

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 items from the literature.

AIDS AND LESBIANS

Very little has been written on the epidemiology of AIDS in the lesbian population. Two instances of female-to-female sexual transmission of HIV have been reported. The biggest risk of transmission is, however, through intravenous drug use. Although female-to-female transmission of HIV appears to be rare, the occurrence of AIDS among lesbian and bisexual women indicates that women who engage in sex with other women can be exposed to HIV through the transmission of body fluids.

Chu SY, Buehler JW, Fleming PL and Berkelman RL, Epidemiology of Reported Cases of AIDS in Lesbians, United States 1980-89, *Am J Pub Health* 1990, 80: 1380-1381.

CHANGE OF FOOD IN US BOARDING SCHOOLS

The traditional counselling approach to changing eating behaviour is difficult and time-consuming. An alternative approach is to change the fat content of food products. Studies at two boarding high schools in New England have shown this can be achieved with an increase of consumption by 75 per cent of fat-modified products. (The key is to alter food purchasing and preparation practices in institutions rather than to try to change eating behaviour — JSL.)

Ellison RC, Goldberg RJ, Witschi JC et al, Use of Fat-Modified Food Products to Change Dietary Fat Intake of Young People, *Am J Pub Health* 1990, 80: 1374-1376.

CHLAMYDIA AND GONORRHOEA

The epidemiology of chlamydia is not well known because reliable and inexpensive tests have become available only recently. American studies show that chlamydia, a major cause of sexually-transmitted disease leading to sterility, appears to infect younger people and those of higher socio-economic status than gonorrhoea. Gonorrhoea is generally reported to central authorities, but that is not necessarily the case with chlamydia. It is recommended that chlamydia reporting to health departments be compulsory.

Zimmerman HL, Potterat JJ, Dukes RL et al, Epidemiologic Differences between Chlamydia and Gonorrhoea, *Am J Pub Health* 1990, 80: 1388-1392.

ATHEROMA AND COFFEE DRINKING

Whether coffee drinking is a risk factor for coronary heart disease continues to be controversial. A new American study has found that coffee-drinking behaviour is often associated with people who also consume higher fat diets. Hence the difficulty in interpreting the growing body of literature about coffee and health.

Puccio EM, McPhillips JB, Barrett-Connor E and Ganiats TG, Clustering of Atherogenic Behaviours in Coffee Drinkers, *Am J Pub Health* 1990, 80: 1310-1313.

GROUP THERAPY APPEARS TO HELP

The risk of sex offenders re-offending is known to persist over many years. A 10-year experience in England has shown that group therapy can achieve reasonable results with non-violent sex offenders. The key activities in the group therapy are acknowledgement of the problem, discussion of the build-up to sex offences, development of alternative strategies when at risk of re-offending, implementation of these strategies and development of supports outside the group.

Cook DAG, Fox CA, Weaver CM and Rooth FG, The Berkeley Group: Ten Years' Experience of a Group for Non-violent Sex Offenders, *Brit J Psych* 1991, 158, 238-243.

DAY TREATMENT SUCCEEDS

A new British-based study has shown that up to 50 per cent of acutely psychiatrically ill patients can be adequately cared for on a day hospital basis without the need for admission. Adequate numbers of staff are necessary if the proportion of such patients is to reach 50 per cent of all patients referred for hospital admission. The number of staff required for satisfactory day hospital treatment of acutely ill patients means day care may not necessarily be cheaper than inpatient care.

Creed F, Black D, Anthony P, Osborn M et al, Randomised Controlled Trial of Day and In-patient Psychiatric Treatment, *Brit J Psych* 1991, 158, 183-189.

VASECTOMY AND PROSTATE CANCER

Vasectomy is widely regarded as a safe, simple and effective form of male contraception. But a large, carefully controlled American study has raised the possibility that vasectomy may increase the long-term risk of cancer of the prostate. This is not a conclusive finding and other studies do not confirm it. As prostate cancer is now the leading site for cancer incidence in men and should increase as the age distribution of the population shifts upward, this issue will become more important.

Guess HA, Vasectomy and Prostate Cancer, *Am J Epidem* 1990, 132, 6, 1062-1065.

ADVERSE EVENTS IN HOSPITAL PATIENTS

A large American study has shown that 3.7 per cent of hospital patients have disabling injuries caused by medical treatment. Nearly half the adverse events resulted from operations, with wound infection being the most common. Drug complications were the most common single type of adverse event. Overall, 28 per cent of the adverse events were judged to have been as a consequence of negligent care, by far the most common being omission of action. It is also important to indicate that the large majority of the adverse events did not result in serious disability.

