Deciding how NHS money is spent: a survey of general public and medical views

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Abstract

Objectives To examine the validity of the Prioritization Scoring Index (PSI) methodology by obtaining the views of our local population and clinicians regarding the criteria and weightings that should be used in deciding how NHS money is spent.

Background We have used a PSI in Argyll and Clyde to allocate new money since 1996 and to determine priorities for our 1999/2000–2003/2004 Health Improvement Programme (HIP). Since the criteria and weightings for this methodology were developed subjectively, we sought to validate these by consulting local people and to change our methodology to take account of wider population views.

Methods A postal questionnaire was sent to 1969 members of the general public, all 314 general practitioners and all 189 hospital consultants in Argyll and Clyde in March 1999. A reminder was sent after 4 weeks. Questions were asked about general funding and prioritization in the NHS and about specific issues relating to potential criteria for prioritization, including those used in our PSI methodology. Responses were analysed quantitatively in the Statistical Package for the Social Sciences (SPSS) and qualitatively through examination of the responses to open questions.

Results The response rate was 51% for the general public and 71% for GPs and consultants. Respondents from the general public were broadly representative of the Argyll and Clyde population. The main findings were that: greater importance should be given to care that improves health, quality of life or prevents ill health rather than to cost, or to government and local health board priorities; half of the general public and most clinicians thought there should be a limit on NHS funding; extra money for the NHS should come from the national lottery (general public) or higher taxes on cigarettes and alcohol (clinicians); doctors should have the greatest influence in deciding how NHS money is spent; a higher priority should not be given to the health-care needs of younger people rather than older people. Our public and clinicians would allocate approximately 50% of the prioritization weighting to direct patient benefits, 25% to the cost of health-care and 25% to strategic health issues.

Conclusions Consideration of public and clinician views suggests that a revised PSI should place greater weight on benefits to patients and lower weight on the cost of health-care.

Introduction

Involving the public in health-care decision-making is receiving increasing attention and the importance of public consultation has been emphasized.¹ Of particular interest has been discussion around the prioritization, or rationing, of health services and the extent to which the public should be involved in this debate.² It is clear, however, that there is scope for greater local involvement in decision-making.³

Health-care has always been rationed, but the ways in which rationing takes place are changing and becoming more explicit.⁴ Demands for health-care invariably exceed available resources and most changes that are recommended to improve health and health-care increase costs, at least in the short term. If we are to operate an efficient NHS we have to determine relative priorities among the many available health interventions. Although implicit rationing may often be the most sensitive approach at patient level,⁵ there are circumstances where competing bids for funding have to be prioritized in ways that are open and fair.

In Argyll and Clyde we have, since 1996, used a Prioritization Scoring Index (PSI)^{6,7} to prioritize bids for non-recurring funding from specific allocations. We also used the PSI in a wider exercise in 1998 to determine priorities for recurring funding and inform the Health Improvement Programme.⁸ The PSI is a framework for scoring and ranking health interventions. Bids are requested, from NHS trusts and other partners, on a *pro forma*. The bids received are validated by a Health Board team, scored by a multidisciplinary panel of around 20 people and ranked according to their 'utility scores' and the 'cost per person' receiving the intervention. The utility scores comprise nine criteria, some relating to direct patient benefits and some to strategic issues. The overall PSI ranking is an

average of the utility and cost rankings. Funding decisions are then made, based on the ranked lists produced, by the Health Board's management team. In this way, the PSI is used as a tool to inform decision-making.

Prioritization exercises using the PSI have been well received in the NHS in Argyll and Clyde. An evaluation of the PSI⁶ demonstrated support for continuation of the PSI process among key stakeholders and highlighted some areas for improvement. Some comments related to the perceived validity of the criteria and weightings used in the PSI. We recognized that the criteria and weightings used were determined subjectively by a small number of people, albeit in a structured way and with extensive piloting, and planned to seek wider consultation about this aspect of the methodology.

