



## CANCER COUNCIL LOOKS TO A HEALTHY FUTURE

**T**he NSW State Cancer Council was founded in 1952 and proclaimed as a statutory authority in 1955 with a wide-ranging mandate to do all things necessary to control cancer.

It was not until withdrawal from direct clinical and research responsibilities in 1986, however, that the Council was able to direct its energies to expanding as a public health organisation devoted to cancer control with major commitments to funding research and to the support of cancer patients and their families.

The move to its own premises in Woolloomooloo in January this year was the culmination of six years of rapid change. Clear mission and purpose statements have replaced the outdated objects set out in the 1955 statute. They help shape the annual operating plans for programs designed to prevent cancer, save lives from cancer and diminish suffering from cancer, while performance indicators and clearly defined outcomes facilitate evaluation of work undertaken.

The transition from a health 'charity' to a 'not for profit' professional organisation is almost complete while community involvement remains constant, with more than 95 per cent of an income of around \$10.4 million in 1991-92 coming from public support. A new corporate identity saw a change from the caduceus as a logo (considered fear-provoking) to the daffodil (adopted by many countries as a symbol of hope and renewed life) and an orientation to meeting the needs of the wider community.

### PREVENTING CANCER

#### Public information and education

While it has been estimated that up to 75 per cent of cancer is potentially preventable, it has long been accepted that the behavioural change necessary cannot be achieved without first raising the community's awareness of cancer issues. Mass media must be mobilised and written materials prepared to foster changed attitudes to cancer over the decades.

In the 1980s a number of important decisions relating to behavioural change was made:

- As schools are an obvious access point, the Council's Cancer Education in Schools project was conceived in 1982 as part of a long-term strategy for growing generations of Australians who are not only comfortable with the word cancer but understand how to prevent it. Teachers seconded from the Department of Education assisted in incorporating cancer prevention across many curricula such as biology, statistics, geography and history, the Council being one of the first health agencies to take this path.
- Collaboration with other State Cancer Councils and other organisations was encouraged and resulted in a comprehensive policy for skin cancer control. Strategies for primary prevention ('Slip, Slop, Slap') and early detection, especially taking services to the public (battle stations, now referred to as skin spot check stops), were systematically pursued.

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## Cancer Council looks to a healthy future

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- It was recognised that prevention had a political and economic as well as a health perspective in some cases, particularly in trying to reduce the 30 per cent of cancer estimated to be caused by smoking. The cancer organisations joined forces with the Heart Foundation and the Royal Colleges to form the advocacy group ASH (Action on Smoking and Health) in 1984 as part of a comprehensive policy. The dividends are there for all to see and benefit from.
- In 1987 the Council went one step further and established its Cancer Education Research Project (CERP) under Professor Rob Sanson-Fisher within the discipline of behavioural science in relation to medicine at the University of Newcastle. CERP proceeded to explore behavioural change which would reduce cancer risk and to increase understanding of how to persuade people to follow advice on the early detection of cancer, latterly to increase participation in screening programs.

By the 1990s, as cancer prevention in Australia became relatively sophisticated, State planning and coordination units for two national programs, in mammographic screening and the organised approach to cervical screening, were established under the auspices of the Council.

### SAVING LIVES FROM CANCER

#### Central Cancer Registry and Cancer Epidemiology Research Unit

The Council assumed management responsibility for the Central Cancer Registry (CCR) at the end of 1986. The Registry was five years behind, but now is about to publish its annual report for 1990. Reports on local government areas, trends in incidence 1972-1989 and trends by health region are imminent. Survival analyses, particularly for breast and childhood cancers, are also planned.

The Cancer Epidemiology Research Unit (CERU) established by the Council in 1989 is working closely with the Central Cancer Registry. Together they have:

- categorised high risk populations by country of birth and by place of residence;
- monitored trends in cancer incidence down to individual Health Areas and Regions;
- produced projections of the cancer burden, available for planning the future requirements for radiotherapy and other health services;
- taken part with other State registries in collaborative projects to describe the striking rise in incidence of melanoma throughout Australia and, with other national and international research centres, explored the causes of certain cancers; and will
- be closely involved in evaluating the breast and cervical cancer screening programs within NSW and in an evaluation of existing patterns of service relating to early detection of these cancers.

#### Research

Although the Council moved out of direct participation in laboratory research in 1986 it continues to be the major provider of cancer research funds to individuals in this State outside the National Health and Medical Research Council. While the behavioural research of CERP and epidemiological research of the CERU is commissioned, the

laboratory research supported by the Council at present is investigator-initiated.

The Council provides project grants on a competitive basis to individuals for one, two or three years and this year introduced program grants for researchers with proven track records including high peer reviewed ratings for work in project grants.

To attract talented overseas researchers from NSW back to this State, in 1988 the Council established the Bicentenary Cancer Research Fellowship. Dr Roger Reddel, then cancer expert in the US National Cancer Institute Laboratory of Human Carcinogenesis, took up his position as part of a research team under Professor Peter Rowe at the Children's Medical Research Institute now based at Westmead. His three-year term was extended following satisfactory progress in his research into the immortalisation of human cells, a phenomenon believed to be intrinsic to cancer initiation.

In its research centre program the Council funds the Carcinogenesis Research Unit within the School of Pathology at the University of NSW and the office of the Director of the Centenary Institute of Cancer Medicine and Cell Biology at the University of Sydney, Professor Tony Basten.

In order to improve psychosocial aspects of patient care, the Council initiated annual Patient Care Research Awards in 1986 which are adjudicated by a special committee.

Under a strategic plan for cancer research to be finalised soon, centres or individuals funded for a five-year period will have to pass a scientific audit after three years to qualify for continued support. The CERP project has recently undergone its first scientific audit by Dr Bruce Armstrong, Deputy Director of the International Agency for Research into Cancer in Lyon, Professor Don Iverson, Professor and Vice-Chairman for Research and Academic Affairs, Department of Family Medicine, University of Colorado School of Medicine, and Dr Neville Owen, Department of Community Medicine, University of Adelaide. Their very positive report is to be debated by the Council next year and it is anticipated it will provide future direction for CERP.

#### Professional education and training

A recent five-year strategic plan for this long-standing responsibility has five major themes:

- communication skills;
- multi-disciplinary relations;
- prevention and early detection;
- breaking down barriers; and
- data management and dissemination.

Focusing first on communication skills to enhance patient care, the Council has collaborated with the Post Graduate Medical Council to produce a set of training manuals covering such topics as breaking bad news to patients, preparing patients for potentially threatening clinical procedures and how to encourage patients to quit smoking. Collaboration with the Royal Australasian College of Surgeons is planned.

The Council provides travel grants to allow health professionals to present invited papers at overseas conferences of standing and of relevance to cancer and to assist in technology transfer. A budget is also allocated to fund post graduate education programs, to provide information and fund conferences.

