

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.

BRAIN INJURY IN NSW

There are about 10,500 cases of brain injury due to trauma each year in NSW. It is estimated that 400 of these will result in serious physical or mental disability. The injury rate in 15- to 24-year-olds is twice that of the general population. Two to three times as many males as females are injured.

There has been around a 40 per cent fall in the fatality rate from the major origin of brain injury — road traffic crashes — since the early 1970s as a result of primary (for example, random breath testing) and secondary (for example, seat belt legislation and helmet wearing) prevention.

Lyle DM, Quine S, Bauman A and Pierce JP, Counting Heads: Estimating Traumatic Brain Injury in NSW, *Community Health Studies* 1990, XIV, 2, 118-125.

LOWERING BLOOD CHOLESTEROL

Substantial evidence suggests raised serum cholesterol concentrations are associated with heightened risk for coronary heart disease. Evidence from prevention trials has established the efficacy of both dietary and pharmacological interventions to lower cholesterol concentrations. As a consequence, it has been concluded that a reduction in serum cholesterol concentrations, if applied on a population basis, would contribute appreciably to public health.

A review of all the major trials showed that mortality from coronary heart disease tended to be lower in men receiving interventions to reduce cholesterol concentrations compared with mortality in control subjects, although deaths from other causes were not affected by treatment.

There was an observed 15 per cent reduction in death from coronary heart disease, which is important but modest when compared with the numbers of people treated without demonstrable benefits in terms of mortality. That so relatively few lives were saved might have been because the mean cholesterol concentration was reduced in the intervention groups by only 10 per cent as compared with that in controlled subjects. In addition, the duration of treatment was only 4.8 years and the mean cholesterol concentrations before treatment were very high by recommended levels.

This is an important study because it addresses the major cause of death in Australia.

Muldoon MF, Manuck SB and Matthews KA, Lowering Cholesterol Concentration and Mortality: a quantitative review of primary prevention trials, *Brit Med J* 1990, 301, 11, 309.

ELECTROMAGNETIC FIELDS AND LEUKEMIA

A number of studies have suggested occupational or environmental exposure to strong electromagnetic fields increases the risk of leukemia. It has been reported that children who develop leukemia had a higher probability of having lived near high current, high voltage, transmission lines. An American study among naval personnel has also shown there is a possible increased risk of leukemia among electrician's mates, that is, naval staff who are exposed to high electromagnetic field exposure.

None of this is proof but it is very intriguing.

Garland FC, Shaw E, Gorham ED, et al, Incidence of Leukemia in Occupations with Potential Electromagnetic Field Exposure in United States Navy Personnel, *Am J of Epidemiology* 1990, 132, 2, 293.

FOOD SENSITIVITY IS MAINLY SELF-DECEPTION

Sensitivity to foods causing rashes, ulcers and bowel problems is considered by many clinicians to be extremely common. This belief is often confirmed by allergy tests which involve injecting small amounts of the suspected allergen into the skin and observing the results. New American and old British studies have shown many of these symptoms are psychological and that when the injections are given blind, relatively few people have true food allergies. But many do have psychological problems.

There is, however, an important but relatively uncommon group of people with real food sensitivity problems. The classic examples are coeliac disease which can be solved by a gluten-free diet. The other common condition is lactose intolerance which can be controlled by removing lactose from the diet.

Ferguson A, Food Sensitivity or Self-Deception? *N Eng J Med* 1990, 323, 7, 476.

TRANS FATTY ACIDS ARE BAD NEWS

Studies have emphasised the importance of mono-unsaturated fatty acids in reducing saturated fat intake and thereby lowering the serum level of atherogenic cholesterol. These tend to be the vegetable-based fatty acids. But when these mono-unsaturated fatty acids are hardened by manufacturing processes to produce fats that have the firmness and plasticity desired by food manufacturers and consumers, the fats form into trans fatty acids, and a Dutch study has shown they are as unfavourable as saturated fatty acids.

Trans fatty acids tend to be high in margarines or in foods prepared with or fried in such fats. The message is to avoid even the vegetable-based margarines. (This has obvious adverse commercial implications.)

Mensink RP and Katan MB, Effect of Dietary Trans Fatty Acids on High-Density and Low-Density Lipoprotein Cholesterol Levels in Healthy Subjects, *N Eng J Med* 1990, 323, 7, 439.

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ULTRASOUND SCREENING DURING PREGNANCY

The use of routine ultrasound screening during pregnancy was debated during the 1980s.