A small group from Argyll and Clyde Health Board and Argyll and Clyde Health Council set out to explore the wider population views on these issues. In particular, we sought to investigate how the PSI weightings compared with those that would be allocated by our local population. Previous studies have highlighted differences in opinion on prioritization between the general public and the medical profession.⁹⁻¹² Consequently, we decided to send a questionnaire to a sample of the public in Argyll and Clyde and to all our local general practitioners and hospital consultants to elicit their views.

In this paper, we consider the extent to which the priorities of our public and clinicians mirror those in the PSI and examine any differences between the views of these two groups. We plan to discuss the results of this survey with key NHS decision-makers, to examine the validity of the PSI weightings and, if necessary, to revise the criteria and weightings in our prioritization methodology.

Methods

We decided that a postal questionnaire was the most appropriate way of obtaining the views of the Argyll and Clyde population and clinicians. The draft questionnaire was piloted using a public focus group and by sending the questionnaire to a sample of the local population.

The questionnaire asked closed, open and Likert scale questions concerning NHS funding and priority setting, potential criteria for prioritization and the relative weights that the public and clinicians would place on these criteria. Most of the potential criteria were contained in the PSI⁷ and others were identified from prioritization literature and from the qualitative research at the piloting stage.

We distributed the questionnaire to a sample of 2472 individuals in March 1999. We sent a reminder letter, enclosing another copy of the questionnaire, to those who had not returned the questionnaire within 1 month of the first mailing.

The sample contained four groups:

- Argyll and Clyde Health Board residents (1494) taken from the Community Health Index (CHI). The CHI is a database of the Scottish population, compiled mainly from patients registered with GPs.
- All members of REACT (475). REACT is a self-selecting group of Argyll and Clyde residents who have volunteered to be consulted by the Health Board from time to time on issues relating to health and health-care services.
- All GPs (314) working in the Argyll and Clyde Health Board area.
- All hospital consultants (189) working in the Argyll and Clyde Health Board area.

The CHI and REACT groups, together, provided a representative sample of the Argyll and Clyde population. The REACT group was augmented by a stratified, random sample of Argyll and Clyde residents taken from the CHI to provide a representative sample of the local population in terms of age, gender and deprivation.

We entered the questionnaire responses into an ACCESS database, which coded the

responses. We then exported the data into SPSS for analysis. We also used a simple coding framework to perform a qualitative analysis of the responses to open questions and additional comments made by respondents.

Results

Response rate

The overall response rate was 55%. The response rate for the public (CHI and REACT combined) was 51% and for clinicians (GPs and consultants combined) was 71%.

Respondents from the general public were broadly representative of the Argyll and Clyde population, although there was an under-representation of the under 35 years age group and an over-representation of the 55–74 years age group.

Section 1: General issues around NHS funding and priority setting in health-care

We asked: 'Do you think there should be a limit on how much money the NHS is allowed to spend?'. Forty-eight per cent of the general public answered 'Yes', 45% answered 'No' and the remaining 7% answered 'Don't know'. In contrast, 84% of clinicians answered 'Yes', 12% answered 'No' and 4% answered 'Don't know'. The difference between the percentage of clinicians and the public answering 'Yes' was statistically significant (difference = 36%; 95% CI = (31%, 41%); $P < 0.001$).

We then asked: 'If the NHS were to receive more money, where do you think the extra money should come from?' We gave a list of possible options and asked respondents to select up to five. The results of this question are shown in Table 1.

The most popular option among the public for providing extra money to the NHS was the national lottery (80%) and for clinicians was higher tax on cigarettes and alcohol (79%).

The least popular options for providing extra money to the NHS, for both groups, were education, housing and pensions (all < 5%).