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# NATIONAL SCHEME TRACKS SALMONELLA

The National Salmonella Surveillance Scheme (NSSS) has operated since 1980 as a data collection scheme for information on enteric organisms including *Salmonella*, *Shigella*, *Vibrio* and *Yersinia* throughout Australia and has published and circulated data since 1987. The custodian laboratory for the scheme is the Microbiological Diagnostic Unit (MDU) at the University of Melbourne. MDU is the World Health Organisation-affiliated reference laboratory for *S. typhi* and *S. paratyphi* and undertakes national *Salmonella* phage typing. Laboratories, both public and private, provide data to the scheme on isolations of enteric pathogens from human, veterinary, environmental and food sources.

Over recent years in NSW there has been an increasing tendency to eat more meals outside the home and to buy more processed foods. In addition, food manufacturing has become more centralised with a consequent increased potential for foodborne outbreaks to affect larger segments of the community. The costs of this illness can be immense, not only to the health system and the wider community in lost work days, but also in the loss of community confidence in industries linked to foodborne outbreaks.

Surveillance and identification of enteric organisms from various environments, animals and foods is critical to understand the epidemiology and therefore the prevention of foodborne illness. The information collected and published by NSSS on isolations of enteric organisms from food, environmental and veterinary sources from both within NSW and throughout Australia provides a valuable resource when investigating the epidemiology of foodborne illness.

## FUNDING

The computerised database was initially established with a \$10,000 grant from the National Health and Medical Research Council (NHMRC) in 1979. NHMRC funding continued intermittently until 1990 when the council considered it could no longer provide money for the scheme which it regarded as a monitoring service rather than a public health research project. In 1990 the Australian Institute of Health and the Victorian Health Department provided grants to the scheme. In 1991, on the basis of submissions from the Advisory Committee of the Communicable Diseases Network-Australia (CDN-A), the Australian Health Ministers' Advisory Council took over funding and agreed that NSSS would become the coordinating centre for the surveillance of enteric pathogens and would provide national commentary on behalf of the CDN-A.

## VALUE OF THE SCHEME TO NSW

*Salmonella* serovars are often specific to particular environmental niches and food industries. Similarly, some *Salmonella* serovars have defined geographical boundaries and consequently *Salmonella* serovars isolated from particular foods vary from State to State. This differentiation provides useful markers for the investigation of outbreaks. A current investigation by Food Inspectors of an apparent rise in incidence of *S. virchow* has utilised data provided by NSSS which show the organism is a common human isolation in

Queensland but not in other States and is commonly isolated from beef, particularly beef from the Northern Territory. National data are useful where an outbreak is generalised due to the wide distribution of a contaminated food. NSSS provides quarterly and annual human and non-human reports which include phage typing of different serotypes of salmonellae. These data are a valuable resource which contributes to analysis of trends and comparisons of normal levels of incidence with those which are indicative of specific outbreaks.

Annual reports of human isolates published by the scheme include case rate data for *Salmonella* on a State-by-State basis for Australia, isolations from blood, urine and unusual sites, typhoid and paratyphoid cases, *Shigella* infections, infections acquired overseas, suspected and confirmed outbreaks and the top 10 salmonellas and phage types of *S. typhimurium*. The 1991 Human Annual Report was published in August 1992. Annual non-human reports include the total non-human notifications on a State-by-State basis, animal isolates, food isolates, a summary of isolations from raw meats, meat products, imported foods, animal feedstuffs, eggs, milk, milk products and environmental isolates. The 1990 Non-Human Annual Report was published in November 1991.

The monitoring of pathogens isolated from imported foods may be of invaluable assistance in preventing the introduction of new pathogens such as *Salmonella enteritidis* phage type 4 (PT4) to Australia. The incidence of *S. enteritidis* PT4 in the United Kingdom increased more than eightfold between 1984 and 1989. In 1990 there was a 25 per cent rise in incidence, and between January and August 1990 the Public Health Laboratory Service, Division of Enteric Pathogens for England and Wales reported that about 50 per cent of *Salmonella* isolations were *S. enteritidis* PT4. Contamination of shell eggs with *S. enteritidis* has also been reported in other European countries and the United States.

Presently NSSS collects more accurate data on the incidence of *Salmonella* than that obtained by the NSW Health Department's notification system under Section 16 of the Public Health Act 1991. In 1991 *Salmonella* notifications to the Department totalled 1,274 whereas NSSS received 1,548 notifications.

Apart from publishing data, staff associated with the scheme have acted as a direct resource for information to State health authorities and microbiologists from medical, veterinary, food technology and water laboratories. Laboratory staff associated with the scheme are in a position to notice sudden increases in incidence of isolations of particular organisms more rapidly than other organisations. In November 1991 staff associated with the scheme notified the NSW Health Department of a sudden increase of *S. typhimurium* phage type 9 which appeared to be an outbreak. This apparent outbreak was subsequently investigated by the Department. Data from NSSS were used by Departmental staff to assess the significance and extent of the apparent outbreak.

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# INVESTIGATING A SUSPECTED OUTBREAK

More than 6,000 notifications of *Salmonella* in humans were recorded by the National Salmonella Surveillance Scheme (NSSS) in 1990. The true number of cases is probably much greater as many cases go unreported because of the nature and short duration of the condition. Nearly a quarter of cases occurred in NSW. The most common type of *Salmonella* in 1989 and 1990 was *Salmonella typhimurium*, which was responsible for 38 per cent of cases.

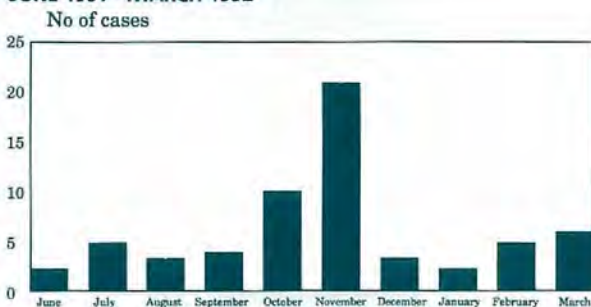
The symptoms of salmonellosis include violent diarrhoea, abdominal cramps, nausea, vomiting and fever. While salmonellosis is rarely fatal, children and the elderly are at particular risk of suffering serious health effects. In 1989-90, 177 people in NSW (about 10 per cent of all notified cases) with salmonellosis were admitted to hospital for treatment.

In November 1991, staff at the Microbiological Diagnostic Unit in Melbourne, who are responsible for the phage typing of *Salmonella typhimurium* notified NSW authorities of an apparent outbreak of *Salmonella typhimurium* phage type 9. The outbreak was investigated by members of the Epidemiology and Health Services Evaluation Branch and the Food Inspection Branch of the NSW Health Department. They determined that although an outbreak may have occurred (see Figure 1) no common factors could be determined apart from most cases reporting that they regularly bought unpackaged cold meats at delicatessens. In December 1991, the Food Inspection Branch was notified by the Victorian Health Department that *Salmonella typhimurium* phage type 9 had been isolated from a sample of salami manufactured in NSW. This information led to a further investigation by the Food Branch of the salami manufacturing processes in NSW.

