

The Relevance of Indirect Benefits and Direct Costs for Setting Priorities in Health Care

John McKie¹, Jeff Richardson²,
Malcolm Anderson³, Angelo Iezzi⁴, Ros Hurworth⁵ &
Bradley Shrimpton⁶

1, 2, 3, 4 Centre for Health Economics, Monash University
5, 6 Centre for Programme Evaluation, Melbourne University

Indirect Benefits - Initial Mail Survey

- *Indirect benefits* = the early return to work of patients, their retention in the workforce when they would have otherwise died, increased productivity, etc.
- *'Production losses due to illness and production gains due to health care influences the wealth of society and should therefore be incorporated in economic evaluations of health care programmes'* (van Roijen, L., Koopmanschap, M.A., Rutten, F.F.H. & van der Maas, P.J. (1995). Indirect Costs of Disease: An International Comparison. *Health Policy*, 33(1), p. 16).
- Distributive implications: advantage working people, especially those with high incomes, disadvantage the elderly, the long-term unemployed, the working poor, the chronically ill and the permanently disabled.

Indirect Benefits - Initial Mail Survey

Summary Results

Proposal	Percent Support (Weighted)			No of Responses
	(Strongly) Agree	Neutral	(Strongly) Disagree	
1. People who pay the highest taxes should have priority access to Medicare services, if this allows them to return to the workforce earlier.	5.9 (6.2)	9.9 (9.0)	84.2 (84.7)	355
2. Those who pay the highest taxes should have a higher priority for life-saving organ transplants (kidney, heart, etc.), if there are not enough organs for all patients who need them.	5.0 (6.2)	4.7 (3.5)	90.2 (90.3)	359
3. High tax-payers should be able to receive very costly drugs under Medicare that are not available to other Australian's, provided they pay more in tax than it costs for the drugs.	11.7 (12.3)	4.9 (3.8)	83.4 (83.9)	350
4. When resources are limited, people who contribute more to society should have a higher priority for medical care in a public health system like Medicare.	7.9 (8.8)	5.1 (5.2)	87.0 (86.0)	352
5. Only medical 'need' should count in deciding who receives medical care in a public health system like Medicare, not a patient's contribution to society.	88.6 (87.5)	3.4 (3.6)	8.1 (8.9)	349

Indirect Benefits - Initial Mail Survey

Results

- Both equity and efficiency important for those who agreed with incorporating indirect benefits.
- Greater support for indirect non-pecuniary benefits.
- The results imply that respondents would reject a policy that could, in principle, increase the availability of medical services. This might mean that fewer lives can be saved, fewer diagnostic tests performed, etc.

Indirect Benefits - Follow-Up Study

Aims

- Follow-up questions on indirect benefits were included in the *2006/7 Monash Health and Social Values Survey*.
- Aims:
 - (a) To make even clearer to respondents the opportunity costs of failing to take account of indirect benefits so there could be no serious doubt that they were aware of the implications of their choices.
 - (b) To further investigate respondents' reasons for downplaying the importance of indirect benefits.

Indirect Benefits - Follow-Up Study

Setting

- A hospital has approached the government to fund two health programs: Program A and Program B. Each program would cost \$2 million and would cure 40 patients per year, all of them equally ill. The government has agreed to provide *half* of the requested funding → only one program can be funded.
- Evaluate the following proposal:
 - ‘If program A is given only to patients who pay \$50,000 per year or more in tax, then program B can be funded from the tax that is paid by patients in Program A when they return to work ($\$50,000 \times 40 \text{ patients} = \$2,000,000$).’
- Implementing this suggestion would result in both programs being funded, and 80 patients could be treated each year instead of 40. However, it would mean that Program A would only be available to high tax-payers. ‘Program A would not be offered to the long-term unemployed, the elderly (unless they were self-funded and paying $\geq \$50,000$ tax p/a), the very young, or those performing home duties.’

Indirect Benefits - Follow-Up Study

Results

Question	Percent Support (N)			No of Responses
	Yes	No	Unsure	
Q1. If you could be <i>ABSOLUTELY CERTAIN</i> that the taxes gained from program A would be used to PAY FOR PROGRAM B would you support the suggestion?	43.8 (126)	33.3 (96)	22.9 (66)	288
Q2. If you could be <i>ABSOLUTELY CERTAIN</i> that the taxes would increase the government's HEALTH BUDGET , but would not necessarily be used specifically to pay for program B, would you support the suggestion?	11.8 (34)	65.1 (188)	23.2 (67)	289
Q3. If the taxes would only contribute to GENERAL TAX REVENUE , but would not necessarily be specifically used to pay for program B, or for health care, would you support the suggestion?	3.4 (10)	83.2 (242)	13.4 (39)	291

Indirect Benefits - Follow-Up Study

Discussion

Two possible explanations for the differences between the two surveys:

- (a) It is possible that respondents held a particular view about their NHS: namely, that the objective of Medicare is the maximization of health rather than welfare generally (subject to ethical and budget constraints).

