Strait Islander men in 1998 was 58 years, significantly lower than that of the non-indigenous men.¹

Australian men have one of the highest life expectancies in the world. The World Health Report 2001 ranked their life expectancy fifth highest among all the member states and the rate was similar to the rate of the countries ranked above it.³ Life expectancy at birth for Australian men has increased steadily over the past 100 years, improving by 38 per cent. A man born in 1901 would anticipate living for 55.2 years.⁴

Utilising the Index of Relative Social Disadvantage, one of the Socioeconomic Indices for Area (SEIFA) developed by the Australian Bureau of Statistics, there is a strong social gradient of health within the NSW population. Over the period 1994–1998, for people aged 15–74 years, the most socioeconomically disadvantaged were more likely to die prematurely than those who were least disadvantaged. Further, the premature death rate from all causes was higher in males compared to females, along the social gradient.¹

PRINCIPAL CAUSES OF DEATH

Approximately 44,900 NSW residents died in 1998, of which 23,570 were males. The leading causes of death for all men were cardiovascular diseases (37.8 per cent), cancers (29.4 per cent), respiratory diseases (9.9 per cent), and injury and poisoning (7.9 per cent).¹ Men in the 15–64 year age group were nearly three times as likely to die from cardiovascular diseases than women of a similar age.¹ Figure 1 shows the principle causes of death for males in NSW by age group.

Injury is the most common cause of death among young men in the 15–29 year age group.^{5,6} Road vehicle accidents and suicide account for approximately 80 per cent of injury related deaths in this age group.^{7,8} Indeed,

suicide has replaced road vehicle accidents as the main cause of injury deaths since 1991. Males accounted for 82 per cent of all suicides in NSW in 1998.¹

Lung and prostate cancer are the most common causes of cancer death among men.¹ However, death rates from lung cancer have declined, while the death rates due to prostate cancer have changed little over the last 20 years.¹

Geographical location and occupation also contribute to differences in death rates and health status among men. Of the 10,608 work related hospitalisations in NSW in 1999–2000, 85 per cent were for men.⁵ The most common sites of injury were the hand, back, and knees.⁵ There is a clear relationship between occupation and mortality: some occupations are more hazardous than others, and the geographical distribution of some occupations varies. For example, farmers suffer higher rates of injury and death than office workers.

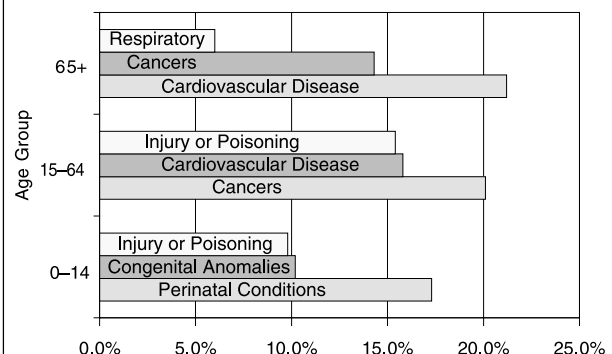
UTILISATION OF HEALTH SERVICES BY MEN

Men tend to under-utilise the range of public and private health services available. Men are more likely to under-report symptoms of physical illness and delay seeking medical attention. An Australian report indicates that in comparison with women, men visit general practitioners and medical specialist offices less frequently, and spend less time in hospitals.⁹ The reasons cited for not accessing health services are many. These include time constraints, geographical distance, cultural differences, communication issues for non-English speaking men, and poor access to health services for Aboriginal males.¹⁰

As geographical remoteness increases so does the use by men of hospital emergency departments. Table 1 shows that among the area health services in NSW, Northern Sydney had the lowest emergency department attendances for males (9.4 per cent), and the highest number occurred in the Far West (30.2 per cent).² Overall, emergency

FIGURE 1

PRINCIPAL CAUSES OF DEATH FOR MALES IN NSW BY AGE GROUP



Source: *The Health of the People of NSW—Report of the Chief Health Officer 2000*.¹

department attendances by men in urban areas were much lower (13.0 per cent) than in rural areas (21.0 per cent).²

The participation by men in health screening activities varies widely according to the risk factor considered. For instance, Figure 2 shows that in a 12-month period, 4.8 per cent of men had their blood pressure taken, 72.2 per cent had their blood cholesterol levels measured, and 40.3 per cent had a faecal test for bowel cancer.¹

RISK FACTORS IN MEN'S HEALTH

Lifestyle factors contribute to the aetiology of the major causes of death including cardiovascular disease and cancer. In the *1997–1998 NSW Health Survey Report*, 50 per cent of men reported being overweight and obese,² while only 10.3 per cent reported eating the required levels of vegetables. However men have responded positively to many health messages, for example the percentage of men who are current smokers has declined to around 26 per cent in 1998,² from over forty percent in the 1980s.⁹ Also, 38 per cent of men reported in 1997–1998 that they applied sunscreen,² and 67 per cent reported levels of adequate physical activity (Figure 3).²

The population health strategy outlined in this issue of the *Bulletin* involves linking 'lifestyle' factors with their socioeconomic context. The World Health Organization recognises unemployment as a social determinant of health,¹¹ noting that evidence from a number of countries shows that, even allowing for other factors, unemployed people and their families suffer a substantially increased risk of premature death.¹¹

Not only does unemployment cause lifestyle changes such as poor nutrition—which can lead to cardiovascular disease, respiratory disease, and hypertension—but also psychological wellbeing is affected.^{10–14} Low levels of psychological wellbeing can lead to depression and suicide.^{11–14} The effect of unemployment on physical and mental health problems tends to increase with the duration of unemployment.^{11–14}

The unemployment rate among men in NSW has fluctuated considerably over recent years in line with economic conditions. For example in 1993 unemployment

TABLE 1

HEALTH SERVICES UTILISATION BY MEN: SELF-REPORTED EMERGENCY DEPARTMENT ATTENDANCES, HOSPITAL ADMISSIONS, AND GENERAL PRACTITIONER VISITS IN A 12 MONTH PERIOD.

Area Health Service	ED Attendances %	Hospital Admissions %	General Practitioner Attendances %
Central Sydney	11.0	10.8	81.4
Northern Sydney	9.4	9.0	85.8
South Eastern Sydney	12.4	10.0	83.8
South Western Sydney	14.4	12.5	86.7
Western Sydney	11.2	9.5	83.2
Wentworth	14.3	11.3	86.2
Central Coast	15.2	14.8	89.7
Hunter	17.8	13.1	84.5
Illawarra	16.1	9.3	85.2
Northern Rivers	21.3	11.0	82.1
Mid North Coast	16.4	15.7	84.1
New England	21.8	13.2	78.2
Macquarie	22.3	13.5	79.0
Far West	30.2	13.9	78.6
Mid Western	24.7	14.4	82.0
Greater Murray	21.3	13.8	77.8
Southern	18.9	12.1	80.7
All Urban	13.0	10.8	84.9
All Rural	21.0	13.4	80.7
NSW average	14.8	11.4	83.9

Source: *1997–1998 NSW Health Survey Report*.²

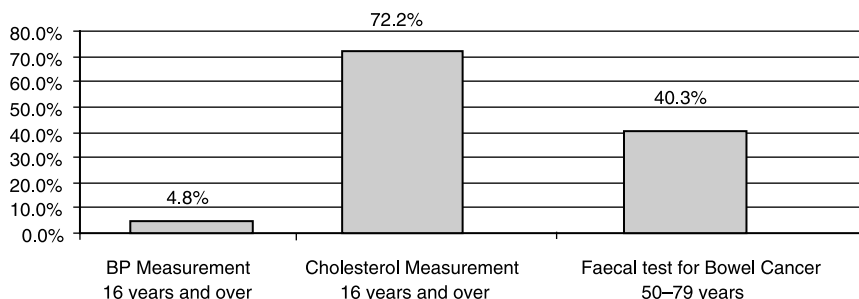
was 13.3 per cent, while in 1999 it had fallen to 7.5 per cent.¹ Unemployment rates for men are higher in rural areas. For 1996 the State average unemployment rate for men was 9.5 per cent,¹ with the highest rate in the Mid North Coast Area Health Service (18.5 per cent), followed by the Northern Rivers Area (16.6 per cent).¹

CONCLUSION

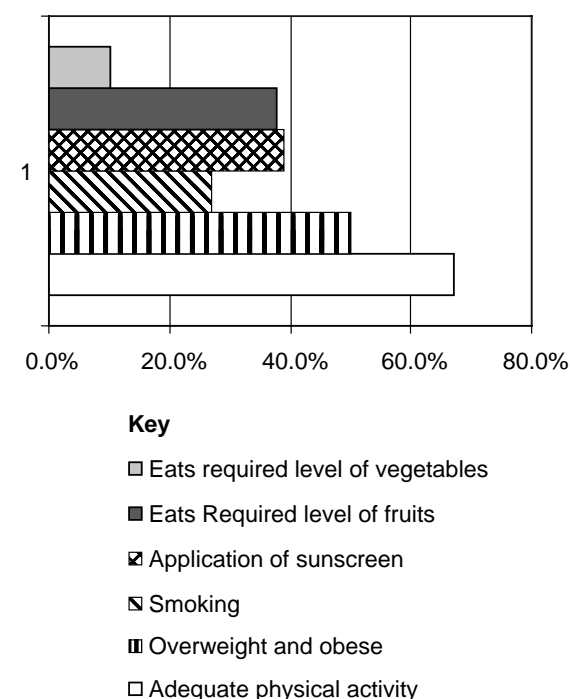
Men in NSW are living longer, and by international standards enjoy a high life expectancy. However, they

FIGURE 2

SCREENING MEASUREMENTS FOR THE NSW MALE POPULATION OVER A 12 MONTH PERIOD



Source: *1997–1998 NSW Health Survey Report*.²

FIGURE 3**RISK FACTORS IN MALE HEALTH**

Source: 1997–1998 NSW Health Survey Report.²

tend to use health services at a lower rate than women, and die more frequently from cardiovascular disease, cancer, and injury including suicide. They also have poor health-related behaviours in health screening, nutrition, and smoking. Men also experience higher levels of hospitalisation due to work-related injuries.