FIGURE 1

## NSW NOTIFICATIONS PER MONTH,

JUNE 1991 - MARCH 1992



The time lapse between onset of illness and notification of *Salmonella* infection to the Health Department was identified as the greatest obstacle in the efficient investigation of this outbreak. Experience from a previous outbreak of *Salmonella* in 1985 demonstrated that timely notification was a continuing problem which needed to be addressed.

## METHODS AND RESULTS

### *Salmonella* investigation

Cases of *Salmonella typhimurium* phage type 9 were identified using information provided from the Microbiological Diagnostic Unit. This information was matched with data stored on the food poisoning notification database held by the Food Inspection Branch. The branch routinely sends a questionnaire and a stamped, addressed envelope to all patients for whom a notification of an isolation of an organism associated with food poisoning

(such as *Salmonella* spp., *Vibrio parahaemolyticus*, *Shigella* spp., *Yersinia* spp., *Campylobacter* spp.) is received. About 48 per cent of people respond to the questionnaire. If the response from patients or their guardians indicates they associate their illness with a particular food premises or food, an appropriate investigation is made. Notifications received are added to the database, which allows analysis of trends in the incidence of particular types of notifications and the areas in which they are occurring to be detected. Such analysis determines when detailed and urgent investigations are appropriate.

An additional food questionnaire was designed for this investigation and attempts were made to contact and interview each of the cases in order to administer the questionnaire. Most people were interviewed by phone and six were interviewed in their homes.

While most cases were under five years of age and all were under 40, no clear inferences could be drawn from the age distribution. Similarly, although most cases were from the Sydney metropolitan area, cases did not appear to be associated with any particular geographic location.

No common activities, food sources, foods or food premises could be determined by interviewing patients or their guardians. However several people regularly bought cold meats at delicatessens. Inspection of nominated food premises revealed no likely sources of contamination. Food samples collected from these sources were negative for *Salmonella*.

### Investigation of salami manufacturing process

In December 1991, the Food Inspection Branch was notified by the Victorian Health Department that *Salmonella typhimurium* phage type 9 had been isolated from a sample of salami made in NSW. The sample had been bought and submitted for analysis by a Victorian competitor of the NSW manufacturer. Initial samples of the salami and its ingredients bought by NSW food inspectors were negative for *Salmonella*. Samples of a range of smallgoods were purchased by food inspectors from delicatessens frequented by patients. Swabs were also taken from slicing machines in the delicatessens. Only one sample was positive for *Salmonella*, and it was of the same type of salami as that sampled in Victoria. A sample of salami bought directly from the manufacturer also proved positive for *Salmonella*. Subsequent serotyping results revealed that the *Salmonella* isolated was *Salmonella chester*.

Investigation of the traditional method of manufacture of the salami revealed that a fermentation process to lower pH (and thereby inhibit the growth of pathogens) is not used and that the cooking used a short time process with a maximum core temperature of 50 degrees Celsius so as not to denature the fat particles in the salami. The process involved considerable handling by staff at all stages. The manufacturer claimed attempts to modify the cooking process using higher temperatures resulted in a product unacceptable to consumers. The finished product is stored at room temperature by the manufacturer and distributor. Subsequent investigations by food inspectors have revealed that many salami manufacturers make a similar product by identical processes. Food inspectors have begun a detailed bacteriological survey of this type of product and are assessing the processes used by manufacturers. Samples taken from products of one of the salami manufacturers

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## Investigating a suspected outbreak

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during the survey were found to be infected with *Salmonella heidelberg*. The investigation has led one major manufacturer to modify its cooking process for unfermented salami products.

### Investigation of *Salmonella* notification system

Delay between the collection of clinical specimens and notification to investigating officers was determined as a limiting factor in efficient investigation, both in determining whether a specific detailed investigation was required and in limiting the efficiency of normal procedures.

An analysis of the flow of data between the time of collection of clinical specimens and food inspectors receiving results showed an extremely complex flow of data with multiple handling. A meeting of staff from laboratories, public health units, Food Inspection Branch and the Epidemiology and Health Services Evaluation Branch to try to improve the flow of information achieved considerable success, with co-operation from all parties. Food inspection staff now collect notifications directly from the Institute of Clinical Pathology at Westmead Hospital and serotyping results are sent directly to Food Inspection staff pass the notifications on to other interested parties who do not require the information as urgently.

### DISCUSSION

The results of the investigation were inconclusive as to the cause of an upsurge in the incidence of *Salmonella typhimurium* phage type 9. It may have been possible for contaminated salami (or possibly cross-contamination from salami through equipment such as slicing machines to other smallgoods) to have been implicated in the transmission of *Salmonella typhimurium* phage type 9.

While the cause of this outbreak remains inconclusive, the investigation was extremely worthwhile. The greatest lesson was the importance of a timely and accurate notification system. The sensitivity and efficiency of the notification and investigation program have now been improved, ensuring that future outbreaks of food poisoning will be detected early, allowing a quick and more effective response in terms of identifying and remedying the cause.

Although few common food sources were identified during the investigation, those that were identified were investigated thoroughly and, as a result, a food production process of considerable public health concern was uncovered. The investigation of this production process has resulted in manufacturers changing their cooking processes and in this way the potential for future outbreaks of *Salmonella* food poisoning from this food source has been reduced.

The benefits obtained from the investigation were in part due to its co-operative, multidisciplinary approach.

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Epidemiology and Health Services Evaluation Branch.  
Edward Kraa, Senior Food Inspector,  
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Michael Levy, Manager, Infectious Diseases Section,  
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## National scheme tracks *Salmonella*

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### ALTERNATIVE SOURCES OF DATA

The South Australian Institute of Medical and Veterinary Science's Australian *Salmonella* Reference Laboratory publishes a monthly report detailing cultures typed at the laboratory. The report contains *Salmonella* serotype and phage type isolations from human, veterinary and food sources. This laboratory works in collaboration with MDU and sends *Salmonella* isolations to MDU for phage typing. Although this report is a valuable resource, it is not a complete report of all national isolations; rather it is a report on cultures typed at that laboratory.

The Commonwealth Department of Health, Housing and Community Services' *Communicable Diseases Intelligence (CDI)* contains data on the national incidence of Salmonellosis. The August 1992 *CDI* contained the 1991 Annual Report. These data are not specific as to *Salmonella* serotypes or phage typing and contain only human isolations.

No other national resources of data on isolations of enteric pathogens are available.

### CONCLUSION

NSSS provides a valuable resource to the NSW Health Department for the surveillance and investigation of foodborne illness caused by enteric pathogens and continued funding is recommended.

Ed Kraa

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### PUBLIC HEALTH EDITORIAL STAFF

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The Bulletin aims to provide its readers with population health data and information to motivate effective public health action. Articles, news and comments should be 1,000 words or less in length and include the key points to be made in the first paragraph. Please submit items in hard copy and on diskette, preferably using WordPerfect 5.1, to the editor, Public Health Bulletin, Locked Mail Bag 961, North Sydney 2059. Facsimile (02) 391 9232. Design - Health Public Affairs Unit, NSW Health Department. Suggestions for improving the content and format of the Bulletin are most welcome.

