The NHS nursing home experiments showed that high quality nursing home care is no cheaper than traditional NHS continuing care.³ Furthermore, a recent report by the Social Security Committee highlighted the underfunding of fees for state supported nursing homes.⁴ Before provision of NHS continuing care is considerably reduced the Department of Health must ensure that the need for high quality care for dependent elderly people is being met elsewhere. At present the NHS is still committed to looking after those requiring "nursing care," and many of the highly dependent and their families continue to request this.⁵ Much could be learnt from the experience of other countries (for example, Australia), but so far the policy makers have seemed to ignore this, with the resultant present chaos. A cohesive national policy is needed, but evidence suggests that the muddle will continue (or increase) after the watershed for community care in April next year.

WILLIAM R PRIMROSE
Department of Medicine for the Elderly,
Woodend Hospital,
Aberdeen AB9 2YS

1 Godlee F. Elderly people placed in wrong homes. *BMJ* 1992;304:1205. (9 May.)
2 Capewell AE, Primrose WR, MacIntyre C. Nursing dependency in registered nursing homes and long term care geriatric wards in Edinburgh. *BMJ* 1986;292:1719-21.
3 Social Security Committee. *The financing of private residential and nursing home fees. Fourth report.* London: HMSO, 1991.
4 Bond J. National Health Service nursing homes again. *Age Ageing* 1991;20:313-5.
5 Department of Health. *Discharge of patients from hospital.* London: DoH, 1989. (HC(89)5.)

Underfunding of inner city general practice

EDITOR,—As general practitioners working in Tower Hamlets we are taking part in local discussion of prescribing policies. The underdevelopment of primary care in inner London has led to underallocation of resources because future funding is based on past expenditure.^{1,2} Despite some modernisation in general practice there is a continuing need to develop services, now set against the backdrop of cost limited family health services authorities.

As a deprived urban area Tower Hamlets has considerable avoidable morbidity and mortality. Standardised mortality ratios for 1986-90 for hypertensive and cerebrovascular disease (ages 35-64) were 177 (men) and 122 (women) and for asthma (ages 5-44) 157 (men) and 145 (women).³ The deprived and mobile population and the historical underdevelopment of services mean that many diseases and risk factors remain undetected. Local collaborative work, including the healthy eastenders project, and disease management guidelines address this problem. But improved care generally leads to increased therapeutic costs.

Prescribing analysis and cost (PACT) reports show that City and East London Family Health Services Authority's costs in December 1991 were more than 10% below the national average at 88% despite the authority having the national rate (45%) of generic prescribing. The region bases family health services authorities' budgets on PACT data with allowances for some costly transferred specialist prescribing such as drugs for HIV infection and fertility drugs. There is no uplift to finance the necessary improvements in prescribing initiated in primary care.

General practices now receive indicative prescribing amounts, which are set by the family health services authority in relation to their drug budget. In our practices the indicative prescribing amounts set for 1992-3 are less than actual expenditure in 1991-2 and seem to penalise the general practitioners for generic prescribing and high rates of detection of asthma. PACT data and indicative

prescribing amounts for one practice for the quarter ending December 1991 illustrate this. Generic prescriptions accounted for 66% of all prescriptions. Total costs were 11% below the national average and 2% above the average for City and East London Family Health Services Authority. The total cost of treating respiratory disease was 119% above the average for the authority. The indicative prescribing amount for 1991-2 was £202 927 and actual expenditure £258 582; the indicative prescribing amount for 1992-3 is £252 775.

These indicative prescribing amounts seem ridiculous; though not yet cost limits, they are economic guidelines and can adversely influence the quality of prescribing and detection of risk factors. We know of general practitioners who have felt constrained not to prescribe. We could not work within indicative prescribing amounts. They are a distraction and need replacing with guidelines for improving therapeutic practice.

Unless family health services authorities in deprived urban areas get more money to finance the development of quality care and services, including staffing, premises, and prescribing, according to national norms adjusted for local health indices, the quality gap will widen.

ANNA LIVINGSTONE
Gill Street Health Centre,
London E14 8HQ

Bethnal Green Health Centre,
London E2 6LL

RAJESH PATEL

1 London Health Care Planning Consortium Study Group. *Primary health care in inner London.* London: London Health Care Planning Consortium, 1981. (Acheson report.)
2 Hull S, Livingstone A, Dunford A. The general practitioner in the inner city. *J R Coll Gen Pract* 1984;265:469.
3 Department of Public Health Medicine, Tower Hamlets Health Authority. *Tower Hamlets people No 4.* London: Department of Public Health Medicine, Tower Hamlets Health Authority, 1991.