Table 1 Preferred sources of additional funding for the NHS

	General public			Clinicians	
	%	<i>n</i>		%	<i>n</i>
National lottery*	80%	(795)	Higher tax on cigarettes and alcohol*	79%	(279)
Higher tax on cigarettes and alcohol*	64%	(636)	Higher income tax*	55%	(194)
Tax on pollution, e.g. cars or factories*	46%	(459)	Charge for wider range of health-care*	41%	(145)
Defence	40%	(401)	Defence	37%	(131)
Higher income tax*	37%	(368)	National lottery*	36%	(128)
Higher national insurance	33%	(327)	Higher national insurance	35%	(124)
Social security benefits	21%	(213)	Tax on pollution, e.g. cars or factories*	28%	(99)
Transport and roads	11%	(114)	Increased charges for health-care*	23%	(80)
Charge for wider range of health-care*	8%	(81)	Social security benefits	17%	(61)
Increased charges for health-care*	7%	(70)	Transport and roads	1%	(4)
Housing	4%	(43)	Pensions	1%	(3)
Education	3%	(30)	Housing	0%	(1)
Pensions	3%	(25)	Education	0%	(0)
Other	15%	(148)	Other	9%	(33)

Percentages refer to the percentage of respondents who answered the question who selected each option. Numbers in brackets refer to the number of respondents selecting each option. 99% of those who returned the questionnaire at least partly filled in answered this question.

*The difference between the percentage of the general public and clinicians selecting this option is statistically significant.

Other suggestions for providing extra money to the NHS included: more efficient management of the NHS/reducing NHS bureaucracy; increasing efficiency elsewhere in government; reducing MPs' and civil servants' salaries; introducing an NHS lottery; reducing social security benefits fraud; and fines for those failing to keep hospital and GP appointments.

We asked how much influence various groups should have in deciding how NHS money is spent. These results are shown in Table 2. Both groups thought that:

- GPs and other doctors should have the greatest influence, followed by nurses.
- NHS managers, the government and the public should have some, but less, influence.

Table 2 How much influence do you think the following groups should have in deciding how NHS money is spent?

	A lot of influence	Some influence	No influence	Don't know
<i>Responses from the general public</i>				
Other doctors, e.g. hospital	73% (694)	25% (235)	1% (13)	1% (10)
GPs*	61% (585)	36% (341)	1% (14)	1% (13)
Nurses and other professionals*	56% (536)	38% (362)	5% (44)	1% (14)
General public*	30% (289)	58% (548)	10% (98)	2% (15)
Government*	30% (286)	55% (513)	13% (126)	2% (16)
NHS managers	26% (246)	53% (494)	18% (171)	2% (18)
<i>Responses from clinicians</i>				
GPs*	73% (259)	25% (89)	1% (4)	0% (1)
Other doctors, e.g. hospital	70% (248)	29% (101)	0% (1)	1% (3)
Nurses and other professionals*	49% (172)	46% (162)	4% (14)	1% (3)
Government*	42% (148)	50% (176)	7% (24)	1% (5)
NHS managers	31% (109)	57% (202)	11% (38)	1% (3)
General public*	25% (86)	70% (243)	4% (14)	2% (6)

Percentages refer to the percentage of respondents selecting each option. Numbers in brackets refer to the number of respondents selecting each option. Groups are ranked in descending order according to the percentage of respondents who think each group should have 'a lot of influence'.

*The difference between the percentage of the general public and clinicians who think this group should have 'a lot of influence' is statistically significant.

Suggestions for other groups who should be involved in deciding how NHS money is spent included: patients and user groups; charities and voluntary organizations; pressure groups for particular diseases or conditions; local authorities (especially social workers); carers; and local health councils.

We asked whether the health-care needs of certain groups of the population should be given a higher priority than other groups. The responses to these questions showed that:

- A majority (69% of the general public and 73% of clinicians) would not give a higher priority to the health-care needs of young people rather than older people.
- A majority (85% of the general public and 78% of clinicians) would give a higher priority to the health-care needs of people who have a life-threatening illness rather than people with less serious conditions.
- Opinion was divided over whether or not a higher priority should be given to the health-

care needs of people who do not contribute to their own illness (e.g. non-smokers), rather than those who do (48% of the general public and 41% of clinicians would give a higher priority to this group).

