

PUBLIC HEALTH ABSTRACTS

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

QUALITY OF AUSTRALIAN HOSPITALS – VARIABLE

The results of the 1994 Quality in Australian Health Care Study have been published in full. A review of about 14,000 admissions to 28 hospitals in NSW and South Australia showed that 16.6 per cent of the admissions were associated with an "adverse event" which resulted in disability or a longer stay and was considered to be caused by health care management. Some 51 per cent of the adverse events were considered preventable.

There has been debate about the validity of the methods used in this study (retrospective review of the records), however, regardless of any such limitations, McNeil and Leeder comment that "any reasonable review of the study would acknowledge its key finding: that among a randomly selected series of hospital records examined by experienced medical practitioners a substantial number were judged to display substandard care that resulted in injury to patients". Appropriate review and reform is needed.

Wilson RM, Runciman WB, Gibberd RW et al. The quality in Australian Health Care Study. *Med J Aust* 1995; 163:458-471.
McNeil JJ, Leeder SR. How safe are Australian hospitals? *Med J Aust* 1995; 163:472-475.

PRIMARY PREVENTION OF STROKE

Stroke is a major cause of death and disability in Australia. The outcome of a patient with a treated stroke may never be as good as that of someone in whom a stroke is prevented. Extensive reviews of past research into the risk factors for stroke have been completed. The conclusions are:

- hypertension is a major risk factor for stroke;
- smoking tobacco raises the risk of stroke by 1.5;
- diabetes is a risk factor independent of risk factors commonly associated with diabetes (such as hypertension, obesity);
- obesity is a major risk factor mainly because of its association with other risk factors such as hypertension and atherosclerosis. Recent studies have shown that the distribution of fat is a predictor of stroke. Excess abdominal fat as measured by the hip to waist ratio is a specific risk;
- a sedentary lifestyle raises the risk of stroke mainly because exercise reduces related risk factors. Specifically, exercise: decreases the aggregability of platelets; increases sensitivity to insulin; increases high-density lipoprotein cholesterol levels, and lowers blood pressure;
- moderate intake of alcohol probably reduces the risk of stroke. On the other hand, high consumption of alcohol increases the risk; and
- increased consumption of fruit and vegetables appears to reduce the risk of stroke possibly through the action of anti-oxidants (beta carotene and vitamins E and C).

It remains unclear whether aspirin is beneficial in the primary prevention of stroke. Current information is insufficient to permit a definite statement about the risk of stroke in women who use the new formulation oral contraceptives. Post-menopausal hormone replacement therapy appears to reduce the risk of stroke. There has been a reduction in the prevalence of hypertension, smoking and

high cholesterol levels in the Australian population in the past two decades but the prevalence of physical inactivity and diabetes has remained the same and obesity levels have increased.

Bronner LL, Kanter DS, Manson JE. Primary prevention of stroke. *New Eng J Med* 1995; 333:1392-1400.

EXCESS VITAMIN A MAY CAUSE BIRTH DEFECTS

Vitamins are essential to good health, yet the consumption of excessive amounts of some vitamins, particularly A and D, can lead to toxicity. Rothman et al have added to the body of evidence that suggests that too much vitamin A in pregnant women may lead to birth defects. On the other hand, it is recommended that all women capable of becoming pregnant take folic acid daily to prevent the serious and common birth defects of spina bifida and anencephaly.

Oakley GP, Erickson JD. Vitamin A and birth defects. *New Eng J Med* 1995; 333:1414.

Rothman KJ et al. Teratogenicity of high vitamin A intake. *New Eng J Med* 1995; 333:1369.

BED SHARING AND SUDDEN INFANT DEATH SYNDROME

Despite its reported benefits, bed sharing has been linked with sudden infant death syndrome in several studies among Caucasian subjects. However, 90 per cent of the world's babies share beds with their mothers and the lowest rates of infant death syndrome are in Japan and Hong Kong where bed sharing is the norm. A controlled study in California has confirmed there is no risk in bed sharing.

Klonoff-Cohen H et al. Bed sharing and the sudden infant death syndrome. *Br Med J* 1995; 311:1269.

CANCER IN NSW: PATTERNS CONTINUE TO CHANGE

Data on the incidence of, and mortality from, cancer over the past 20 years in NSW have been published. Because cancer is mainly a condition of old age, the age-specific trends are more important than global trends which, despite age standardisation, are dominated by deaths in old people. In younger males (below 60 years) there is a rise in deaths due to cancer of the prostate, melanoma and non-Hodgkin's lymphoma and a fall in lung cancer. In younger females (below 60 years) there has been a rise in deaths due to cancer of the breast, melanoma and lung cancer and a fall due to colorectal and cervical cancer.

McCredie M et al. Changes in cancer incidence and mortality in NSW. *Med J Aust* 1995; 163:520.

PUBLIC HEALTH WORKFORCE IS DIVERSE, COMPLEX

Between 1988 and 1993 there was a great expansion in the number of participants in Master of Public Health courses. During this period 5,922 students entered, and 3,088 graduated from, such courses. A study conducted at the Centre for Public Health at the University of NSW has provided details of the public health workforce. The definition of the public health workforce was "people who are involved in protecting, promoting and or restoring the collective health of whole or specific populations (as distinct from activities directed to the care of individuals)". The workforce defined in this manner is characterised by diversity and complexity and includes managers, planners,

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Public Health Abstracts:

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doctors, nurses, allied health professionals, health promoters and educators, scientists, epidemiologists, technicians, counsellors, inspectors, researchers and teachers. The task of meeting the educational needs of such a diverse and complex workforce is immense. It is suggested that a partnership between those who provide education and those involved in practice is the way of the future.