Lung cancer and radon

EDITOR,—Minerva has drawn attention to the 10% of lung cancers not attributed directly to smoking.¹ Much may be known about this already, as radon gas is cited as the second leading cause, especially in combination with smoking. Fiona Godlee in her article on environmental radiation² discusses radon but omits to mention that the prospects for cost effective intervention may be limited, especially when smoking has been phased out.

The number of preventable premature deaths from radon induced lung cancer among non-smokers in the United States is perhaps 700 a year (out of 5000) but in the United Kingdom less than 20 (out of 500). This is because only the buildings with a high level of radon may be thought worth treating to exclude radon so as to limit lifetime risks to 1% or less for non-smokers. This compares with an underlying total risk of cancer of around 20%, some of which may be addressed through diet and lifestyle.

However, up to 250 (out of 500) premature deaths in non-smokers might be avoided each year in the United Kingdom if £10 billion (£10 000 million) were spent initially on lowering radon levels in 10-20 million buildings. Such a sum might prove adequate to re-equip the NHS. More realistically, and assuming radon system lifetimes of 50 years within 80 000 of the worst affected houses, the cost per year of life extension may average at £70 000 for non-smokers. Action in the 2000 highest level houses would be better value at around £12 000 per life year, and might prevent two or three cases of lung cancer in non-smokers annually.

Recent articles have highlighted the debate on priorities within health budgets.^{1,4} However, vast sums that might be better spent on health continue to be allocated to "environment" via a public

health heading. Already billions of dollars have been spent on asbestos in the United States, apparently with little consideration of marginal cost effectiveness.⁵ Billion dollar bandwagons seem not to be fitted with brakes, and even the steering seems haphazard.

The central point is this: in the rush to environmental kudos funding is being devoted not only to genuine environmental issues but to minor health concerns, such as incidental exposure to benzene vapour from petrol. But some of the benefits may be so small that we need to pause to consider whether mainstream medical care could better utilise the resources. In short, it is time for some common sense to be applied as an antidote to shroud waving. Those with a good case need fear neither a dose of health economics nor rational environmental assessment. I would welcome correspondence on costs per unit benefit over a wide field for a review of spending on health compared with spending on the environment.

STEPHEN J WOZNIAK
Hertfordshire WD5 0QT

1 Minerva. *BMJ* 1992;304:516. (22 February.)
2 Godlee F. Environmental radiation: a cause for concern? *BMJ* 1992;304:299-304. (1 February.)
3 Normand C. Economics, health, and the economics of health. *BMJ* 1991;303:1572-7.
4 Smith R. Rationing: the search for sunlight. *BMJ* 1991;303:1561-2.
5 Common sense in the environment. *Nature* 1991;353:779-80.

Developing a hospital information strategy

EDITOR,—We believe that information systems should be designed to provide management information and to facilitate clinical activity aimed at improving patients' care. The need for such systems is unassailable.

We agree with Christopher Bunch that "Clinical practice and decision making are poorly understood by managers and information specialists, and there are few clinicians who are both managerially competent and computer literate."¹ The creation of clinical information systems takes much effort and time. Of central importance to the success of such systems is the involvement of a consultant clinician in the specification of the system, and we believe that the royal colleges should address the question of training for clinicians in the development of information systems which may be subserved by the use of computers.

Managerial computer systems are used in the Central Manchester Trust, and our approach has been to pilot a clinical departmental computing system designed to meet the requirements of clinicians in the department of cardiology at Manchester Royal Infirmary; it is networked within the department and to the trust network. Demographic data, outpatient clinic lists, and inpatient waiting lists are downloaded from the central systems to the departmental file server.

The system provides basic office management technology, records the location of hospital notes within the department, and automatically generates clinic letters, ward letters, and discharge summaries. It enables scheduling and reporting of procedures in the catheter laboratory and stock control in the laboratory and other areas. Data are entered only once, and a particular member of the cardiology department's clinical or administrative staff is accountable for the accuracy of each item. All users gain something from the system—for example, it enhances job satisfaction; provides continuous access to selected administrative, clinical, and diagnostic data; and forms a basis for the development of clinical audit and resource management.