However, the 50% who would *not* support the suggestion, may have had wider concerns than just health – e.g. minimising the damaging social effects of envy (and thus loss of utility) that derive from wealth-based discrimination.

- (b) While not rejecting the use of Medicare to achieve other (non-health related) social goals, respondents may have been sceptical that the tax generated by including indirect benefits would be used for a beneficial purpose if it was not pre-committed to an identifiable (health) program.

Indirect Benefits - Follow-Up Study

Discussion

- Governments should take no notice of public preferences that are based on a lack of appreciation of what is in the public's best interests. Indirect benefits must be included in an economic analysis if the total benefits of a program or service are to be maximized.
- However, the achievement of efficiency is but one objective of most national health schemes. Another main objective is equity, and indirect benefits are tightly linked to particular economic characteristics of patients in almost exactly the way an NHS seeks to off-set.

Indirect Benefits - Follow-Up Study

Conclusions

- Previous studies that have detected hostility towards the inclusion of indirect benefits in evaluations of health services may have been picking up on a degree of mistrust in government and/or bureaucratic management of the health budget.
- About half of the Australian public rejects the inclusion of indirect benefits in economic evaluations of health programs and services even under the most favourable conditions: that is, when outcomes are certain, identifiable, and health-related.
- There is a willingness to sacrifice health benefits to secure equity goals within the public health sector, even when the opportunity costs of doing so are made very clear.

Direct Costs - Discussion Group Study

Key Question

- Other things being equal, should patients who can be treated at a low cost have priority over high cost patients, because this allows more patients to be helped in the context of a limited budget?

Direct Costs - Discussion Group Study

Previous Studies

- Nord, E., J. Richardson, A. Street, H. Kuhse and P. Singer (1995). 'Who Cares About Cost? Does Economic Analysis Impose or Reflect Social Values?' *Health Policy* 34(2): 79-94.
- Abelson, J., J. Lomas, J. Eyles, S. Birch and G. Veenstra (1995). 'Does the Community Want Devolved Authority? Results of Deliberative Polling in Ontario.' *Canadian Medical Association Journal* 153(4): 403-412.
- Abellan-Perpiñán, J.-M. and J.-L. P. Prades (1999). 'Health State After Treatment: A Reason for Discrimination?' *Health Economics* 8(8): 701-707.

Direct Costs - Discussion Group Study

The Present Study

- Semi-Structured Discussion Groups: participants can defend and explore their own ideas, hear from other people and question each other ... facilitates reflective, considered views.
- 41 participants, 6 groups, 6-8 people per group, 1-1½ hours per session.

Direct Costs - Discussion Group Study

Composition and Conduct of the Groups

- Participants selected purposively to include a spectrum of ages, an assortment of occupational groups, people with different levels of income and educational backgrounds.
- The study was exploratory, with the aim of detecting different viewpoints held in the community, but not on making generalisations to larger populations.
- Groups were moderated by 'complementary moderators' consisting of a member of the research team with expertise in the facilitation of group discussions, and a second who could answer questions and provide additional information to assist deliberations.
- The groups were tape-recorded with all tapes transcribed in full. Transcripts were then coded, beginning with a basic set of codes established through a review of the literature. Codes were maintained, adapted, added to or collapsed following further close readings of the text.

Direct Costs - Discussion Group Study

Choice of Principle Exercise

Final positions

Alternative	No
1. Among patients who are equally ill, those who can be helped at low cost should have priority over those who can be helped at high cost, because this will allow more people to be helped when money is limited.	9
2. It is unfair to discriminate against those who happen to have a high cost illness. Priority should therefore not depend on the cost of treatment.	15
3. It is unfair to discriminate against those who happen to have a high cost illness. Priority should therefore not depend on the cost of treatment - except in cases where costs are extremely high.	15
Unable to choose	2
Total	41

Direct Costs - Discussion Group Study

Budget Allocation Exercise

- Participants were asked to imagine they were members of a hospital committee responsible for allocating a budget between two groups of equally ill patients.
- The cost of treating each patient in the first group (Disease 1) was \$40,000, and of treating each patient in the second group (Disease 2) was \$20,000.
- Participants were shown eight ways a budget of \$12 million might be distributed among these two groups of patients.
- The benefits and consequences - in terms of total patients treated and not treated - were made very clear.