As stated in *Moving Forward in Men's Health*, in order to promote and improve men's health, and make health

services more appealing to men, further research is required into men's health, as well as a community-wide and intersectoral approach, so that all sectors of the community are working together.

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THE WELLBEING OF BOYS**Richard Fletcher**

Manager, Men and Boys Program,
Family Action Centre, University of Newcastle

This article describes the current health status of boys between 0–14 years, and suggests ways that their wellbeing could be improved.

HEALTH STATUS OF BOYS

Boys in NSW have higher rates of death than girls in NSW for all major causes of childhood death (Figure 1). Boys also have higher rates of illness. For example, based on data presented in the *Health of the People of NSW—Report of the Chief Health Officer 2000*,¹ boys have higher rates for hospital separations in NSW for respiratory diseases, perinatal conditions, and injury or poisoning.¹ National

health data shows that, when compared to girls, boys have higher rates of disability, handicap, and chronic and recent illness.² Boys' wellbeing is also reflected in social indicators of health such as literacy levels, academic achievement and anti-social behaviour.

Nationally, for every socioeconomic group, boys perform worse than girls in assessments of literacy, and the gender gap is larger in the lower socioeconomic groups.³ Since 1975, there is evidence of a decline in mastery of reading at age 14 among boys that is not evident among girls.⁴ When compared to girls, boys' achievement at university entrance level has also shown a recent decline in NSW, from 0.6 marks below girls in 1981 to 19.4 marks below girls in 1996.⁵ Eighty per cent of individuals suspended from school are boys, and boys are twice as likely as girls

to be suspended for violent behaviour.⁶ Sex differences in school-aged behaviour are reflected in more serious illegal activity; for example, 10–14 year old boys are four times more likely than girls to appear before the children's and local courts in NSW.⁷

A clear mandate exists to target boys' health, with particular attention to boys within already recognised priority groups such as indigenous and low-income populations.

IMPROVING THE WELLBEING OF BOYS

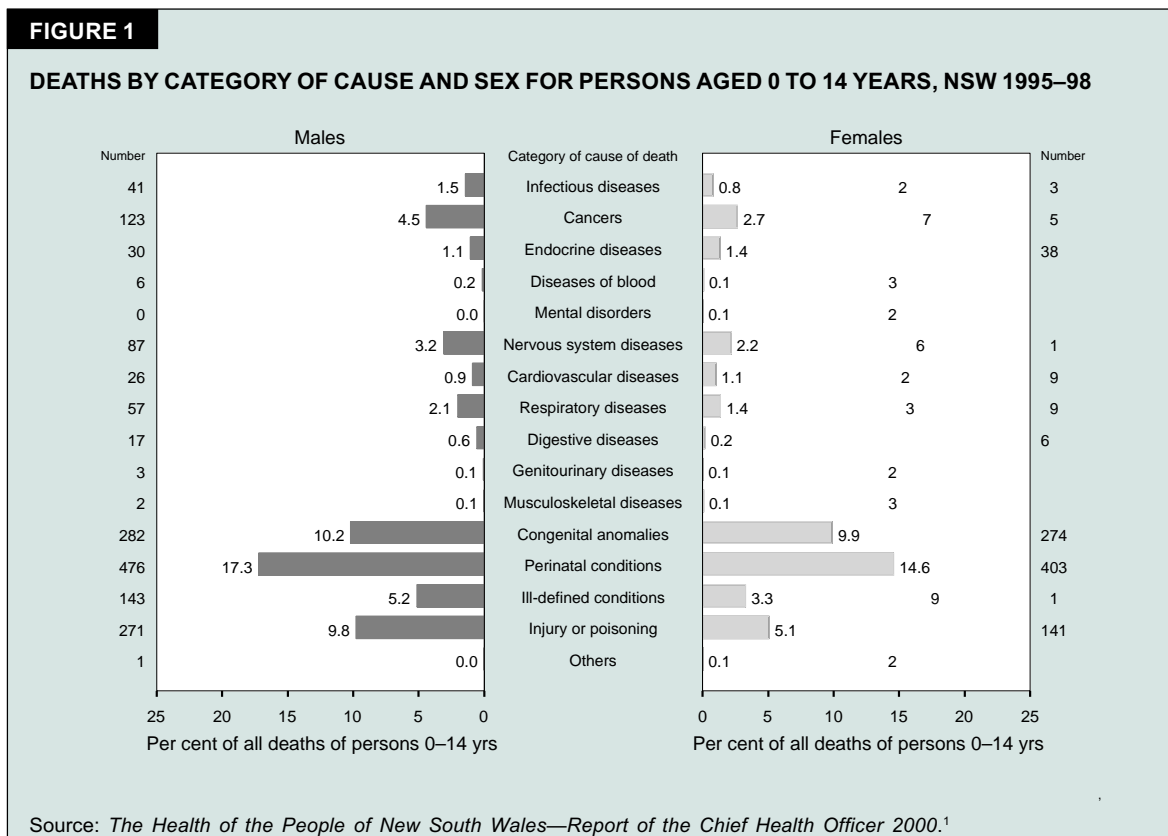
To improve boys' wellbeing, interventions do not have to be focused exclusively on boys. For example, recent changes to asthma management benefit all children but have benefited boys in particular because of their higher rate of asthma. However, where behavioural change is required improvements will be more difficult to achieve. It is where boys' sense of expected male behaviour is involved that health services have the most difficulty in intervening.

At seminars on boy's and men's health across NSW, male and female health workers, educators and parents have expressed their uncertainty in the question: 'How do we get through to boys?' Boys' health-damaging behaviours, beliefs and attitudes are often clear enough. What is not clear is how to proceed. A lack of appropriate male role models for boys, in the family, in the community, and within health services, is commonly raised as a difficulty for promoting effective change.⁸

Boys' health is most appropriately addressed in the context of male health; consequently, the *Moving Forward in Men's Health* policy provides a suitable starting point.⁹ However, the gap between policy and service delivery remains wide, and some important issues in boys' wellbeing are not addressed. One example is male role modelling; when seeking male clinical staff or male mentors for boys, an agreed basis for selecting suitable male staff to become role models is required. Another example is male parenting; while fathers are regarded as essential for the development of children, the evidence base for deciding children's needs for paternal contact is lacking. Further, this gap in understanding of male parenting has consequences for all children but particularly for boys. The finding that boys in single parent families experience significantly worse health than girls—for example: 28 per cent more chronic illnesses, 15 per cent more recent illnesses, 33 per cent more days of reduced activity—suggests that a stronger evidence base for male parenting is required.²

Research should underpin, and be linked to, general health initiatives to address boys' health and wellbeing. Opportunities to make immediate progress are provided through *Families First* and by school health services.

In recognition of the crucial role that parents play in developing healthy children and adults,¹⁰ the *Families First* initiative (see *NSW Public Health Bulletin*, Volume 11, Number 5) seeks to improve coordination and access to services, and to increase community support for families



caring for infants and young children. However, the initiative has been gender-blind in that 'parent' is used when the clear reference is to 'mothers', and 'family' is used when in fact 'mothers and babies—infants—children' are the intended clients. For boys' wellbeing it is imperative to address the gender bias surrounding the planning and delivery of support to families. The settings for *Families First* have overwhelmingly female staff and clientele: antenatal, midwifery and early childhood services; and playgroups, pre-schools, day care centres and primary schools. In none of these services is male participation a measurable outcome. Most have no record of whether males attend or are involved. Many staff see no need to recruit or involve males. A British investigation into barriers to male use of family centres found that many services were 'agnostic' about male participation.¹¹

A positive step is a current research project funded by the Hunter Valley *Families First* committee to investigate male access to family-related services. But leadership and resourcing across the state is required to make male participation in family-related services a legitimate target. If families are crucial to children's health, and if boys have demonstrably worse health, then it is essential to support both male and female parents.

Schools are recognised as important settings for healthy development. However, boys' wellbeing has not been a recognised outcome in either the primary or the secondary school systems, and so boys' needs have not been explicitly addressed. At the recent 4th National Men's and Boys' Health Conference, Professor Faith Trent shared her findings from the South Australian study of 1800 high school boys, most of whom reported experiencing a lack of respect for them in the school setting.¹² Health services at state and regional level could advocate for attention to boys' wellbeing through linking health and welfare outcomes to those of schools.

The indicators outlined in the article 'Health of Children in South Western Sydney' (*NSW Public Health Bulletin*, Volume 9 Number 6–7) include school retention rate and juvenile justice, which provide a useful model. Additional indicators from the police and the Road Transport Authority—and more detailed information on literacy, school achievement, and suspensions—could provide indicators to inform planning and monitor progress. Health services could also support schools to develop 'holistic' approaches to boys' education—through changes to the curriculum and school structure—by addressing key health issues for boys such as: risk taking, social engagement, nutrition, and homophobia.¹³

In keeping with the commitment of the NSW Department of Health to have 'consumers' as active participants in health planning and service delivery, boys' involvement at every possible level would be an area for advocacy.

CONCLUSION

Community concern about boys' wellbeing is well founded. Addressing boys' health status will require continued improvements to areas of health service, promotion and prevention where boys are over represented in mortality and morbidity outcomes. As well, male gender issues will need to be included in the processes of health planning and service delivery. Traditionally female-oriented family services could include males through policy development, resources, and through staff training. Health can also provide leadership in school health to coordinate and broaden the outcome measures used, to effectively address boys' health behaviours, and to advocate for boys' participation.