Our experience has shown that roughly 90% of the data required for a clinical departmental computer information system are common to all

clinical departments, which facilitates the transfer of the system to other departments. We have also found that the information required by clinicians is greater than that required by management. From this basis an information strategy that takes into account the needs of all users—managers, nurses, clinicians, and administrative staff—is being developed for the trust.

E JOAN ACHESON
LAWRENCE COTTER

Manchester Central Hospitals and
Community Care NHS Trust,
Manchester Royal Infirmary,
Manchester M13 9WL

1 Bunch C. Developing a hospital information strategy: a clinician's view. *BMJ* 1992;304:1033-6. (18 April.)

NHS distribution of funds unfair

EDITOR,—Stephen Singleton and colleagues raise two objections¹ to our observation of a significant inverse correlation between the percentage of elderly people resident in each English health district and its all cause standardised mortality ratio and our conclusion that the national formula, weighted for the proportion of elderly people, is likely to increase the health differential between affluent and deprived populations.²

Firstly, while agreeing that there is a significant negative correlation, Singleton and colleagues argue that because the coefficient of determination (r^2) is 0.11 (or 0.06 when they removed the six districts with the highest percentage of elderly people) the association is not strong, suggesting that other factors contribute to the variation in standardised mortality ratios. This is not in dispute; the essential point is that age structure is related to standardised mortality ratio. Indeed, the younger end of the age range (0-14 years) shows an even stronger association with the ratio, with a correlation coefficient of $r=0.46$ ($p=0.0001$) and a coefficient of determination (r^2) of 0.21 (figure), indicating that 21% of the variation in the standardised mortality ratio can be accounted for by the linear dependence of the ratio on the proportion of the population aged 0-14.

Secondly, Singleton and colleagues argue that "it is the elderly people who are not dead (of course) who need resources." This assertion is simplistic. If we assume that the provision of health care prolongs life, and we do, then surely it is those at greatest risk of dying prematurely who need the resources so that they too can become "survivors." They imply that all elderly populations are equally in need of health care—that is, when people reach 65 differences in health status

disappear. We contend that health differences are likely to be exaggerated in the over 65s as healthy people migrate to affluent areas and that districts with high standardised mortality ratios are likely to have greater health needs at both ends of the age range than districts with low standardised mortality ratios.

There is a danger in using the national formula to allocate resources to districts as this would result in more resources going to affluent retirement areas (with low standardised mortality ratios) and less to deprived inner city populations (with high standardised mortality ratios). If the purpose of weighting capitation payments is to reduce differentials in health status then regional health authorities must develop resource allocation models that distribute more funds to those districts with the greatest health needs.

E S WILLIAMS
C SCOTT

Croydon Health Authority,
Croydon, Surrey CR0 2RH

King's Fund College,
London W2 4HS

R BRAZIL

- 1 Singleton S, Tiplady P, Kirkup B. Weightings used in distributing NHS resources. *BMJ* 1992;304:1117-8. (25 April.)
- 2 Williams ES, Scott C, Brazil R. NHS distribution of funds unfair. *BMJ* 1992;304:643. (7 March.)

Sympathy for the whistle blower

EDITOR,—I was both saddened and angered by Norman Parker's review of the BBC programme "Dear Mr Pink." I would not disagree that Mr Pink is an individualist, but he also seems to be an intensely humanitarian and dedicated professional who aspires to the highest standards. Parker seems unable to recall the depths that professional morale plumbed in 1989. The representative bodies and statutory councils of the medical and nursing professions seemed unable to resist attacks from a hostile and intransigent government. Some people, like Mr Pink, were not prepared to subside into the state of mute acceptance suggested by Parker and apparently adopted by Mr Pink's colleagues.

A battle was being fought for the future of the NHS. In any conflict it is easier to eliminate your enemies if you first isolate them. The programme showed Stephen Dorrell attempting to do this in parliament.¹ Mr Pink was therefore tactically quite correct in gathering support nationally. It is perhaps easier for those of us who do not work alongside him to recognise the truth of his arguments. It was also professionally the correct thing to do. The concerns he raised affected not just the geriatric wards or even Stepping Hill Hospital generally but the health service as a whole. I believe that the "Pink affair" assisted the successful request for additional night staff in one NHS unit where I work. I hope that eventually Parker, the people of Stockport, and the NHS as a whole will feel able to thank Graham Pink for his extraordinary effort of genius and courage.

