Choice and accountability in health promotion: the role of health economics

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Abstract
Choices need to be made between competing uses of health care resources. There is debate about how these choices should be made, who should make them and the criteria upon which they should be made. Evaluation of health care is an important part of this debate. It has been suggested that the contribution of health economics to the evaluation of health promotion is limited, both because the methods and principles underlying economic evaluation are unsuited to health promotion, and because the political and cultural processes governing the health care system are more appropriate mechanisms for allocating health care resources than systematic economic analysis of the costs and benefits of different health care choices. This view misrepresents and misunderstands the contribution of health economics to the evaluation of health promotion. It overstates the undoubted methodological difficulties of evaluating health promotion. It also argues, mistakenly, that economists see economic evaluation as a substitute for the political and cultural processes governing health care, rather than an input to them. This paper argues for an economics input on grounds of efficiency, accountability and ethics, and challenges the critics of the economic approach to judge alternative mechanisms for allocating resources by the same criteria.

Introduction
Politicians and health service decision makers have to make choices between the different uses to which resources allocated to the health service could be put. Few people claim that choices do not need to be made. In contrast, the debate about how those choices should be made, who should make them and the criteria upon which they should be made has been, and continues to be, lively. The debate involves health economists, moral philosophers, political scientists, medical sociologists and the medical profession, amongst others.

One of the areas of debate concerns the most appropriate method for evaluating health interventions. In a recent article, Burrows et al. (1995) argued that the role of health economics in the evaluation of health promotion had been and would continue to be limited. Their argument revolved around two key beliefs. First, the methods of and principles underlying economic evaluation are unsuited to the evaluation of health promotion. They put economic evaluation in the category of 'modernist approaches' to medicine which:

... stress causal deterministic models based upon an objective 'truth', [as opposed to] late/postmodern approaches [which] tend to stress aesthetic non-deterministic approaches based upon assumptions of contingency, a plurality of rationalities and, ultimately, the abandonment of truth claims.

They argue that medical science and economics share the mistaken belief that statistical and causal relationships in the area of health promotion can be disentangled by experimental techniques. This
misconception creates problems for the economic evaluation of health promotion which 'no amount of technical advance in health economics will solve'.

The second belief is that the health service would:

... do better to trust to the messy competitive contingencies of politics, culture and morality than the worrying confidence of health economics as a paradigmatic discourse in the allocation of resources ... better to trust to the long run randomness of contingency rather than to rational economic systematization.

No critical assessment is made in their argument of the strengths and weaknesses of a random walk through the pluralistic maze of health care resource allocation. The authors make a leap of faith from the positive statement that the economic evaluation of health promotion is methodologically and conceptually difficult, to the normative statement that we should leave resource allocation to the political economy of the health care system, a 'method' which elsewhere has been called 'elegant muddling through' (Hunter, 1991).

In this paper, we take issue with a number of specific points made by Burrows et al. We point out inconsistencies and errors in their arguments. In a concluding section, we link together these individual criticisms, arguing that they reflect both a fundamental misunderstanding of health economics and a misrepresentation of what it seeks to do.

The economic framework

Burrows et al. critically assess an economic framework for evaluation of health promotion proposed by Tolley (1993). Most of their points are important and valid. However, they misrepresent a key stage in the framework:

... the economic objectives of health promotion can be viewed in terms of (1) the reduction of both mortality and morbidity levels and (2) improvements in the quality of life at lowest cost. [Our emphasis]

Reductions in mortality and morbidity are not economic objectives, they are health objectives. This misrepresentation implies that the framework is only concerned with economic objectives. This is not the case. Economic evaluation is concerned with analysing the economic implications of pursuing a range of objectives, such as improvements in health, promoting access, promoting equity, providing patients with information regarding their health, and/or the involvement of patients in the decisions taken by doctors and others regarding their health and health care.

This is a crucial distinction. The authors imply that health economics is attempting to redefine the goals of the health service, as if economists see economics and efficiency as ends in themselves. Rather, economic evaluation examines the efficiency of different interventions, including health promotion, to assist in decision making aimed at furthering whatever objective particular areas of health care activity might have. The role of economic evaluation is to measure the extent to which health care generates changes which people value, be they patients, planners, doctors or politicians, and to compare these changes with the resources required to achieve them. The relevant question to ask, therefore, is not whether economics is right to promote economic objectives, which it does not seek to do, but whether it is useful and morally right to use the results of economic evaluation as an input to the decisions taken in the pursuit of the objectives of the health service per se.

