cycles of either mitomycin, ifosfamide, and cisplatin or mitomycin, vinblastine, and cisplatin.

Nine thousand patients will be required for the trial to give a reliable and clinically relevant result. Potentially all patients with non-small cell lung cancer will be eligible. Similar large trials have been conducted in breast and ovarian cancer, with considerable success. The "big lung trial" will be the first large scale randomised trial to ask this basic but important question about the treatment of this major disease.

On behalf of the steering committee of the big lung trial

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Quality of life was ignored in meta-analysis

EDITOR,—The Non-small Cell Lung Cancer Collaborative Group's meta-analysis suggests that chemotherapy regimens that contain cisplatin may improve survival in patients with non-small cell lung cancer.¹ It was a disappointment to find that, with a median increase in survival of 1.5 months in the group given supportive care, no data are presented on the impact of chemotherapy on patients' quality of life. Surely the time has come when no studies should be funded unless they include an assessment of quality of life, and the Non-small Cell Lung Cancer Collaborative Group should include such an assessment in future meta-analyses.

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It may not be ethical to ask patients to participate in future trials

EDITOR,—Meta-analysis suggests that chemotherapy may have a role in the treatment of non-small cell lung cancer.¹ The authors note that the place of such treatment is uncertain, given the toxicity of platinum based combinations and the small survival advantage. An accompanying editorial suggests that, as the number of people with lung cancer worldwide is large, even a small individual chance of benefit is worth while in terms of population health gain.²

In the developing world, where the epidemic of lung cancer is just beginning,³ health care resources are insufficient for any treatment to be offered to most patients. In England and Wales, if 80% of registered lung cancers are of non-small cell type and radical primary treatment with platinum based chemotherapy was given to all patients aged under 70 with localised and locally advanced disease (estimated at 40% of the total number), there would be an extra 199 survivors at two and five years, who might be potentially cured. If platinum based chemotherapy was also given to 80% of those aged under 70 with advanced disease (the

remaining 20% being considered unfit for active treatment) then 681 more patients might be alive at the end of one year than would otherwise be the case; but for most of these death is only postponed.

For this survival gain to be achieved, 12 492 patients would have to receive pulsed treatment with emetic drugs as an inpatient for up to six months, though some would also experience relief of their symptoms or psychological benefit. Patients with the best prognosis with "standard" treatment may be harmed by the addition of optimal, platinum based chemotherapy (95% confidence intervals for mortality hazard ratios 0.74 to 1.02 and 0.79 to 1.11, respectively (table II in the meta-analysis). The authors conclude with a plea for future trials to be fewer in number and larger in size; hopefully, these will also include outcomes other than survival, as treatment for most patients is palliative rather than curative. A decade ago, however, most experts in lung cancer who responded to a postal questionnaire said that they would decline randomisation into trials of chemotherapy.⁴ Unless the meta-analysis substantially alters professional opinion will it be ethical to ask patients to participate in such trials?

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Allocating census data to general practice populations

EDITOR,—We wish to reply to the two letters¹ commenting on our paper on allocating census data to a general practice population.² Paul Aveyard proposes using the method of Bland and Altman rather than correlation to measure agreement between the number of patients aged over 65 obtained from the family health services authority's register and that calculated from the postcodes of patients and the proportion in their census area. Ronan A Lyons and colleagues suggest that better results could have been obtained in their area, where they achieve a high proportion of matches between postcodes and census areas.

We presented the correlation coefficients since they are what most others in this field (for example, Majeed *et al*)³ have used to justify the use of census data, but we then went on to show, by using a graph and χ^2 tests, how misleading a high correlation can be. The technique of Bland and Altman is not appropriate here since it implicitly assumes that neither proportion has higher validity than the other and so would use the average as the best estimate of the true proportion. In this case, the family health services authority's register, whatever its shortcomings, must be regarded as the most accurate available source of information.

Lyons and colleagues express concern about the number of unmatched postcodes in our study. While this concern may be valid, one of our aims was to investigate how easy or difficult it was to match postcodes in registers of patients with their enumeration district using the postcode to enumeration district directory released with the 1991 census. The number of missing postcodes is an indication of the difficulty that exists. We were looking for a process that could be used straightforwardly and systematically nationally.

Both letters express concern at the use of sample surveys as an alternative way of obtaining data on practice populations. We are aware of the problems and envisaged instead a requirement to collect more details from patients at registration and the collection of more information from practices on a regular basis, in the way that data on chronic disease management are becoming available. The low income scheme index, described by Lloyd *et al*,⁴ is another example of data collected about the practice rather than estimated from another source.