PETER G BADDELEY

Beacon Medical Care,
Brookthorpe,
Gloucester GL4 0UN

- 1 Parker N. Out of sympathy with the whistle blower. *BMJ* 1992;304:1253-4. (9 May.)
- 2 House of Commons Official Report (Hansard) 1990;183:cols 146-7.

Obstetrical history of Queen Anne

EDITOR,—In his paper on Queen Anne's illness H E Emson states that gout is very rare in women before the menopause.¹ This is certainly true for primary gout but is not for saturnine gout, which was probably the prevalent form three centuries

ago when plumbism was common.² A study of patients with saturnine gout living in Queensland in 1968 disclosed almost equal incidence in men and women, and at least half the women were premenopausal.³

Chronic lead poisoning has many features in common with porphyria and may coexist with it. Its cumulative nature may lead to a progressive pattern of disease starting with muscular pains, colic, and weakness from peripheral neuropathy and culminating in nephropathy, hypertension, encephalopathy, and convulsions. The observations of the queen's physician, Sir David Hamilton, that the gout "ascended to her brain" and that she died in a state of stupefaction broken by occasional fits of delirium⁴ should therefore not be dismissed.

Miscarriage and neonatal deaths were common in women in the time of Queen Anne. Descriptions of such events, often multiple, are mentioned in the case records of Robert Peirce,⁵ a physician practising at Bath in the second half of the seventeenth century. It has been suggested that many of these cases were caused by lead poisoning, resulting in both infertility and fetal damage.⁶

There are two possible sources of lead to which Queen Anne might have been unwittingly exposed. Between 1645 and 1715 the quality of German and French wines suffered from the ravages of atrocious weather and the thirty years war, encouraging widespread adulteration of wines with litharge to improve their flavour.² Firstly, from her girth, Anne was probably as much a wine swilling gourmand as her husband and possibly preferred sweeter wines which would have been more highly contaminated. Secondly, she covered up her blotchy face with cosmetics which were quite likely to have been compounded from lead salts.

Chronic lead poisoning coupled with a hereditary trait for porphyria seems a more likely explanation for Queen Anne's illness than disseminated lupus erythematosus.

ROGER ROLLS

Bath BA2 6AS

- 1 Emson HE. For want of an heir: the obstetrical history of Queen Anne. *BMJ* 1992;304:1365-6. (23 May.)
- 2 Eisinger J. Lead and wine. *Med Hist* 1982;26:279-302.
- 3 Emmerson BT. Lead gout and primary gout. *Arthritis Rheum* 1968;2:623-34.
- 4 MacAlpine I, Hunter R, Rimington C. Porphyria in the royal houses of Stuart, Hanover and Prussia. In: *Porphyria—a royal malady*. London: BMJ, 1968:39.
- 5 Peirce R. *The history and memoirs of the Bath*. London, 1713.
- 6 Heywood A. Lead, gout and Bath Spa therapy. In: Kellaway G, ed. *The hot springs of Bath*. Bath: Bath City Council, 1991:78-9.

Measuring height in children

EDITOR,—The reliability of measurements of the height of young children may be affected by other (extraordinary) factors besides those mentioned by P R Betts and colleagues.¹ A few years ago, when attending a clinic for an annual appointment, my son seemed to have grown more than we could reasonably hope for. Investigation established that a month before our visit the clinic had been refurbished for a royal visit and carpet tiles had been laid over the plastic floor covering. The effect of this was a 1.5 cm improvement in apparent height as the measuring rule was still in its original position, bolted to the wall.

JENNIFER M McCANN

Welwyn Garden City,
Hertfordshire AL8 7DH

- 1 Betts PR, Voss LD, Bailey BJR. Measuring the heights of very young children. *BMJ* 1992;304:1351-2. (23 May.)

Simple linear regression of population of district health authorities aged under 15 and standardised mortality ratio. $y=2.94x+45.7$, $r^2=0.21$

Advice to authors

Priority will be given to letters that are less than 400 words long and are typed with double spacing. All authors should sign the letter. Please enclose a stamped addressed envelope for acknowledgment.