A controlled trial in Finland has shown the perinatal mortality is significantly lower in a screened, than in a controlled group, primarily because of the early detection of major malformations which led to induced abortions. There are other advantages to screening, including a reduction in attendances at clinics, reduced post-maturity labour and reduced induction of labour.

Saari-Kemppainen A, Karjalainen O, Ylostalo P and Heinonen OP, Ultrasound Screening and Peri-Natal Mortality: controlled trials of systematic one-stage screening in pregnancy, *Lancet* 1990, 336, 387.

CANCER PATIENTS PREFER TO DIE AT HOME

Place of death and quality of final care are important components of terminal cancer care for both the patient and the family. The proportion of patients with cancer dying at home has fallen steadily in the United Kingdom. In Western Australia and in Edinburgh the provision of cancer care services has enabled as many as 70 per cent and 41 per cent, respectively, of patients with cancer to die at home.

A British study has shown that with a limited increase in community care, 50 per cent more patients with cancer could be supported to die at home as they and their carers would prefer.

Townsend J, Frank AO, Ferment D, et al, Terminal Cancer Care with Patient's Preference for Place of Death: a prospective study, *Brit Med J* 1990, 301, 415.

NEW WARNING ON PASSIVE SMOKING

Passive tobacco smoking has clearly been shown to increase lung cancer in non-smoking spouses. For the first time a similar result has been shown for cardiovascular disease. It clearly is dangerous to live with a heavy-smoking person.

Humble C, Croft J, Gerber A, et al, Passive Smoking and 20-Year Cardio-Vascular Disease Mortality Among Non-Smoking Wives, Evans County, Georgia, *Am J Pub Health* 1990, 80, 5, 599.

ZIDOVUDINE RAISES SURVIVAL OF AIDS PATIENTS

Since the first case of AIDS in Australia was diagnosed in December 1982, there have been substantial improvements in the treatment of AIDS-related conditions. The key to this has been the introduction in 1987 of zidovudine and as a consequence the survival time since 1987 has increased from 8.8 months to 2.7 years.

Solomon PJ, Wilson SR, Swanson CE and Cooper DA, Effect of Zidovudine on Survival of Patients With AIDS in Australia, *Med J Aust* 1990, 153, 254.

HEALTHY AGEING AND MALE SEXUALITY

Little is known about the psycho-biological correlates of sexual function in healthy older men. Kinsey and colleagues were among the first to document a gradual decline in male sexual activity associated with age. A new American study on healthy married men aged 45 to 74 years has shown there was a significant negative relation between age and sexual desire, arousal and activity, but no age difference in sexual enjoyment and satisfaction.

The sexual problem most frequently reported by couples in the oldest age group was erectile difficulties, but despite the lessening in sexual function, the man's enjoyment in marital sex and his satisfaction with his own sexuality did not change with age. This may reflect the fact that the men in the study were in stable and committed relationships.

Schiavi RC, Schriener-Engel P, Mandeli J, Schanzer H and Cohen E, Healthy Ageing and Male Sexual Function, *Am J Psychiatry* 1990, 147, 6, 766.

INPATIENT ALCOHOL TREATMENT PROGRAM

Over the past decade it has been recognised that the majority of people with alcohol-related problems neither require nor particularly benefit from relatively lengthy periods of inpatient treatment.

A group of British patients admitted to hospital for an intensive one-month residential program were followed up for a year. In the first six months 37 per cent were abstinent or drinking in a controlled fashion. In the second six months 53 per cent achieved this status.

This study suggests a significant proportion of a disadvantaged group of alcoholics benefits from an intensive residential treatment program both in terms of drinking status and of social and psychological well-being. But 30 to 40 per cent of the participants did not improve. Psychological impairment was the most important predictor of outcome.

Shaw GK, Waller S, McDougall S, MacGarvie J and Dunn G, Alcoholism: A Follow-up Study of Participants in an Alcohol Treatment Program, *B J Psychiatry* 1990, 157, 190.

SOCIAL FACTORS ASSOCIATED WITH ADOPTION

A large study in Queensland has shown that women who give up their babies for adoption are generally 18 years or younger, have low family incomes, are single, are not living with a partner and are having an unplanned or unwanted baby. The decision to relinquish the baby appears to be a consequence of an unwanted pregnancy experienced by an economically deprived single mother rather than the result of emotional or psychological considerations.

Najman JM, Morrison J, Keeping D, et al, Social Factors Associated with the Decision to Relinquish a Baby for Adoption, *Community Health Studies* 1990, XIV, 2, 180-189.