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MEN'S PERCEIVED HEALTH NEEDS

Richard Fletcher and Nick Higginbotham
University of Newcastle, Newcastle

Annette Dobson
University of Queensland, Brisbane

Different influences have guided the evolution of 'men's health' and 'women's health' as political issues. Social discourse about women's health has been grounded in women's public dissatisfaction with existing health care services.¹ In contrast, claims for attention to men's health are made on the basis of epidemiological evidence of inequality, particularly in mortality rates. For example, the opening statement of the 1997 Commonwealth Parliamentary seminar into men's health declared:

'At all ages men are more likely than women to die from the leading causes of death: heart disease, cancer and injury. Young men, those aged between 15 and 24 particularly, are three times more likely to die in a car accident and four times more likely to commit suicide—a fact we discussed at great length.'²

However, little documentation exists of men's identification of their own health needs. Moreover, when needs are documented, they are usually defined as 'basic' or 'normative' needs—as conceived by health planners—following pre-determined, externally measured standards, such as epidemiological indicators. This approach fails to utilise men's 'felt' or 'expressed' needs (that is, expectations that men have themselves about their own health and/or wellbeing) as critical elements of policy formation and program design.^{3,4}

In 1987, Redman et al. conducted a cross-sectional survey of women's health needs in the Newcastle area of NSW.⁵ In 1994, in the same geographical area, Fletcher used a similar interview schedule and a comparable list of health problems to study men's health needs.⁶ The study aimed to estimate the prevalence of health concerns, experiences and expressed needs among men and compare these with earlier data for women. This article describes Fletcher's study and its findings; compares these results with those of the Redman et al. survey; and contrasts the results of the survey and the study with national policies on health priorities.

METHODS

For the study conducted by Fletcher 1994, subjects were randomly selected from the 1993 Commonwealth Electoral Roll for the division of Newcastle. A target sample size of 400 was chosen so that the width of a 95 per cent confidence interval for a proportion would be, at most, about 10 per cent. A letter describing the study, including a reply paid card for refusal and a contact phone number for the study, was sent to 1053 male names. Of this, 61 letters were returned marked 'not known at this address', 329 names could not be contacted, which gave a sample size of 663. Of these, 271 names refused to participate

and there were 392 responses, giving a response rate for the study of 59 per cent (392/663).

Survey questionnaire

Participants were shown a list of 52 health problems based on the study by Redman et al. and two other sources.^{5,7,8} The sequence of interview questions was:

- most important problem: 'What do you think are the three most important health or social problems facing men in Australia?';
- health concerns: 'Have you been at all worried or concerned about each problem during the last six months?';
- problems experienced: 'Have you experienced any of these [52] problems in the past six months?';
- problems needing more help: 'Choose from the list of problems [you have experienced] three areas which ... you would most like to have had more help with, from the medical system, government, work or community'.

RESULTS

Characteristics of the study sample

The study respondents were compared with the 1991 Census for Newcastle. While the study sample followed the general population profile, professionals and married men were over-represented among the respondents; tradesmen, machine operators and men who had never married were under-represented. Men aged over 45 years were over-represented and those men aged 18–24 were under-represented among the respondents.

Three hundred and twelve men (84 per cent) nominated three problems in response to the open-ended question regarding the problems facing men in Australia. Alcohol, smoking, heart disease and overweight were nominated by at least 20 per cent of the sample.

The respondents' 10 highest ranking concerns were compared with those identified by the women surveyed by Redman et al. (Table 1). There was a high degree of concordance in the items listed. The health problems frequently experienced by women and men also included many similar items (Table 2). Both women and men commonly reported stress and tiredness. However, relatively more women than men reported experiencing each of the problems.

Table 3 lists the 10 most common problems for which people said they would have liked more help. Percentages are given for both the total sample and also for those who reported experiencing the problem. Stress, cost of medical care, money problems and disturbed sleep were common problems for women and men. Women also said they would have liked more help with the issues of overweight and smoking, whereas men mentioned back-pain. Access to medical care and dissatisfaction with quality of medical care were further priorities for men.

DISCUSSION

The results provide an insight into the perceptions of the men of their health needs. The high percentage who spontaneously nominated three health problems of concern shows that men do have ideas about health matters. The responses also reveal that they regard a wide range of health and social problems as important. The 52-item list of health problems proved adequate for identifying the major concerns of men in this sample. The exception was diet, which had not been included, and which was raised by 11 per cent of the men answering the open-ended question regarding their health concerns.

Among the most frequently reported conditions, stress, tiredness, back problems, overweight and lack of exercise, only overweight had a lower prevalence than that reported in a national survey of risk factors.⁹ The percentage of men reporting lack of exercise (34 per cent) was similar (35 per cent) to the 1994–1995 Population Survey Monitors conducted by the Australian Institute of Health and Welfare.¹⁰ Stress and tiredness (both 50 per cent) were

more prevalent than levels found in the 1995 National Health Survey, where 3.4 per cent of the survey reported nerves, tension, nervousness, emotional problems.¹¹ Back problems were experienced by 40 per cent of the men compared with 12 per cent of men in the National Health Survey. A comparable Western Australian survey of 374 men in the Pilbara area found 33 per cent reported back or neck problems and 22 per cent had experienced stress.¹²

This survey suggests that men have unmet health needs; however, specific groups of men may have needs that are underestimated in this survey. For unemployed men, their health concerns, experiences and priorities were clearly dominated by their unemployment. The overall study results may poorly reflect the views of these men. In order to target the most disadvantaged men effectively, studies to identify the health needs of low-income men are warranted.

In their conclusions, Redman et al. suggested that women have a broader concept of health than men.⁵ Our results suggest that both men and women have similar concerns,

TABLE 1

MOST COMMON CONCERNS ABOUT HEALTH IDENTIFIED BY WOMEN AND MEN IN NEWCASTLE, NSW

Problems for women (n=129)		Problems for men (n=372)	
Percentage	Problem	Percentage	Problem
52.3	Tiredness	58.6	Stress
50.4	Overweight	57.0	Skin cancer*
47.3	Stress	51.3	Tiredness
46.5	Anxiety	46.8	Back problems*
45.0	Road traffic accident	44.9	Heart disease
41.1	Money problems	41.4	Road traffic accident
40.0	Lack of exercise	41.1	Lack of exercise
38.8	Depression	38.7	Disturbed sleep
35.9	Cost of medical care	38.2	Money problems
35.7	Disturbed sleep	35.8	Overweight

Items identified by both women and men are shown in bold *Items not listed in the survey for the other group

TABLE 2

MOST COMMON HEALTH PROBLEMS EXPERIENCED BY WOMEN AND MEN IN NEWCASTLE, NSW

Problems for women (n=129)		Problems for men (n=372)	
%	Problem	%	Problem
70.3	Tiredness	49.5	Stress
56.6	Stress	49.5	Tiredness
53.1	Anxiety	40.3	Back problems*
50.8	Disturbed sleep	37.4	Disturbed sleep
50.4	Overweight	33.9	Overweight
45.3	Not enough time to yourself	33.6	Lack of exercise
45.0	Depression	28.8	Eye trouble*
41.1	Money problems	26.6	Money problems
40.6	Not feeling confident	25.5	Anger*
38.0	Premenstrual tension*	22.8	Anxiety

Items identified by both women and men are shown in bold *Items not listed in the survey for the other group

TABLE 3

PROBLEMS FOR WHICH RESPONDENTS WOULD HAVE LIKED MORE HELP: PERCENTAGES FOR ALL RESPONDENTS AND PERCENTAGES FOR THOSE WHO EXPERIENCED THE PROBLEM

All women (n=129)	Experienced Problems **	Problem	All men (n=371)	Experienced Problem	Problem
16.4	29.0	Stress	12.9	26.1	Stress
16.4	32.5	Overweight	9.7	42.4	Cost of medical Care
14.8	36.0	Money Problems	8.9	33.3	Money Problems
11.7	41.9	Smoking	8.6	21.3	Back problems*
10.2	29.2	Period problems*	8.6	47.1	Job dissatisfaction
10.2	56.7	Caring for elderly or sick relative*	8.4	55.4	Dissatisfaction with quality of medical care
10.2	37.6	Cost of medical care	5.9	12.0	Tiredness
9.4	20.9	Depression	5.1	13.7	Disturbed sleep
9.4	20.8	Not enough time to yourself	5.1	15.2	Lack of exercise
8.6	16.9	Disturbed sleep	5.1	57.6	Poor access to medical care

Items identified by both women and men are shown in bold

* Items not listed in the survey for the other group **Estimated from data in Redman et al.

nominating social, as well as medical aspects of health, as most important. Women, however, may know more about health care than men.¹³

If the health status of men is to improve, then men's concerns should be identified and addressed. Given the overlap between the men's and women's health concerns, the assumption of competition between male and female health needs should be treated with caution. Indeed, adopting methods of determining priorities for women, which explicitly seek to incorporate women's views with epidemiological evidence of need may well provide guidelines for developing men's health policies and programs.¹⁴

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MALES AND MENTAL HEALTH: A PUBLIC HEALTH APPROACH

Ben Nielsen, Elena Katrakis, and Beverley Raphael
Centre for Mental Health
NSW Department of Health

This article describes the mental health of men and boys in NSW and their utilisation of mental health services. Factors that are driving change in government policy that aim to improve mental health are explored, including the strategies of the NSW Department of Health.

