

about 0.4% of total per capita consumption of fresh, bought vegetables.³

The maximum intake—achievable only if the dish was consumed raw daily—would contribute only 15% of the plasma cotinine concentration due to passive smoking by a typical non-smoker and 1.5% of the plasma cotinine concentration for the most exposed non-smokers (table). However, a typical non-smoker's actual average dietary nicotine intake produces only 0.7% of a typical non-smoker's cotinine dose from passive smoking. Dietary nicotine intake does not confound cotinine in body fluids as an index of passive smoking.

The opinions in this letter are my own.

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- 1 Domino ET, Horbach E, Demana T. The nicotine content of common vegetables. *N Engl J Med* 1993;329:437.
- 2 Table 1.3-1: vegetables, mean intakes per individual in a day, by sex and age, 1 day, 1987-88. *Nationwide food consumption survey, individual intake data (draft report)*. Hyattsville, MD: Department of Agriculture, Human Nutrition Information Service, 1992.
- 3 Table 26—fresh commercial vegetables: per capita consumption, 1970-1991 (1988 selected). In: Putman JJ, Allshouse JE, eds. *Food consumption, prices, and expenditures, 1970-1990*. Washington, DC: US Department of Agriculture, Economic Research Service, 1992. (Statistical bulletin No 840.)
- 4 Jenner P, Gorrod JW, Bennett AH. Absorption of nicotine-1₁-N-oxide and its reduction in the gastrointestinal tract in man. *Xenobiotica* 1979;3:341-9.
- 5 Iwasi A, Miyoji A, Kira S. Respiratory nicotine absorption in non-smoking females during passive smoking. *Int Arch Occup Environ Health* 1991;63:139-43.
- 6 Repace JL, Lowrey AH. An enforceable indoor air quality standard for environmental tobacco smoke in the workplace. *Risk Analysis* 1993;13:463-75.

... unless subjects eat 90 kg tomatoes a day

EDITOR,—The notion that nicotine from dietary sources might contribute sufficiently to measured cotinine concentrations in non-smokers as to make objective assessment of exposure to environmental tobacco smoke unreliable or impossible has been suggested more than once, most recently by Domino *et al.*¹ This report received widespread publicity in the media, including both the *BMJ* and the *Lancet*.^{2,3} If the claim could be substantiated there would be important implications for investigations of the health effects of passive smoking, which have increasingly used cotinine as a quantitative marker of exposure.

Domino *et al.* measured low concentrations of nicotine in some vegetables of the solanaceae family and estimated that the amount of nicotine (1 µg) taken in by someone eating 10 g of aubergine or 244 g of tomato would be similar to that breathed in by a non-smoker who spent three hours in a room lightly polluted by smoke. What is at issue is not the reported concentrations of nicotine in vegetables but their biological significance.

It is known that cotinine concentrations bear a linear relation to nicotine intake and that this remains true at the low levels of exposure characteristic of passive smoking.⁴ At a rough approximation, a salivary cotinine concentration of 10 ng/ml corresponds to a nicotine intake of 1 mg. Thus, on Domino's figures, the 1 µg of nicotine derived from 244 g of tomatoes would be expected to generate a salivary cotinine concentration of some 10 pg/ml. This is below the detection limit of even the most sensitive assays.

I and others examined the determinants of salivary cotinine in 7 year old children in Edinburgh.⁵ Geometric mean concentrations were 0.2 ng/ml in children from non-smoking households, 1.70 ng/ml where one smoker was present, and 3.71 ng/ml where there were two or more smokers.

Similar findings have been reported by others. To explain this pattern of results, dietary nicotine would have to be perfectly confounded with parental smoking. Furthermore, it would be necessary to eat the equivalent of some 90 kg tomatoes a day to give rise to the cotinine concentrations seen in children where two or more family members smoked.

We were able to identify a number of predictors of cotinine concentrations in children from non-smoking homes. These included social class, crowding in the home, and season of the year. These effects could be readily interpreted in terms of passive smoking, but not as dietary effects. For example, higher exposures were seen in children from lower socioeconomic groups (consistent with exposure due to the generally higher levels of smoking among more deprived groups in the community), whereas higher intakes of nicotine containing vegetables would be expected in children from more advantaged backgrounds.

Thus, while dietary nicotine has curiosity value, it is essentially irrelevant for passive smoking. As a measure of passive smoking, cotinine has enabled more precise assessment of exposure and has considerably strengthened the evidence of adverse effects on health.

