*For Debate . . .***The NHS: efficiency need not be a dirty word**

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The National Health Service, yet again, is being cajoled and coerced into being more efficient. Many in the NHS resent this, perhaps understandably given the way in which the concept of efficiency has been devalued by this government. It is, however, an unfortunate reaction because efficiency is not something to be despised or feared.

Despite the cajoling, little seems to change. The Royal Commission on the NHS, set up in 1976, considered "the best use and management of the financial and manpower resources of the National Health Service."¹ The Griffiths inquiry, seven years on, sought "to give advice on the effective use and management of manpower and related resources in the National Health Service."²

As economists it is second nature to us to want to support efficiency. Indeed, we are often puzzled by the lack of enthusiasm shown by NHS staff in pursuing efficiency. As a result, in October last year we organised a workshop on economic appraisal in the NHS and invited 11 senior staff in the health service and health departments to discuss why the NHS fails to embrace economic appraisal to promote efficiency and how these problems might be overcome. We base this article on the report of these workshop discussions.³ Firstly, however, we define efficiency and economic appraisal.

Efficiency and economic appraisal

There are two strands to efficiency: technical efficiency is concerned with trying to devise the least costly solution to meeting a particular accepted objective. It is thus about *how* to rather than *whether* to. The first leg of economic appraisal is therefore cost effectiveness analysis.

The second strand is allocative efficiency, which is the realm of the second leg of economic appraisal—cost-benefit analysis. Here the objective is to use the resources available in the most beneficial way for society, accepting that not all objectives can be met since resources are scarce. The question is then how much of which objectives to pursue—some of all of them, or is it better to allocate all the money to activity A and forgo the opportunity of providing some alternative benefit by allocating the money to another activity? Cost-benefit analysis demands that we weigh up the costs and benefits of alternative uses of resources.

Efficiency in the NHS thus means maximising the health of the community. Economic appraisal is the tool designed to achieve this. Since few could disagree with such a laudable objective why have efficiency and economic appraisal been slow to develop in the NHS?

The problems

The major obstacle to the use of economic appraisal in the NHS is simply that there is a lack of awareness of the need for efficiency and what it really means. Because efficiency is too often equated with cheapness or penny pinching, the desirability of being efficient (as we have defined it) is lost.

Misconceptions exist too about economics. Efforts to use economics in health care have been criticised as being antihumanitarian, uncaring, and even unethical. Certainly economic appraisal does create problems for those who are resistant to new ideas or support unbridled clinical freedom. It may be seen as a threat to individuals' professional standing, and economists who have shown a lack of tact and lack of ability to communicate their ideas to a wary health service have not helped.

A third impediment to economic appraisal lies in the organisation of health care. Decision making in the NHS is seen to be political, irrational, and consequently not conducive to efficiency. There is also a lack of clarity in setting objectives and determining priorities, and so in pursuing efficiency. Incentives to be efficient are lacking. Why, for example, should the individual clinician bother to apply economic appraisal techniques in deciding on treatment regimens for his patients? What does he gain from doing so?

Finally there are problems in applying economic appraisal. The availability and quality of data are inadequate. No particular individual or group within a health authority appears willing to take responsibility for conducting economic appraisal exercises, and even when the will is there the expertise is too often lacking.

The challenges

The challenges to overcome the problems come in three guises: education and training; initiatives for cooperation; and support for economic appraisal.

EDUCATION AND TRAINING

Increasing awareness among NHS staff of the benefits of both efficiency and economic appraisal, helping senior NHS staff to overcome their suspicions of economics, and providing the expertise to conduct appraisals are first priorities in furthering efficiency.

Management teams set the tone in an authority for the quality of decision making and are thus the major target groups at which to aim training. Indeed one member should be trained to be able to use economic appraisal in practice.

Material for teaching economics to NHS staff in a relevant way needs to be developed. Non-economists cannot learn everything about economics in a few weeks but they can gain an understanding of its principles and what it can achieve in a short time. Perhaps the best vehicle for further training is a "package" in which a series of seminars, lectures, and short courses is organised in a district over, say, a week for different groups of staff.

Beyond the management teams, it is more important to encourage staff to learn and apply economic appraisal than to aim to train the holders of particular posts. Certainly much more needs to be done to persuade medical staff to enthuse. Senior registrars are perhaps the priority group for training.

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Teaching is best done by economists familiar with the mechanisms of making decisions in health care. It is inappropriate for doctors to attempt to teach economics but they can do much to sell it. More economists need to be attracted into the NHS, and those staff who hold economics degrees should be encouraged to use their economics.

INITIATIVES FOR COOPERATION

We cannot assume efficiency as an objective of the NHS; it needs to be encouraged. If the educational objectives are to be achieved then staff need incentives to be trained in economic appraisal. Indeed it should become accepted, certainly among administrative staff, that promotion will depend on acquiring, inter alia, appropriate training in management skills, including economic appraisal.

In promoting economic appraisal management teams will be helped, firstly, by adopting a stance, supported by the authority itself, of "no economic appraisal, no prospect of funds" for any request received for developments, and, secondly, by being equipped with a check list of questions which they must be able to answer before any proposal can be judged to have been supported by an economic appraisal study.

The availability of information can be a problem in conducting appraisals. But the costs can be reduced in several ways: by establishing what degree of accuracy in the data is warranted, by mounting reviews of information gathering systems, by establishing a centralised resource for performing special surveys and collecting other ad hoc data for appraisal; and by making appraisers aware that short cuts with data are more acceptable than short cuts with methods.