## Cancer Council looks to a healthy future

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### DIMINISHING SUFFERING FROM CANCER

#### Patient and family support

In February 1986 the Council established a committee under the late Dr Fred Gunz which was to set the agenda for activities in the previously relatively neglected area of patient and family support. The principal objectives of this initiative were to

- give patients a voice in their care, in the sense of discovering what they saw their needs to be;
- provide information to cancer patients about their condition and its treatment in language virtually everyone could understand; and
- do something to remedy known deficiencies in their care, notably the lack of accommodation near cancer centres for patients forced to travel long distances for daily treatment and an under resourced palliative care system in need of expansion and additional trained staff.

Today, as a result of a partnership between the Council and a major Sydney teaching hospital, one hostel - the 28-bedroom Casuarina Lodge - stands within the grounds of Westmead Hospital. Soon, as the result of another such partnership, a second hostel - the 37-bedroom Blue Gum Lodge - will be built in the grounds of Greenwich Hospital to accommodate patients being treated at nearby Royal North Shore Hospital. The Council has also introduced fellowships to enable doctors and nurses to further their training in palliative care overseas and brings distinguished visitors in palliative care in medicine to Sydney to share knowledge with local colleagues.

The Council provides a number of other services to cancer patients and their families including a telephone counselling service and live-in carer crisis service.

#### FUTURE PLANS

The Council now has regional offices in Lismore, Newcastle and Wollongong and with local community support and participation will be reaching out to more country centres. Much of the impetus came from the Council's merchandise program which, since 1990, has drawn thousands of people into its orbit.

The Council's Act is being updated, the major change being to establish a board with expertise across its program areas rather than statutory representation of specific organisations. Greater use will be made of experts on a needs basis rather than relying on the many standing committees of professionals which presently exist. The board will continue to be composed of nine members (Dr George Rubin is Deputy Chair, having succeeded Dr Sue Morey at the beginning of 1992).

A Memorandum of Understanding was signed at the end of November with the Health Department whereby the Council, with funding from the Department, will undertake a number of programs on its behalf according to agreed performance criteria. The Memorandum will set the pattern of collaboration between the Department and the Council.

*Elaine Henry*  
Executive Director, NSW Cancer Council

## INFECTIOUS DISEASES

### MEASLES

Six hundred and seventy-two measles notifications were received for 1992. The notification rate for NSW is 11.3 notifications per 100,000 population. Orana and Far West Region notified 75 cases of measles for a rate of 53.4 notifications per 100,000 population.

Of the 672 cases 87 (12.9 per cent) were less than one year of age and 269 (27.0 per cent) were less than five years of age. All children should be routinely offered measles-mumps-rubella vaccine at 12 months of age.

### RUBELLA

For 1992, 243 notifications have been received for rubella. The notification rate for NSW is 4.1 per 100,000 population. Hunter Area notified 55 cases of rubella for a notification rate of 11.2 notifications per 100,000 population.

Of the 243 cases 4 (1.6 per cent) were less than one year of age and 92 (37.8 per cent) males aged 15 to 24.

### ARBOVIRUS INFECTIONS

The heavy late spring rains and flooding in the Upper Murray have reached the far western area and all backwaters and billabongs are at high levels. As the water levels recede small pools will remain to provide an enormous number of potential breeding sites for the inland vector of arboviral disease *Culex annulirostris*. This could not have occurred at a worse time as the population of this mosquito explodes from late December through to February. With all the additional water to act as breeding sites the potential for very high population densities is likely.

There has also been an increase in the population of birdlife, native and feral animals that may act as the natural host for arboviruses. What this means in practical terms is that this year there may be an increase in Ross River virus infection (one of the arboviruses that can cause infection in human).

Alphavirus (this includes Ross River virus) infections are driven by three climatic factors: high rainfall, flooding and tidal inundation. Large parts of inland NSW have experienced both high rainfall and flooding while on the coast inundation is a regular occurrence. Depending on temperature, mosquito population densities and alphavirus activity, Ross River virus infection rates may be higher than usual.

There are a number of simple steps to take to avoid being bitten by a mosquito:

- wear loose fitting long sleeved shirts and trousers;
- apply insect repellent containing DEET to those parts of the body exposed to biting;
- lightly spray clothing with repellent;
- ensure insect screens are in good condition (don't forget the chimney);
- if there are no strong winds hang mosquito coils; and
- kill mosquitoes by swatting, spraying or using mats impregnated with insecticide.

*Terry Carvan*  
Senior Environmental Health Officer, South West Region.

