TALKING POINTS

Scottish paradox: more doctors, worse health?

J R BUTLER

Whatever the intrinsic merits of the RAWP formula, the publicity given to it has increased the public's awareness of the substantial differences between the health of people in different parts of England. Less well publicised, though no less striking, are the variations between Scotland and England.^{1 2} Death rates in Scotland are relatively high: at all ages over 25 they exceed the rates for England and above 45 they are among the highest of the industrialised world. The infant mortality rate is higher in Scotland than in England but the gap appears to be narrowing. It is notoriously difficult to find indicators of the amount of ill health in populations that are independent of the use made of health services but some information does exist. Responses in the General Household Survey show that the Scots are less likely than the English to report either acute illnesses causing the restriction of normal activities or long-term chronic illnesses and handicapping conditions. Against this, however, Scottish men claim more days of sickness benefit each year than their English counterparts and GP consultation rates are also higher north of the border.

Interesting questions emerge from these data. Why are death rates in the higher age groups so much greater in Scotland than in many other countries? How can the higher death rates in Scotland than in England be reconciled with the apparently lower morbidity rates? Other difficult questions obtrude when the variations in health care resources are added to the picture, for while Scotland has higher death rates than England it also has substantially more hospital beds of all kinds per head of the population, more general practitioners, and more community nurses. What are we to make of this apparent paradox? Does it mean that, beyond a certain level of provision, further investments in health services become counterproductive or even iatrogenic? Does it mean that medical care services in Scotland are less effective than those in England? With the pressures towards an increasingly rational approach to the disposition of health care resources, such questions assume a practical as well as an academic significance. Reflecting on them may lead to conclusions with a wider utility than that of explaining cross-national differences.

Lessons to be learnt

Firstly, in order to make a sensible evaluation of health services we must have a reasonably clear idea of what they are intended to do and an information system that will show the extent to which intentions are being achieved. In the light of this requirement, the data summarised above are plainly insufficient to permit any worthwhile evaluation of health service provision in Scotland and in England. Whereas the reduction of premature

mortality, the minimisation of sickness absence, and the enhancement of perceptions of well-being doubtless form part of the objectives of the Health Service, they by no means constitute the whole. The long-term institutional care of the elderly and mentally handicapped and the rehabilitation of cardiovascular and orthopaedic patients are two examples of the real outputs of the health services that are only scantily reflected in the routinely available data on mortality and morbidity.

Several implications flow from this reflection. Rationally, the input of additional resources to the health services can be justified only if the expected benefits to the recipients of those services are likely to outweigh their costs. In reality, of course, there is much scope for subjective debate about what actually constitutes a benefit and about the way in which benefits are to be weighed against costs. But the principle of thinking simultaneously about costs and benefits, and of devising practicable ways of measuring them in real-life events, is increasingly likely to influence our thinking about health services in the future. Questions that in the past have commonly been framed in terms of resources may in future be couched more explicitly in terms of consequences. The timeless question of how many doctors the country needs may, for example, be more appropriately rephrased thus: if the supply of doctors were to be increased by $x\%$, what additional services might patients be expected to receive, and would these services be valued sufficiently highly to justify the extra manpower costs? A careful reading of Good-enough, Willink, and Todd indicates the unusual nature of this way of phrasing the question.

Secondly, the Scottish data remind us that there is no simple relationship between health services and health or between policies for health services and policies for health. The health of a community is as much a function of its cultural, environmental, and economic features as it is of the level of health care provision, and there are consequently no impelling reasons why Scotland should necessarily have a lower mortality rate than England simply because it has more hospital beds. Many observers have pointed to the lack of any clear relation between a country's expenditure on health care and its performance on any of the conventional indicators of good health. One recent cross-national study has even hinted at a positive association between the supply of doctors and mortality rates in most age groups.³ After examining several possible explanations for this disquieting result, however, the authors concluded that the two variables probably have no causal relation to each other at all. Likewise, it may be erroneous to regard the apparently lower morbidity rates in Scotland as a necessary consequence of that country's better availability of doctors and nurses. It would certainly be a flimsy basis on which to argue for a corresponding increase in medical and nursing manpower in England.

One difficulty in this type of argument is precisely the lack (noted above) of sensitive indicators by which to judge the real impact of health services on the health and well-being of the communities they serve. Even so, there is sufficient evidence in the contemporary literature to sustain the view that major improvements in health are as likely to come through a determined assault on those elements of the environment that are

hostile to health as they are through the development of more sophisticated ways of treating disease.⁴ The Scottish mortality data offer an obvious example of this. Part of the higher overall mortality rates in Scotland is attributable to higher death rates from heart disease and lung cancer, and these in turn are presumably caused in part by the greater prevalence of cigarette smoking among men and women of all ages and social classes in Scotland than in England. Are reductions in Scottish deaths from these two diseases more likely to result from the input of further resources into the appropriate hospital specialties or from purposeful attempts to reduce the prevalence of smoking? Yet in setting up the question in a way that invites the latter solution serious difficulties are evaded. Few people argue publicly against the prevention of disease and the promotion of good health yet vastly more resources continue to be used in the treatment of disease.

