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Priority setting in health—a political economy perspective

MARIA GODDARD* AND KATHARINA HAUCK
Centre for Health Economics, University of York
ALEX PREKER
World Bank, Washington DC
PETER C. SMITH
Centre for Health Economics, University of York

Abstract: Most countries face high demands on their health care systems and have limited resources with which to meet them. Priority setting seeks to address these problems by proposing rules to decide which groups of patients or disease areas should secure favoured access to limited health care resources. The economic approach towards priority setting, particularly in the form of cost-effectiveness analysis, is commonly advocated. However, despite many decades of refinement of the technical and methodological issues arising from the use of economic evaluation in priority setting, decision makers continue to diverge frequently from the principles of economic evaluation. Our approach in this article is to highlight the potential contribution of models of political economy to understanding what constitutes rational behaviour when agents operate within political and institutional constraints. We argue that there may be potentially greater benefits to be gained from exploration and analysis of priority setting using models based on concepts such as median voter and competing interest groups, than from further efforts to refine the techniques of economic evaluation.

Introduction

Priority setting has become a central concern of health policy makers at both national and local levels. It can be defined as identifying systematic rules to decide which patients should secure favoured access to limited health care resources. The processes and instruments for setting priorities are attracting increased attention from a variety of institutional and disciplinary perspectives (Coulter and Ham, 2000).

* Corresponding author: Maria Goddard, Centre for Health Economics, University of York, York YO10 5DD, UK. Tel: +44 (0)1904 321417; Fax: +44 (0)1904 321454; Email: mg23@york.ac.uk

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If a health system were to rely entirely on market mechanisms for delivering health care, the priority-setting problem would effectively be delegated to the competitive pressures of supply and demand, without recourse to conscious policy making. However, almost no health systems rely to any great extent on unfettered health care markets. Instead, various rules, conventions, and constraints combined with the ability to pay determine who gains access to care. This jumble of influences often leads to apparently arbitrary and inconsistent outcomes, in terms of which patient groups get treated and how they are treated. The policy interest in setting health care priorities signals a desire to make the process of allocating health care resources more systematic and transparent.

Health economists have responded to this challenge by vigorously championing economic evaluation, in particular cost-effectiveness analysis (CEA), as the guiding principle for identifying priority treatments (Drummond and McGuire, 2001). CEA seeks to maximize health gain (however measured) subject to budget constraints. This implies ranking health care interventions according to their cost-effectiveness ratios by measuring health outcomes and costs of all alternative interventions. It reflects two of the major concerns of any health system – costs and health outcomes, and offers the prospect of rationality and transparency to an otherwise messy process. It has thus enjoyed a prime position in the priority-setting literature, and enormous efforts have been made to improve both the quantity and quality of economic evaluations. For example, the Health Economic Evaluations Database contained 28,500 references by April 2004 (http://www.ohe-heed.com) and the NHS economic evaluation database adds around 70 studies per month (http://www.york.ac.uk/inst/crd/nhsdhp.htm), adhering to criteria that aim to ensure the quality of the database contents.

There is a vigorous debate about CEA methodology. For example, there remain fundamental concerns about the normative foundations of economic evaluation and the competing virtues of a classical welfare or an extra-welfarist approach (Tsuchiya and Williams, 2001). Similarly, concerns about the treatment of fairness persist, even though progress has been made in the construction and application of equity-weighted quality of life measures. Even setting aside these fundamental issues of principle, a plethora of technical and methodological concerns remains. Space precludes their documentation here, but we have reviewed the extensive literature on these topics elsewhere (Hauck *et al.*, 2003). Key problems include choice of a summary measure of health outcome (QALYs, DALYs, HYEs); ability of summary measures to capture other benefits important to patients and the public; non-comparability of the values elicited with different health state value elicitation instruments; generalizability of studies beyond the study setting or country; choice of target population receiving the intervention; accounting for uncertainty in measuring costs and outcomes; inability to account for the opportunity costs of the cost-increasing

element of new interventions; and the requirement to consider portfolios of programmes, rather than individual technologies.