**TABLE 1**

**INFECTIOUS DISEASE NOTIFICATIONS BY HEALTH AREA AND REGION CUMULATIVE 1992**

Condition	CSA	SSA	ESA	SWS	WSAWEN	NSA	CCA	ILL	HUN	NCR	NER	OFR	CWR	SWR	SER	OTH	U/K	TOTAL
Adverse event after immunisation	3	3	-	-	2	-	-	1	-	1	5	7	1	1	2	5	-	205
AIDS	43	6	25	5	21	8	34	10	6	14	15	6	1	3	5	3	-	205
Arboviral infection	-	-	-	-	1	-	-	2	-	-	-	2	-	-	-	-	-	5
Ross River fever	2	2	-	-	6	6	6	5	8	24	112	32	60	10	25	1	-	299
Other arboviruses	-	-	-	-	-	-	1	-	-	-	3	1	-	-	3	-	-	8
Brucellosis	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Foodborne illness (NOS)	8	4	33	10	65	21	-	30	10	7	5	5	36	1	1	2	-	238
Gastroenteritis (instit.)	57	6	9	28	10	1	1	-	1	94	2	96	16	-	-	97	-	418
Gonorrhoea infection	71	29	165	25	26	1	25	9	3	14	23	13	19	15	8	9	-	455
H influenzae epiglottitis	-	5	1	3	7	3	4	-	3	7	6	6	-	-	1	4	-	50
H influenzae meningitis	5	6	4	6	6	8	18	4	8	10	6	5	2	4	5	7	-	104
H influenzae septicaemia	-	2	2	5	2	-	3	-	-	5	1	-	-	2	1	1	-	24
H influenzae infection (NOS)3	3	2	2	1	2	-	2	6	3	2	-	3	1	2	2	5	-	36
Hepatitis A – acute viral	95	48	119	37	51	12	91	8	32	30	134	127	92	13	12	11	1	913
Hepatitis B – acute viral	5	4	30	6	5	5	4	3	6	1	9	5	21	2	3	2	-	111
Hepatitis B – unspecified	429	435	21	756	422	34	338	37	29	128	64	48	31	25	14	29	2	2842
Hepatitis C – acute viral	1	1	4	1	10	1	3	1	3	-	8	6	4	3	-	2	-	48
Hepatitis C – unspecified	584	212	425	247	348	76	274	370	86	448	573	73	12	60	25	41	1	3855
Hepatitis D – unspecified	-	-	1	-	-	1	-	1	-	3	-	-	-	-	-	-	-	7
Hepatitis, acute viral (NOS)	-	-	2	2	4	-	-	-	-	-	-	2	3	2	1	-	-	17
HIV infection*	69	24	221	16	30	8	37	8	3	26	16	-	3	3	3	6	195	688
Hydatid disease	-	1	-	-	-	-	-	-	-	-	1	2	-	1	-	-	-	5
Legionnaires' Disease	6	2	2	36	17	2	4	8	2	2	-	-	-	-	-	1	-	84
Leprosy	-	-	-	1	1	1	-	-	-	-	-	1	-	-	1	-	-	5
Leptospirosis	-	1	-	-	-	1	-	-	-	6	2	-	5	1	-	-	-	16
Listeriosis	-	2	-	2	-	2	5	1	-	1	-	-	-	1	-	-	-	15
Malaria	10	7	8	4	15	-	23	2	8	4	8	7	1	1	5	3	-	106
Measles	54	82	9	127	57	31	29	11	13	100	30	32	75	7	4	11	-	672
Meningococcal meningitis	6	7	-	6	7	5	1	6	6	9	9	5	2	10	-	4	-	83
Meningococcal septicaemia	2	1	2	3	-	2	-	3	1	1	-	-	2	-	-	-	-	17
Meningococcal infection (NOS)	-	-	2	-	-	-	1	-	1	1	-	4	3	2	-	-	-	14
Mumps	-	-	4	2	3	-	1	-	2	4	1	-	-	-	2	1	-	20
Mycobacterial atypical	56	30	42	20	29	5	36	1	13	23	5	3	2	-	3	2	-	270
Mycobacterial tuberculosis	53	47	27	69	55	6	53	17	14	6	12	6	1	5	8	6	1	386
Mycobacterial infection (NOS)	13	3	4	1	5	3	7	-	5	6	-	1	-	-	1	-	-	49
Pertussis	7	11	7	11	18	14	27	10	5	14	29	3	-	1	1	7	-	165
Q Fever	-	-	-	-	9	5	-	1	1	8	75	32	37	10	4	2	-	184
Rubella	5	8	18	7	30	9	31	13	3	55	15	25	3	2	3	16	-	243
Salmonella bovis moribificans	1	3	1	-	2	1	2	-	-	3	1	1	-	-	-	1	-	16
Salmonella typhimurium	10	25	2	25	31	19	23	10	10	21	2	3	6	-	7	-	-	194
Salmonella (NOS)	24	38	40	48	38	29	85	17	9	32	52	30	24	23	14	17	-	520
Syphilis infection	134	45	130	58	38	10	43	2	8	17	108	48	120	17	13	2	1	794
Tetanus	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	2
Typhoid and paratyphoid	4	2	6	1	3	-	5	-	1	-	-	-	-	-	2	-	-	24

**TABLE 2**

**VACCINE PREVENTABLE DISEASE NOTIFICATIONS BY HEALTH AREA AND REGION CUMULATIVE 1992**

Condition	CSA	SSA	ESA	SWS	WSAWEN	NSA	CCA	ILL	HUN	NCR	NER	OFR	CWR	SWR	SER	OTH	TOTAL	
Measles	54	82	9	127	57	31	29	11	13	100	30	32	75	7	4	11	-	672
Mumps	-	-	4	2	3	-	1	-	2	4	1	-	-	-	2	1	-	20
Pertussis	7	11	7	11	18	14	27	10	5	14	29	3	-	1	1	7	-	165
Rubella	5	8	18	7	30	9	31	13	3	55	15	25	3	2	3	16	-	243
Tetanus	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	2

**TABLE 3**

**RARELY NOTIFIED INFECTIOUS DISEASES BY HEALTH AREA AND REGION CUMULATIVE 1992**

Condition	CSA	SSA	ESA	SWS	WSAWEN	NSA	CCA	ILL	HUN	NCR	NER	OFR	CWR	SWR	SER	OTH	TOTAL	
Brucellosis	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Hydatid Disease	-	1	-	-	-	-	-	-	-	-	1	2	-	1	-	-	-	5
Leprosy	-	-	-	1	1	1	-	-	-	-	-	1	-	-	1	-	-	5
Leptospirosis	-	1	-	-	-	1	-	-	-	6	2	-	5	1	-	-	-	16
Listeriosis	-	2	-	2	-	2	5	1	-	1	1	-	1	-	-	-	-	15

**TABLE 4**
**SUMMARY OF NSW INFECTIOUS  
DISEASE NOTIFICATIONS  
DECEMBER 1992**

Condition	Period		Number of cases notified	
	December 1991	December 1992	December 1991	December 1992
Adverse reaction	4	-	4	31
AIDS	31	6	368	205
Arboviral infection	3	1	476	312
Brucellosis	-	-	2	1
Cholera	-	-	-	-
Diphtheria	-	-	-	-
Foodborne illness (NOS)	105	7	2861	238
Gastroenteritis (instit.)	58	1	138	418
Gonorrhoea	27	5	415	455
H influenzae epiglottitis	4	4	25	50
H influenzae B - meningitis	5	4	64	104
H influenzae B - septicaemia	2	1	12	24
H influenzae infection (NOS)	6	-	125	36
Hepatitis A	81	7	1100	913
Hepatitis B	127	23	1385	2953
Hepatitis C	161	44	800	3903
Hepatitis D	N/A	-	N/A	7
HIV infection*	69	60	774	668
Hydatid disease	-	-	7	5
Legionnaires' Disease	3	-	29	84
Leprosy	-	-	-	5
Leptospirosis	1	1	32	16
Listeriosis	N/A	1	N/A	15
Malaria	17	1	202	106
Measles	72	35	432	672
Meningococcal meningitis	8	4	56	83
Meningococcal septicaemia	4	-	19	17
Meningococcal infection (NOS)	3	1	42	14
Mumps	N/A	-	N/A	20
Mycobacterial tuberculosis	36	4	352	386
Mycobacterial - atypical	10	2	114	270
Mycobacterial infection (NOS)	5	1	163	49
Pertussis	4	4	48	165
Plague	-	-	-	-
Poliomyelitis	-	-	-	-
Q Fever	13	1	185	184
Rubella	5	8	61	243
Salmonella infection (NOS)	95	13	1274	730
Syphilis	61	7	622	794
Tetanus	1	-	6	2
Typhoid and paratyphoid	1	-	61	24
Typhus	-	-	-	-
Viral haemorrhagic fevers	-	-	-	-
Yellow fever	-	-	-	-

\*Data to November only

**TABLE 5**
**NOTIFICATIONS OF NON-NOTIFIABLE SEXUALLY  
TRANSMITTED INFECTIONS FROM SEXUAL  
HEALTH CLINICS JANUARY-DECEMBER 1992**

