See pp 457, 467, 471

Worldwide decline in semen quality might be due to smoking

EDITOR,—While there has been much concern recently about the potential effect of environmental oestrogens on male reproduction, studies of the association between cigarette smoking and sperm concentration, as well as patterns of cigarette consumption, support the notion that cigarette smoking may have contributed considerably to the worldwide decline in semen quality. Carlsen *et al* systematically reviewed 61 studies of semen quality conducted over 50 years and found that mean sperm concentration worldwide fell by half from $113 \times 10^6/\text{ml}$ in 1940 to $66 \times 10^6/\text{ml}$ in 1990.¹ Giwercman *et al* concluded that the decline in semen quality was probably due to environmental rather than genetic factors, suggesting that in utero exposure to environmental oestrogens, pollution, and lifestyle exposures (including cigarette smoking) were possible causes.²

Recent studies confirm an association between smoking and semen quality. Vine *et al*, in a meta-analysis of studies published between 1981 and 1992, showed that smokers' sperm concentration was on average about 15% lower than that of non-smokers.³ Among studies of only healthy men (that is, studies of men from infertility clinics were excluded) smokers' sperm concentration was 24% lower than that of non-smokers.

Brake and Krause,⁴ among others, reanalysed the data from Carlsen *et al*'s study,¹ noting that the fall in sperm concentration was unlikely to have been linear over the entire 50 year period. Among the 48 studies conducted between 1970 and 1990

there was a significant increase in sperm concentration. Still, the mean concentration in the later studies was lower than that in the earlier studies. By the same token, cigarette consumption rose in most countries from the 1920s to the 1960s.⁵ However, in some developed countries, such as Finland, the United States, and Britain, cigarette consumption began to fall during the 1960s and '70s.⁵ Over half of the 61 studies reviewed by Carlsen *et al* were conducted in Finland (one), the United States (28), and Britain (four). The pattern, in these countries, of a rise in cigarette consumption until the 1960s followed by a reduction in consumption in subsequent decades is consistent with an overall decrease in mean sperm concentration from 1940 to 1990 and an increase between 1970 and 1990. Given the ecological nature of these observations, further research is warranted.

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Sensible drinking

Government's recommendations should be considered as a whole

EDITOR,—As chairman of the Interdepartmental Group on Sensible Drinking, which drew up the government's new recommendations regarding sensible drinking, I wish to respond to Griffith Edwards's editorial.¹

Firstly, the group reviewed the message about sensible drinking in the context of government policy. We were not, and did not wish to be, "arbiters of what doctors say to their patients." That responsibility clearly lies with individual medical practitioners and is a matter for their judgment in the light of the circumstances of individual patients.

Secondly, the government has a duty to assure itself that publicly funded health promotion campaigns are based on accurate and defensible advice. Civil servants take considerable pride in providing objective advice untainted by outside vested interests. Our report sets out fully the group's members, expert advisers, and method of proceeding and the evidence taken and the basis for our conclusions.² The report, which includes statements from three expert scientific committees, is proof enough of our competence and integrity. Conversely, no evidence has been produced by those who have sought to imply improper influence by the alcohol industry. I can state categorically that there is no truth in this allegation.

Thirdly, we emphasise the need for our recommendations to be considered as a whole. Few people would dispute our view that the message

about sensible drinking is better stated in terms of daily rather than weekly consumption (both for ease of compliance and to discourage binge drinking). Furthermore, few people would dispute the need for further health promotion work to discourage the drinking of any alcohol in unsafe circumstances and for more restrictive advice in respect of pregnant women, young people, and children. Given this context and, indeed, Edwards's acceptance that the scientific data do not provide "micrometer exactness" in determining limits, we abide by the view that "regular consumption of between three and four units a day by men of all ages will not accrue significant health risk. Consistently drinking four or more units a day is not advised as a sensible drinking level because of the progressive health risk it carries."

In conclusion, I hope that Edwards's editorial will encourage readers of the *BMJ* to consider our report in full and make up their own minds.

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- 1 Edwards G. Sensible drinking. *BMJ* 1996;312:1. (6 January.)
- 2 Interdepartmental Working Group. *Sensible drinking*. London: Department of Health, 1995.

Few people will change their drinking habits in London . . .

EDITOR,—Considerable concern has been expressed^{1,2} about the Department of Health's recent report that raised the limits for sensible drinking.³ During the first two weeks of this year we carried out a survey of people's knowledge of the changes in the recommended maximum daily alcohol intake.