As a result of these debates, advances have been made in overcoming some of the technical and methodological challenges posed by the use of economic evaluation in the priority-setting process. Both researchers and users have driven forward developments that have improved the analytical techniques used in economic evaluation (Drummond *et al*., 1997b; Gold *et al*., 1996; Torrance *et al*., 1996). In particular, much attention has been paid to standardisation of study design and approach – recently for example through the World Health Organization guidelines (Murray *et al*., 2000) and NICE (National Institute of Clinical Excellence, 2001).

Yet, despite the best endeavors of economists over many decades, it is widely acknowledged that economic approaches to priority setting have had only limited impact in practice (Drummond *et al*., 1997a; Hoffmann and Graf von der Schulenburg, 2000; Hoffmann *et al*., 2002). Much has been written about the wide range of factors that may cause decision makers to deviate from strict cost-effectiveness criteria when setting priorities (Robinson, 1999), and economists have proposed a wide range of implementation strategies that seek to enhance the use of the results of economic evaluation studies (Cox *et al*., 2000; Drummond and Weatherly, 2000; Ginsberg *et al*., 2000; Haan and Rutten, 1987).

However, in this article we argue that it is not necessarily methodological shortcomings that are the main reason for lack of impact, but rather the wider context of public-sector decision making. From this viewpoint, although economic evaluation offers one approach to setting priorities, it may be equally rational for decision makers to behave in different ways, depending on the context in which decision making takes place. To this end, we focus on the potential contribution of models of political economy as a mechanism for understanding priority-setting decisions. With a few exceptions, these have not hitherto been applied to the health care priority-setting context (Robinson, 1999).

The political context of implementation

In seeking to explain why decision makers diverge from the economic evaluation approach, models of political economy examine the broader political, institutional, and environmental constraints under which decisions are made. They help us move from the normative approach to priority setting, based on what should be done, into the realm of positive approaches that attempt to understand what happens in practice. From this viewpoint, rational priority setting may not produce the Pareto optimal solutions suggested by the application of CEA, but instead be aimed at achieving other – perfectly rational – goals. This view of decision making, coming under the broad heading of 'public

choice' economics (Mueller, 2003), may capture important aspects of the priority-setting process.

Many models of political economy rest on two basic premises (Shugart, 1999). First, the same behavioural model that can be used to explain decision making in ordinary markets can also be applied to decision making in the public sector. Public policy makers are not benevolent maximizers of social welfare, but are motivated by their own self-interest. Firms seek to maximize profits, consumers seek to maximize utility, and policy makers seek to maximize concepts such as political support. The second premise is that, while policy errors are certainly possible, it is more informative to assume that the intended effects of a policy can be deduced from the observed effects, especially when such policies persist over time.

We consider below several models that describe how decision makers may react to political realities, relating them to the priority-setting context in health care. They all highlight the fact that choices made in health care will be to the advantage of some groups and to the disadvantage of others. We therefore examine the utility function of the decision makers, whom we generally refer to as the government, although it can sometimes be important to consider the interests of individual ministers or officials within government. Of course, there is likely to be a spectrum of government utility functions with respect to health care. At one extreme, the government may be concerned only with applying technically appropriate approaches to priority setting in a consistent fashion. At the other end of the spectrum, a government might be entirely self-serving, setting priorities in a way that offers it the best prospect of surviving and flourishing. Indeed, in the extreme, individual ministers may make decisions based on the implications for their personal advancement and wealth.

In practice, the most realistic scenario is somewhere in between the two extremes. Furthermore, policy makers are likely to consider the impact of policies on a variety of interest groups. It is therefore important to consider a range of public choice perspectives. In this short article, we briefly outline four models of political economy, discussing their relevance to the priority-setting context in both high- and low-income countries: the majority voting model; competing interest group model; models of bureaucracy; and rent-seeking models.