MENTAL HEALTH PROBLEMS AFFECTING MALES

It is often suggested that mental disorders are more common in females than males. However, recent findings suggest that males are just as likely to suffer from mental disorders. The difference between the sexes is in the pattern of disorder. For instance, mental disorders more prevalent in males involve alcohol and other drug use and antisocial behaviour.¹

The mental health problems of boys pose a significant public health issue. Fifteen percent of boys aged 4–13 years experience mental health problems;² boys attend mental health services more frequently than girls; and boys are more frequently involved in criminal activity and are remanded in custody than girls. A range of severe mental disorders, such as Attention Deficit Hyperactivity Disorder and Conduct Disorder, are experienced by boys at higher levels than girls.

Schizophrenia is a serious mental illness that affects one in a hundred Australians. While males and females may be equally at risk of developing schizophrenic disorders, males have an earlier age of onset and a poorer outcome than females.³ This suggests that males may often have a more severe form of the disorder with a poorer response to treatment.

Clinical depression is an illness such as major depression and dysthymia (that is, neurosis and introversion, anxiety, compulsive behaviour, and relatively mild depression). Clinical depression is a medical condition that affects the way someone feels, causing a persistent lowering of mood. Depression can lead to serious short- and long-term problems, including severe psychological distress, feelings of hopelessness, social withdrawal, a breakdown in family and personal relationships, and poor academic and work performance.⁴

Depression is a leading cause of illness and disability, both in Australia and internationally. Overall, 5.8 per cent of the Australian population has one or more depressive disorders, which are more frequent in females (7.4 per cent) than in males (4.2 per cent).⁵ Globally, depression was the fourth leading cause of disease-burden in 1990, and according to the World Health Organization, by 2020 depression will be among the three leading causes of disease-burden.⁶ Females will bear a particularly heavy

share of this disorder, but males are frequently not diagnosed—especially young males.

Males are more likely to have a substance-use disorder than females,⁶ which accounts for 31 per cent of male mental health ‘disability-adjusted life years’ (lost years of healthy life).⁷ Substance use frequently involves alcohol and other psychoactive drugs such as cannabis, heroin, and cocaine. While males and females have similar prevalence of coexisting mental health and substance-use disorders, males are more likely to have substance-use disorders in combination with either anxiety (13 per cent) or affective disorders (8.4 per cent).⁸

There is statistical data available describing the mental health problems of Aboriginal males. Many of the mental health problems identified in Aboriginal males are linked to historical factors such as disruption at colonisation, institutionalisation, and separation from natural family.

The mental health problems of Aboriginal males include misuse of alcohol, violence, destructive behaviours, and the loss of a sense of personal worth.⁹ Aboriginal males generally start drinking earlier, consume alcohol at more hazardous levels and more frequently than Aboriginal females.¹⁰ Indigenous people also have higher levels of psychosocial distress compared with non-indigenous people. This difference is most apparent among young people than older people.¹¹

Mental health problems among Aboriginal males may be related to a historical fear of hospitals, ‘lack of closure’ and unresolved conflict due to past government policy and practice, and the past separation of mothers and children. Additional factors include the reduction of authority and status within families, sociological changes to the male role model in society generally, and the intervention of family courts and government departments.

Mental disorders for men aged 65 years and over include dementia, depression, substance-use disorder, anxiety, and affective disorders. Some older men may have been living with mental health problems for most of their lives, which means they enter their old age with a history of chronic illness and distress.¹² Research also shows a strong correlation between depression, isolation, and poverty—and depression is implicated in a number of suicides in this age group.

SUICIDE IN MALES

Males in NSW have higher suicide rates than females across all age groups. The death rate from suicide for 1996–97 was almost four-fold for males (20.9 deaths per 100,000) compared to females (5.4 deaths per 100,000). This probably reflects the fact that males use more lethal means when attempting suicide.¹³

In Australia, the overall increase in suicide rates in males of all ages is due to an increase in the rate of suicide in the

20–39 year age group. The overall rate of suicide has declined in men between 45–75 years of age;^{15,20} however, it is unclear whether this decline continues or has plateaued.¹⁴ Suicide rates for males living in rural areas are also higher than those for males living in urban areas.^{20,15}

Compared to Australian born males, male migrants from Northern and Eastern Europe have a significantly higher risk of suicide; and male migrants from Southern Europe, the Middle East, and Asia have a significantly lower risk of suicide.¹⁶

The average suicide rate for men who have never married is more than twice as high as those who are married, and the rates for widowers and divorced men is about three times higher.¹⁷

Suicide of indigenous people is concentrated in the younger age groups for both males and females. The suicide risk for Aboriginal males aged 15–19 years has been identified as four times that of the general population.¹³

HEALTH SERVICES UTILISATION BY MALES

There is a paucity of reliable data sources on the use of mental health services by males in NSW. The *National Minimum Data Set—Institutional Mental Health Services* provides basic information on the use of inpatient health services by mentally-disordered males in all age groups.⁵ The NSW Department of Health is currently implementing the 'Community Mental Health Care National Minimum Data Set',⁵ which will provide information about male use of community mental health services.

Results from the *National Health Survey* indicate that utilisation of health services by males is lower than that of females in all areas of health care except injury.⁵ Young males, Aboriginal males, rural males, and males from marginalised groups demonstrate lower levels of health service utilisation.¹⁸

Further results from the *National Survey of Mental Health and Wellbeing* on the patterns of service use by people with a diagnosable mental disorder showed that 70 per cent of males did not access services, including psychiatrists, psychologists, other mental health professionals or other health professionals.⁵ The higher prevalence of risk factors and lower utilisation of health services inevitably results in higher morbidity and disability.

Carers of people with mental health problems face a range of pressures and responsibilities in their caring roles. While the majority of people reporting themselves as carers are females, studies have shown that male carers are less active in initiating contact with services than female carers.¹⁹

It is clear that males tend to delay seeking health assistance longer than females. Poor access to prevention and early intervention services is a problem for many males. With

more males than females engaged in full-time employment, accessing mental health services during work hours may also be difficult. Those employed in farming or shift work industries, particularly rural areas, face geographical as well as time restraint issues in accessing services.

Males are generally more reluctant to seek help as this may be seen as a threat to their masculinity (stigma), and often they will turn to alcohol instead. Further, mental health interventions may be provided in settings that create barriers against males, or males may not feel comfortable in attending the service. For instance, health promotion activities may be held at community health centres or baby health clinics, places where many males may not feel comfortable accessing services.

GOVERNMENT POLICY RESPONSES: MEN AND MENTAL HEALTH

Both the NSW and Commonwealth Governments have begun to examine ways to address male mental health issues. The NSW Department of Health's *Moving Forward in Men's Health* includes strategies for male mental health needs, including suicide prevention. The NSW Department of Health's *Aboriginal Men's Health Implementation Plan* has been completed and includes mental health issues as a focus area.

NSW participation in initiatives of the National Mental Health Strategy relevant to men's health include the *National Action Plan for Promotion, Prevention and Early Intervention for Mental Health*, which identifies the need to address mental health care utilisation by young males;²⁰ *The National Action Plan for Suicide Prevention* provides policy directions for suicide prevention programs at a national level, and has identified males as a target group for planning, implementation and evaluation of activities.²¹

New public health initiatives are currently being identified and implemented collaboratively between the NSW Department of Health's Centre for Mental Health, the Commonwealth Department of Health and Aged Care, and the National Suicide Prevention Board, specifically including strategies for 25–44 year old males at risk of suicide.

THE RESPONSE OF NSW AREA HEALTH SERVICES

Area Health Services across NSW have implemented a number of initiatives to make mental health services more accessible to men.

During 2000 and 2001, men's health seminars have been undertaken by the New England Area Health Service. These have been provided by community health staff and delivered in the local pub at 4–6 weekly intervals. Different topics which are applicable to male mental health have been addressed, including depression, stress management and positive mental health.

The Transcultural Mental Health Centre has established a Men's Mental Health Forum, and works in partnerships with the Men's Health Information and Resource Centre at the University of Western Sydney and other services. These partnerships focus on the mental health needs of males from culturally and linguistically diverse communities.

'Men and Depression' is a project funded by South Western Sydney Area Health Service and sponsored by numerous partners, such as community health services, Fairfield Health Service, Fairfield City Council, non-government organisations, and local area health service staff. This project has developed resources for men, both younger and older, with a focus on depression.

The majority of older people who are homeless or live in poverty or squalor are men. This may be the result of mental illness, alcohol abuse, or a combination of social circumstances. Community mental health services and non-government organisations across NSW provide outreach services to these groups.

CONCLUSION

It is frequently suggested that mental disorders are more common in females than in males. However, recent population surveys suggest that, while females and males may differ in the type of mental disorder that they manifest, the proportion experiencing a mental disorder is remarkably similar.

The identification and explanation of gender differences in mental disorder is increasingly translated into policy development and new directions for service delivery throughout NSW Health. This includes the need to ensure equitable access to mental health services, which are planned and delivered to meet gender specific needs.

The Centre for Mental Health at the NSW Department of Health is committed to planning, policy development and service delivery that is sensitive to the different patterns of health behaviour determined by gender. A forum to address men and mental health is planned for 2002, which will bring together policy makers, service providers, consumers and carers and individuals, and offers opportunities for networking and the sharing of experiences.

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THE NSW MEN'S HEALTH INFORMATION AND RESOURCE CENTRE

David Crawford, Anthony Brown, and Dennis McDermott

*Men's Health Information and Resource Centre
University of Western Sydney, Richmond*

BACKGROUND

The Men's Health Information and Resource Centre (MHIRC) aims to support the development of ways to enable boys and men to lead fulfilling lives and thereby contribute to a better quality of life for all members of society. A priority of MHIRC is to promote the health and wellbeing of those men and boys who are disadvantaged, including indigenous men, homeless men, and older men. To meet its aims and purpose, the MHIRC's activities focus on the following key result areas: networking and resource-information brokerage; research projects; special projects; and partnerships.

