Essentials of Health Economics

Part IV (continued)—Organising health care resources

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The issue of planning resources in the National Health Service has possibly been most ardently pursued in the context of geographical equity. One of the major objectives of the NHS relates to equity: the fair distribution of health care (or perhaps health, and there is clearly a difference) across different groups in the population. This was an important theme in the original conception of the NHS, but it was only in the late 1970s that it was taken up as a major policy question (although it had been noted earlier by economists¹). This has happened at two levels: geographical equity, through the Resource Allocation Working Party (RAWP)² and social class equity, the latter highlighted recently by the Black Report.³

Clearly, the issue of equity is a multi-disciplinary concern but it is one where economists have made some important contributions, particularly with regard to the formation of the formula devised by RAWP and its counterparts in Scotland, Wales, and Northern Ireland (SHARE,⁴ SCRAW,⁵ and PARR⁶ respectively) but also in examining the extent to which social class equity in health care exists.⁷ In this article we examine some aspects of equity and the ways in which economists have viewed it and tried to assist policy makers in understanding and dealing with it.

Geographical equity

Until the mid-1970s resource allocation to the regions had been based very much on the existing and historical distribution of services: it was thus much more orientated to the stock of facilities than to the need for services. RAWP attempted to change all this by advocating strongly yet simply that regional allocation of resources should be based on the relative needs of the different regions. Unfortunately, the simplicity of the principle has tended to be lost in the complexity of the problems of measuring need, an issue already discussed in our previous article.⁸

Before deciding how best to measure health and the need for health care in the context of equity, however, we need to define what we mean by equity. It can be horizontal—that is, equal treatment of equals (for example, two individuals with the same diseases)—and vertical—that is, unequal treatment of unequals (for example, one individual with chronic renal failure, the other with a common cold).⁹ Each is likely to require

a different policy. Equity can be defined in different ways: equal expenditure per caput; equal inputs for equal need; equal access for equal need; equal utilisation for equal need; and perhaps even equal health. What is clear is that equity, like need, is not an absolute or objective concept; it is relative and value laden. Thus, equal opportunity of access for equal need (the stated objective of the RAWP formula) could, if pursued in full, result in a logic which suggested coronary care units in Skye. This trade-off in principle between equity and efficiency has been highlighted by Culyer¹⁰: “An egalitarian approach to the meeting of need in a world where resources are limited actually implies inflicting unnecessary pain, distress and ill health on people.” He continues: “If you believe . . . that the only really moral policy for the NHS is to minimise, out of a given budget, the amount of unmet need in society, it is somewhat disquieting . . . to discover that provision inequalities are inherent in the just and moral solution.” The trade-off has again been emphasised by Drummond¹¹ in the context of RAWP and the vexed question of “centres of excellence.” “The possible redistribution of resources away from teaching hospitals [as a result of RAWP] particularly from those in London” may mean that “if provincial regional authorities do decide to promote excellence, there is the possibility that this excellence may be obtained at a higher cost than the retention of that which already exists in London—that is, one may be faced with a trade-off between geographical equity and efficiency.”

One of the key issues in RAWP is that the measurement of relative morbidity in different regions has proved difficult, a matter already touched on in an earlier article.⁸ Indeed RAWP assumes that variations in morbidity across regions are mirrored in variations in mortality and uses standard mortality rates as measures of relative sickness. Steele¹² suggests a different approach which avoids the necessity of measuring relative total morbidity. He suggests that the concept of the margin is relevant and that geographical equity ought to be defined as a situation where the marginal need met in all regions is the same. In other words, assuming that needs can be ranked ordinally in descending order of priority to be met, then equity will be achieved when all regions can get equally far down the listing of needs.

Social equity

Another dimension of equity is highlighted in the recent publication of the Black Report and has led to renewed focus on the issue of whether lower social classes are being given a raw deal by the NHS. While clearly a useful document it is largely descriptive and its policy recommendations do not appear to have been researched in detail. Earlier work by an economist⁷ had already highlighted the fact that despite the higher social classes being relatively more healthy than lower social classes, they in fact used the health services more. What

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Le Grand tried to do was (a) to relate utilisation of health services to the incidence of ill-health by social class; (b) to examine the distribution of health service expenditure by social class; and (c) to analyse the distribution of health service expenditure by social class, given the incidence of ill-health by social class. Various measures of morbidity were examined but eventually Le Grand settled on the health data of the General Household Survey, which are based on the assessment of those surveyed (which may raise problems if we were assuming some definition of morbidity based on "needs"). What emerged was some tentative evidence quantifying the extent to which higher social classes tend to have less sickness than lower social classes.