Altogether 191 people (mean age 34) whom we stopped in the streets of south west London responded to our questionnaire. Interestingly, only 38 of them knew the new maximum limits for men and 38 for women. Instead, 36 people stated the old limits for men and 45 for women. After we told the people of the new guidelines 189 said that they would not change the amount of alcohol they drank; only two said that they would drink more. Despite our surprise this was reassuring. We were worried, though, by the four people who thought that after 6 units of alcohol they were over the legal limit but still safe to drive.

Encouragingly, 108 people thought that the legal blood alcohol limit of 17.4 mmol/l (80 mg/100 ml) was too high. This finding supports the idea of Alcohol Concern and the BMA that the maximum legal blood alcohol concentration for drink-driving offences should be reduced to 10.9 mmol/l (50 mg/100 ml) in Britain, as in France, the Netherlands, and Australia. Research has shown that lowering the limit to 10.9 mmol/l decreases road traffic accidents.⁴ So what are we waiting for?

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Advice to authors

We receive more letters than we can publish: we can currently accept only about one third. We prefer short letters that relate to articles published within the past four weeks. Letters received after this deadline stand less chance of acceptance. We also publish some "out of the blue" letters, which usually relate to matters of public policy.

When deciding which letters to publish we favour originality, assertions supported by data or by citation, and a clear prose style. Wit, passion, and personal experience also have their place.

Letters should have fewer than 400 words and no more than five references (including one to the *BMJ* article to which they relate); references should be in the Vancouver style. We welcome pictures.

Letters should be typed and signed by each author, and each author's current appointment and address should be stated. We encourage you to declare any conflict of interest.

Please enclose a stamped addressed envelope if you would like to know whether your letter has been accepted or rejected.

Letters will be edited and may be shortened.

- 2 Dillner L, Josefson D, Karcher H, Sheldon T, Dorozynski A, Zinn C. Alcohol—pushing the limits. *BMJ* 1996;312:7-9. (6 January.)
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- 4 Guppy A. At what blood alcohol concentration should drink-driving be illegal? *BMJ* 1994;308:1055-6.

... or elsewhere

EDITOR,—The report of the Interdepartmental Working Group on sensible drinking¹ has aroused critical comment.² The core recommendation is an increase in the safe limits for drinking from 21 units a week to 3-4 units a day for men and from 14 units a week to 2-3 units a day for women. The apparent aims are to discourage binge drinking and to promote health through moderate daily consumption.³

We investigated how drinkers had interpreted the new guidelines and what effect the guidelines would have on their drinking. Over the Christmas period we interviewed 100 randomly chosen people in 12 pubs in four areas of England. Ninety were aware that the guidelines on drinking had changed and were interviewed further. Of these, all believed that safe drinking limits had been increased. When asked to quote the new guidelines 47 gave the correct weekly totals; they all, however, gave a weekly, not a daily, limit. Nearly all the subjects (97%) said that the new guidelines would not affect the amount they drank or the pattern of their drinking. The others were occasional drinkers who said that they might increase their drinking because of the health benefits. When asked if the new guidelines would make them spread out their drinking more, only 3% said that they would.

We conclude from our survey that, whatever the intended effect of the guidelines, they have been widely misinterpreted. Despite this, nearly all our subjects denied that the guidelines would change their drinking habits.

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Civil servants should be congratulated for rejecting "whole population theory"

EDITOR,—Griffith Edwards's editorial¹ criticising the Department of Health's report *Sensible Drinking*² is misleading in asserting that the recommendation to raise the "safe" limits of alcohol consumption "was unsupported by either new analysis or new evidence." On the contrary, the report states quite explicitly, citing appropriate references, that the change in policy is based on a rejection of the "whole population theory" as promulgated most recently by a joint committee of the royal colleges chaired by Professor Michael Marmot. The specific question that needs to be addressed is whether the committee that produced the report was right to do this.

Although apparently representing the "current medical consensus," at least among public health academics, the whole population theory—otherwise known as the "population strategy"—is both scientifically and ethically highly contentious.³ The fundamental premise seems to be that the number of problem drinkers can be influenced by a small shift downwards in the average per capita consumption of alcohol, just as it is claimed that the incidence of stroke can be lowered by a small reduction in the per capita consumption of salt.⁴

Epidemiologists may find this an elegant solution, but there is no empirical evidence that such a strategy has ever worked—nor, in biological terms, is there any reason why it might do so.