The separation of professional and financial accountability fails to foster efficiency in health care, particularly in the clinical services. Clinical team budgeting needs to be implemented or, at the very least, more experiments conducted. These could do much to create the incentives for NHS staff, especially doctors, to want to use economic appraisal and to damp down the excesses of those who still adhere to the absolutism of clinical freedom.

SUPPORT FOR APPRAISAL

The NHS is not currently devoid of appraisal, but what there is needs support if it is to grow. The rest of the United Kingdom would do well to emulate the efforts of the Northern Irish, who, through their Health Economics Steering Group, are organising training and demonstration studies in economic appraisal.

There is also a need for a central agency to collect and disseminate, to teams and individuals, information on what has been and is being done elsewhere in the NHS. Failure to look "outside your own patch" is a problem in the NHS, and deserves to be tackled in this new discipline.

Too many new technologies are experimented with or even become NHS fixtures without any real evaluation. There is a need to promote centres to conduct trials of such new technologies, but only on condition that economic appraisal would be applied.

Economists need to be more active in supporting the appraisals that are going on already. Early involvement in any project attempting to use appraisal must be their top priority, if for no other reason

than the need to eliminate the "waffly remit" syndrome—that is, the failure to identify clearly what the problem to be solved is. They should also sensitise themselves to the fact that many professionals feel threatened by both economic appraisal and economists.

A future strategy

We have tried to highlight the need for efficiency and the way to achieve it through increasing the use of economic appraisal in health care. In doing so we are keenly aware that a coherent strategy is required to promote economic appraisal. We conclude by suggesting the following steps by different "actors" in health care.

Firstly, the current requirement from the health departments for economic appraisals for capital schemes is welcome in itself,⁴ but it should also be seen as an opportunity at district or board level to pursue the use of economic appraisal more generally.

Secondly, existing practices will more easily and appropriately be appraised if the medical profession is more aware of the desirability of efficiency in health care and the need for setting priorities in the NHS against a wider social context. This will limit clinical freedom, but hiding behind clinical freedom as an excuse for inefficiency is in no one's interest.

Thirdly, ministers and departments should encourage efficiency in the NHS as a means of improving the health of the community. This will mean reexamining their definition of efficiency. Beating doctors and other health care professionals with the present efficiency stick is one way to ensure the continuation of inefficiency.

Fourthly, NHS staff at all levels must not only be made aware of the desirability of efficient resource allocation; they also need to be educated in using economic appraisal and given incentives to do so. If necessary this should involve policy audit to ensure good practices. Departments centrally and management teams locally hold the responsibility for promoting economic appraisal. They should be more ready to exercise it.

Lastly, economists need to descend more often from their ivory, often academic, models. Offering helping hands to NHS staff may be more effective than singing the praises of efficiency to an audience who neither comprehends the words nor appreciates the tune. We hope we have made a start.

References

- 1 Royal Commission on the National Health Service. *Report*. London: HMSO, 1979.
- 2 NHS Management Inquiry. *Report*. London: DHSS, 1983. (Griffiths report.)
- 3 Ludbrook A, Mooney GH. *Economic appraisal in the NHS: problems and challenges*. Aberdeen: Northern Health Economics, 1984.
- 4 Burchell A, Gilbert BK. *Appraisal of development options in the national health service*. London: DHSS, 1982.

What are the hazards of working in an environment containing fumes of perchloroethylene? Are any effects likely to persist after the individual has stopped working in that environment?

Perchloroethylene is a halogenated solvent widely used in industry, particularly for dry cleaning clothes. It is also used for the solvent extraction of oils in foodstuff manufacture. The current Health and Safety Executive standard for maximum workplace exposure is 100 ppm (670 mg/m³) 8 h time weighted average.¹ At concentrations above 200 ppm eye irritation and the onset of central nervous system effects have been reported. Still higher concentrations lead to dizziness, lack of concentration, and unconsciousness (1500 ppm for 30 min).² Absorption through the skin is not an important route of entry to the body, but skin contact should be avoided as the defatting action of perchloroethylene may lead to dermatitis. Animal studies have shown that there is long term hepatic and renal toxicity at high dose rates, but there are few reported cases of such damage in man.

Mutagenic studies are reassuring though animal carcinogenicity has been established in one strain of mouse, but results of a long term inhalation study on rats are negative. There is no epidemiological evidence of either carcinogenicity or teratogenicity in man, but better planned and larger studies than those already published are now underway. Biological monitoring of exposure is possible either by analysing for perchloroethylene in breath or for urinary trichloroacetic acid (TCA) as a metabolite. The Health and Safety Executive recommend a tentative relationship of 100 mg TCA/litre urine as indicating a continuing exposure to 100 ppm perchloroethylene concentration in air.³—F W LUNAU, occupational hygiene consultant, London.

- 1 Health and Safety Executive. *Threshold limit values 1980*. Guidance note EH15/80. London: HMSO, 1980.
- 2 Clayton GD, Clayton FE, eds. *Patty's industrial hygiene and toxicology*. Vol. 2B. New York: John Wiley, 1981.
- 3 Employment Medical Advisory Service. *Biochemical criteria in certain biological media for selected toxic substances*. Occasional paper No 1. London: HMSO, 1974.