AHS Infection	CSA	SSA <sup>1</sup>	ESA <sup>2</sup>	SWS	WSA <sup>3</sup>	+WEN	NSA <sup>4</sup>	CCA <sup>5</sup>	ILL <sup>6</sup>	HUN <sup>7</sup>	NCR <sup>8</sup>	NER <sup>9</sup>	OFR <sup>10</sup>	CWR <sup>11</sup>	SWR <sup>12</sup>	SER <sup>13</sup>
<i>Chlamydia trachomatis</i>	-	8	157	-	44	5	3	15	40	2	6	7	-	-	-	-
Donovanosis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Genital herpes	-	12	406	-	53	18	6	29	50	1	9	14	-	-	-	-
Genital warts	-	105	907	-	260	56	8	191	159	18	21	10	-	-	-	-
Non-specific urethritis	-	9	577	-	274	26	1	70	68	5	8	5	-	-	-	-
Lymphogranuloma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

<sup>1</sup> 1/192-31/8/92

<sup>2</sup> 1/1/92-31/8/92

<sup>3</sup> 1/1/92-30/9/92

<sup>4</sup> 1/3/92-31/11/92

<sup>5</sup> 1/5/92-30/11/92

<sup>6</sup> 1/1/92-30/8/92

<sup>7</sup> 1/3/92-30/9/92

<sup>8</sup> 1/7/92-30/11/92

<sup>9</sup> 14/5/92-30/11/92

<sup>10</sup> 1/7/92-30/11/92

<sup>11</sup> No SHC in the Region

<sup>12</sup> No SHC in the Region

<sup>13</sup> No SHC in the Region



TABLE 6

INFECTIOUS DISEASE  
NOTIFICATIONS BY  
MONTH OF ONSET

Condition	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Adverse reaction	4	8	3	1	6	2	-	4	2	-	1	-	31
AIDS	25	14	17	17	24	18	21	20	12	13	18	6	205
Arboviral infection	-	-	2	1	-	-	-	-	-	2	-	-	5
Ross River fever	14	40	85	77	39	10	11	7	5	6	4	1	299
Other arboviruses	-	-	2	-	-	1	-	-	-	2	3	-	8
Brucellosis	-	-	-	-	-	1	-	-	-	-	-	-	1
Foodborne illness (NOS)	55	28	27	20	15	7	13	18	20	13	15	7	238
Gastroenteritis (instit.)	88	7	17	9	36	22	41	161	9	23	4	1	418
Gonorrhoea infection	31	22	49	38	49	31	56	42	52	40	40	5	455
H influenzae epiglottitis	4	1	3	2	4	10	4	4	4	5	5	4	50
H influenzae meningitis	5	9	10	5	11	13	9	13	9	11	5	4	104
H influenzae septicaemia	1	1	3	3	3	2	5	-	3	1	1	1	24
H influenzae infection (NOS)	5	2	1	2	2	4	5	6	1	3	5	-	36
Hepatitis A – acute viral	114	98	121	98	90	83	66	66	53	78	39	7	913
Hepatitis B – acute viral	10	12	18	21	18	9	5	5	10	3	-	-	111
Hepatitis B – unspecified	280	179	274	253	247	321	291	286	253	253	182	23	2842
Hepatitis C – acute viral	14	7	3	5	6	2	4	1	4	2	-	-	48
Hepatitis C – unspecified	235	256	316	254	450	400	432	417	339	412	300	44	3855
Hepatitis D – unspecified	1	-	-	1	3	-	-	-	-	1	1	-	7
Hepatitis, acute viral (NOS)	-	3	1	4	2	1	1	-	1	2	2	-	17
HIV infection*	95	74	72	60	72	52	56	45	37	45	58	N/A	668
Hydatid disease	2	-	2	-	-	1	-	-	-	-	-	-	5
Legionnaires' Disease	1	9	3	42	8	5	8	3	1	2	2	-	84
Leprosy	1	1	-	-	1	1	1	-	-	-	-	-	5
Leptospirosis	3	2	-	1	4	1	2	1	1	-	-	1	16
Listeriosis	1	1	1	3	1	1	1	-	3	2	-	1	15
Malaria	12	5	16	9	14	17	13	8	7	3	1	1	106
Measles	48	31	34	22	41	31	22	26	61	109	212	35	672
Meningococcal meningitis	-	3	2	8	2	6	16	13	9	14	6	4	83
Meningococcal septicaemia	1	-	-	-	-	2	2	3	3	1	5	-	17
Meningococcal infection (NOS)	2	2	-	-	-	-	2	3	1	1	2	1	14
Mumps	3	5	2	-	3	2	1	1	2	-	1	-	20
Mycobacterial atypical	33	32	48	25	31	31	23	17	22	3	2	2	270
Mycobacterial tuberculosis	77	33	36	38	30	40	21	32	29	22	24	4	386
Mycobacterial infection (NOS)	7	5	7	2	3	6	-	2	3	6	7	1	49
Pertussis	5	15	25	7	6	9	13	10	18	22	31	4	165
Q Fever	13	12	11	13	9	22	21	28	20	22	12	1	184
Rubella	6	7	7	4	1	1	5	14	35	72	83	8	243
Salmonella bovis moribificans	1	1	1	2	3	1	-	2	1	1	3	-	16
Salmonella typhimurium	20	21	51	23	23	7	9	10	10	15	5	-	194
Salmonella (NOS)	99	59	57	52	41	33	37	42	24	32	31	13	520
Syphilis infection	54	85	70	83	88	95	89	77	51	53	42	7	794
Tetanus	1	-	-	-	-	-	-	-	1	-	-	-	2
Typhoid and paratyphoid	6	4	2	-	3	2	3	2	1	-	1	-	24

\*Data to November only

TABLE 7

VACCINE PREVENTABLE  
DISEASE NOTIFICATIONS BY  
MONTH OF ONSET

Condition	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Measles	48	31	34	22	41	31	22	26	61	109	212	35	672
Mumps	3	5	2	-	3	2	1	1	2	-	1	-	20
Pertussis	5	15	25	7	6	9	13	10	18	22	31	4	165
Rubella	6	7	7	4	1	1	5	14	35	72	83	8	243
Tetanus	1	-	-	-	-	-	-	-	1	-	-	-	2

## Abbreviations used in this Bulletin:

CSA Central Sydney Health Area, SSA Southern Sydney Health Area, ESA Eastern Sydney Health Area, WSA Western Sydney Health Area, WEN Wentworth Health Area, NSA Northern Sydney Health Area, CCA Central Coast Health Area, ILL Illawarra Health Area, HUN Hunter Health Area, NCR North Coast Health Region, NER New England Health Region, OFR Orana & Far West Health Region, CWR Central West Health Region, SWR South West Health Region, SER South East Health Region, OTH Interstate/Overseas, U/K Unknown, NOS Not Otherwise Stated.

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

# PUBLIC HEALTH ABSTRACTS

The following abstracts were prepared for the first NSW Public Health Network Conference held in Sydney in November. More of the abstracts will be published in the next issue of the Bulletin.

