

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.

SLEEPING POSITION AND SUDDEN INFANT DEATH

Sudden infant death syndrome (SIDS) is the leading cause of death in western communities for infants aged four weeks to one year. Epidemiological studies suggest that prone sleeping (sleeping on the stomach) increases the risk of sudden infant death syndrome. But there have been no physiological data to support the results of these epidemiological studies. This gap has partly been filled by an American study. There are some methodological problems with the study, however, it suggests the prone sleeping position may be related to SIDS because it allows other risk factors, such as overheating, to become active. This may explain why sleeping prone has such a strong relation to the rates of SIDS in Tasmania and New Zealand, where the use of soft mattresses and sheepskins is relatively common, but seems to have little influence in the United States, where the rate of SIDS is much lower even though the proportion of infants sleeping prone is almost twice as high.

But these epidemiological data cannot explain why thousands of babies sleep face down on soft mattresses in overheated rooms and do not die, whereas some who sleep on their backs on hard mattresses in cool rooms do die. It seems a gasping reflex is necessary to maintain breathing in mammals, including humans. It has been postulated that the separation of babies from their mothers in western society removes the intermittent arousal present in those societies where the mother and baby sleep together. This may explain the almost absence of SIDS in, for example, Hong Kong, as compared to western societies. The study by Ponsonby, Dwyer, Gibbons et al was conducted in Tasmania.

Poets CF and Southall DP. Prone sleeping position and sudden infant death. *New Engl J Med*, 1993; 329:6:425-426.
Ponsonby A, Dwyer T, Gibbons LE et al. Factors potentiating the risk of sudden infant death syndrome associated with the prone position. *New Engl J Med*, 1993; 329:6:377-382.

UNIVERSAL HEPATITIS B VACCINATION SUGGESTED

Paul Goldwater of Adelaide has presented a strong case for the universal offering of hepatitis B vaccine to all children in Australia. His argument is based on the following factors:

- Possibly 22,000 cases of hepatitis B occur each year in Australia, and 500-600 of these patients have to be placed in hospital.
- There has been a marked increase in hepatitis B in injecting drug users.
- The cost of immunisation is now low, at \$3-\$5 for the full paediatric dose.
- Hepatitis B vaccines are very safe and of proven efficacy.

Goldwater PN. History of hepatitis B vaccination in New Zealand: lessons for Australia? *Aust J Public Health*, 1993; 17:221-5.

ADVANCES IN PROTECTION FROM THE SUN

In Australia, where the bronzed Aussie image is still held as aesthetically ideal, malignant melanoma is the most common invasive tumour in adults between 20 and 40

years. About 2 per cent of the total population suffers from malignant melanoma. There have been significant improvements in knowledge about the danger of exposure to the sun and in Queensland nearly 90 per cent of children know that too much sun causes skin cancer. But knowledge is rarely sufficient for an increase in health-promoting behaviours. For example, only 30 per cent of adolescents in NSW use protective measures when out in the sun. A study in Newcastle, NSW, has indicated that the use of sunscreen creams has risen to nearly 70 per cent of beachgoers, but less than 17 per cent are using appropriate hats, shade and shirts. Perhaps a key direction for the future is the provision on beaches and elsewhere of shade by the use of trees or the construction of low-cost sun shelters.

Lowe JB, Balanda KP, Gillespie AM et al. Sun-related attitudes and beliefs among Queensland school children. *Aust J Public Health*, 1993; 17:202-8.
Foot G, Girgis A, Boyle CA et al. Solar protection behaviours: a study of beachgoers. *Aust J Public Health*, 1993; 17:209-14.

SMOKING WORSENS CORONARY HEART DISEASE

Population-based studies in Newcastle, NSW, have again demonstrated that men who smoke are 2.9 times more likely than non-smokers to have a first myocardial infarction or fatal heart attack, and for women the equivalent figure is 3.5 times. The combination of atherosclerotic coronary heart disease, hypertension and tobacco smoking deserves continuing attention.

Chun BY, Dobson AJ and Heller RF. Smoking and the incidence of coronary heart disease in an Australian population. *Med J Aust*, 1993; 159:508-512.

ADMINISTRATIVE COSTS IN HOSPITALS

A United States study has shown that one dollar in every four spent by American hospitals goes on administrative costs. This appears to be twice as high as in Canada. While administration is a necessity, such vast allocation to administration in American hospitals means the money is not available for the clinical care of patients.

Woolhandler S, Himmelstein DU, Lewontin JP. Administrative costs in US hospitals. *New Engl J Med*, 1993; 329:6:400-403.

METHADONE PRESCRIBING IN AUSTRALIA INCREASES

Methadone prescription is a major treatment for opiate dependence in Australia and elsewhere. Participation in a methadone program can reduce or eliminate illicit opiate use and the health and social problems associated with opiate dependence. Accordingly, methadone prescription should be given high priority as a public health activity. Since 1985 methadone prescription rates have remained relatively stable in all States with the exception of NSW and Victoria, where the rate has risen by a factor of 500 per cent. There has been an expansion in both the public and private sector in NSW and Victoria, but the greatest expansion has been in the private sector which, in NSW, increased from 50 in 1985 to 2,917 in 1990. In the absence of knowledge about the prevalence of injecting opiate use, it is not known whether the provision of methadone is adequate.

Gaughwin M, Kliewer E, Ali R et al. The prescription of methadone for opiate dependence in Australia, 1985-1991. *Med J Aust*, 1993; 159:107-108.