The MHIRC grew out of a partnership that developed in the mid 1990s in the Hawkesbury area between the Wentworth Area Health Service, the Hawkesbury District Health Service, the local Division of General Practice, the University of Western Sydney, and the RAAF Base at Richmond.

In August 1999, the NSW Minister for Health, Craig Knowles, released a policy document *Moving Forward in Men's Health*,¹ which provides statewide leadership in men's health. The document recommended the establishment of a men's health information and resource centre, as 'a multi-purpose centre with functions to include research, training and information dissemination' through a range of activities, networks, publications, and projects.¹

The NSW Department of Health provided recurrent funding for the establishment of a project team for MHIRC. The University of Western Sydney provides facilities at the Richmond campus, as well as two academic staff—Professor John Macdonald and Mr Michael Woods—who also act as the co-directors of the MHIRC in addition to their teaching and other duties.

INITIATIVES OF THE MEN'S HEALTH INFORMATION AND RESOURCE CENTRE

The work of the MHIRC overlaps the four focus areas, and includes the following initiatives.

Networking and *The Good Oil Bulletin*

Through presentations, lectures, conference papers, a web site, the Men's Health Representatives Network (described in the following article by Sliwka), and individual enquiries, MHIRC facilitates the dissemination of information about male health in NSW and beyond. In particular, *The Good Oil* is a free e-bulletin prepared by the MHIRC about aspects of men and boys' health and wellbeing. *The Good Oil* contains updates of MHIRC articles, publications, and events; as well as news about current research, programs, or items of interest in the area

of men and boys' health. The bulletin is accessible at the MHIRC Web site www.menshealth.uws.edu.au.

Research projects

The MHIRC is coordinating a study that looks at men's perceptions of their health needs, and how the health system responds to those needs, across two area health services of NSW. The study, *Engaging Men in the Health System*, will investigate the barriers that keep many men from using existing health services, and the informal practices men are already pursuing to foster good health outcomes. At the same time, the MHIRC is piloting a longitudinal study of the health of Australian men.

As well as auspicing the research of others, and developing a new research agenda around men's health (see the Publication page at the MHIRC Web site), MHIRC brokers research into issues concerning male health. The MHIRC is collaborating with Centacare, Broken Bay—the originators of the *Hey Dad!* parenting program—in a project called *Fathering in Diverse Communities*, which looks at aspects of fathering among a range of culturally and linguistically diverse communities.

Special projects in indigenous health

The MHIRC's full-time and seconded indigenous staff have assisted with policy and program development around indigenous male health in NSW. A further initiative, being developed in partnership with local Koori men and the Holy Family Centre in Mt. Druitt, is for a Koori men's and boys' centre.

Second National Indigenous Male Health Convention

Building Spirit: Building Health, the Second National Indigenous Male Health Convention, was held on the University of Western Sydney's Hawkesbury Campus in September 2001. The Convention received substantial support from MHIRC. The national coordinator was based at the MHIRC office, the MHIRC resourced the planning committee, and MHIRC staff were critically involved in organising the Convention. The two-day Convention gave delegates the opportunity to draw on the strengths of Aboriginal and Torres Strait Islander culture to combine traditional knowledge with innovative methods of health service delivery. New approaches examined include 'Rekindling the Spirit', a program from the north coast of NSW. This program has received awards for pioneering work with indigenous school age boys' and men released from custody, based on the Aboriginal concept of 'men's business'.

Fourth National Men and Boys' Health Conference

The MHIRC hosted the Fourth National Men and Boys' Health Conference at the Hawkesbury campus of the University of Western Sydney, immediately following the Indigenous Male Health Convention. Approximately 300 attendees came from all parts of Australia. The aim of the Conference was to support programs and research that build men and boy's health. The Conference theme was

'mutual respect and support', which was in evidence throughout. The format included leading speakers on men and boy's health and wellbeing—such as Richard Fletcher and Professor Faith Trent—as well as presentations, panels, and workshops covering a diverse range of men's health issues. These included physical, mental, and emotional health; men and workplace issues; health of socially disadvantaged groups of men such as indigenous, rural, and homeless men; fathers and parenting; and men's use of health services.

By adopting a social perspective of health, the conference highlighted the diversity of issues and factors that contribute to men and boy's health and wellbeing.

Older men and health

In partnership with *Older Men: New Ideas* (OMNI)—a social group for older men—the MHIRC conducted a number of research focus groups where older men were encouraged to discuss their perceptions of health and wellbeing. Older men are a group of potentially marginalised men who are significant users of health services. These older men saw good health as encompassing more than physical wellbeing. Health was seen as a combination and an interaction of different aspects of health, including physical, mental, emotional, 'economic health', and spiritual health. The results of this research are incorporated into a discussion paper written by the MHIRC for the NSW Committee on the Ageing, *Keeping the Balance—Older Men and Healthy Ageing*.

The discussion paper is being used as a starting point for reflection and action by state health agencies and community groups. Copies of the discussion paper may be obtained from the NSW Committee on the Ageing by telephone (02) 9367 6860.

Fostering developments in men's health

The MHIRC has been active in helping to establish the Confederation of Men's Organisations (COMO). This confederation aims to provide a forum for people working with men and boys—a place to exchange views and keep up to date with the latest information and developments in the area of men's health and wellbeing. COMO also seeks to empower men and boys and their organisations to become better advocates of men and boys' health and wellbeing.

THE FUTURE

In the eighteen months since the establishment of MHIRC as a dedicated Centre for men's health, the range of activities is constantly growing—networks, publications, and research projects—as MHIRC pursues its goals. MHIRC is evolving to meet identified needs, and is already contributing to the improvement of men's and boy's health in NSW.

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MEN'S USE OF GENERAL PRACTITIONER SERVICES

Michael Woods

*Men's Health Information and Resource Centre
University of Western Sydney*

The use, or rather the non-use, of health services by men is currently one of the main concerns in men's health. The *Health of the People of NSW—Report of the Chief Health Officer, 2000* notes that men access health services (that is, hospital and general practitioner services as well as other providers such as naturopaths and telephone counselling services) at a lower rate than females.¹ It also notes that men use preventive health services at a lower rate than women (although there are fewer preventative and screening services directed at men).¹ Given that men show a higher level of serious morbidity, and have a lower life expectancy in all age groups, this comparatively low usage of services is surprising. Men's use of the major form of primary health care, general practitioners, is estimated to be at least 15 per cent lower than that for women. For example, a recent Australian study shows that

men use general practitioner services on 42 per cent of all occasions of service.² This article examines possible explanations that emerge from the literature for this pattern of usage, and describes the findings of a recent study of general practitioners (GPs) undertaken in Sydney.

The literature offers two main types of explanation to account for this lower usage rate of GP services by men, and these explanations are likely to be relevant to considering questions of men's use of other health services. The first focuses on how culture influences individual behaviour. This explanation suggests that our culture conveys different values regarding health to each gender, and that men have not been encouraged to place the same premium on health that women do.^{3,4} For example, a study by Jones of a sample of men in rural Queensland indicated that health only became a priority for men once it is under threat from illness or injury.⁵ These men equated health as 'being able to work'. This relative undervaluing of health by men in Australia can also be seen to be reflected at the level of health policy, planning and provision, in the lack

of male-specific services, or services overtly sensitive to the issues and needs of men.

The second type of explanation locates the problem of under-utilisation in the nature, location, accessibility, convenience, and relevance (or 'male friendliness') of the health services themselves. This approach draws on the history of the women's health movement, which highlights the fact that gender-sensitivity by service providers influences both satisfaction with, and degree of use of health services. Alan Wright, a general practitioner in Perth, surveyed men in Western Australia regarding their perceived barriers to the use of GP services.⁶ His sample indicated that the main reason why men were reluctant to access GP services was the amount of time spent in waiting rooms. Lesser reasons noted in the survey included: negative perceptions of GP knowledge and skills; feeling 'uncomfortable'; cost; time spent and restricted surgery hours. These findings are supported in a further Australian study by Aoun and Johnson.⁷

A study by Woods, Macdonald, and Campbell—which is the subject of this article—was conducted by the Men's Health Information and Research Centre, together with the Hawkesbury Division of General Practice.⁸ It aimed to elucidate possible reasons for the seeming paradox of men's morbidity–mortality levels and the use of GP services. The study focused on both the perceptions of the GP of the main health concerns of men who use their services, and the factors that they believed influenced men's willingness (or not) to use their services.

The study involved lengthy interviews with GPs. The findings regarding men's use of services support a view that incorporates both postulated explanations—that is, the rate of use was believed to be affected by cultural learning in combination with systematic problems of access, location, and nature of service provision. Some findings were that:

- men seem to be using 24-hour medical services in preference to the more traditional general practitioner services. The 24-hour services have the advantage of easy access and rapid service, but may lack the benefits of continuity of care (such as concerns with screening, regular check-ups, awareness of life, context, etc.) provided by traditional general practice;
- patterns of general practitioner usage by men varies depending on age and educational level. Older men and better educated men were more likely to use services; self-employed men tended to avoid general practitioner's until their health problem interfered with work performance; young men, especially those who are unemployed and at greatest risk of psychological problems, rarely access GP services; and men did not tend to use GPs as a means to deal with psychological issues, but focused on physical ailments.

These findings are, with some variations, largely supported by a similar study conducted by Tudiver and

Talbot in the United States.⁹ Their study concluded that men's health-seeking behaviour is determined by a combination of:

- systematic barriers (time, access, and non-availability of a male service provider);
- psychological variables (perceived vulnerability, fear, and denial);
- social factors (male learning of social roles that militate against appropriate help-seeking behaviour).