- Other groups who should receive a higher priority for health-care include: the elderly; people with chronic illnesses; people with physical disabilities; children; people who are mentally ill; people living in poverty; and people who are terminally ill.

Section 2: The relative importance of the criteria contained in the PSI

The answers to these questions indicate the relative importance that the general public and clinicians place on the criteria contained in the PSI. We asked respondents to select a value on a scale that ran from 0 (not important) to 10 (very important). Table 3 shows the median values chosen by the general public and clinicians for each criterion.

Table 3 Relative importance of criteria contained in the PSI

How important do you think it is that:	Median value	
	General public	Clinicians
1. Consideration is given to the improvement in health or quality of life for patients? (in particular)	10	9
(a) NHS money is spent on health-care that prevents future illness?	10	9
(b) NHS money is spent on health-care that tries to help patients have a better quality of life?	9	9
(c) NHS money is spent on health-care that extends life?	9	8
(d) NHS money is spent on allowing staff to spend more time with patients?	8	8
(e) NHS money is spent on making the health-care environment pleasant for patients?	6	6
2. Consideration is given to how much health-care costs?	5	6
3. Consideration is given to other things that help put in place government and local health board policies? (in particular)	5	5
(a) The same health-care is available to everyone?	10	9
(b) There is evidence that health-care is effective?	8	9
(c) NHS money is spent on local health board priorities?	8	7
(d) NHS money is spent on health-care that is aimed at a large number of people rather than a small number of people?	7	7
(e) All types of health-care are available at your nearest hospital?	9	4
(f) NHS money is spent on reducing the amount of time patients wait for non-emergency treatment?	7	4
(g) NHS money is spent on national government priorities?	6	5

Responses are on a scale that runs from 0 (not important) to 10 (very important). The median, rather than the mean, is given because the distribution of values for each question tended to be skewed (rather than being normally distributed). In such circumstances the median is considered to be a more accurate indicator of the 'majority' view than the mean.

Criteria	Current PSI weightings (%)	Public and clinician preferred weightings (%)
Direct benefits to patients	19	47
Prevention of future illness	4	11
Quality of life	6	10
Length of life	9	10
Staff time spent with patients		9
Health-care environment		7
Strategic issues	31	25
Equity of access (health status inequalities)	6	5
Evidence of effectiveness	6	4
Local health board priorities	2	4
Number of people receiving intervention		3
Local access	6	3
Waiting time for non-emergency treatment		3
National government priorities	2	3
Appropriateness	3	
Expressed demand	6	
Health-care cost	50	28
Total	100	100

Table 4 Major differences between current PSI criteria and weightings and those preferred by the public and clinicians

The main conclusions that we can draw from these responses are that:

- Much greater importance should be given to whether or not health-care improves health or quality of life, rather than to cost, or to government and local health board policies.
- It is very important that NHS money is spent on preventive health-care and care which tries to help patients have a better quality of life.
- It is very important that the same health-care is available to everyone.
- It is relatively less important that NHS money is spent on making the health-care environment pleasant for patients.

The public placed much greater importance than clinicians on two issues. These were the availability of all types of health-care at the nearest hospital and waiting times for non-emergency treatment.

We obtained median values for three broad headings: (i) direct patient benefits (such as improvement in health or quality of life for patients); (ii) cost of health-care; and (iii) strategic issues (such as government and local health policies). We then used these median values to allocate percentages weightings to the broad

headings in our revised PSI methodology (see Table 4).

Discussion

This discussion refers to comments made by respondents in addition to the aspects of the questionnaire reported in the results section.

Context and limitations of our study

We reviewed other similar studies, for comparison, and found that the responses to the questions in section 1 were similar to those presented elsewhere.^{10–13} One notable exception was that the majority of our respondents would not give a higher priority to the health-care needs of young people rather than older people, which contradicts some previous work.¹⁴

We used a questionnaire methodology that was feasible within our resources. This approach is less resource intensive than some alternative approaches, such as willingness to pay and conjoint analysis.¹⁵ We are currently working with colleagues in Aberdeen to investigate the advantages and disadvantages of alternative

approaches to establishing the weights in a prioritization methodology such as ours.

