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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- 1 Johnstone P, McConnan I. Primary health care led NHS: learning from developing countries. *BMJ* 1995;311:891-2. (7 October.)
- 2 Morley DC. A health and weight chart for use in developing countries. *Trop Geogr Med* 1968;20:101-8.
- 3 Sack RB, Cassells J, Mitra R, Merritt C, Butler T, Thomas J, et al. The use of oral replacement solutions in the treatment of cholera and other severe diarrhoeal disorders. *Bull WHO* 1970;43:351-60.
- 4 Arole M, Arole R. A comprehensive rural health project in Jamkhed, India. In: Newell KW ed. *Health by the people*. Geneva: WHO, 1975:70-90.
- 5 Bengoa JM. Nutrition rehabilitation and tropical maternal and child health. *Trop Paediatr* 1960;6:35-6.

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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- 1 Johnstone P, McConnan I. Primary health care led NHS: learning from developing countries. *BMJ* 1995;311:891-2. (7 October.)
- 2 DeBoer CN, McNeil M. Hospital outreach community-based health care: the case of Chogoria, Kenya. *Soc Sci Med* 1989;28:1007-17.
- 3 Murray SA. Family planning in rural Africa: can it work? *Fam Pract* 1990;7:5-8.
- 4 Murray SA. Listening to local voices: adapting rapid appraisal to assess health and social needs in general practice. *BMJ* 1994;308:698-700.

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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- 1 Johnstone P, McConnan I. Primary health care led NHS: learning from developing countries. *BMJ* 1995;311:891-2. (7 October.)
- 2 Hillier S, Jewell JA. *Health care and traditional medicine in China 1800-1982*. London: Routledge and Kegan Paul, 1983.
- 3 Halstead SB, Walsh JA, Warren KS, eds. *Good health at low cost: Rockefeller Foundation conference report*. New York: Rockefeller Foundation, 1985.

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