## LOW BIRTHWEIGHT - A POPULATION STUDY

The 1987 Midwives' Data Collection was determined if mothers in any of the NSW Health Areas or Regions were at increased risk of delivering a low birthweight infant. A further aim was to determine whether any demographic or reproductive history factors were associated with low birthweight.

The Midwives' Data Collection is estimated to be 96 per cent complete in 1987. The data was analysed using two different sets of outcome measures. In the first, births were classified as either very low birthweight (VLBW), low birthweight (LBW), or > 2,500g. For the second set of outcome measures, births were classified as either small for gestational age (SGA), preterm, or non-SGA term births.

There were variations in the rate of LBW between Health Areas and Regions, with some having a statistically significant increased or decreased risk of LBW between Health Areas and Regions, with some having a statistically significant increased or decreased risk of LBW, or SGA or preterm birth. The risk of SGA birth was related to the mother's marital status, age, parity, ethnic group, socio-economic status and time of first antenatal visit. The risk of preterm birth was related to the mother's marital status, age, parity, prior spontaneous abortion, prior induced abortion, prior stillbirth or neonatal death, time of first antenatal visit and sex of infant.

*Charles Algert, Christine Roberts and Pam Adelson.*

## EPIDEMIOLOGY AND CONTROL OF MENINGOCOCCAL DISEASE IN NEW ZEALAND IN 1992

During the first six months of 1992 the New Zealand Communicable Disease Centre (NZCDC) was notified of or received isolates from 62 cases of meningococcal disease (6.2 cases per 100,000). This rate is significantly higher than rates seen during the previous three years (RR = 3.5, 95% CI 2.6-4.6). When seasonally adjusted, this trend suggests that New Zealand can expect more than 200 cases by the end of 1992, more than the number reported in any previous year.

The increase in incidence was across all age groups and geographical areas. Maori were significantly more likely to develop meningococcal disease than Europeans (RR = 2.9, 95% CI 1.7-5.1). Six fatalities occurred (10 per cent). Isolates were largely serogroup B (70 per cent) or serogroup C (20 per cent). Subtyping indicated at least five different strains among serogroup B isolates. This "hyperendemic" pattern of moderately increased rates (2 to 10 per 100,000) is associated with serogroup B disease.

Prevention and control strategies that have been implemented include: alerting medical practitioners to encourage early diagnosis and antibiotic treatment, education of patients about early symptoms of disease and encouraging vigorous tracing and prophylaxis of contacts. We have also publicised the association between meningococcal disease and exposure to active and passive smoking.

*Michael Baker*

## INTRODUCTION OF AN URBAN REGIONAL TRAUMA SYSTEM IN SYDNEY

A regional trauma system - the State Trauma Plan - was introduced to Sydney on March 29, 1992. The new system intends to improve health outcomes by reducing the time taken to provide definitive treatment or patients with serious injuries. Under the new system, ambulance officers transport seriously injured patients to the closest Area Trauma Hospital, rather than the closest hospital. Ambulance officers use trauma triage guidelines to determine which trauma patients are actually or potentially seriously injured.

We reviewed the system over the initial three months of its operation. Ambulance data were reviewed before and after the activation of the Trauma Plan. Analyses focused on the number of trauma patients bypassing local hospitals, transport times for bypass patients and the impact of the new transport arrangements on the ambulance service. Results were compared with predictions obtained from a 1988 pilot study.

There were an average of 24 bypass cases per week (25 predicted). There was no deterioration in ambulance transport times. There was a small redistribution of cases between local and Trauma hospitals. Eighty-two per cent of seriously injured patients now arrive at the Trauma Hospital within 60 minutes compared to 6 per cent before the plan's introduction.

*Mark Bek, David Lyle, Anthony O'Connell, Val McMahon and Siun Gallagher.*

## WHY INVESTIGATE MINOR OUTBREAKS OF GASTROINTESTINAL ILLNESS?

Twelve people attending a church camp during the June long weekend presented to hospital with gastroenteritis. We investigated, and faced the usual difficulties of antipathy, limited access to the study population, biases associated with retrospective mail questionnaires, poor response rate, no food samples and no clinical specimens.

Despite these limitations we reached valuable conclusions. The epidemiologic curve suggests a common source outbreak or "exhausting the susceptibles" in a person-to-person outbreak. Gastrointestinal symptoms implied ingestion of a toxin or infectious agent. We were able to rule out water, and a single meal or food as sources of the outbreak. We could not rule out person-to-person transmission of an infectious agent. People with recent gastrointestinal illness had attended the camp, and one had helped in the kitchen. Secondary spread to other household members also suggests a transmissible agent.

One hundred and eleven of the 232 campers (48 per cent) returned questionnaires. In this "minor" outbreak, the burden of illness was considerable. The original 12 cases became 71. Forty-five were sufficiently sick to lose a mean of 2.5 days from school or work and 31 consulted a doctor or hospital.

This investigation shows that "minor" outbreaks may incur major costs to individuals and the community in lost productivity and to the health care system, and that important conclusions can be reached from imperfect and hastily compiled information.

*Jane Bell and Anthony Capon.*

## MOTOR VEHICLES INJURY IN THE WENTWORTH AND WESTERN SYDNEY HEALTH AREAS

As part of an investigation of an apparent excess in deaths due to motor vehicles injury in the Wentworth Health Area (compared to NSW overall) we obtained data concerning road traffic casualties for the period 1986 to 1990 for the NSW Roads and Traffic Authority Traffic Accident Database. Twenty thousand six hundred and thirty casualties were reported in this time (8,499 in Wentworth and 18,433 in Western Sydney). Though the number of crashes and casualties fell in this period we found a persisting high rate of fatal and serious injury per 1,000 casualties in the Wentworth Area (140.1 per thousand in 1990, compared to 93.2 and 101.1 per thousand in Western Sydney and Sydney Region respectively).

We assessed risk of fatal and serious injury among all casualties using logistic modelling techniques. Relative risk of serious injury among motor vehicles occupant casualties was significantly different from unity in all three Wentworth Area local government areas (Penrith RR = 1.31, 99% CI 1.05-1.63; Blue Mountains RR = 2.23, 99% CI 1.76-2.84 and Hawkesbury RR = 1.83, 99% CI 1.43-2.35) and in the Baulkham Hills LGA in Western Sydney (RR = 1.72, 99% CI 1.35-2.18). The Auburn LGA was used as the reference (i.e. RR = 1.00).

No significant geographic differences were found in risk of serious injury for motor cycle riders/passengers or pedestrians. Important confounders included in the model of motor vehicle occupant risk were driver age, sex and blood alcohol group, seatbelt use, type of initial impact and exposure to a high risk period (9pm to 3am). A case-control study is being undertaken to assess a range of issues relevant to targeted local interventions aimed at reducing the rate of severe injury.