Both the Australian and American studies indicate that effective primary care services for men (and probably preventative services as well) will require two changes in their current arrangements. First, a greater degree of sensitivity to male help-seeking behaviour (location, provider, hours of operation etc) is needed to ensure that males do use services. Second, and a greater challenge, is the need to encourage men and boys to place a higher premium on their health. This cannot be achieved simply by exhorting males to change their social values. We must convey the message to males, and especially boys, that their wellbeing is a matter of broad social concern, and that services are available and responsive to their needs.

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THE NSW MEN'S HEALTH NETWORK

Gillian Sliwka

*Men's Health Information and Research Centre
University of Western Sydney, Richmond*

The Men's Health Network (MHN) was established in early 2000, following recommendations made in *Moving Forward in Men's Health*. It consists of representatives from all area health services in NSW (Table 1). The chief executive officers from all 20 area health services were requested to nominate a men's health representative. Some areas had an existing representative, while others sought nominations from staff members interested in men's health issues. The MHN is coordinated through the Men's Health Information and Resource Centre (MHIRC), which provides advice and support to the MHN.

MEN'S HEALTH NETWORK WORKSHOPS

The first MHN workshop was held in June 2000, bringing together men's health representatives from all the area health services. At this workshop, representatives were asked to identify the needs and issues of men's health in their area, to describe existing programs, resources and perceived barriers to men's health. The outcomes of the first workshop fall into four categories: networking, research, establishing ongoing MHN workshops on a regular basis, and planning for Men's Health Week.

Networking

The workshop established an email group (or list server) for the benefit of the MHN, as a vehicle for discussing and sharing ideas, issues, innovations, and initiatives in the area of men's health. The list server is now well established and is regularly used by members. A database containing contacts for groups and individuals dealing with men's health issues has also been created and is available to all MHN members.

Research

In order to stimulate debate on research priorities, and to encourage future research, the Workshop agreed that the MHN would also foster opportunities for the dissemination of current research findings, study designs and methodologies.

Ongoing workshops

The MHN workshops are held on a regular basis, approximately every six months, and most recently in June 2001 and November 2001. These workshops are an important vehicle for men's health representatives to consult on policy developments, become acquainted with new research projects and share initiatives in service delivery. The workshops also contributed to planning for the men's health conference and indigenous men's health convention held at the University of Western Sydney in September this year.

Planning for Men's Health Week 2000 and 2001

The workshops assisted planning for Men's Health Week held during September 2000 and 2001. The workshops also helped generate publicity for Men's Health Week, with a series of radio and television interviews, newspaper articles and media releases. The workshops also facilitated the production of two Men's Health Week posters titled *Men's Health Matters* and *Men's Health – who cares?*, as well as postcards on topical issues that were widely distributed throughout NSW.

CONCLUSION

The Men's Health Network provides men's health representatives from numerous service agencies with opportunities to exchange information. Feedback from participants has been positive. It is anticipated that this networking will have a positive effect on the delivery of men's health services in area health services. In this way, the Men's Health Network hopes to enhance men's and boy's health. ☘

TABLE 1**MEN'S HEALTH NETWORK REPRESENTATIVES IN THE NSW AREA HEALTH SERVICES**

Area Health Service	Representative	Email	Telephone	Alternative Representative	Email	Telephone
Ambulance Service of NSW	Howard McIlvanie		9320 7777			
Central Coast	Mark Spierings	mspierings@doh.health.nsw.gov.au	4320 3876	Anthony Smith	amsmith@doh.health.nsw.gov.au	4349 4819
Central Sydney	Greg Millan	greg.millan@email.cs.nsw.gov.au	9515 3313			
Corrections Health	Carol Denne	carol.denne@dcs.nsw.gov.au	9289 5487			
Far West	Lyn Hamilton	lhamiltonFWHS@doh.health.nsw.gov.au				
Greater Murray	Dalton Dupuy	dalton.dupuy@swhs.nsw.gov.au	6058 1731			
Hunter	Matt Dogherty	m.dogherty@hunter.health.nsw.gov.au	4924 6756	David Jordan	djordan@doh.health.nsw.gov.au	
Illawarra	Glennis Ogden	ogdeng@iahs.nsw.gov.au	4275 4600			
Macquarie	Henry Alberts	halbe@doh.health.nsw.gov.au	6841 2222	Katie Stephens	kstep@doh.health.nsw.gov.au	6881 2212
Mid North Coast	Graham Fazio	gfazio@doh.health.nsw.gov.au	6551 6822			
Mid West	(To be nominated)					
New Children's Hospital	David Bennett		9845 0000	Gabrielle Mulcahy		
New England	Karen Edwards	kledwards@doh.health.nsw.gov.au	6776 4874	Gordon Cope	gacope@doh.health.nsw.gov.au	
Northern Rivers	Vahid Saberi	vahid@doh.health.nsw.gov.au	6620 2462	Gerard Williams	gerryw@nrhs.health.nsw.gov.au	042 849 0305
Northern Sydney	Graham Stone	gstone@doh.health.nsw.gov.au	9976 9860	Alan Grochulski	agrochul@doh.health.nsw.gov.au	9926 7912
	Jeffrey Crumpton	jcrumpto@doh.health.nsw.gov.au	9926 8905			
South Eastern Sydney	Ross Johnston	johnstonr@sesahs.nsw.gov.au	9314 6022			
South Western Sydney	James Mabbutt	james.mabbutt@swhs.nsw.gov.au	9828 5944			
Southern	Kate Lohse	kate.lohse@sahs.nsw.gov.au	6299 1725			
Wentworth	Michael Orchard	orcharm@wahs.nsw.gov.au	4734 3984	Clarke Scott		4759 8700
Western Sydney	John Kurko	john_kurko@wsahs.nsw.gov.au	9840 3708			

ANTHRAX

WHAT IS ANTHRAX?

Anthrax is a bacterial disease caused by infection with *Bacillus anthracis*. The same bacteria can lead to three forms of disease:

- cutaneous anthrax
- intestinal anthrax
- inhalational (or pulmonary) anthrax.

Anthrax occurs among grazing animals in many parts of the world, including livestock in parts of New South Wales. Anthrax is a very rare disease in humans. In NSW only two cases of human anthrax have been reported since 1982.

The bacteria may remain in the soil for many years in the form of spores which can survive being dried out. These spores are usually the cause of infections in grazing animals. However, human infection from the source of spores is considered unlikely, as quite a large concentration of spores is needed for infection to occur. Anthrax is not known to be transmitted from person to person.

HOW DO YOU CATCH ANTHRAX?

In about 95 per cent of cases of anthrax, the bacteria gain entrance through broken skin or wounds (which can cause cutaneous anthrax) from a source such as the carcass of an infected animal. Anthrax bacteria can also be ingested in poorly prepared meat from infected animals (which can cause intestinal anthrax) or breathed in (which can cause inhalational or pulmonary anthrax). Intestinal and inhalational anthrax in humans have not been recorded in Australia.

WHAT ARE THE SYMPTOMS?

People who contract **cutaneous** anthrax develop dark-coloured, painless lesions within one or two weeks of exposure. These lesions can be associated with swelling of the surrounding tissue. Even without treatment, four out of five people with cutaneous anthrax survive. With appropriate treatment most people with cutaneous anthrax recover fully.

People who contract **intestinal** anthrax develop abdominal pain and fever, and typically death follows soon after.

People who contract anthrax by **inhalation** may initially complain of flu-like symptoms. However, over several days the disease can progress into severe breathing difficulties and circulatory shock. Inhalational anthrax has a fatality

rate of between 6–9 of every 10 people who show symptoms. The incubation period for inhalational anthrax is most frequently between 1–6 days but may be as long as 60 days.

In late 2001, several people in the USA contracted anthrax from spores that were maliciously distributed through the mail. Both cutaneous and inhalational anthrax were reported.

HOW IS ANTHRAX DIAGNOSED?

Diagnosis of anthrax requires the isolation of anthrax bacteria from the blood, the skin lesions or respiratory secretions of patients, or from measuring the concentration of anthrax-specific antibodies in the blood.

WHAT IS THE TREATMENT FOR ANTHRAX?

Several antibiotics including penicillin, doxycycline, and ciprofloxacin are used to treat anthrax infections.

IS THERE ANY PREVENTIVE TREATMENT AVAILABLE?

Doctors can prescribe antibiotics to people who have been confirmed as having had significant exposure to anthrax spores. This treatment is more effective when it is provided soon after infection and before symptoms develop. A vaccine is available to people who have an ongoing risk of exposure. However, immunisation is not recommended for the general population due to the extremely low risk of infection.

WHAT IF I NEED TO DEAL WITH ANIMALS THAT HAVE ANTHRAX?

Each year in NSW several cases of anthrax in livestock are reported. The handling of infected animals and their carcasses represents a risk to people. Gloves, overalls, and rubber boots should be worn if you need to deal with animals infected with anthrax. These need to be carefully cleaned after use. Thorough hand washing with soap is also a very important protection against infection.

Suspected cases among livestock and humans must be reported to the Department of Agriculture. Veterinary procedures to prevent the spread of anthrax among animals include the correct disposal of infected carcasses, the quarantining of affected farms, and the use of an anthrax vaccine to prevent the infection of healthy animals—including those on neighbouring properties.

December 2001 ☞

COMMUNICABLE DISEASES, NSW: DECEMBER 2001

TRENDS

Notifications of communicable disease received through to October 2001 are summarised in Table 3 and Figure 1. Of note are the continuing epidemic of **pertussis** occurring throughout the State, and a mild resurgence of **hepatitis A** (12 cases were reported in South Eastern Sydney in October, but no links were identified among them).

AUSTRALIAN CHILDHOOD IMMUNISATION REGISTER—QUARTERLY REPORT

Table 1 reports immunisation coverage by area health service for children aged 12 months to less than 15 months. These data refer to three different cohorts of children whose age has been calculated 90 days before data extraction. The information contained in each of the reports has been extracted from the Australian Childhood Immunisation Register (ACIR) and may not reflect actual coverage due to under-reporting.

