NEWS AND COMMENT

PUBLIC HEALTH UNIT DIRECTORS' MEETING

The following issues were discussed at the May 18 meeting of PHU directors and others at Rozelle Hospital:

Chemical incidents paper
The Chief Health Officer, Sue Morey, drew attention to the need to follow up people involved in accidents related to explosions or spills of chemicals. A system was needed to clarify who should notify the incidents and to whom they should be notified. Also, a chemical exposure register should be established.

GP sentinel surveillance
The GP liaison officer for the Central and Southern Public Health Unit, Michael Mira, discussed the sentinel surveillance system in Central and Southern Sydney Areas. His report will be published in a future edition of the *Public Health Bulletin*.

Public health network annual report
The meeting decided the annual report would include a description of the network and would cover infectious diseases, environmental health issues, injuries, health outcomes and maternity and child health. It is to be included with an issue of the *Public Health Bulletin*.

Health Outcomes
George Rubin reported positive response to the Health Outcomes Initiative paper which had been circulated to, and discussed with, clinicians. At the conclusion of the consultation process the document is to be redrafted.

Public Health Officers (PHOs)
The meeting discussed the difficulty of finding PHOs willing to work in PHUs and in country Regions as opposed to city Areas. It was suggested that a database be set up to include details about PHOs and about the needs of the PHUs, but it was agreed to maintain the existing selection process.

Legionella
In the light of the Legionnaires' disease outbreak in South Western Sydney in April, Greg Stewart recommended that Environmental Health Officers be given guidelines for cooling tower inspections. He said the Division of Analytical Laboratories was very responsive in testing the many samples taken during the outbreak and the Public Health Network had provided good support. Councils should, urgently, compile registers of cooling towers and the Legionella Management Plan should be amended to address the allocation of responsibility.

Environmental health
Steve Corbett reported that South Australia had produced a paper on the rehabilitation of areas contaminated with lead. He also said there had been 30 requests for grants to study air pollution and decisions would be made soon.

Special interest groups
It was decided these groups would be established only to meet a specific current need, after which they would be disbanded.

Food Inspectors
The meeting asked that the transfer of Food Inspectors to PHUs and hospitals be postponed from May 27 until June 30.

Amalgamation of Regions
A guarantee was given that there would be no reduction in the number of PHUs.

TELL US ABOUT YOUR WORK

Our readers would like to learn about the work of your unit, special program(s) or projects. To keep your colleagues informed please send us your brief article on the objectives, activities/mechanisms and where possible the results and public health implications of your efforts.

LETTERS

EXOTIC DISEASES

The establishment of Public Health Units (PHUs) and the new infectious disease notification system means that the potential to monitor and respond to cases or outbreaks of infectious diseases is greatly enhanced. Initiatives by individual PHUs to establish a network of personnel and contacts within their Region or Area are essential. Of importance for Regional PHUs is contact with agriculture and veterinary authorities.

In the South West Region the Regional Veterinary Officer is informed by the PHU of cases of zoonotic diseases. The disease name, the age and sex of the patient, the first two letters of the surname and the doctor's name is supplied. At the same time the patient's doctor is made aware that he or she may be contacted for further information.

Recently the South West Region PHU was informed by the Regional Veterinary Officer of a human case of screw-worm fly myiasis occurring in a traveller who returned from South America. The consequences of the establishment of the screw-worm fly in Australia would be extremely serious, having a profound impact on livestock industries as well as being of public health importance. Infestation usually follows trauma although the size of the initial wound may be small. Large lesions are produced within a few days. Serious disease may result in humans when infestation of the nose, eyes, ears or mouth occurs.

Knowledge of exotic diseases, particularly those with predominantly agricultural or veterinary significance, among medical practitioners and public health staff generally is limited. As well as notifiable exotic diseases it may be wise for public health workers to become familiar with a number of other exotic diseases which may be brought into Australia by returning travellers or recent arrivals. Screw-worm and warble flies are obligate parasites and myiasis due to larvae of these flies should be considered in travellers with infested lesions.

Contact with agriculture and veterinary authorities is recommended as an important part of an infectious diseases surveillance network in addition to knowledge of the methods of diagnosis or identification available through veterinary laboratories.

Tony Kolbe, Associate Director Public Health, South West Region

INFANT MORTALITY RATES — AUSTRALIA'S INTERNATIONAL RANKING

In his excellent article in the February 1992 issue of the *Public Health Bulletin*, Peter Lewis states: 'Australia's infant mortality does not compare favourably with other equally developed countries. In 1986 Japan, Singapore and most European countries had lower infant mortality rates than Australia, which ranked 18th'.

This statement is not correct, mainly because it is based on incorrect 1986 figures for Australia issued by the United Nations. These incorrect figures were subsequently used by several other

Continued on page 76 ►

News and Comment

► Continued from page 75

reports including the first Biennial Report of the Australian Institute of Health which Peter Lewis used as a reference to make the above statement.