Lyons and colleagues express concern about the transfer of resources from more deprived to less deprived areas. If they examine the figure in our paper they will find that this is exactly what the method that they defend achieves since practices at the extremes have predicted values that are closer to the mean than the true value.

We concede that the decision about whether the estimation of practice characteristics from census variables is "good enough" is ultimately subjective. We believe, however, that the discrepancies that we found with estimating such a gross characteristic as the proportion of elderly people are sufficient to cast grave doubt on the use of characteristics such as permanent sickness, which, because of small numbers, are much more difficult to estimate.

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Learning from primary care in developing countries

Innovations in developing countries have had worldwide relevance

EDITOR,—Paul Johnstone and Isobel McConnan point out that the health service in Britain can learn many lessons from health services in poorer countries,¹ and I agree. However, the push for community based rather than hospital services has been difficult both to initiate and to sustain. In the authors' example of Tanzania, although in the early 1970s the expenditure in hospitals may have been reduced to less than 20% of the health budget, this was difficult to maintain and the proportion has crept up again (G J Ebrahim, personal communication).

The health services in most developing countries are a mixture of traditional-indigenous, private-commercial at many levels, and government provided. Most British people who have worked in developing countries in recent years have worked with charitable non-government organisations, which have the greatest opportunity for innovation and flexibility.

Johnstone and McConnan refer to principles, and I would like to illustrate these with a few specific examples. It was in a non-government organisation in Nigeria that individual child growth and health records retained by the family were pioneered.² Now no reputable fundholding practice or child health trust in Britain would be without these records. It was in Bengal and Bangladesh that oral rehydration therapy for diarrhoea with dehydration was developed into a practical treatment.³ Now it is a basic recom-

mentation of the *British National Formulary*. Care in the community was started in different ways by non-government organisations—for example, through the indigenous midwife training in Sudan mentioned by Johnstone and McConnan¹ and the village health worker programmes in India.⁴

Even paediatric hospital practice in Britain is catching up with that in developing countries. Not many years ago in Britain parents were accepted in children's wards with some reluctance, but in developing countries parents have always been expected to be with their children to help with feeding and simple treatments and even to act as human hot-water bottles. In nutrition rehabilitation units in various developing countries, parental participation had a double purpose: as parents helped to prepare nutritious meals from local foods they received a practical training in nutrition. Parents of children in Britain who have been diagnosed recently as having a chronic disease such as diabetes or cystic fibrosis, that requires lifestyle management would benefit from more involvement during their child's stay in hospital. Bengoa's concept of rehabilitation, pioneered in Latin America, is the best way for parents to learn while being involved in the recovery process.⁵

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Outreach programme in Kenya was based on extensive community participation

EDITOR,—Paul Johnstone and Isobel McConnan suggest that a wealth of knowledge about primary health care exists in developing countries and is now relevant to the NHS.¹ I learnt much from supporting a successful community based health care programme in sub-Saharan Africa for six years.

Chogoria Hospital provides complete medical care for 350 000 people in Meru district of Kenya. Having gained local credibility because of its effective curative services, the hospital developed an outreach programme for maternal and child health services, family planning, and curative medicine in the 1970s. By 1989 there were 30 village health clinics and a community network providing health education and contraceptives to villagers in their homes.²

The harnessing of the people's tradition of self help within the primary care programme was vital. The catchment area is served by 42 village health committees, 30 enrolled nurses, 500 volunteer family health workers, and 250 specially trained traditional birth attendants. The village health committees, selected by their communities, represent their constituents' interests and oversee the local clinics and volunteers. These committees and volunteers are active not only in expressing their health needs, prioritising developments, and monitoring the services but also in providing care.

The outreach programme is bound together by a careful monitoring system based on routinely collected service statistics. At all levels the workers' effectiveness at meeting preventive and curative targets is monitored, and help and retraining are

given when necessary. Childhood immunisation neared 90%, child mortality decreased, and there was an appreciable decline in fertility associated with a high uptake of family planning services.³ Fully integrated services, both preventive and curative, were made available (within walking distance) to everyone in the catchment area. They were acceptable to the community and developed to meet its needs and were affordable (or given free in cases of poverty). There was a constant information and education programme in the community, which used all existing public meetings.

