

## PUBLIC HEALTH ABSTRACTS

**P**rofessor 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.

### SCREENING OF HEARING LOSS IN HIGH-RISK BABIES

Severe pre-speech hearing impairment has important consequences in infancy for language acquisition, communication, social and emotional development. Evidence is increasing that even moderate hearing loss in very young children can be detrimental. It is accepted that appropriate remedial measures should be implemented at the earliest possible age and, accordingly, screening for hearing loss in young children is essential.

A sound British study has demonstrated the high reliability in screening for high-risk babies (i.e. babies with familial deafness, rubella infection during pregnancy, very low birth weight, congenital malformations, respiratory difficulties, neonatal jaundice and exchange transfusion). The screening involved measuring the 'electrical' response in the brain stem to sound stimuli. The use of such techniques was found to be highly reliable and cost effective.

McClelland RJ, Watson DR, Lawless V, Houston HG et al. Reliability and effectiveness of screening for hearing loss in high-risk neonates. *Br Med J* 1992; 304:806-809.

### BREAST FEEDING AND HEART DISEASE

There has been speculation that the high cholesterol and saturated fat content of milk received by infants may influence lipid metabolism throughout life. More than 5,000 men in England who were born after 1911 have been surveyed. Good data are available on whether or not they were breast- or bottle-fed during the first year of life. The follow-up, up to 80 years later, has shown there does seem to be a slightly reduced incidence of ischaemic heart disease in those men who were breast-fed compared to those who were bottle-fed during the first year of life. This broad finding is compatible with experiments in animals which have shown that different early feeding can lead to permanent changes in serum lipid concentrations and in the metabolic activity of the enzymes which control cholesterol synthesis and excretion.

Fall CHD, Barker DJP, Osmond C, Winter PD et al. Relation of infant feeding to adult serum cholesterol concentration and death from ischaemic heart disease. *Br Med J* 1992; 304:801-805.

### ANTI-SMOKING CAMPAIGNS REACH LOWER SOCIO-ECONOMIC GROUPS

A major public health concern in developed countries is the increasing gap in smoking prevalence between groups with different levels of education. In the United States, Canada and Norway smoking in the least educated groups is about twice as prevalent as in the most educated groups and the rate of decline in smoking behaviour is three to nine times lower. During the 1980s mass media-led anti-smoking campaigns were conducted in Sydney and Melbourne and follow-up surveys indicated a significant decline in smoking prevalence. This decline contrasts with the relatively stable smoking levels of the previous decade and has been attributed to the campaigns. There was no evidence that the gap in smoking prevalence between the educational groups increased during the study period in three of the four study groups. The exception occurred among Melbourne women where only the higher educated showed a decline in smoking.

These results are among the first reported examples of a health promotion-motivated behavioural change that did not lead to an increase in the gap between educational levels. They suggest that in previous studies the much larger decreases in smoking prevalence, seen among better educated groups, may have been related to differences in exposure to motivational material rather than to differences in behaviour-changing skills. To continue to address the needs of smokers of all educational levels, the public health movement should conduct anti-smoking campaigns using the full powers of visual mass media.

Macaskill P, Pierce JP, Simpson JM and Lyle DM. Mass media-led anti-smoking campaign can remove the education gap in quitting behaviour. *Am J Public Health* 1992; 82:96-98.

### TAXES REDUCE CIGARETTE CONSUMPTION

Many studies have observed that cigarette consumption falls when the price of cigarettes rises. A large American experience conducted over a 33-year period has shown that taxes on cigarettes are associated with a sales decline of tobacco of about 0.5 per cent for every 1 per cent of cigarette price increases. Accordingly, taxes appear to be an effective public health intervention to reduce cigarette consumption.

Peterson DE, Zeger SL, Remington PL and Anderson HA. The effect of State cigarette tax increases on cigarette sales 1955 to 1988. *Am J Public Health* 1992; 82:94-96.

### Investigation of an outbreak of gastroenteritis

► Continued from page 114

vegetable. Viewed in the light of the questionnaire data, the absence of pathogens in the stool samples would also appear to devalue food as a source of infection.

### CONCLUSION

It was concluded that there was a high probability that the outbreak was not caused by a water-borne or a food-borne infection, but by a viral infection. It was, however, important to initiate a rapid response, both as a field test of established protocol and as an essential data-collecting process which would inform the institution of prospective counter-measures.

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Alexander WJ, Holmes JR, Shaw JFE, Riley WE, Roper WL. Norwalk virus outbreak at a college campus. *South Med J* 1986; 79:33-40.  
Cornfield JA. Statistical property arising from retrospective studies. *Proc Third Berkeley Symp Math Stat Prob* 1956; 4:135-148.  
Davis H, Taylor JP, Perdu JN, Stelma GN, Humphreys JM et al. A shigellosis outbreak traced to commercially distributed shredded lettuce. *Am J Epidemiol* 1988; 128:1312-1321.  
Ho JL, Shands KN, Friedland G, Eckind P, Fraser DW. An outbreak of type 4b *Listeria monocytogenes* infection involving patients from eight Boston hospitals. *Arch Intern Med* 1986; 146:520-524.  
Kahn HA and Sempos CT. *Statistical methods in epidemiology*. New York: Oxford University Press, 1989.  
Rosenblum LS, Mirkin IR, Allen DT, Safford MD, Hadler SC. A multifocal outbreak of hepatitis A traced to commercially distributed lettuce. *AJPH* 1990; 80:1075-1080.  
Schlech WF, Lavigne PM, Bortolussi RA et al. Epidemic listeriosis: evidence for transmission by food. *N Engl J Med* 1983; 308:203-206.  
Woolf B. On estimating the relation between blood group and disease. *Ann Hum Genet* 1955; 19:251-253.