Eliciting wider views on prioritization criteria and weights

We have achieved our aim of identifying the weights that our local public and medical professionals would allocate to the criteria used for explicit prioritization. We assessed the validity of responses by piloting in focus groups of the general public. The major differences between the current PSI criteria weightings and those allocated by our sample of the public and clinicians are shown in Table 4. The current PSI gives 50% weight to 'utility', which comprises direct patient benefits and strategic issues, and 50% to 'cost per person'. The results show clearly that both public and medical professionals would allocate approximately 50% of the total weighting to patient benefits, a lower weighting of around 25% to cost and the remaining 25% to strategic issues. To take account of public and clinician views we would have to incorporate some additional criteria and reallocate our PSI weightings, giving more weight to patient benefits and less weight to the cost of health-care.

Public vs. clinician views

There was a striking level of consistency between the views, values and preferred weightings of the public and clinicians working in Argyll and Clyde. There were also some differences in opinions. For example, clinicians did not rate highly access to local services and waiting times, which are important to local people and constitute a significant part of national policy. The low priority given to waiting times by clinicians may reflect their greater understanding of the pressures facing the NHS. This theme is also illustrated in doctors' reluctant support for limiting the NHS budget, while the public was less enthusiastic about making restrictions.

Ethics and equity

Equity of access on a national basis was given a high rating that perhaps reflects the media attention given to 'treatment by postcode'. Other issues seemed to be more difficult for respondents. Many suggested that decisions should be made on an individual basis and expressed their discomfort at 'playing God'. This is perhaps also true of NHS decision-makers, who 'wish to find ways to have the public take (or at least share) ownership of the tough choices they face in allocating increasingly scarce resources'.¹⁶ Respondents were also cautious about the adoption of blanket policy, particularly regarding extension vs. quality of life issues and availability of health-care for those who 'contribute' to their own illness.

Commentators in the area of prioritization and rationing have warned of a potential conflict between the idealistic public view and the more realistic perspective of NHS professionals. In particular, there is a tendency for the public to focus on the 'glamorous' acute sector and ignore the more mundane NHS services, such as provision for the mentally ill or those with learning disabilities. This was not reflected in our study. The top seven groups mentioned by respondents were vulnerable groups such as children, the elderly, those living in poverty and specific patient groups such as the chronically ill, the disabled, the mentally ill and those with terminal illnesses.

Cost issues

Issues relating to cost were not highlighted as key to prioritization decisions amongst respondents. This finding is important, as the cost of care affects the number of people who can be treated within the available resources. This view corresponds with other surveys in which members of the public consistently say that more should be spent on the NHS and that they would be willing to pay more tax for this.¹⁷

Taking account of public and medical views

Differences between the views of the public and clinicians raise interesting questions about the extent to which public participation in health decision-making should be 'informed' and how the results of studies such as this should be used. Taking account of public views may result in a different NHS that may not represent the most cost effective or equitable allocation of resources. Whose views are most important? Public preferences regarding who should be involved in health decision-making are relevant here. For example, in our survey and others,^{12,13,18} members of the public say that they want doctors to have greatest involvement. The public seem to want to have some influence in health-care systems but do not want the responsibility of having to make decisions. This suggests that we need to adopt innovative and meaningful ways of incorporating public views in NHS decision-making.

One way in which we can start to involve the public in our decision-making is to use their views in adapting our prioritization (PSI) methodology. We would be happy to amend the PSI weightings according to local preferences if our key stakeholders agree. The way forward will be determined when discussions have taken place within the NHS in Argyll and Clyde regarding the results presented here and those reported in the recent evaluation of the PSI methodology and processes. We envisage that an amended PSI will follow.

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