*Glen Close and Anthony Capon.*

## DEVELOPMENT OF A PUBLIC HEALTH RESPONSE TO CHEMICAL INCIDENTS

The public is increasingly demanding a safer environment due to both a raised awareness of environmental hazards as well as its growing effectiveness and involvement in the political process. This is especially evident with the occurrence of chemical incidents where the public is justifiably concerned about the acute and potential chronic health effects which may arise as a result of a chemical release.

The public health response to these incidents has been managed by officers within the 14 Public Health Units across the State and has to date predominately focused on dealing with the acute aspects of these incidents. There are, however, other public health concerns such as the follow-up of long-term health effects and the relaying of health information to the public which are not adequately addressed through this system.

A protocol has been developed within the public health system to ensure consistency in responding to and reporting of chemical incidents. Consideration of a number of criteria including incident location, the level of containment of a chemical involved as well as the severity of potential health effects, will determine the level of response required. A computerised checklist for

data collection has been developed to enable the PHUs to make a rapid health assessment for each chemical incident. This system is being trialled in four PHUs.

*Christine Cowie, Helen Moore, Stephen Corbett and Greg Thomas.*

## SYDNEY AIRPORT EPIDEMIOLOGICAL STUDIES

As part of the process leading to the approval of the proposed third runway at Sydney Airport, the Federal Airports Corporation is committed to sponsoring studies of the potential health effects of the development. Two major epidemiological studies are suggested: a community survey and a database study.

The community survey would select individuals who live under the flight paths with sampling stratified by age, sex and SES. Comparison individuals matched on age, sex, and proximity of home to main roads, will be selected from areas away from the flight paths. Only English-speakers would be studied. The study and comparison groups would be surveyed before and after commencement of third runway aircraft operations. Outcomes measured would include attitudes to aircraft and other noise, sleep patterns, occupation, general physical and mental health, cardiovascular disease risk factors, respiratory health status and use of health services.

The database study would compile statistics on rates of GP attendance, hospitalisation, cancer incidence, birthweight, gestation period and congenital abnormalities for census collector districts in eastern, central, southern and lower northern Sydney to identify possible associations with aircraft flight paths. Census data and ethnicity, age, sex, SES and household structure could be treated as confounding variables.

*Michael J Fett.*

## PUBLIC HEALTH OFFICER TRAINING

The Public Health Officer Training Program, begun in 1990, is designed to equip public health professionals with the skills and experience needed for the developing public health infrastructure in NSW. In February 1993 the first group of public health officers (PHOs) will graduate from the program. For this reason, PHOs decided this was an appropriate time to evaluate the program.

There was general agreement among the PHOs that the program provided valuable experience for working as a public health professional. The PHOs endorsed eight recommendations for future program development. They are summarised as follows:

- The role and definition of a PHO should be clarified and promoted within the Public Health Network.
- A full-time position should be created to coordinate the development of the Public Health Network and the Public Health Officer Training Program.
- Supervision of PHOs should be improved by development of guidelines for supervisors; provision of supervisor training; regular meetings of supervisors; provision of dedicated regular time supervision; identification of alternate supervisors to cover during absence; structured/regular feedback; and placement evaluation.

► Continued from page 11

- Placement guidelines and minimum standards should be developed to ensure the provision of good quality placements. These should include guidelines for supervisors and detail minimum workplace conditions such as workstation, dedicated desktop computer, telephone and induction to the Public Health Unit and Area/Region.
- An induction program should be developed for all new PHOs.
- Time required to carry out the tasks of the PHO representative should be recognised in any placement.
- A mentor system should be introduced into the program.
- The Epidemiology and Health Services Evaluation Branch, in conjunction with Human Resources Branch, should examine options for accreditation of the PHO Training Program.

There was general agreement that the evaluation workshop was valuable and should be conducted on an annual basis.

*Susan Furber, Alex Goodwin and Isla Tooth.*

#### HEALTH SERVICES AND THE ELDERLY

Medical and diagnostic services for people aged 65 and over comprise a substantial proportion of all services provided by the Health Insurance Commission under the Medicare Benefits Schedule. To examine the utilisation of these services we examined de-identified data on services used by a cohort of people receiving one or more services in NSW in 1991. The results of these analyses showed that overall, there was not an excessive rate of utilisation among people of this age group. Of more than 7,000 people in this cohort, 39 per cent had between 1 and 10 services during 1991, 66 per cent had between 1 and 20 services and 82 per cent between 1 and 30 services.

Fifty-one per cent had between 1 and 10 doctor's attendances, and 79 per cent had between 1 and 20 attendances. The most frequent attendance to be reimbursed was a standard consultation lasting between 5 and 25 minutes which involved taking a history, examination of the patient and implementing a management plan in relation to one or more problems. Sixty-two per cent of people had a standard attendance at a surgery and 20 per cent had a standard home visit. Forty-four per cent had an initial specialist attendance and 39 per cent had a subsequent specialist attendance.

Differences in diagnostic testing patterns were found between groups of people defined by their age group, geographical area of residence and whether they were referred by a specialist or a general practitioner. We report the results of these analyses and discuss the potential benefits and disadvantages of using claims data to evaluate utilisation of medical and diagnostic services and current clinical practices.

*Marion Haas, Louise Rushworth and Marilyn Rob.*

## NEWS AND COMMENT

#### FUNDING FOR THERAPEUTIC ASSESSMENT GROUP

The NSW Health Minister, Mr Ron Phillips, has given the NSW Therapeutic Assessment Group (TAG) a commitment for ongoing funding. TAG, which was set up in June 1988 and meets bi-monthly, comprises clinical pharmacologists, directors of pharmacy, key physicians, drug information pharmacists, and representatives from all NSW teaching hospitals and the pharmacology and pharmacy departments of their universities.

The group is chaired by Professor Ric Day and its key activities have included:

- development, in consultation with other expert groups and individuals, of objective guidelines for the appropriate use of specific drugs or drug groups;
- drug utilisation reviews;
- sharing of drug committee policies and decisions of member hospitals;
- dissemination of information as part of its educative and advisory role; and
- research, including a study investigating academic detailing as a strategy to improve the quality of general practitioner prescribing.

For information on TAG contact Roberta Lauchlan on (02) 361 2092.

#### DENTAL KIT FOR KIDS

The School Dental Clinic at Lismore Base Hospital has used a \$25,500 National Health Promotion Program grant to produce a kit aimed at raising dental health awareness among children at infants and primary school. Hospital Chief Executive Officer Paul Dyer, who launched the kit, said it promoted dental health awareness in an entertaining, informative and educationally sound style. For more information about the kit contact Lismore Base Hospital Senior Dental Therapist Gail Loader on (066) 216235.

#### NHMRC RECOMMENDATIONS

The National Health and Medical Research Council has recently made recommendations about:

- tetanus prophylaxis for wound management;
- *Haemophilus influenzae* immunisation;
- notifiable diseases - recommended list; and
- *Listeria* infection

and issued the following publication:

- Recommended minimum exclusion periods from school, pre-school and child care centres of infectious diseases cases and contacts.

Details of recommendations and publications can be obtained by contacting Mrs Corinne Hopman on (06) 289 7646.