Majority voting models

The notion of the median voter was first presented by Hotelling (Hotelling, 1929) and focused on the politician as a maximizer of votes. The theorem showed that in a representative democracy, political parties tend to move towards the political position of the median voter in order to secure election (Anderson, 1999). Empirical results show that in many contexts the median voter model is at least as good – and often better – at explaining government spending decisions than competing models (Ahmed and Greene, 2000; Congleton and Bennett, 1995; Congleton and Shugart, 1990).

The median voter hypothesis highlights the importance to the government of obtaining the support of crucial electoral constituencies. In health care, this may explain why policy makers seek to direct resources towards key population groups at the expense of others, notwithstanding the apparently reasonable claims of the latter on resources from an efficiency or equity perspective. For example, all citizens perceive that they or their family may at some time need access to emergency health care or maternity services, and so the provision of such services is likely to receive widespread support. However, services directed at certain chronic conditions (for example, some mental illnesses) may receive less popular support because the median voter may not be able to perceive any personal or family need for such services. Even if the latter services are very cost effective, politicians seeking re-election may find it difficult to attach high priority to them.

An emphasis on the median voter may not necessarily yield outcomes that are intermediate between the preferences of the rich and the poor or the left and the right. For example, Epple and Romano (1996) show that when there is a mix of private and public provision, it may be the case that – for different reasons – both the rich and the poor prefer low levels of public spending: the rich because they would prefer private provision, the poor because they cannot afford the tax cost of larger public packages. In these circumstances it is the middle earners who prefer a larger public package, and the actual outcome may depend on the extent to which votes at the 'ends' of the income distribution (rich and poor) outweigh votes in the middle.

Interest groups

Voters may in general be ill informed and have little incentive to seek out information about the activities of government. However, interest groupings can influence priority-setting decisions when there is privileged access to information amongst some groups (Holcombe, 2001). In this situation, minority groups with the means and opportunity to organize themselves can sustain or threaten a government. The interest group model aims to explain why some groups of the population are more successful in maximizing their wealth than other groups and what impact this may have on resource allocation. It applies to any situation in which the monopoly power of the state can be mobilized selectively to benefit one group at the expense of the other and the most familiar application is in the analysis of regulation (Stigler, 1971). The model predicts a redistribution of wealth between different groups of the population in the form of transfers that may be cash or favours. Coalitions of individuals that have the lowest costs of organizing themselves (e.g. becoming informed, securing cohesion, lobbying effectively) will have a comparative advantage in demanding transfers when compared with groups facing high costs of organization. Small cohesive groups may often be successful in obtaining transfers at the expense of the larger

population whose interests are more diffuse and organizing costs are high (Olson, 1971).

In health care this may help explain why expenditures – especially in low-income countries (LICs) – are often focused on services for richer areas or groups at the expense of the poor, even where the latter offers greater scope for cost-effective health care (World Bank, 1993). Poorer groups and populations based in rural areas may be less informed, less literate, and have an under-developed infrastructure for the dissemination of information when compared with wealthier groups or those based in the urban areas where access to information resources is less limited. Similar examples can be found in higher-income countries where the focus of government may be on sensitive political issues such as the reduction in waiting times. The high priority placed on tackling this issue, which affects a relatively small group of patients, sometimes with relatively minor conditions, may be interpreted within this model as a response by politicians to the more media-friendly interests of this group when compared with groups suffering from mental illness or diseases associated with old age.

In a similar vein, taxpayers represent an important interest group. In particular, in LICs it is often the case that the tax base is highly dependent on a small minority of wealthy citizens. These citizens tend not to suffer to nearly the same extent from the communicable diseases and chronic conditions suffered by poorer citizens. In a fully democratic system, as the proportion of poor in the overall electorate is relatively large, the median voter is likely to belong to the group of the poor. The median voter model would predict that most tax-financed health care expenditure would be devoted to illnesses of the poor in order to secure support of the median voter.