The second problem is that ordinary people, to whom this type of health advice is presumably addressed, find the logic behind the population strategy difficult to grasp. While they can readily perceive that those people who harm their health by drinking to excess should cut down, they find it inconceivable that a reduction in their own modest intake should influence the heavy drinking of others.

The third disturbing aspect of the population strategy is that it legitimates—on allegedly scientific grounds—yet further interference by the state in ordinary people's lives: by definition, if the whole population is deemed to be "sick" then health advice must be directed at all the state's citizens.⁵

There are thus substantial reasons for disputing the population strategy, on the grounds that it is scientifically unproved, obscure, and illiberal. Rather than casting aspersions on the motivation and competence of the civil servants who drafted *Sensible Drinking* we should be congratulating them for calling the profession's bluff in rejecting the strategy.

In the meantime, doctors will no doubt get on with tackling the problem of alcohol dependence with the more traditional strategy (but one that at least has the merit of being practicable) of identifying those at high risk and helping them to cut down.

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- 1 Edwards G. *Sensible drinking*. *BMJ* 1996;312:1. (6 January.)
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Hepatitis B in the Chinese community in Britain

EDITOR,—E H Boxall commented recently¹ on the results of studies of screening for hepatitis B virus in antenatal clinics in the Netherlands² and recommended a policy of universal antenatal screening in Britain. We are concerned about policies as they affect the Chinese community in Britain, a population with a high prevalence of carriers of hepatitis B.

Other aspects of the policy for controlling hepatitis B in Britain besides universal antenatal screening need to be reinforced. Protection of infants born to mothers infected with hepatitis B relies on assiduous follow up of infants receiving immunisation against hepatitis B. We are aware of cases in which infants of carrier mothers have not been immunised or have received only incomplete courses of vaccine. Those at risk of infection by sexual contact also need protection. We have seen cases of acute hepatitis in partners of people of Chinese origin who are positive for hepatitis B e antigen. These cases occur as a result of a lack of knowledge and awareness of hepatitis B in the Chinese community and a failure of health care services to implement existing immunisation policies fully.

To raise the awareness of the communities most affected we recently undertook a limited exercise to inform the Chinese community of the risks of hepatitis B. We placed announcements in four Chinese newspapers and journals and on three radio and television channels used by the Chinese community. A telephone helpline was set up and

received calls from all parts of Britain. It was clear that there was much concern but a lack of knowledge about hepatitis B among many of those members of the Chinese community who responded.

It is estimated that, because of the constitutional changes that will occur in Hong Kong in 1997, up to 200 000 residents have been given permission to settle in Britain. The public health impact of such an influx may be substantial, and a re-evaluation of the size of the problem of hepatitis B in this and other ethnic minorities is required. In addition to Chinese people from Hong Kong there are many people from other countries in the region that have a high prevalence of hepatitis B (>7% positive for hepatitis B surface antigen), including Vietnam, China, Singapore, and Malaysia. Well targeted health promotion activity is needed to increase awareness both within these communities and among the health care professionals who serve them.

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Effect of paediatric retrieval service on clinical activity

EDITOR,—The correspondence¹ generated by the report by Joseph Britto and colleagues on a specialised paediatric retrieval service² prompts us to highlight the effect that such a service has had on our clinical activity. We have assessed the increased workload generated by our paediatric retrieval service by comparing the outside referrals to our unit over two consecutive two year periods, 1992-3 (before the start of the service) and 1994-5 (when the service was operating).

Comparison of data by calendar month (for example, January 1993 compared with January 1994) showed that the median number of patient episodes per month increased after the introduction of the service (20.0 v 35.5, $P < 0.0001$), as did the median number of bed days per month (83.0 v 177.5, $P < 0.001$, Mann-Whitney U test). Not only did the number of referrals for paediatric intensive care increase but a higher proportion of patients were retrieved (median retrieved each month in 1994 compared with 1995, 62.5% v 75.5%, $P < 0.03$), with two thirds of retrievals occurring between 1800 and 0800. Despite the large increase in patients being accepted for retrieval significantly fewer patients were refused admission (14/484 (3%) v 40/224 (18%), $P < 0.0001$, Fisher's exact test; odds ratio 6.1 (95% confidence interval 3.2 to 11.5)). Organisational changes to support this level of clinical activity have included the presence of two full time residents at night and the appointment of three full time fellows in paediatric intensive care.

We agree with A Raffles that local hospitals must not become deskilled as the care of critically ill