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- 1 Domino EF, Horbach E, Demana T. The nicotine content of common vegetables. *N Engl J Med* 1993;329:437.
- 2 Minerva. *BMJ* 1993;307:692. (11 September.)
- 3 Ramsay S. Passive smoking or vegetables? *Lancet* 1993;342:487.
- 4 Curvall M, Kazemi Vala E, Enzell CR, Wahren J. Simulation and evaluation of nicotine intake during passive smoking: cotinine measurements in body fluids of nonsmokers given intravenous infusions of nicotine. *Clin Pharmacol Ther* 1990;47:42-9.
- 5 Jarvis MJ, Strachan DP, Feyerabend C. Determinants of passive smoking in children in Edinburgh, Scotland. *Am J Public Health* 1992;82:1225-9.

Care of mentally ill people in the community

EDITOR,—From a survey of psychiatrists, community psychiatric nurses, and approved social workers we concluded that the attitudes of mental health professionals towards some form of community supervision order were considerably more positive than expected.¹ Graham Thornicroft contests our conclusion,² citing the written and oral evidence to the House of Commons Select Committee on Health of 21 national organisations representing the whole range of agencies concerned.³ It was precisely the discrepancy between the public utterances of national organisations and the private opinions expressed by mental health professionals that stimulated our survey. Our findings confirm that there is a more positive attitude (though clearly not total acceptance) among this group than their representatives may know.

Thornicroft also suggests that our data do not support our conclusions and that only psychiatrists favour a community supervision order without reservations. If those who declared themselves prepared to use a form of community supervision order are taken as including those with some reservations the figures rise from 71% to 96% for psychiatrists, from 25% to 69% for community psychiatric nurses, and from 32% to 72% for approved social workers. Apart from the reservations that we ranked in the table in our previous letter the reservation most commonly expressed by both community psychiatric nurses and approved social workers was that they did not know enough about possible proposals. Indeed, a number of community psychiatric nurses bemoaned the almost total absence of discussion of such an important issue within their profession.

Psychiatrists are clearly the group most positively disposed to community supervision orders. This should not be interpreted as professional expansionism. It may reflect the fact that their professional body has expended most effort in examining the issue and informing its members. Serious misunderstandings of the proposal expressed by many respondents (for example, that force would be used in patients' homes or that healthy patients would be compulsorily returned to hospital for breaches of the order) underline the need for wider discussion of the problems and the proposals.

It is essential that the wide ranging consultation required for such decisions should be as well informed as possible. Psychiatrists must ensure that others fully understand why they wish for some form of community supervision order.

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- 1 Burns T, Goddard K, Bale R. Mental health professionals favour community supervision orders. *BMJ* 1993;307:803. (25 September.)
- 2 Thornicroft G. Community supervision orders. *BMJ* 1993;307:1213. (6 November.)
- 3 House of Commons Select Committee on Health. *Community supervision orders*. Vols 1 and 2. London: HMSO, 1993.

How much alcohol is sensible?

EDITOR,—I could not have wished for a better illustration of the main point of my recent letter¹ (that is, that evidence of harm from alcohol consumption rapidly becomes received wisdom while evidence of benefit is disregarded) than that contained in Bruce Ritson and Jonathan Chick's letter.² A cursory mention of possible benefit is followed by a litany of harm culminating in a disappointing, but to me unsurprising, endorsement of the status quo.

Ritson and Chick remark that I forgot "social and physical problems associated with hazardous drinking." They both know me well enough to know that this is hardly likely. My concentration on cirrhosis was speculative because speculation is unavoidable in the absence of any published rationale for the royal colleges' guidelines.

I require no convincing that alcohol can be harmful. I have seen enough of the damage it can do in the course of my professional practice and during years of involvement with councils on alcohol. But nor do I need convincing that alcohol in due measure is beneficial in the widest sense. I do need convincing that the relation between the health costs and benefits is receiving sufficient balanced discussion. Times change, new evidence emerges, and open review of current guidelines is overdue.

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- 1 Moore DA. How much alcohol is sensible? *BMJ* 1993;307:684. (11 September.)
- 2 Ritson B, Chick C. Guidelines on sensible drinking are invaluable. *BMJ* 1993;307:1144-5. (30 October.)

Violence at work

EDITOR,—We welcome the Department of Health's announcement that general practitioners will soon be able to remove violent or abusive patients from their lists immediately¹ but wish to sound a note of caution. As Coid pointed out, people who are violent or difficult to manage do not disappear when one group ceases to deal with them.² Social services and accident and emergency