TABLE 1

IMMUNISATION COVERAGE BY AREA HEALTH SERVICE FOR CHILDREN AGED 12 MONTHS TO LESS THAN 15 MONTHS

Area Health Service	30 June 2001	30 Sept 2001	31 Dec 2001
Central Coast	94	93	94
Central Sydney	91	89	87
Hunter	94	96	93
Illawarra	92	93	91
Northern Sydney	90	89	89
South Eastern Sydney	89	89	89
South Western Sydney	92	90	89
Wentworth	92	92	91
Western Sydney	89	90	89
Far West	87	92	94
Greater Murray	93	93	93
Macquarie	93	92	95
Mid North Coast	91	91	88
Mid Western	90	92	92
New England	92	92	94
Northern Rivers	86	86	84
Southern	91	91	89
NSW	91	91	91

ASSUMING THE WORST: RESPONDING TO EPISODES OF SUSPECTED BIOLOGICAL TERRORISM

A. Leask, V. Delpech, M. Boomer, E. Mitchell, B. O'Sullivan

In mid-October 2001, the NSW Department of Health received the first reports of what emerged as an epidemic of exposures to powders mistakenly thought to contain anthrax spores. These incidents involved individuals who received packages that contained powder or had a suspicious address, or individuals who encountered

suspicious powders in unexpected situations. Some incidents apparently had malicious intent while others clearly had an innocuous cause. These events began soon after reports from the United States of individuals who had developed anthrax infections following the receipt of mail that contained powdered anthrax spores.

To coordinate the responses to these threats, the NSW Government re-opened the Police Operations Centre, a communications facility that was last used during the Sydney 2000 Olympic and Paralympic Games. The NSW Department of Health placed a liaison officer in the Police Operations Centre. Several public health officers from the NSW Public Health Officer Training Program, and other staff from the NSW Department of Health, were also seconded to assist. Contact details of people involved in suspicious powder incidents were matched to the results of analyses of the specimens taken from these incidents. The results were distributed to public health units who contacted the victims to inform them of the results.

The responsibility for the management of such incidents is detailed in the NSW Department of Health's HAZMAT Plan, a subsection of the NSW State Disaster Plan (Displan). The role of the area health services included the provision of medical, mental health, and public health services. The police, ambulance and fire brigade also had essential roles in responding to these events.

Public health units were also asked to place laboratories and emergency departments on alert for patients presenting with suspicious illnesses. Chief Health Officers around Australia alerted all divisions of general practice to be vigilant for suspicious illnesses in their patients. Australia was not considered to be at serious risk of terrorist attack; therefore the use of vaccines and prophylactic antibiotics, and the diagnostic testing of victims, was strongly discouraged.

Fact sheets on anthrax and material addressing these incidents were prepared and distributed to public health units. These were developed to help inform and reassure the general public, especially those individuals who had been involved in an incident. A recorded telephone message service on (02) 9424 5908 was also established to provide information.

Between 16 October and 12 November, 463 samples were submitted to the police forensics laboratory for analysis. These samples were collected from incidents that involved approximately 1500 people. To date no sample has tested positive for anthrax spores.

In the absence of a positive laboratory test for anthrax spores, or a case of anthrax, the main role for NSW Health has been to mitigate the fear associated with these events. Efforts have focused on returning the results of laboratory investigations to the individuals exposed as swiftly as possible.

TABLE 2

CHARACTERISTICS OF PEOPLE DIAGNOSED WITH HIV INFECTION AND AIDS, OR WHO HAVE DIED FROM AIDS, NSW, 1981 TO SEPTEMBER 2001

Characteristic	All cases (1981–2000)						1991–2000						Jan–Sep 2001						by Year	AIDS		
	HIV		AIDS		AIDS Deaths		HIV		AIDS		AIDS Deaths		HIV		AIDS		AIDS Deaths			HIV	AIDS Deaths	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%				
Sex																						
Male	11226	92.5	4662	95.6	3195	96.3	4823	92.0	3095	94.9	2237	96.2	248	86.4	15	93.8	8	85.7	1981	1	1	1
Female	627	5.2	203	4.2	115	3.5	341	6.5	157	4.8	83	3.6	30	10.5	1	6.3	1	14.3	1982	0	1	0
Other	278	2.3	11	0.2	7	0.2	78	1.5	9	0.3	6	0.3	9	3.1	0	0.0	0	0.0	1983	1	3	1
Age																						
0–2	38	0.3	7	0.1	3	0.1	22	0.4	7	0.2	3	0.1	0	0.0	0	0.0	1	0.0	1984	205	30	6
3–12	42	0.4	12	0.3	9	0.3	9	0.2	6	0.2	5	0.2	0	0.0	0	0.0	0	0.0	1985	990	91	46
13–19	252	2.1	15	0.3	11	0.3	76	1.5	5	0.2	6	0.3	3	1.1	0	0.0	0	0.0	1986	1112	160	108
20–29	4095	33.8	821	16.8	575	17.3	1612	30.8	490	15.0	392	16.9	68	23.7	2	12.5	0	0.0	1987	1637	248	142
30–39	4501	37.1	2034	41.7	1353	40.8	1984	37.9	1380	42.3	953	41.0	108	37.6	7	43.8	5	71.4	1988	1144	313	137
40–49	2170	17.9	1368	28.1	948	28.6	992	18.9	938	28.8	677	29.1	62	21.6	1	6.3	2	28.6	1989	990	347	235
50–59	683	5.6	468	9.6	305	9.2	353	6.7	337	10.3	215	9.2	18	6.3	4	25.0	0	0.0	1990	809	421	315
60+	245	2.0	151	3.1	113	3.4	120	2.3	98	3.0	75	3.2	10	3.5	2	12.5	1	0.0	1991	813	438	335
Not reported	105	0.9	0	0.0	0	0.0	74	1.4	0	0.0	0	0.0	18	6.3	0	0.0	0	0.0	1992	712	427	304
Exposure																						
Male homo-bisexual	7040	58.0	3952	81.1	2757	83.1	3345	63.8	2561	78.5	1898	81.6	143	49.8	13	81.3	5	71.4	1993	599	468	369
Male homo-bisexual-IDU	267	2.2	183	3.8	126	3.8	166	3.2	130	4.0	98	4.2	10	3.5	0	0.0	1	14.3	1994	512	533	410
Injecting drug use	357	2.9	47	1.0	20	0.6	160	3.1	42	1.3	19	0.8	10	3.5	0	0.0	0	0.0	1995	540	463	343
Heterosexual	902	7.4	376	7.7	187	5.6	705	13.5	325	10.0	164	7.1	51	17.8	2	12.5	1	14.3	1996	463	356	254
Haemophila*	115	1.0	51	1.1	45	1.4	7	0.1	24	0.7	28	1.2	0	0.0	0	0.0	0	0.0	1997	437	200	110
Blood–tissue recipient	117	1.0	106	2.2	90	2.7	28	0.5	44	1.4	43	1.9	0	0.0	0	0.0	0	0.0	1998	415	166	69
Needle–stick injury	4	0.0	0	0.0	0	0.0	4	0.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1999	388	106	63
Vertical	33	0.3	14	0.3	7	0.2	27	0.5	12	0.4	6	0.3	0	0.0	0	0.0	1	0.0	2000	363	104	69
Not stated	3296	27.2	147	3.0	85	2.6	800	15.3	123	3.8	70	3.0	73	25.4	1	6.3	1	0.0				
Residence																						
Sydney	6701	55.2	4040	82.9	2767	83.4	3991	76.1	2707	83.0	1951	83.9	237	82.6	15	93.8	9	100.0	Jan–Mar 2001	92	7	4
Rural	779	6.4	678	13.9	420	12.7	534	10.2	522	16.0	347	14.9	35	12.2	1	6.3	0	0.0	April–Jun 2001	89	9	5
Unknown	4651	38.3	158	3.2	130	3.9	717	13.7	32	1.0	28	1.2	15	5.2	0	0.0	0	0.0	July–Sept 2001	106	-	-
Total	12131	100.0	4876	100.0	3317	100.0	5242	100.0	3261	100.0	2326	100.0	287	100.0	16	100.0	9	100.0	Total 2001	287	16	9

HIV data to 30 September 2001, source: NSW HIV database, Communicable Diseases Surveillance and Control Unit, NSW Department of Health

Recent HIV data may contain incomplete risk factor information and duplicates

AIDS data to June 2001, source: National Centre for HIV Epidemiology and Clinical Research

* Includes people with coagulation disorders

**SURVEILLANCE FOR HUMAN
IMMUNODEFICIENCY VIRUS INFECTION, NSW,
TO SEPTEMBER 2001**

To the end of September 2001, 287 new diagnoses of HIV infection, 16 cases of AIDS and nine deaths from AIDS were reported to the NSW Department of Health (Table 2). In July 2001, the system for surveillance for HIV infection was revised to enable better tracking of cases. The new system involves initial reporting by the laboratory of positive HIV tests (by de-identified name code) to the Communicable Diseases Surveillance and Control Unit (CDSCU) of the NSW Department of Health. CDSCU staff