The second misrepresentation relates to costs. Economic evaluation does not have the objective of improving the quality of life 'at lowest cost' nor does it seek to make 'the calculus of cost predominate over any other basis of decision making'. Economics has nothing to say about costs per se. Rather, it is concerned with efficiency, i.e. the relation between benefits and cost. The economist's concept of cost is based on the premise that we cannot afford all the things we would like to buy or provide and therefore the choices we make, as individuals, planners, the government or health service practitioners, involve sacrifices. These sacrifices are the benefits foregone by not
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choosing the next best alternative available to us. Economists call these sacrifices opportunity costs. If the benefit foregone is greater than the benefit we derive from the choices we do make, then there is an economic case for choosing differently to minimize opportunity cost. Benefit is therefore inherent in the economist's concept of cost. Economic evaluation forces us to be systematic and explicit about both benefits and costs.

We return to the moral justification for this approach below.

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**Hegemony and objectivity: the monopoly of truth**

Burrows et al. argue that health economics sees itself as having a special claim on truth and that, in the eyes of economists, this justifies its pre-eminence amongst the various value systems which might form the basis of resource allocation frameworks.

The following extract from a standard text on economic evaluation gives the lie to this claim:

... one might be tempted to ask whether economic appraisal, properly carried out, provides the answers to all questions of choice in health care. The answer is 'no' ... efficiency may not be the only criterion for judging health care alternatives. (Drummond, 1980)

This suggests that economists do not believe that economics and efficiency should dominate health care choices. Economists, and many others in the field of public health, see economic evaluation as an aid to decision making, important because all choices have an economic dimension. It is a dimension which many people, including economists, argue has been neglected in the past, but this hardly represents 'the attempted hegemony of health economics in the evaluation of health promotion'. Public health practitioners argue that epidemiological principles should be applied to health service decision making, but it would be equally fallacious to suggest that they believe that epidemiology should dominate the decision-making process.

A related argument put forward by Burrows et al. is that:

Health economics promises an objective basis for the allocation of health care resources driven by a clear set of objectives. [Our emphasis]

It is telling that it is not the work of an economist cited in support of this claim, but the work of a medical sociologist (Ashmore et al. 1987). It is a claim leveled particularly at QALYs. Yet even the most ardent supporters of QALYs do not argue that QALYs represent a simple technocratic solution to the problem of making health care choices. In attaching values to the impact of health care:

The issue as to whose values shall count is not a scientific one but a political one. A QALY may be derived by any one of several different valuation processes and that choice is essentially a socio-political judgment requiring socio-political justification. (Williams, 1985)

Nor are economists coy about the distributional implications of using either QALYs or other quantitative modelling techniques (Williams, 1995). In calculating the gains to society as a whole by summing QALYs at the individual level without attaching weights:

What we have done is to impose the ethical judgment that one year is of equal value no matter who gets it. ... If we can accept that ethical judgement ... we can accept that method of arriving at a group norm. If not, we can't. (Williams, 1985)

There has also been a long and lively debate, amongst economists, public health practitioners and other academic disciplines, about the methodological, ethical and political issues raised by the use of QALYs. The debate has explored, challenged and laid bare the values underpinning the use of QALYs (Drummond, 1987, 1988; Donaldson et al. 1988; Loomes and McKenzie, 1989; Spiegelhalter et al., 1992). Loomes and McKenzie (1989), for example, raised three questions requiring further research before they felt cost-per-QALY criteria
could be used as a basis for resource allocation decisions:

(1) Whether any of the existing methods for eliciting quality of life valuations are reliable and valid. (2) Whether individual evaluations can be scaled and somehow aggregated to give measures which enable legitimate inter-personal comparisons to be made. (3) Whether indeed the values to be used in social decision making should be some aggregate of individual valuations.

The authors, who are economists, are sceptical on all three issues, for methodological and ethical reasons. In short, the people who believe that economic evaluation provides a technical answer to inherently value laden and political questions are certainly not health economists.

**Economic evaluation of health promotion in practice**

The authors stress how difficult it is to evaluate health promotion because, amongst other things, the effects of health promotion are confounded and overlain by scores of other causal factors, some known, others of which we are not even aware. They also stress the importance of time lags in the impact of health promotion.

Whilst many of the problems identified by the authors undoubtedly make the evaluation of health promotion especially difficult, arguably this is overstated. Seat belt legislation, immunization and fluoridation are three examples of health promotion interventions for which evidence of effectiveness is irrefutable. The cost of immunization and fluoridation could be estimated as they comprise discrete, clearly defined programmes. Certainly, cost-per-QALY evaluation would be difficult but there is a spectrum of economic evaluation techniques suited to an array of policy questions addressing a range of health care interventions, including health promotion.