Direct Costs - Discussion Group Study

Results – Budget Allocation

Options for allocating a hospital budget

	Options							
	1	2	3	4	5	6	7	8
Number treated	All money for low cost patients		Same money for both diseases		Same number of patients		First come, first served	
Disease 1 (Cost/patient \$40,000)	0	50	100	150	200	250	300	?
Disease 2 (Cost/patient \$20,000)	600	500	400	300	200	100	0	?
Total Treated	600	550	500	450	400	350	300	Approx 400
Number Not Treated	600	650	700	750	800	850	900	Approx 800
Total Cost	12m	12m	12m	12m	12m	12m	12m	12m

Direct Costs - Discussion Group Study

Results – Budget Allocation

Options for allocating a hospital budget

	Options							
	1	2	3	4	5	6	7	8
Number treated	All money for low cost patients		Same money for both diseases		Same number of patients		First come, first served	
Disease 1 (Cost/patient \$40,000)	0	50	100	150	200	250	300	?
Disease 2 (Cost/patient \$20,000)	600	500	400	300	200	100	0	?
Total Treated	600	550	500	450	400	350	300	Approx 400
Number Not Treated	600	650	700	750	800	850	900	Approx 800
No	3	7	14	8	6	0	0	2

Direct Costs - Discussion Group Study

Results – Budget Allocation

Option 1: The Efficiency Solution

- Favours the majority over the minority is *'fair'*. It is *'fairer to treat the most people possible'*.
- It's *'discriminatory'* but the *'lesser of two evils'*.
- *'There is a limited pot of money'* for health care, and treating low cost patients would mean that *'at the end of the day you are treating more'*.
- By treating more patients, well patients could *'go out and help make more money for the system'*.
- *'If you don't get treated in general it's not fair to you. If you're not treated that's not fair. You know what I mean? So why not make it the least amount of people feeling it's not fair?'*

Direct Costs - Discussion Group Study

Results – Budget Allocation

Options 2 and 3: Compromise Solutions

- These options offer a *'fair go'*, through treating high numbers of patients, keeping untreated patient numbers low, and not removing the possibility of high cost patients receiving treatment.
- It is essential not to remove the *'chance'* of being treated or to *'discriminate completely'* against high cost patients.
- Treat some high cost patients in order to, *'hopefully learn more about the disease and get the cost down ... so that your health budget is improving all the time'*.
- When it was pointed out that fewer patients would be treated: *'But I think that accepts that money is the bottom line in health care. I won't accept that ...'*.

Direct Costs - Discussion Group Study

Results – Budget Allocation

Option 4: Same Money for Both Diseases

- Distributing the money in this way is *'fairer'* as it removes altogether cost-based prioritisation.

Option 5: Same Number of Patients

- *'It is the only option'*. It is more *'equitable'* because it ensures that identical numbers of patients are treated from both groups.
- *'It's towards the worst case scenario (of untreated patient numbers) but doing anything else would be unfair'*.
- This alternative is *'fairer ... because you don't choose to get a high cost illness'*.
- As tax payers, citizens should *'expect to be looked after by the public health system'*.
- *'Just because you're high cost doesn't mean that you go to the bottom of the list'*.

Option 8: First Come, First Served

- The only option where the word *'fair'* was not used.
- This option was selected as being closest to *'what happens now... it's a competitive world out there'*.

Direct Costs - Discussion Group Study

Discussion

Choice of Principle Exercise

Alternative 1 (efficiency principle)

- Pre-discussion = 6
- Post-discussion = 9

Budget Allocation Exercise

- Option 1 (efficiency option) = 3 Opportunity costs clearer, more options

'Principled' Options

- 'All the money for disease 2'
- 'The same amount of money for both diseases'
- 'The same number of patients'
- 'First come, first served'

