

slightly nodule in the side of the neck alongside the superior border of the thyroid cartilage.

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Blood lead concentration and blood pressure

SIR,—We read with great interest the paper by Dr S J Pocock and others (6 October, p 872), dealing with the relation between blood lead concentration and blood pressure, a controversial subject.^{1,2} A relation was not found by Dr Pocock and others. However, data displayed in their fig 1, showing the variations of systolic blood pressure in relation to blood lead concentrations, seem to indicate that an increase in the blood lead value might result in an increase in systolic blood pressure up to a limiting value, while higher lead concentrations do not relate to blood pressure. Results from one of our recent studies support this hypothesis.

Our population study consisted of 431 men attached to a section of the Paris civil service, aged 24-55 years (mean 41.4 years), living in the same urban area, and not occupationally exposed to lead. We measured blood lead values by flameless atomic absorption spectrometry (graphite furnace atomiser), blood pressure after resting (with a mercury apparatus), weight, and height. Daily alcohol and tobacco consumption was assessed by questionnaires. The logarithms of blood lead values were used in calculating the correlation coefficients. As in the work of Dr Pocock and others, the systolic blood pressures were adjusted for body mass index, age, and alcohol consumption using analysis of covariance. The results are summarised in the table, where blood lead was

Systolic blood pressure means in relation to blood lead concentrations

Blood lead ($\mu\text{mol/l}$)	Systolic blood pressure		No of subjects
	Mean (and 2 SE)	Adjusted mean	
<0.60	127 (3.6)	129	46
0.61-0.89	130 (1.8)	130	212
0.90-1.19	133 (2.4)	132	126
1.20-1.49	139 (4.8)	138	34
1.50-1.79	143 (13.6)	142	7
≥ 1.80	130 (5.4)	129	6

grouped into the same classes as those used by Dr Pocock and others. The blood pressure means, not adjusted and adjusted, are shown by blood lead group: overall they differ significantly ($p < 0.001$). They increase from the first blood lead class (<0.60 $\mu\text{mol/l}$) to the fourth (1.20-1.49 $\mu\text{mol/l}$); the last two means, corresponding to 1.50 $\mu\text{mol/l}$ and over, do not yield much information because of the small numbers of subjects. The overall correlation coefficient between systolic blood pressure and blood lead concentration is 0.23 ($p < 0.001$). Its values in the age classes 24-34 years (145 subjects), 35-44 years (143 subjects), and 45-55 years (142 subjects) are 0.29 ($p < 0.001$), 0.20 ($p < 0.05$), and 0.14 (not significant), respectively. Adjusting for alcohol consumption and body mass index does not modify these results.

Our results in fact agree with those of Dr Pocock and his colleagues provided the following observations are made. The mean systolic blood pressure in their study is much higher than in ours, which might at least partly be explained by the different age ranges in the two studies (40-59 years in theirs, 24-55 in ours). In their study no overall correlation was found between blood lead values and systolic blood pressure, although a slight

increase is to be noted as blood lead varies from 0.6 $\mu\text{mol/l}$ to 1.1 $\mu\text{mol/l}$. In our study blood lead values are significantly related to blood pressure; this correlation, highly significant in young subjects (24-34 years), decreases with age (not significant in 45-55 year olds). Thus, we may hypothesise that the increase in blood lead concentration parallels the increase in blood pressure until some limit value, so that such a trend is apparent only when other factors (such as age) do not competitively increase blood pressure by greater amounts. This would be apparent in our study but not in that of Dr Pocock and colleagues. Further studies would be needed to confirm or elucidate this point.

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- 1 Beevers DG, Erskine E, Robertson M, et al. Blood lead and hypertension. *Lancet* 1976;ii:1-3.
- 2 Felderman EJ. Blood lead and hypertension. *Lancet* 1976;ii:1135.

On the state of the public ill health

SIR,—Professor John C Catford and Dr Sherm Ford (15 December, p 1668) draw attention to the need to look behind the comfortable statements of wellbeing in the people's health. Arguments about percentages of gross national product, the impact of demographic changes on required levels of expenditure, the need to seek value for money, the improved efficiencies of the service, and plans to spend more on patient care seem recently to have obscured the facts now presented in their article. "He is not better, he is much the same."

The authors rightly ask why the public and politicians have not raised their voices but suggest no answer. To some extent this may be because the facts are not widely known. Campaigns for improvement need facts even if underlying causes may be obscure. Professor Catford and Dr Ford belong to a specialty which has historically taken a leading role in bringing unpalatable facts of life and death to public notice, but recently it has used muted tones.

The editorial in the latest issue of the *Journal of Epidemiology and Community Health* has specifically drawn attention to the diminishing number of contributions in its pages from leaders of the specialty presenting a critical analysis of health and health services today.¹ It suggests that a reason for this may be a reluctance to cause embarrassment to political and administrative paymasters.

The present introduction of the general management function into the National Health Service seems likely to change the orientation of some community physicians, and the chairman of the Central Committee for Community Medicine and Community Health has suggested that this may result in their spending less time on management and more on the exercise of their other skills.² This would be a welcome change. Much of the

influence of community physicians in the past has derived from their ability to bring to a local public the messages of health backed by their professional standing and uninfluenced by managerial responsibilities.

Community medicine is concerned with all matters which affect health, and its practitioners must be enabled to study these and present their findings to the public and profession alike. This is unlikely to occur when community physicians are enmeshed in chains of accountability leading to a general manager. An uncertain distinction between professional and managerial responsibilities may be insufficient protection for what might be critical views.

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- 1 Acheson R, Campbell H. "... and community health." *J Epidemiol Community Health* 1984;38:263-4.
- 2 Miles D. Under threat from Griffiths. *BMA News Review* 1984;10 (12):23.

Doctors, drugs, and the DHSS

SIR,—The government has indicated that the range of NHS prescribable drugs will be restricted. Among 100 consecutive adult patients admitted for elective procedures to Southampton Eye Hospital in 1983, 14 admitted regularly taking medicines bought in chemists. Their mean age was 71.9 years, and the commonest drugs were vitamins (9 patients), followed by analgesics (6), laxatives (2), and antacids (2). Some elderly patients eligible for exemption from prescription charges are already buying simple remedies despite similar products being available on prescription. Imminent political decisions require larger scale similar research to be undertaken urgently.

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SIR,—Sorbitol has been known to be an effective laxative agent for at least 40 years at daily doses of 30-50 g.¹ It is found naturally in fruits and other foodstuffs and is used in many "sugar free" sweets and chewing gum.² Its use as a food additive has been reviewed by the World Health Organisation and their estimated acceptable daily intake for man is "not limited."³ It is thus remarkable that our own Committee on Safety of Medicines has not licensed sorbitol for use as a laxative. In comparison with other osmotic laxatives sorbitol is cheap (about a quarter of the cost of lactulose in the UK). Its use as a laxative could lead to impressive savings for the NHS. Although one is unable to buy sorbitol (for its laxative effect) from pharmacies, many sweets containing sorbitol are openly advertised for their laxative effect. Perhaps instead of banning NHS prescription of most existing licensed laxatives the DHSS should consider introducing cheaper and effective drugs such as sorbitol to replace similar but more expensive drugs.

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- 1 Ellis FW, Krantz JC. Sugar alcohols. XXII. Metabolism and toxicity studies with mannitol and sorbitol in man and animals. *J Biol Chem* 1941;141:147-54.