Indeed, one purpose of Tolley’s framework is to break the analytical problems down into tasks to which different evaluation techniques can be applied. For example, health promotion advice to individuals encouraging them to change their behaviour in order to reduce their exposure to risk markers depends upon a complex causal chain. Specifying the relationship between the initial intervention and the ultimate changes in patient’s quality or length of life is clearly very difficult, but the strength of individual links in this causal chain may be well-known such as the links between smoking and various forms of ill-health. The objective for health promotion departments might then be defined as maximizing the number of smokers who quit, with choices required between alternative programmes for reducing smoking. Economists would argue that one factor that should be taken into account in making this choice is the relative cost-effectiveness of alternative health promotion programmes, where effectiveness is measured in terms of the number of smokers who quit. Alternatively, because the links between the health promotion intervention and smoking cessation are still complex, health promotion departments might set themselves interim targets such as maximizing awareness of the risks of smoking. Economic evaluation in this context would then compare the cost of different educational programmes to their impact in terms of the number of people exposed to, and levels of understanding of, health promotion messages.

Of course, even these more modest evaluations would raise methodological difficulties, but they illustrate (1) that evaluations can be made more tractable by focusing on particular policy questions, (2) that evaluation techniques need to be tailored to the specific policy question at hand and (3) that different approaches within the broad scope of economic evaluation are available. Tolley (1993) and Drummond (1980) discuss the approaches available in more detail, and Stoddart and Drummond (1984) give a checklist of questions to ask of any published evaluation to establish the appropriateness of the techniques adopted.

Clearly, the narrower the scope of the evaluation, the narrower the range of policy questions that can be addressed, but it does not follow that the overall approach should be jettisoned because it cannot
solve all the problems faced by the decision maker. To do so would be, in Burrows et al.'s terms, a modernist reaction to a post-modern problem, judging a technique against a standard of technocratic rationality to which it is neither feasible nor appropriate to aspire. Most economists would not claim to be able to provide such clear cut solutions because they would acknowledge that such solutions do not exist. It seems unreasonable, therefore, to judge economics against a standard that neither economists, nor presumably Burrows et al., would consider it appropriate to apply.

**Discounting and straw men**

The authors criticize the Department of Health for being 'unrealistic' in advocating a zero discount rate. Implicitly, they also seem critical of the Department of Health for encouraging, or at least acquiescing in, short termism in health service planning. In fact the very reason for the zero discount rate was concern that a non-zero discount rate would create an inappropriate bias against interventions which impact on health in the distant future. Far from being a 'technical justificatory discourse' the arguments for (and against) a zero discount rate were arguments about what rate would most accurately reflect the values of society as regards the nature and timing of the benefit of health promoting activity (Cairns, 1992; Parsonage and Neuberger, 1992). The suggested departure from the economic convention of using the same discount rate for both costs and benefits was based on an explicit value judgment that health was different to other commodities.

Drummond (1980) notes that economists have discussed discount rates at length. The debate has occurred precisely because discount rates do not only try to capture narrow opportunity costs, in terms of the economic returns that would have been made if the resources (or costs) invested in health care had been invested in the private sector. They also embody value judgments regarding risk aversion, the differences in attitudes to benefits enjoyed individually rather than collectively in the future and people's desire for benefits now rather than in the future. Hence, economists have long recognized the 'subjective imputation' embodied in the discount rate. Indeed they were the very cause of the debate in which the Department of Health made its zero discount rate contribution.

**Conclusions**

If the need to make choices is accepted, debate should focus on how choices should be made, by whom and on the basis of what criteria. The corollary of the need to make choices is that the choices made involve sacrifices, or opportunity costs, i.e. benefits foregone by not choosing the treatments which are not provided. Economists, and an increasing number of public health practitioners, argue that choices should be made with information on the extent and nature of these sacrifices. Economics provides a set of techniques for identifying and measuring these sacrifices. It accepts that some areas are more difficult to evaluate than others but, unlike Burrows et al., does not consider that these problems are fatal to the value of the economics approach. Instead it seeks to solve these problems. It does so on moral grounds (Culyer, 1992). Decision makers who choose options which are inefficient sacrifice the achievement of greater overall health objectives for the population as a whole. By inefficient, economists mean that alternative options using the same resources would generate more health gain, result in more or better information for patients, or achieve any other objective of the health care system to a greater extent. There may be good reasons for making these sacrifices, based on different values and objectives, such as the promotion of equity. However, decision makers who cannot either quantify these sacrifices, or provide reasons why it is worth making them, cannot be held to account for the decisions they make. They also may make sacrifices which patients, the public or decision makers themselves might consider unacceptable, were the scale of the sacrifices known.

In short, economic evaluation, along with several other disciplines, is an attempt to inform, not to
displace public debate. It is incumbent on Burrows et al. to explain where else this information would come from given that the dilemmas posed by the need to make choices in health care will not disappear in the welter of a diverse and competing range of disciplinary and political discourses.

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References


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