My Student Elective

Tales of the unexpected: the basic health unit in Bhutan

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Things were not looking good. An awkward silence developed while the pilot flicked ineffectually at the radio switch. His assistant meanwhile alternately peered out at the thick cloud or, worse, down at the map spreadeagled across his knees. Only once did he brave our stares to offer an apologetic, sheepish smile.

Yet little over an hour earlier spirits had been high as the 17 seater aeroplane left Calcutta's Dum Dum Airport, heading north for the

delivered into the land of Bhutan—its first, and I sincerely hope not its last, medical student on elective.

Bhutan

While not short of its share of tuberculosis or leprosy (fig 1), the picture looked rosier than might be expected in a country which the World Bank ranks as the second poorest in the whole world. Admittedly malnutrition was present, but this was a reflection of the monotony rather than the quality or quantity of the food. The

FIG 1—The face of leprosy.

Himalayas. Above the flood plains of West Bengal and Assam our sense of excitement and exhilaration had heightened, measured by the continual click of my neighbour's Pentax. By now, however, things were definitely not looking good. Then, suddenly, as in all good miracles, the clouds parted and we were saved. Thus was I

FIG 2—Children nourished on a staple diet of rice and chilli peppers.

situation is inevitably complicated by the fact that the Bhutanese bowel is an apparent haven for helminths. Nevertheless, even relatively minor changes in agricultural crop pattern should do a lot to alleviate a staple diet of rice, rice, rice, and chilli peppers. In Bhutan chilli, not variety, is the spice of life (fig 2).

That the first three weeks of my elective were spent in the capital, Thimphu, did not mean that life was without its surprises. The surgical ward in the general hospital, for instance, had two patients recovering from particularly severe physical attacks after a summer in which the mountain bears had been exceptionally frisky. Indeed

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this period also enabled me to see something of traditional Bhutanese medicine—as practised in the separate, indigenous hospital. There I was privileged to witness the ancient healing art of Serkup. A large nail was held at a depth of a few millimetres in some unfortunate's scalp, medicinal syrup poured on to the flattened nail head, and this then heated by candle flame to encourage entry of the medicine into the patient's body. It looked to me as if it was all just evaporating away—but I've been blinkered by Western science, I suppose.

Probably more effective than the Serkup were the many herbal syrups concocted there. While most of these elixirs were distilled from assorted mountain shrubbery, some came from a more gruesome extraction. A powder made from the crushed bones of a man struck dead by lightning, for instance, was believed to be particularly efficacious against epilepsy.

Rural health care

Outside the capital, where Western influence is so minimal, I had expected to see proportionately more traditional medicine. Instead, I was heartened to find that the basic health unit had made its mark (fig 3). These units are the third in what is essentially a four tiered health system. On the side of relative medical refinement are the three referral hospitals, of which the best equipped and largest with 170 beds is that in Thimphu; then there are the 16 district hospitals, each with a capacity of between 10 and 20 beds. On the other side, however, the 37 "dispensaries" in Bhutan offer only the most rudimentary curative service, frequently serving merely as rural locations for the supervision of antituberculous treatment.

FIG 3—Basic health unit and staff at Punakha.

Most important, however, are the basic health units, which provide a very real answer to the medical problems of a country where the vast majority of the population is scattered over a wide, virtually inaccessible area. Each unit—there are 50 of these—is run by at least one health assistant and one basic health worker, who receive two years and one year of paramedical training respectively. Serving on average 5000 people, the units offer maternal and child care and a means of controlling communicable diseases, in addition to the simpler curative and referral procedures.

The basic health unit is not only a centre for well attended daily clinics (table I), however, but also a base from which the health workers can make regular treks further afield. Although roads are being built, almost all travel to and from distant communities must be made on foot, often over considerable distances; this was brought home during one clinic. It transpired that a particular lady was a refugee from neighbouring Tibet. Asked whether she had lived anywhere near Lhasa, she replied: "Oh yes, very near—only a week's walk away."

TABLE I—Workload of basic health unit at Punakha during August 1984

	No of cases		No of cases
Diarrhoea/dysentery	162	Conjunctivitis	40
Upper respiratory tract infections	159	Gonorrhoea	31
Worm infections	155	Otitis media	24
Skin infections	89	Bronchitis/pneumonia	21
Pyrexia of unknown origin	65	Infectious hepatitis	14
Nutritional deficiency*	61	Goitre	5

* Nutritional deficiency defined as clinical evidence of kwashiorkor or marasmus.

A new role for the basic health unit within the community is its family planning service. With only a 2% population growth rate and, certainly in economic terms, evidence of underpopulation this development may at first seem surprising. Nevertheless, if primary health care were significantly to lower the present infant mortality and crude death rates (table II), then it must be wise to make preparations for effecting a simultaneous reduction in the birth rate, too.

TABLE II—Demographic details of populations of Bhutan and other developing countries

	Bhutan	Bangladesh	Average for 33 lowest income countries
Crude birth rate/1000 population	43	45	31
Crude death rate/1000 population	21	18	12
Life expectancy at birth (years)	43	46	57
Infant mortality/1000 live births	147	136	94
Adult literacy rate (% of population)	10	26	50
Access to safe water (% of population)	8	53	31

The basic health unit's greatest challenge, however, lies in its task of hygiene and health education (table II), for in this it faces the formidable problem of overcoming local superstitions. In village life the Buddhist lama is still the first to be consulted in all affairs, medical or otherwise. That this may sometimes have tragic consequences became evident even during my brief stay. A mother died from a massive postpartum haemorrhage after monks had advised against moving her immediately to hospital; they had recommended that any such move would best be made at an hour when evil spirits were least likely to follow her.

The gradual elimination of such superstitions, yet without a concomitant disintegration or erosion of Bhutanese traditions, will probably be achieved as much by continual exposure to the basic health unit as by a formal education process. Indeed, perhaps the unit's greatest virtue lies in its constant contact with a large proportion of the population. It is thus encouraging to note the emphasis of the Bhutanese government's plans for increasing the number of basic health units within their proposed extension of the health system. By 1987-8 the government aims to have increased the number of district hospitals to 18 and basic health units to 82, while still maintaining the three referral hospitals. The present 37 "dispensaries" will be reduced to 28, but 19 are to be upgraded to basic health units. (One, possibly overoptimistic report suggests that up to 250 basic health units and upgraded dispensaries may be operating by 1987-8.)