Rotem A et al. The public health workforce education and training study. *Aust J Public Health* 1995; 19:437.

CANCER OF THE PENIS FALLS IN UNCIRCUMCISED MEN

The virtual absence of cancer of the penis in circumcised men has been a matter of debate for more than 50 years. A Danish study is therefore of great interest as it shows that despite the near abolition of circumcision in Denmark, cancer of the penis has declined substantially. The suggested reason for this decline is the improvement in hygiene in the Danish community since the 1940s.

Frisch M et al. Falling incidence of penis cancer in an uncircumcised population. *Br Med J* 1995; 311:1417.

PREGNANCY AND THE TIMING OF INTERCOURSE

The likelihood that conception will occur on any given day of the menstrual cycle in relation to ovulation can most reliably be determined from data on women in whom only a single act of intercourse could have resulted in conception. A sophisticated study involving highly motivated women in the US has shown that among healthy women trying to conceive, nearly all pregnancies can be attributed to intercourse during a six-day period ending on the day of ovulation. The timing of intercourse in relation to ovulation has no influence on the sex of the baby.

Wilcox AJ et al. Timing of intercourse in relation to ovulation. *New Eng J Med* 1995; 333:1517.
Simpson JL. Pregnancy and the timing of intercourse. *New Eng J Med* 1995; 333:1563.

CESSATION OF SMOKING LEADS TO INCREASES IN OBESITY

The proportion of adults who are overweight has risen markedly in the past two decades. A large study has shown that in part this is due to the substantial reduction in tobacco smoking. Although the health benefits of stopping smoking are undeniable, weight gain is a problem.

Flegal KM et al. The influence of smoking cessation on the prevalence of overweight in the US. *New Eng J Med* 1995; 333:1165.

DOMESTIC GERIATRIC ASSESSMENTS KEEP CLIENTS AT HOME

A controlled trial of geriatric assessments which included nursing and medical care has been shown to keep clients at home and out of nursing homes at twice the rate of clients who are not assessed and supported. This finding from a US study may not be news in Australia but the use of experimental techniques in the field of aged care is new and useful.

Stuck AE et al. A trial of in-house geriatric assessments for elderly people living in the community. *New Eng J Med* 1995; 333:1184.

NOTIFICATION TRENDS

In January 1996 notifications were higher than historical levels for arboviral infection and hepatitis A. Notification trends for arboviral infection were discussed in the December 1995 issue of the *Public Health Bulletin* and for Hepatitis A in the January-February 1996 issue. Both are discussed further below.

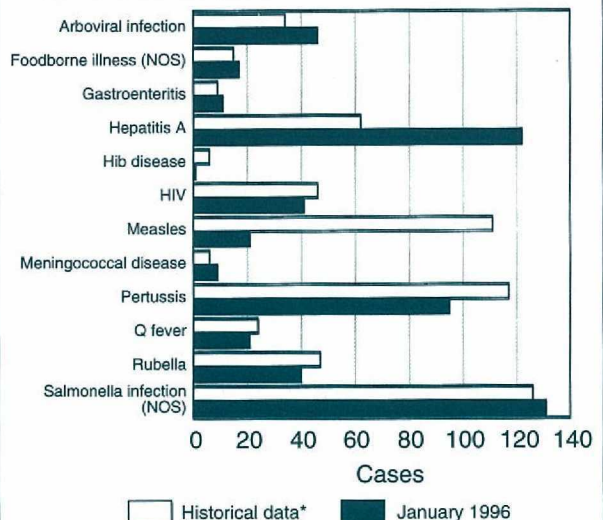
Notification rates were lower than historical levels in January 1996 for *Haemophilus influenzae* type b (Hib) infection, measles and pertussis (Figure 19).

ARBOVIRAL INFECTION

There has been a marked increase in notifications of arboviral infection since January 1996 (Figure 20, Table 4). Most notifications were by the Northern Districts Public Health Unit (PHU) and the North Coast PHU. The Hunter

FIGURE 19

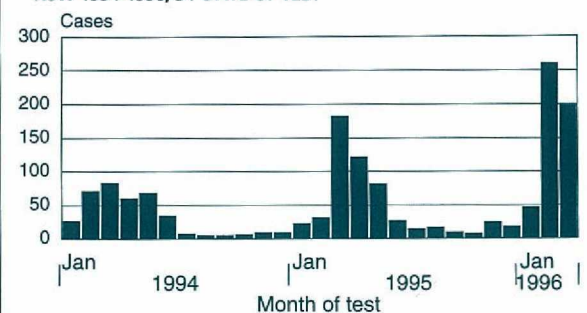
SELECTED INFECTIOUS DISEASES:
NSW JANUARY NOTIFICATIONS, 1996
COMPARED WITH HISTORICAL DATA



Source: IDSS

FIGURE 20

ARBOVIRAL INFECTION NOTIFICATIONS
NSW 1994-1996, BY DATE OF TEST



For data received by March 31, 1996

Source: IDSS