However, such a policy choice would imply very large financial transfers, through the tax regime, from the rich to the poor. In short, the rich may have to make big tax contributions to a public package that does not benefit them greatly. This may lead to resistance amongst the rich to the necessary tax contributions, leading to tax evasion, increased collection costs, or even emigration. The government may therefore feel constrained to include some provision for the health care needs of the rich in the essential package of care in order to retain the viability of the tax base, even when the associated treatments do not qualify for inclusion on strict cost-effectiveness criteria. This offers an alternative interest group explanation for the apparently excessive expenditure in some LICs allocated to illnesses of the wealthy, when judged on strict cost-effectiveness criteria.

Even organizations seeking to provide purely 'technocratic' solutions to priority setting by providing scientific evidence on the cost effectiveness of interventions (e.g. the institutions in many countries charged with health technology assessment) will be influenced by interest groups in the selection of interventions chosen for assessment (Stevens and Milne, 2004; Webster, 2004).

NICE is an example of an institutional arrangement where views of different interest groups are actively sought as part of the decision-making process (Oliver *et al.*, 2004).

Interest groups can take a variety of other forms. Providers – the health care professions – form a crucial interest group in many countries and governments are often wary of alienating doctors who are in a strong position to mobilize opposition to chosen priorities. Doctors may also have credible threats that can undermine the implementation of policy shifts, ranging from overt threats such as quitting the workforce to subtle non-cooperation and adherence to traditional patterns of care. We have not found a coherent body of literature that documents constraints on government action through the actions of the clinical profession, but any priority-setting process may benefit some groups at the expense of others and the power of the disadvantaged group may be sufficient to affect government choices. Indeed, it has been argued that the retreat from traditional models of managed care in the USA has in large part been due to pressure from physician and consumer groups in a backlash against government and insurers' attempts to cut costs through limiting access and rationing care (Robinson, 2001). In some LICs, doctors may have a preference for high-technology medicine, and be alienated by policy changes that seek to develop cost-effective care in community centres. Such alienation may have profoundly important consequences, for example in the form of shifting employment from the public to the private sector, or emigration.

Finally, supra-national interest groups such as pharmaceutical companies and donor agencies can play a crucial role in shaping a nation's priority-setting agenda, especially in LICs. It has been suggested that donor funding for specific disease programmes often fails to match the prevalence of the diseases in recipient nations (WHO, 2003), suggesting that the interests of competing groups of sick people or associated commercial concerns are influencing the decision-making process.

The existence of interest group considerations may therefore introduce additional constraints into the priority-setting process, such as requiring that a certain proportion of available funds are spent in particular areas or on specific programmes; or that policy changes do not alienate powerful groups. In general, such constraints will result in departures from conventional cost-effectiveness rules.

Bureaucratic decision making

Another locus of potential self-interest is represented by the bureaucratic models originally developed by commentators such as Tullock (1965) and Niskanen (1971) and is still prevalent in the public choice literature (Mueller, 2003). The focus of these models is on the interests of 'bureaucrats' in maximizing their influence and the effect of their behaviour on the level and nature of government output, where the concept of the bureaucrat is interpreted broadly

to embrace all public sector actors with significant influence over the allocation of resources. The essence of this approach is the belief that bureaucrats receive power and remuneration in proportion to the size of their enterprise, with the implication that a bloated and inefficient public sector emerges if there is a lack of effective control on the growth of government.

Under the bureaucratic model, government agencies will seek to implement policies that maximize the size of their own enterprises and to undermine activities that are outside their direct control. They are able to do so because they have an informational advantage over their political counterparts. Bureaucrats may therefore influence the pattern of health care expenditures in ways that do not accord with efficiency and equity considerations. It is not easy to find direct applications of this model to the priority-setting process in the health care sector. One illustration of the tendency for bureaucracies to maximize their own budgets and sphere of influence at the expense of other considerations may be the continuing failure to achieve real pooled health and social care budgets in England – despite the potential benefits to patients, they might bring – because of the reluctance of each sector to relinquish control.