Many of the adverse events were neither preventable nor predictable, given the state of knowledge — for example, idiosyncratic drug reactions in patients who had not taken drugs previously. The findings indicate that most adverse events are preventable and that errors in medical practice are relatively common. However studies in other areas of human endeavour such as nuclear power generation, shipping and the airline industry confirm that some degree of error is inherent in all human activity. In highly technical systems, even minor errors may have disastrous consequences and medicine is no exception. To reduce error, control will require scientific advances in some instances, but progress will also depend heavily on education and the development and dissemination of guidelines and standards for practice. Preventing medical injury will also require attention to the causes and consequences of errors, an effort that goes well beyond identifying culpable people. Such approaches have paid off handsomely in other highly technical and complicated enterprises such as aviation, and similar strategies may work in medicine as well.

Leape LL, Brennan TA, Laid N et al, The Nature of Adverse Events in Hospitalised Patients, *New Eng J Med* 1991, 324: 377-384.

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PREDICTORS OF SUCCESSFUL AGEING

The elderly are not a homogeneous group. Some are beset by multiple conditions and spend considerable time in hospital. Others, especially women, live a very long life but are afflicted by increasing frailty or declining mental status. Some elderly manage to avoid all these problems and maintain themselves independently in the community and are described as "ageing successfully".

A large Canadian study conducted over nearly 15 years has identified predictors of successful ageing. These are no bad outcomes occurring to a spouse, good self-reported health status, not developing cancer or diabetes, and having good mental health status.

Females were no more likely to age successfully than were males. In summary, successful ageing depends on good health status (including mental health) and not having one's spouse die or enter a nursing home.

Roos NP and Havens B, Predictors of Successful Ageing: a 12-year study of Manitoba elderly, *Am J Pub Health* 1991, 81: 63-68.

NORTH COAST CHOLESTEROL CHECK CAMPAIGN

More than half the North Coast adult population has now had a cholesterol test. About half have elevated blood cholesterol levels. Follow-up has indicated that after three years, between 6 and 10 per cent reduction in blood cholesterol has been achieved. As each per cent reduction in blood cholesterol gives 2 to 3 per cent reduction in heart disease, this campaign can be regarded as being effective. (The desirability of conducting large-scale public screening programs continues to be a matter of debate. During the 1970s similar results of public screening programs in northern Sydney were achieved, but were not followed up because better results were being achieved through widespread health education — JSL.)

van Beurden EK, James R, Henrikson D et al, The North Coast Cholesterol Check Campaign, *Med J Aust* 1991, 155, 385-391.

TRENDS IN ABORIGINAL MORTALITY

The level of mortality experienced by Aborigines has long been recognised as much worse than that of other Australians. Although the overall situation has probably improved slightly over the past 20 years, the current level is still much higher than that of non-Aboriginals and there is some evidence that the death rates of young and middle-aged adults may have risen in that time. The number of Aboriginal deaths in virtually all Aboriginal communities is about double that of other Australians. Accordingly, the life expectation is from 10 to 15 years less for both male and female Aborigines.

The causes of Aboriginal deaths have changed in recent years. In 1985 the leading cause of death for Aboriginal males and females was disease of the circulatory system. The second leading cause of death for males and the third for females was injury and poisoning. Diseases of the respiratory system is the third leading cause of death. Cancers are of increasing importance as causes of Aboriginal deaths.

Infectious and parasitic diseases are still a much higher cause of death in the Aboriginal community than for other Australians and include tuberculosis, intestinal infectious diseases plus a range of other infections. Infant mortality rates appear to have declined substantially among

Aborigines in the past 20 years, but the infant mortality rates remain between two and four times higher than that of other Australians.

Thomson NJ, Recent Trends in Aboriginal Mortality, *Med J Aust* 1991, 154, 235-239.

CAN RADIOGRAPHERS REVIEW EMERGENCY X-RAYS?

A British study has shown that radiographers can offer useful advice on radiographs to casualty officers, but they have a high rate of false positive diagnoses. Nevertheless their error rate of 9 to 14 per cent is considerably lower than the 39 per cent reportedly made by casualty medical officers. It is concluded that radiographers can offer useful advice, but that all X-ray films should be ultimately reviewed by a specialist radiologist.

Renwick IGH, Butt WP and Steele B, How Well Can Radiographers Triage X-ray Films in Accident and Emergency Departments? *Brit Med J* 1991, 302, 568-569.

BREAST CANCER IN YOUNG WOMEN

Mortality from breast cancer has not changed over the past 30 years. Accurate early diagnosis is needed to improve quality of life and reduce mortality as the outcome depends on tumour size at presentation. About two-thirds of patients at British breast clinics are younger than 36 years. While most have benign disease, roughly 3 per cent of all cancers occur in this age group. This study assessed the diagnostic processes — clinical examination, mammography and needle aspiration biopsy — in young women with breast cancer. The conclusions are that mammography alone seems inadequately sensitive to detect breast cancer in young patients. When all investigations give negative results, excision biopsy appears to be the only way of obtaining a definitive diagnosis.

Yelland A, Graham MD, Trott PA, Diagnosing Breast Carcinoma in Young Women, *Brit Med J* 1991, 302, 618-620.