Direct Costs - Discussion Group Study

Discussion: The Preservation of Hope

- It is essential not to remove the '*chance*' of being treated or to '*discriminate completely*' against high cost patients. Life should not be seen as '*easily expendable*'.
- Patients should not be left in a 'hopeless' position.
- People will allocate some organs to those with the worst prospects of survival. '*Everyone deserves a chance*' ... '*needy people deserve transplants, whatever their chance of survival*'. (Ubel, P. A. and G. Loewenstein (1996). 'Distributing scarce livers: The moral reasoning of the general public.' *Social Science and Medicine* 42(7): 1049-1055). Ubel, P. A., M. L. DeKay, J. Baron and D. A. Asch (1996). 'Cost-Effectiveness Analysis in a Setting of Budget Constraints: Is It Equitable?' *New England Journal of Medicine* 334(18): 1174-1177.)
- To deny a person with a serious illness any hope of a cure, even when the probability is low, is to add an extra dimension of anguish to their remaining life, over and above the suffering caused by the illness itself.

Direct Costs - Discussion Group Study

The Essential Contestability of Fairness

- Fairness as treating the greatest number of people, versus treating the same number of people from both groups, versus giving the same amount of money to both groups.
- Fairness is an 'essentially contestable' concept: while there is sufficient agreement on its basic meaning to enable discussion and debate, there is disagreement about the application of this concept in concrete cases – i.e. to actions, policies, institutions etc.

Direct Costs - Discussion Group Study

Discussion: Reluctance to Trade

- Conflict between equity and efficiency is confronting.
- Tendency to shift the focus onto other factors, such as the age of the patients, their smoking behaviour, their different potentials for improvement.
- Clarifying the task was effective for some. For others the resistance remained.
- The majority eventually came to the conclusion that there is a need to take some account of costs - the need to be '*objective*' and face '*reality*'. The alternative view (that costs can be disregarded) came to be seen as '*ideal*' or '*utopian*'.

Direct Costs - Discussion Group Study

Discussion: The Importance of Deliberation

- The discussion group methodology allows participants to engage with the task in a way that aids comprehension, that allows them time to consider all of the alternatives carefully, that affords them the opportunity to seek clarification of the task, and that allows participants to construct considered views rather than self-report pre-existing preferences.
- ‘Strong evaluation’ versus ‘weak’ evaluation. Weak evaluation requires no more than the expression of personal preferences, and does not require subjects to go beyond the ‘self-interest’ perspective. Strong evaluation presupposes that subjects have the ability not just to reflect upon alternatives, but to reflect critically upon their own preferences, and to assess them as worthy, selfish, intolerant, generous and so on ... it encourages an ‘other-regarding’ or social perspective.

Direct Costs - Discussion Group Study

Discussion: The Importance of Deliberation

- No procedure for resolving complex social problems can eliminate confusion, superficiality, factual mistakes, and so on. But 'strong evaluation' provides a more secure foundation for public participation.
- Preference elicitation as 'architecture' (building a set of values) vs preference elicitation as 'archaeology' (uncovering existing values).

Direct Costs - Discussion Group Study

Conclusions

- When asked to choose a principle for setting priorities in health care, a majority of participants rejected the most cost-effective option, citing reasons such as *'moral values'* and *'a personal belief that we shouldn't discriminate'*.
- When asked to allocate a hospital budget most chose to allocate some money to high cost (inefficient) patients on grounds of *'fairness'* and the desire to give all patients a *'chance'*.
- Confidence in the veracity of the results obtained in the three earlier studies is strengthened by the present study, which made serious efforts to ensure participants' responses were reflective – that they had been exposed to, and had the opportunity of discussing, a range of options.

Indirect Benefits and Direct Costs

General Conclusions

- A strong emphasis placed upon fairness by the Australian public in relation to setting priorities in the public health system.
- Limited value in more studies that show people have a concern with equity.
However:
- There is still a huge emphasis on efficiency in economic evaluations. Is the message getting through? Is the balance right?
- *Measuring* equity is important and much work needs to be done.

Indirect Benefits and Direct Costs

General Conclusions

- The Indirect Benefits study took special steps to ensure that respondents were aware of the opportunity costs, so there could be no serious doubt that they were aware of the implications of their choices.
- The Indirect Benefits study also threw light upon respondents' reasons for downplaying the importance of indirect benefits – e.g. scepticism regarding the ability or willingness of government to use additional tax receipts for beneficial purposes, and/or a preference for programs and services that focus on health rather than welfare more generally.
- The group discussion approach adopted in the Cost study encouraged 'strong' as opposed to 'weak' evaluation, making it harder to explain the results as due to a lack of reflection.
- It also threw light on the reasons for respondent's choices – e.g. the importance of giving all patients a 'chance' of treatment, even if this comes at a high opportunity cost.