PUBLIC HEALTH ABSTRACTS

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

IMMUNISATION REVISITED

The improved health status that follows prosperity and industrial development usually reflects a shift away from infectious disease as a leading cause of death towards accidents, cardio-vascular disease and cancer. However even in industrial countries such as Australia, prevention of infectious diseases with vaccines remains highly cost effective.

The scientific revolution in modern biology — genetic engineering, peptide synthesis, cell production systems, live vectors — is finally generating widespread interest in vaccine research. There are possibilities for improving current vaccines or developing new vaccines in 12 conditions. The most important of these are the chlamydias (the cause of sterility and chronic pelvic disease and also blindness), cholera, E. coli (the cause of diarrhoeal disease), hepatitis A, herpes simplex (a common distressing STD), HIV, influenza, malaria, tuberculosis, schistosomiasis (a liver fluke which causes widespread disability in Africa and parts of Asia) and yellow fever. In addition, there are several improvements being developed for vaccine delivery, including:

- the elimination of the need for refrigeration as for example, hepatitis B
- an attempt to reduce the number of injections (which can be achieved by developing delayed release vaccines), and
- oral vaccines which are currently being re-examined.

There are two problems with vaccines. The first is the alarm caused by the AIDS epidemic, and the possibility that injections can spread HIV. This is a problem in developing countries where sterilisation and re-use of needles is difficult. The second is the problem of ill health caused by the vaccines themselves.

Robbins, A, Progress Towards Vaccines We Need And Do Not Have, *Lancet* 1990, 1436.

IMPROVING A & E CARE

A British-based study has demonstrated that the quality of care of patients in accident and emergency departments can be improved considerably at no additional expense by introducing two simple measures:

- developing a simple trauma score as a measure of severity of injuries, and
- calling in a senior accident and emergency specialist to supervise the resuscitation of all seriously injured patients.

(This documents experience years ago when surgeons replaced recent medical graduates in major accident and emergency departments in Victoria. This ultimately led to the appointment of Directors of these departments in most hospitals during the 1970s and 1980s).

Fisher, RB & Dearden, CH, Improving the Care of Patients With Major Trauma in the Accident and Emergency Department, *Brit J Med* 1990, 300, 1560.

THE FEMALE CONDOM

Changes in behaviour and barrier methods of contraception are at present the only ways of slowing the sexual transmission of the human immunodeficiency virus (HIV). The female condom therefore represents a new and potentially important addition to the existing choices. The female condom is made of polyurethane, and it covers the female vaginal surface. Studies in the United Kingdom, Thailand the United States have indicated that the use of female condoms is acceptable to many female sex workers and other women and provides a successful barrier to infection. However many male partners object to their use.

The importance of the female condom is that it empowers women in dealing with this important and sensitive public health problem.

Sakondhavat, C, The Female Condom, *American Journal of Public Health* 1990, 80, 4, 498.
Stein, Z, HIV Prevention, The Needs For Methods Women Can,Use *Am J Pub Health* 1990, 80, 4, 460.

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Public Health Abstracts

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HEPATITIS A FROM CONTAMINATED WATER

An American experience has demonstrated that infection with hepatitis A virus – which accounts for 40 per cent of all hepatitis infections – can occur from a contaminated water supply. The commonest form of transmission is through the fecal-oral route. Additional sources include ingestion of contaminated food.

Bloch, AB, Stramer, SL, Smith, JD, et al, Recovery of Hepatitis A Virus From a Water Supply Responsible for a Common Source Outbreak of Hepatitis A, *Am J Pub Health* 1990, 80, 4, 428.

SUICIDE RATES CHANGE

Important changes have occurred in the pattern of suicide among young men throughout England and Wales. Among men aged 15 to 24 years in whom the rate of suicide had been fairly stable up to 1982, the rate has increased dramatically by 40 per cent during 1982 to 1987. In contrast, the rate among men aged 25 to 34 and 35 to 44 which increased steeply during the late 1970s seems to have stabilised and may even have started to fall. The suicide rate among women seems to have been falling throughout this same period. The cause of these changes is not known. Similar trends have been observed in Australia.

Burton, P, Lowy, A & Briggs, A, Increasing Suicide Rates Among Young Men in England and Wales, *Brit J Med* 1990, 300, 1695.

Asthma Strategy Needed

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3 That the NSW Department of Health discuss with its Health for All Committee specific budgetary allocation for the implementation of the service elements of this strategy, and with the Asthma Foundation of NSW the funding of the research elements of the strategy.

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1. *Health for All Australians.* Report of the Health Targets and Implementation (Health for All) Committee to Australian Health Ministers. AGPS, Canberra, 1988.

2. Curzon P, The Geography of Asthma in New South Wales, Keynote Address to Respiratory Disease in Agriculture Conference, Moree, June-July 1989.

3. Asthma in Australia. Strategies for reducing morbidity and mortality. Report of the NHMRC Working Party on Asthma Associated Deaths. Canberra 1988.

4. Abramson MJ, Wlodarzczk JH, Saunders NA and Hensley MJ, Does Aluminium Smelting Cause Lung Disease? *Am. Rev. Respir. Dis.* 1989; 139: 1042-1057.

5. Peat JK, Salome CM and Woolcock AJ, Longitudinal Changes in atopy during a 4-year period: relation to bronchial hyperresponsiveness and respiratory symptoms in a population sample of Australia school children. *J. Allergy Clin. Immunol.* 1990 Jan: 85 (1 Pt 1): 65-74.

6. Henry RL and Hensley MJ, Prevalence and Severity of Asthma at Lake Munmorah and Nelson Bay Primary Schools 1986-88. A report to the Electricity Commission of New South Wales. Feb 1989.

7. Crane J, Pearce N, et al, Prescribed fenoterol and death from asthma in New Zealand, 1981-1983: a case-control study. *Lancet* 1989: 917-922.

8. Henry DA, Sutherland D and Francis L, The use of non-prescription salbutamol inhalers by asthmatic patients in the Hunter Valley, New South Wales *Med. J. Aust.* 1989 Apr 17: 150 (8): 445-9.

9. Jenkin MA, Hurley SF, Bowes G and McNeil J, Use of antiasthmatic drugs in Australia, *Med. J. Aust.* 1990 Sept 17: 153: 323-328.

10. Woolcock A, Rubinfield AR, Seale JP et al, Asthma Management Plan, 1989 *Med. J. Aust.* 1989 Dec 4/18: 151: 650-653.

EDITORIAL NOTE

This paper was prepared for a meeting of the Expert Working Group on Asthma held on July 24, 1990. Present at this meeting were prominent clinicians and public health professionals in the field of asthma.

Meeting participants resolved to develop and promote a co-ordinated strategy to reduce asthma morbidity and mortality in NSW. The Expert Working Group on Asthma will meet again in late 1990.