The sequence of events which explains this error is as follows:

- The 1986 figure for Australia issued by the Australian Bureau of Statistics (ABS) was 8.8 infant deaths per 1000 live births. However, the United Nations recorded a figure of 9.8 in the demographic year book for 1986. This has now been recognised and the United Nations demographic year book for 1988 now shows trends for the past five years revising the 1986 figure downwards, in line with the ABS estimate of 8.8.
- The annual report issued by UNICEF, The State of the World's Children, used the incorrect figure of 9.8 which it rounded to 10 per 1000 live births.
- The Australian Institute of Health used the UNICEF figures in its first biennial report, Australia's Health 1988. The correct 1986 ABS figure of 8.8 (rounded to 9) was quoted on page 41 of the report, but the UNICEF figures were used to compile a graph on page 42, showing international comparisons. Subsequently, an incorrect statement was made by the institute based on the graph 'despite the substantial decline in Australia's infant mortality, it does not compare favourably with other equally developed countries among which Australia ranks 18. Japan, Singapore and most European countries have lower rates.'

In fact, the revised figures show that in 1986, Singapore had the same rate of infant mortality as Australia. Of the 24 major European countries listed by the United Nations, only 7 had an infant mortality rate lower than Australia. If the correct 1986 figure of 9 per 1000 had been used, Australia would have ranked about 11th, not 18th, as stated by the institute.

In addition, it is important to indicate that infant and perinatal mortality data is very difficult to compare on an international basis because of the complexity and differing interpretations of the definitions of 'live births' and 'infant deaths'. The difficulties are further compounded by the different data used by the United Nations as compared by individual countries for legal purposes. In addition, Keirse[1] working in Holland and Gerald Lawson[2] in a detailed study in Newcastle, NSW, have both shown the widely differing practices of doctors when certifying deaths in the perinatal period. Australian definitions appear to be more stringent than many other countries in the sense that perinatal deaths are recorded as deaths of living infants, which in many other countries would be regarded as miscarriages.

These views on the difficulty of international comparisons of infant and perinatal death rates are shared by the Editor of the *Australian and New Zealand Journal of Obstetrics and Gynaecology* who said: 'International differences in the definition of a stillbirth confound intercountry comparisons of perinatal mortality and almost certainly influence the gestation at which a foetus born with "any evidence of life" will be registered as a live birth instead of a spontaneous abortion'[3].

These are not matters purely of academic interest. Despite the difficulties in comparisons of the data between countries, comparisons are made with great passion at international conferences and in debates about the virtues or otherwise of homebirths, birth centres, technological interventions in midwifery, and in any arena in which the standards of maternal and infant care are debated.

James S. Lawson, Professor and Head, School of Health Services Management
Patricia Mayberry, Ph.D. scholar, School of Health Services Management, University of NSW

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1. Keirse MJN. Perinatal mortality rates do not contain what they purport to contain. *Lancet* 1984; 1:1166-1169.
2. Lawson GW. Under-reporting of perinatal mortality. *Aust NZ Obstet Gynaecol* 1987; 27:312-314.
3. In Lawson GW above.

Medical retrievals

► Continued from page 72

A simplified classification of the reasons for retrieval indicates the majority of neonates were retrieved because of an actual or potential need for respiratory support. Non-traumatic causes predominated in children, while head injury and other trauma accounted for almost half the adult retrievals, with non-respiratory medical problems explaining the other half. Endotracheal intubation was performed in two-thirds of the patients and in most cases it was done by staff of the referring hospital.

Outcomes appeared to be favourable for 77 per cent of the neonates, 86 per cent of the children and 62 per cent of the adults. The majority of children and half the adults were discharged directly to their homes, while more than half the neonates were discharged to lower-level hospitals. Twelve per cent of neonates, 8 per cent of children and 20 per cent of adults died.

Some general observations were made about the choice of transport vehicle. At the extremes of distance there was no choice of vehicle type; road ambulances were used for short distances and fixed-wing aircraft for very great distances. Where retrievals involved distances for which there was the potential to choose among the vehicle types, time factors could be compared. For example, there was a clear time advantage for helicopters over road ambulances for neonatal retrievals from outer Sydney. Nevertheless, road ambulances were selected in almost three-quarters of cases. For secondary medical retrievals from rural Health Regions within the range of helicopters, helicopters were found to provide a substantially more expeditious service than fixed-wing aircraft. This advantage was reflected in the choice of vehicle, with helicopters dispatched in three-quarters of cases.

Detailed results of the review will be published elsewhere. Recommendations arising from it include:

- The strategic placement of medical retrieval teams, transport facilities and receiving hospitals warrants careful consideration, with greater emphasis given to the development of all three of these elements in Western and/or South Western Sydney.
- Clear guidelines should be established for the choice of vehicle types. For short-range urban retrievals, road ambulances should be used. For long-range retrievals from rural sites, fixed-wing aircraft should ordinarily be used. However, for longer-range urban retrievals and for rural retrievals within the range of helicopters, clinical criteria should be applied to determine the urgency of each case, and this should be a major factor in determining the choice of vehicle type.
- Consideration should be given to greater participation of the rural retrieval networks in the management of medical retrievals.
- Uniform case data should be collected on all medical retrievals.
- Adequate data should be collected to enable monitoring of the cost of medical retrieval operations. In particular, data should be collected to monitor the costs to the Ambulance Service of the use of road and fixed-wing air ambulances in medical retrievals.

Michael Frommer and David Lyle (1), Kate Burgess and Anna-Louise Kenny (2), and Ru Nguyen (1)
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