Le Grand then looked at the *utilisation* of different aspects of the service by social class and costed these out to determine how NHS expenditure was distributed across social classes, and again rather tentatively concluded that on a per caput basis the higher the social class the higher the expenditure. Since the lower social classes appeared to have more illness, then, all other things being equal, we would have expected the higher the social class the lower the expenditure per caput. One explanation which Le Grand considered was the variations in incidence of disease within each socioeconomic group. Thus, if the higher social classes tended to contract the "more expensive" illnesses and the lower social classes the "cheaper" illnesses this might explain the apparent differential in the distribution of health service expenditure in favour of the higher social classes. His evidence on this suggested, however, that the mix of diseases across different social classes was very similar. A second explanation is that for like conditions higher social classes have a higher probability of using the health services or use more of them than do lower social classes. This seems probable. To examine this further we need firstly, to devise a good model of utilisation of the NHS and, secondly, to determine what is to be construed by equity in this context or as Le Grand⁷ states: "We cannot formulate policy recommendations on the basis of how public expenditure is distributed: we need in addition to have a precise conception of how it ought to be distributed." This implies again asking the right questions, and of the right people. Because of their influence over individual treatments and resource deployment, this includes asking individual members of the medical profession.

Influence of hospitals on provision of health care

It was mentioned in part II that the behaviour of institutions may have an important bearing on the efficiency of health care delivery, and this is particularly true of hospitals. Many reports have been published in an attempt to explain why costs differ between hospitals. Few of these, however, refer to

the UK, although Hurst,¹³ for example, has examined the impact on costs of reducing the length of stay in NHS hospitals. This is an area where economists have perhaps not sufficiently understood the nature of hospitals or their organisation before plunging into their approaches to costing. As Cullis and West¹⁴ remark: "In practice hospitals are highly complex organisations comprising large numbers of separate decision-makers. . . . Each decision-maker . . . pursues his own objective, and the end result will be an inevitable compromise that emerges from the integration of separate decisions."

Conclusions

As economists we cannot remain credible if we fail to understand the health and health care phenonema we seek to analyse. Whether we have succeeded in this respect in the important area of analysing treatment choices will be apparent in our next article. What is apparent is that health economics is too important to be left to health economists alone.

Part V of the series will be published next week.

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(Accepted 29 June 1982)

Is carbon dioxide snow still the best treatment for treating warts?

Freezing is a widely used technique for treating warts; however, liquid nitrogen has largely replaced carbon dioxide snow as a freezing agent. It is now freely available, cheap, and easy to use. Because it is colder than carbon dioxide snow (-196°C compared with -79°C) the necessary degree of freezing is obtained more rapidly. It may be transported in and used from a suitable vacuum flask and applied with a simple cotton wool bud on a wooden applicator stick. Sprays, guns, and cryoprobes are unnecessary for treating warts.¹ If supplies of liquid nitrogen are not available, or if only a few patients at a time require treatment, carbon dioxide snow pencils are still useful. The Brandon kit for use with disposable sparklet bulbs is convenient as the stick mould is incorporated, and because of its small size it will fit into a pocket or bag. It is, however, relatively expensive. Alternatively "snow" is formed when carbon dioxide is released rapidly from an inverted standard cylinder and may be collected in a

small chamois leather bag tied on to the outlet. The loose snow is then tipped into a plastic funnel and pressed firmly into the stem, against a hard surface, with a wooden or plastic rod to mould it into pencils. Freezing has the advantage that it can be used on all types of warts, no matter where they occur. It must be said, however, that it is no more successful in curing common warts on the hands or type 1 plantar warts than a salicylic acid wart paint properly and regularly applied.² It has the advantage over curettage or cautery in that the discomfort it causes is insufficient to warrant any form of anaesthesia, no incapacity or scarring result, and patients develop protective antibodies.³—M H BUNNEY, associate dermatologist, Edinburgh.

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