Preventive health

Why is it so difficult for prevention to be taken seriously? One reason may lie in the lower valuation that people place on the maintenance of health than on other human satisfactions. There is an understandable tendency on the part of those engaged in health care to assume that good health is a primary value to which other wants will always be subjected. But the pursuit of good health is costly in terms of other pleasures and satisfactions forgone and in a free society people can and do decide the points at which an optimal level of health is sacrificed to the pursuit of other wants. Even when presented with the best available evidence of the risks attendant on particular forms of behaviour people still indulge in these. Modern man may prefer to take his chances of trauma and the rest than be bullied or legislated into wearing seat belts.

Another reason is that a serious assault on the hostile environment would pose a major threat to powerful economic and political interests in advanced industrial societies. Many of the environmental aspects that are damaging to the health of modern industrial man are integral to the consumption-oriented structures of industrial economies. To suggest that they are removed or modified is to threaten a central element of them.

Chairmen 1979-80

Dr Alan Rowe (left) has been re-elected to the chair of the Committee on the EEC. The committee examines the implications for the medical profession of Britain's membership of the EEC and has observers from the GMC, the DHSS, the RCN, the BDA, and the councils for postgraduate medical education. Also re-elected for another session was Dr M J G Thomas; he is chairman of the Central Ethical Committee.

Cigarette smoking is an obvious example. Exhortations to the individual to reduce or stop smoking have little impact in a society in which the products of the tobacco industry are heavily promoted, yet to outlaw such promotions would be to strike at the very means by which powerful industries create their markets and prosper. At a collective as well as at an individual level the maintenance of health is not invariably an overriding priority.

Finally, the realisation that the promotion of health implies environmental, economic, and even political considerations creates appallingly difficult intellectual and practical problems in drawing up realistic programmes of action to prevent ill health. It is easy to repeat the conventional wisdom that housing conditions, diet, environmental pollution, personal behaviour, occupational stress, and so on are important ingredients in shaping the healthiness of individuals and communities. These insights are not easily translated, however, into specific co-ordinated proposals for policies that will lead to the enjoyment of better health. Even more difficult is to envisage the joint action that would be needed between a large number of organisations, departments, and agencies in order to implement them. Not surprisingly, we have found it much easier to think and act within conventional intellectual categories and administrative boundaries than to attempt the mental gymnastics that would be needed fully to understand the concept of health as a property of the social system.

Measuring the benefits

These assorted reflections have strayed some way from the starting point of this article, but they may offer some clues to the initial paradox of the combination of higher death rates and higher levels of Health Service resources in Scotland than in England and Wales. On the basis of the global data that are routinely available we cannot conclude that the extra resources in Scotland are producing no incremental effects on the population's health, much less that they are having iatrogenic consequences; for sensitive indicators of the range of outputs of health services are still lacking. If any progress is to be made in understanding the consequences of the differing levels and combinations of health care resources, doctors, economists, and administrators must pay attention to the development of realistic measures of the benefits of care. Moreover, if priorities in the deployment of health care resources are to be made more rational we must also find ways of determining the social values that are to be attached to different kinds of benefits and of relating them to their social costs.

But rationality has its limitations: what is rational from one perspective may appear quite otherwise from a different viewpoint, and this conflict of goals, values, and ideologies creates the environment from which patterns of health and illness emerge and into which resources for health care flow. The interactions between health services and health are complex. At worst, health services may be doing no more than trying to cope with a society that produces disease at a faster rate than it can be treated. At best, they may be a positive force in enhancing individual and collective valuations of health, and in tilting the balance between health and other conflicting values a little more towards the former.

References

- ¹ Heasman, M A, in *By Guess or by What?*, ed G McLachlan, p 87. Oxford, Oxford University Press for Nuffield Provincial Hospitals Trust, 1978.
- ² Carstairs, V, and Heasman, M A, *Hospital and Health Services Review*, 1979, 75, 151.
- ³ Cochrane, A L, St Leger, A S, and Moore, F, *Journal of Epidemiology and Community Health*, 1978, 32, 200.
- ⁴ McKeown, T, *The Role of Medicine*. Oxford, Oxford University Press for Nuffield Provincial Hospitals Trust, 1976.

(Accepted 29 August 1979)