ACTING ON HIGH CHOLESTEROL LEVELS

Screening hand luggage for explosive devices is widely accepted at airports. In contrast, screening for high blood cholesterol levels which, in some people, is the same as carrying around a biological time bomb, is contentious. A Canadian committee has exhaustively reviewed the issue. They did not recommend mass screening but strongly advocated a population-based strategy of dietary change with screening limited to those at high risk who present to doctors for other reasons. Another recent review of screening, this time from the United States, assessed the same evidence and reached similar conclusions but with one major difference. They advocated that all men have their serum cholesterol concentration measured at least once in early adult life.

The reason for these approaches is that mass screening would lead to a massive expansion of laboratory and dietary facilities plus the need to give expensive blood fat lowering medication to perhaps one in four adults. The outcome would not necessarily be better than the population-based strategy of dietary change. (See earlier item on the approach adopted in the NSW North Coast.)

Thompson GR, What Should be Done About Asymptomatic Hypercholesterolaemia? *Brit Med J* 1991, 302, 605-606.

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Public Health Abstracts

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UNEMPLOYMENT — HERE WE GO AGAIN

Galbraith, the world's most literate economist, has said: "Let us remind ourselves what lies behind those numbers (on unemployment) — personal and family trauma, the loss of self-esteem, the tight-lipped fear about the future, the wonder as to whether there will be a job and income soon or ever again." These issues are crucial to health because all the radical solutions lie with economists and politicians, yet the evidence is that unemployment kills — particularly the middle-aged. There have been many studies in the past two decades which document that mortality is roughly a third higher in men seeking work than employed men. In 1990 a Finnish study found that mortality was 90 per cent higher among the unemployed than the employed after controlling for all the background variables. This Finnish study also showed that mortality increased with duration of unemployment. In all the studies, death rates are particularly high from suicide, accidents and violence and circulatory diseases.

Smith R, Unemployment: here we go again, *Brit Med J* 1991, 302, 606-607.

FLUORIDATION — AN OLD CONTROVERSY

Few public health activities engender more heat than the recurrent debate over fluoridation. In response to attacks led by scientists, the National Health and Medical Research Council's new working group to review the issues has issued an interim report. The basic conclusions are that fluoridation of water supplies does provide a good base for the reduction in dental decay in any community. The working group acknowledges that fluoridated toothpastes have also provided a major source of fluoride. Its basic recommendation is to encourage communities with reticulated water supplies, which are not fluoridated, to go ahead and fluoridate them.

If fluoride were removed from water supplies, the outcome would not be disastrous because of the high levels of fluoride and the widespread levels of fluoride-containing toothpastes and the increasing level of oral hygiene with these toothpastes.

Douglas RM, Fluoridation of Public Water Supplies, *Med J Aust* 1991, 154, 435-436.

PREGNANCY AND THE OUTCOME OF MELANOMA

The incidence of melanoma is rising and it appears to be developing in twice as many women as men. Thus a large proportion of women who have had melanoma apparently successfully excised are still in their reproductive period. In view of the possibility of tumour sensitivity to hormones, women increasingly ask whether pregnancy after treatment alters the outlook, particularly with respect to melanomas diagnosed during a previous pregnancy. A large British study has shown that once the thickness of the melanoma tumour is controlled, the survival rate of pregnant women in whom melanoma was diagnosed and treated did not differ from that of other women. Therefore women with melanoma should be advised about pregnancy on the basis of thickness and site of tumour and evidence of vascular spread and not on hormonal status (this is a major change in practice in a very important and common field for Australia — JSL).

MaeKie RM, Bufalino R, Morabito A, Lack of Effect of Pregnancy on Outcome of Melanoma, *Lancet* 1991, 337, 653-654.

Catching a Measles Outbreak

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unimmunised and who are resident in the inner-city area indicates a need to review childhood immunisation strategies in this area.

Delayed reporting of measles cases resulted in control measures not being instituted until the outbreak was well under way. The investigation of the outbreak showed that, of the two cases reported on March 8, one was a secondary contact of the index case. The index case was not reported until serological confirmation had been obtained — two weeks after the onset of illness. It is likely that many cases of measles could have been prevented if the doctor had notified the case on suspicion of measles rather than waiting for serological confirmation.

The control of a measles outbreak rests on the rapid immunisation of susceptible children. In this outbreak, measles immunisation was recommended for all unimmunised children over one year of age. Measles immunisation is not usually recommended for children less than six months of age because maternal antibody levels are usually sufficient to prevent infection. Measles immunisation may be given to children aged 6 to 12 months — but a second dose is recommended at 15 months of age. Alternatively, human immunoglobulin may be given to provide temporary protection. In this outbreak, the lack of any clear guidelines for protection of children aged 6 to 12 months caused some confusion among health care workers and the public. It is therefore important, in the event of a measles outbreak, that health care workers be provided with clear guidelines for this age group.

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Anonymous. Measles vaccine efficacy — United States. *MMWR*, 1980; 29: 470-472.

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