At Chogoria in the 1980s the time was ripe for extensive participation by the community in many aspects of their own health care. With which aspects of health care can patients, families, communities, and the wider population be involved in Britain in the 1990s? In my general practice a local community has been involved in assessing and prioritising health needs, using a method from the developing countries.⁴ We can learn from the many examples of good practice overseas.

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Authors overestimate role of barefoot doctors in China

EDITOR,—Paul Johnstone and Isobel McConnan are right to draw readers' attention to primary care in developing countries and its relevance for our "primary care led NHS."¹ I wish to make three points.

In drawing attention to the appreciable reduction in childhood mortality in mainland China the authors overestimate the contribution that the barefoot doctors made in the late 1960s and the '70s (including the period of the Cultural Revolution). The considerable health gain made since 1949 can more accurately be attributed to a combination of factors, such as the absence of major national or civil wars, food rationing, the prevention of urban migration, full employment, and increasing equity between social classes and urban and rural areas. Other infrastructural developments also helped—namely, the development of primary education and the more specific public health policies, such as the movements to control four pests in the 1950s and improvements in basic hygiene, clean water, waste disposal, and universal immunisation.² The barefoot doctor movement was a potent political symbol used to tackle the rural-urban divide as well as challenge professional medical dominance and show the practical integration of traditional and Western medicine. It is difficult to gauge barefoot doctors' particular contribution, but rural health care always remained dependent on the secondary level hospital doctors, who have received three years' training, and the small county hospitals, local cooperative health insurance schemes, and public health "sanitarians."

In other studies of developing countries that are achieving good health at low cost the primacy of political will to achieve improvements in health and wellbeing is emphasised, as well as educational opportunities for women.³ The three key findings from experiences in Sri Lanka, Kerala state in India, Costa Rica, and China are an equitable distribution of and access to public health services

and health care, a uniformly accessible educational system, and adequate nutrition at all levels of society.

My final point is to clarify that socialism needs to be compared with capitalism as political and economic systems while the medical model needs to be compared with the social model (not socialism) when the determinants of health or disease are being explained.

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Association of *Helicobacter pylori* infection with coronary heart disease

Study shows association between *H pylori* infection and hypertension

EDITOR,—P Patel and colleagues report an association between *Helicobacter pylori* and *Chlamydia pneumoniae* infections and coronary heart disease and plasma fibrinogen concentrations but did not find an association between *H pylori* infection and a history of hypertension.¹ We have studied the relation between *H pylori* infection and cardiovascular risk factors in hypertensive patients. We studied 124 hypertensive patients (61 men, mean age 53.2 (SD 14.7) years), of whom 19 had malignant phase hypertension, and 38 healthy controls (21 men, mean age 52.6 (14.6) years) to see whether they were positive for antibodies to *H pylori* (Oxid helicobacter antibody kit; results were regarded as positive if *H pylori* IgG was ≥ 8 units/ml).

The prevalence of *H pylori* antibodies was higher in the hypertensive patients (106/124 (85%)) than in the controls (25/38 (66%)) ($\chi^2=7.291$, df=1, $P=0.007$). There was no significant excess of seropositivity among the patients with malignant phase hypertension (13/19 (68%), $\chi^2=0.0446$). We could not find any significant differences in mean age, blood pressures, white cell count, plasma viscosity, serum cholesterol, serum triglycerides, or plasma fibrinogen in the hypertensive patients who were positive for *H pylori* antibodies compared with those who were negative. Mean body mass index was, however, significantly higher in the patients who were positive (table 1). There was no

Table 1—Cardiovascular risk factors in hypertensive patients, according to whether they were negative or positive for antibodies to *H pylori*. Figures are means (SD)

	Negative	Positive	P value (unpaired t test)
Age (years)	52.3 (17.3)	53.5 (14.2)	0.58
Systolic blood pressure (mm Hg)	194.6 (27.4)	184.3 (29.6)	0.18
Diastolic blood pressure (mm Hg)	115.1 (25.7)	104.4 (22.4)	0.13
White cell count ($\times 10^9/l$)	7.55 (2.73)	6.06 (3.46)	0.095
Serum cholesterol (mmol/l)	5.5 (1.8)	5.8 (2.5)	0.58
Serum triglycerides (mmol/l)	1.5 (0.7)	1.6 (1.2)	0.57
Plasma fibrinogen (g/l)	3.6 (1.0)	3.3 (1.0)	0.34
Body mass index (kg/m ²)	26.2 (3.2)	28.4 (4.2)	0.019