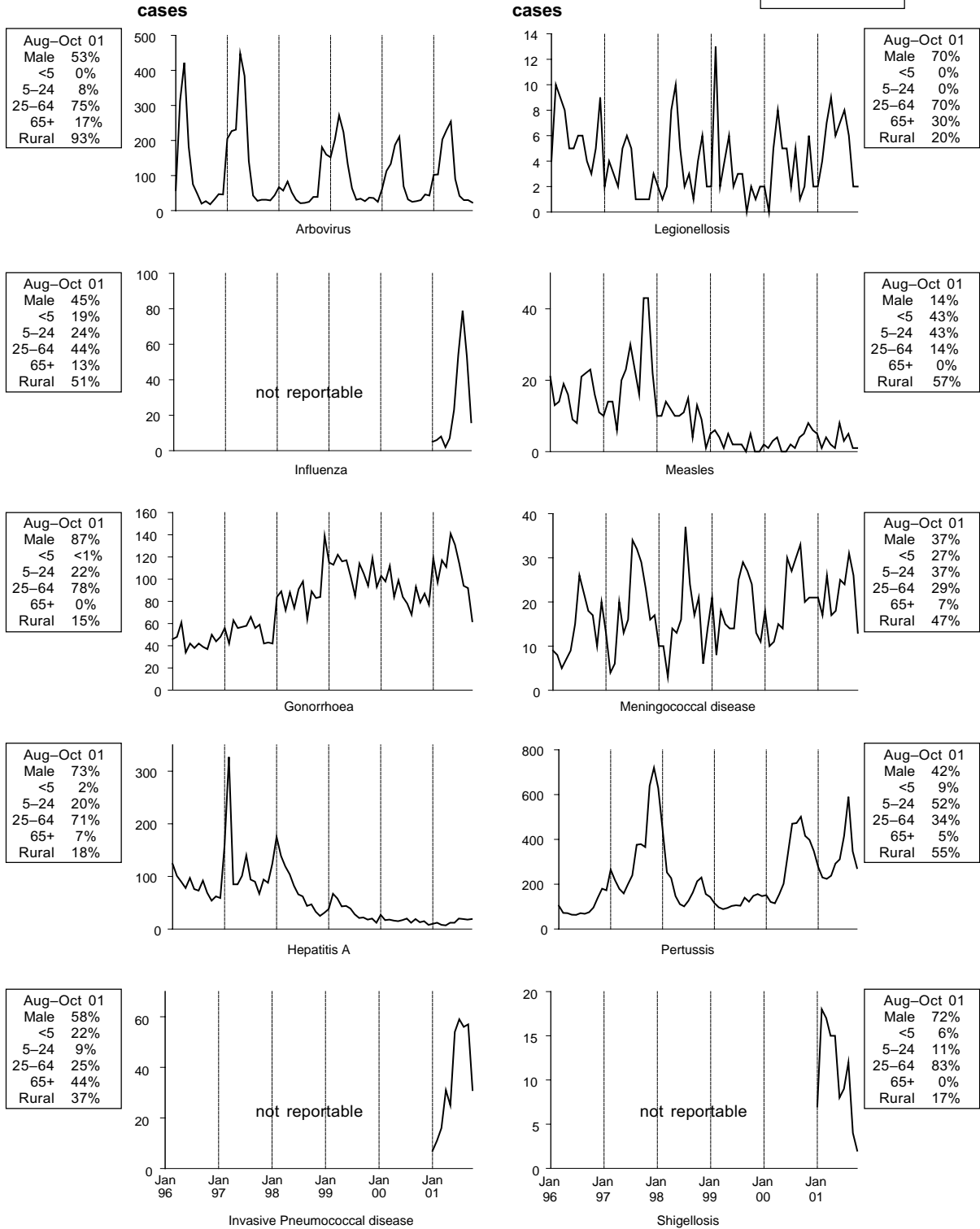
then collect information about risk factors associated with the case and a history of any previous positive tests. Table 2 includes preliminary data provided by the laboratories. These data will be updated as new information about the cases is received from the treating doctors. The number of people living with—and who have died from—AIDS is likely to be under-reported. Public health units are currently working with clinicians and laboratory staff in each area health service in an annual active surveillance effort to maximise the reporting of AIDS cases. This active surveillance is necessary to ensure accurate management of the epidemic. ☒

FIGURE 1

REPORTS OF SELECTED COMMUNICABLE DISEASES, NSW, JANUARY 1996 TO OCTOBER 2001, BY MONTH OF ONSET

These are preliminary data: case counts for recent months may increase because of reporting delays. Laboratory-confirmed cases, except for measles, meningococcal disease and pertussis.

NSW population	
Male	50%
<5	7%
5-24	28%
25-64	52%
65+	13%
Rural*	42%



* For definition, see NSW Public Health Bulletin, April 2000

TABLE 3

REPORTS OF NOTIFIABLE CONDITIONS RECEIVED IN OCTOBER 2001 BY AREA HEALTH SERVICES

Condition	Area Health Service (2001)																		Total	
	CSA	NSA	WSA	WEN	SWS	CCA	HUN	ILL	SES	NRA	MNC	NEA	MAC	MWA	FWA	GMA	SA	CHS	for Oct [†]	To date [†]
Blood-borne and sexually transmitted																				
Chancroid*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlamydia (genital)*	26	19	31	17	3	14	24	11	97	6	14	14	8	5	15	16	5	4	330	3,758
Gonorrhoea*	22	2	6	-	-	-	2	1	41	2	2	1	-	1	4	1	1	1	88	1,120
Hepatitis B - acute viral*	1	-	-	-	1	-	-	2	2	-	2	-	-	-	-	-	-	-	8	68
Hepatitis B - other*	61	22	72	8	1	6	6	9	49	-	1	2	-	3	4	4	-	1	252	3,871
Hepatitis C - acute viral*	1	-	-	-	2	-	-	1	-	-	-	-	-	-	-	-	-	-	4	159
Hepatitis C - other*	91	27	75	41	1	46	56	35	101	28	46	17	6	8	10	13	7	57	666	7,454
Hepatitis D - unspecified*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11
Syphilis	10	-	5	1	1	2	-	1	28	-	2	2	1	1	2	1	1	2	60	450
Vector-borne																				
Arboviral infection (BFV)*	-	-	1	-	-	-	1	-	-	2	12	1	1	-	-	-	-	-	18	374
Arboviral infection (Other)*	-	2	1	-	-	1	1	1	-	-	-	-	-	-	-	-	-	-	6	54
Arboviral infection (RRV)*	-	-	-	-	-	1	1	-	-	2	3	-	2	1	2	-	-	-	12	741
Malaria*	-	4	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	7	129
Zoonoses																				
Anthrax*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brucellosis*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Leptospirosis*	-	-	-	-	-	-	2	-	-	1	2	1	-	-	-	-	-	-	7	64
Lyssavirus*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Psittacosis*	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	29
Q fever*	-	-	-	2	-	-	2	-	-	1	2	2	4	-	-	-	-	-	13	125
Respiratory and other																				
Blood lead level*	-	1	-	5	-	1	11	5	3	-	2	-	4	-	4	-	-	-	36	434
Influenza*	4	5	23	6	1	-	3	1	5	-	1	2	4	1	-	1	2	-	59	250
Invasive pneumococcal infection	3	6	7	7	1	3	9	4	4	-	-	-	-	3	-	-	-	-	47	347
<i>Legionella longbeachae</i> infection*	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	24
<i>Legionella pneumophila</i> infection*	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	2	32
Legionnaires' disease (other)*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Leprosy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Meningococcal infection (invasive)	3	-	3	-	-	-	2	2	2	1	-	1	1	1	-	-	-	-	16	224
Tuberculosis	14	10	6	-	-	1	1	-	7	-	-	-	-	-	-	-	-	-	40	312
Vaccine-preventable																				
Adverse event after immunisation	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	79
H.influenzae b infection (invasive)*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Measles	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	2	32
Mumps*	-	2	1	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	5	26
Pertussis	18	40	46	24	32	14	55	26	41	36	13	10	21	13	3	56	3	-	451	3,424
Rubella*	-	1	-	-	1	-	1	-	-	2	-	1	-	-	-	-	1	-	7	59
Tetanus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Faecal-oral																				
Botulism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cholera*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Cryptosporidiosis*	1	-	2	1	-	-	-	1	2	-	2	-	-	-	-	1	-	-	10	142
Food borne illness (not otherwise specified)	-	-	1	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	6	25
Gastroenteritis (in an institution)	31	-	13	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	53	425
Giardiasis*	9	11	9	3	-	1	2	1	17	8	4	6	-	-	2	3	-	-	76	839
Haemolytic uraemic syndrome	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Hepatitis A*	3	3	1	-	1	-	1	2	12	-	-	-	-	-	-	-	-	-	25	147
Hepatitis E*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
Listeriosis*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11
Salmonellosis (not otherwise specified)*	-	15	13	7	1	2	13	5	26	8	6	2	1	2	-	8	-	-	110	1,409
Shigellosis*	-	-	2	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	4	109
Typhoid and paratyphoid*	-	1	2	-	1	1	1	-	1	-	-	-	-	-	-	-	-	-	8	38
Verotoxin producing <i>E. coli</i> *	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* lab-confirmed cases only

† includes cases with unknown postcode

CSA = Central Sydney Area
NSA = Northern Sydney Area
WSA = Western Sydney Area

WEN = Wentworth Area
SWS = South Western Sydney Area
CCA = Central Coast Area

HUN = Hunter Area
ILL = Illawarra Area
SES = South Eastern Sydney Area

NRA = Northern Rivers Area
MNC = North Coast Area
NEA = New England Area

MAC = Macquarie Area
MWA = Mid Western Area
FWA = Far West Area

GMA = Greater Murray Area
SA = Southern Area
CHS = Corrections Health Service

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The Aboriginal men's health implementation plan (Williams V, Kakakios M) 2001 12(12), 318–321

adolescents, *see also* children

Development of a child and youth health report card for Central Sydney, 2000 (O'Sullivan B et al.) 2001 12(11), 302–307

Getting in early: a framework for early intervention and prevention in mental health for young people in New South Wales (Paterson K et al.) 2001 12(05), 137

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