Indeed the centralized UK National Health Service may be particularly fertile territory for exploring the bureaucratic model. For example, the impact on national, regional, and local priorities of successive re-organizations of English health care sector may be a fruitful area for research. Similarly, the rapid increase in the number and type of regulatory bodies in English health care may provide an insight into the strategies employed by competing bureaucracies to ensure their success. Such strategies may include expanding their sphere of influence into areas covered by other bodies, developing informational advantages over others by getting close to front-line groups, or attracting extra resources.

In the public sector services, it has also been argued that 'street-level bureaucracy' plays a powerful role in the way in which policy is implemented (Lipsky, 1980). The considerable degree of discretion accorded to health care workers ('street level bureaucrats') in determining the nature, amount, and quality of benefits provided by their agencies has a powerful impact on the rationing of resources, and the factors governing their decisions may not be those based on cost-effectiveness principles (Hudson, 1997).

Rent-seeking models

The health care system in most countries is the result of a complex mix of institutions, regulations, conventions, and historical accidents. These arrangements give scope for rent-seeking behaviour – the process whereby providers compete to appropriate the producer surpluses created by imperfectly competitive markets (Krueger, 1974; Tullock, 1967). When the government undertakes activities, the possibility is created for gains to be transferred to individuals for their own advantage, reducing the societal benefits produced.

This approach has been used to explain why, in LICs, urban social groups have gained much more income than the majority of the population who live in rural or shantytown areas (Kimenyi and Tollison, 1999; Pedersen, 1997). The distribution of foreign aid and the revenue generated by the exploitation of agriculture has been distributed differentially between those employed in the public and private sectors and in urban and rural areas, reflecting the distribution of political influence. The particular features of primary health care also provide greater scope for rent seeking as many services are relatively easily transferable – for example, resources meant for the cure of communicable diseases (e.g. antibiotics) can be easily transferred to the treatment of other conditions.

Outside of LICs, the fact that it has taken many decades to bring about any significant transfer of resources from the acute to community sector – despite the stated intentions of successive governments – may reflect the success of rent-seeking behaviour by providers. Indeed, in the early days of the English internal market, concern that resources meant for the provision of community services may be appropriated for use in the acute care sector was one reason for the prevention of mergers between acute and community hospitals (NHS Executive, 1996).

Conclusions

Priority setting in health care is undoubtedly a complex phenomenon. Economic evaluation methodology advocates maximizing health gain subject to a budget constraint, and thus offers the decision-maker a 'rational' approach to making policy choices. However, despite many decades of advance in addressing the technical and methodological issues arising from the application of economic evaluation in priority setting, it is widely recognized that it has had less of an impact in practice than might be expected if decision makers were behaving according to the principles of CEA. In this paper, we have argued that economic approaches that consider explicitly what constitutes rational behaviour when agents operate within a political context, can be very useful in explaining priority setting in the health care context. In particular, models of political economy offer a formal and structured way of considering some of the wide range of influences on priority setting in practice that commentators have described (Robinson, 1999). Indeed, even when priority-setting decisions are finally made, having taken due account of the influence of the political context, there is a further stage – that of policy implementation – that is also subject to a wide range of political and social influences. That is, there is often a further gap between what the decision makers wish to happen and what is implemented in practice (Bardach, 1977).

We have merely scratched the surface of a range of theoretical approaches that can be explored within the context of priority in health care. Our intention has been to sketch out a rich and challenging research agenda. We argue that there is great scope for a much better understanding of decision-making behaviour – both in low- and high-income countries. A range of hypotheses can be tested by examining the priority-setting process itself and the resulting patterns of health care expenditure, both on a cross-sectional basis between countries, and longitudinally within countries, particularly when they have experienced political and organizational change.

We would not challenge the desirability of seeking through the use of CEA to maximize the health gains of the health care system. However, health economists have hitherto been reluctant to stray far from their traditional economic tool-kits (Pederson, 2004) and have not yet taken advantage of the full range of economic approaches at their disposal. Only by securing a better understanding of the decision-making process can the impact of CEA be enhanced. We would argue that this can readily be achieved by augmenting our understanding of the political context of priority setting, using a variety of well-established models of political economy.

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