

Value heuristics and priority setting

Resource allocation is a particular form of priority setting. It involves deciding which things are more important and which less. In this section it is argued that right answers to problems of priority setting cannot be found by technical means. Priority setting is a matter of values. The person setting the priorities has to decide which values they will use to determine relative importance. Whether a particular set of priorities is right or wrong depends upon the values used to judge it. This makes that priority setting an ethical matter.

This section explores the use of values as heuristics for making decisions in ethical matters, using a simulation exercise called *Monksbane and feverfew*. The exercise is based on a problem in health care management. A limited budget has to be divided between two health care programmes, one aimed at the diagnosis and treatment of monksbane and the other at the diagnosis and treatment of feverfew, both dangerous diseases. The problem is to decide which programme should be given priority. Fisher (1998) identified six values concerning priority setting in the allocation of resources. They are listed here but will be defined later in the chapter:

1. utility
2. individual need
3. deservingness
4. ecology
5. fairness
6. personal competence and gain.

In *Monksbane and feverfew* there are opportunities to apply each of these values in setting your priorities between the two programmes. Whichever you choose will lead to a different allocation of resources. It may be that you will change your mind as you work through the simulation. Do Activity 5.1 now and then the different values will be explained.

Activity 5.1

Monksbane and feverfew: A diagnostic instrument about values in public sector resource allocation

Introduction

In this questionnaire you imagine yourself to be a manager responsible for screening programmes for two diseases, feverfew and monksbane.

You have a total budget of £70,000 (£70k) to spend on these two programmes. In this questionnaire you will be presented with some initial information and asked to say how you would divide up the budget between the two diseases. In the subsequent sections you will be given additional information, and for each additional piece of information you will be asked to review the use of the budget available to you.

- All the information you will be given is mutually consistent, i.e. information at the end of the questionnaire will not invalidate earlier information.
- Answer the questions in order. Do not look ahead.
- Once you have answered a section please do not return to it later and change it.
- There are no 'right' answers to the questions in this questionnaire. It's all a matter of your own values.
- Please make your allocations of the budget between monksbane and feverfew in units of £5,000 (£5k), i.e. £0, £5k, £10k and so on.

(Source: Fisher, 1998)

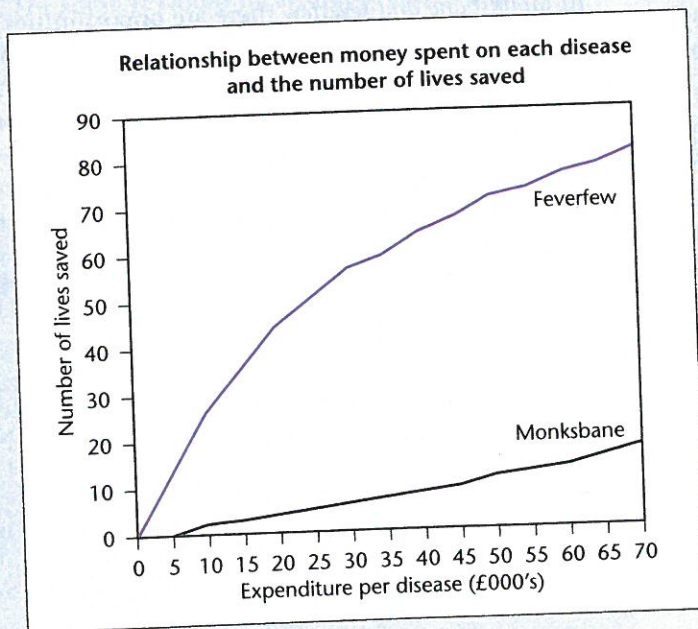
Section 1

The graph below tells you the number of lives that will be saved as a consequence of different levels of expenditure on the two diseases. The graph is based upon sound research conducted by the Paracelsus Epidemiological Institute. You need have no doubt about its accuracy.

The result of splitting the £70k equally between the two diseases would be:

No. of lives saved as a result of spending £35k on monksbane	7
No. of lives saved as a result of spending £35k on feverfew	<u>59</u>
Total no. of lives saved	<u>66</u>

Feverfew and monksbane affect men and women equally and also affect the same age group and social classes.



How much of the £70k do you think ought to be spent on monksbane?

£

When you have written your decision in the box please go to Section 2.

Section 2

Monksbane is a much more dangerous disease than feverfew. If people with early signs of the disease are not identified through screening and treated there is a certain (100 per cent) chance they will die of the disease. Feverfew on the other hand can be fatal but the chances are smaller. If sufferers with feverfew are not identified and treated there is only a 57 per cent chance that they will die of the disease.

There have been great advances in the medical understanding of monksbane and only 5 per cent of people treated die from the disease. The death rate among patients treated for feverfew is 38 per cent.

Assume that currently no money at all is being spent on monksbane. How much of the £70k do you think ought to be spent on monksbane and how much on feverfew, as a result of the information given on this page?

Monksbane	£
Feverfew	£

If the figure you have put in the monksbane box is £10k or less please go to Section 3b. If it is more than £10k please go to Section 3a.

Section 3a

Feverfew is a disease that can be caught by anybody. Monksbane, however, is much more likely to be contracted by people with certain habits and lifestyles which they have chosen to adopt.

Another characteristic of monksbane is the tendency for sufferers to be of a particular personality type. They are of a choleric disposition: aggressive, demanding and ungrateful. This relationship has been well researched by the eminent group of scientists from St Barty's who have recently published their work on personality and disease. This relationship has always been well known in popular folklore. It is the origin of the disease's name since sufferers were the bane in the life of monk almoners and hospitalers in medieval monasteries.*

Bearing in mind this information how much do you now think ought to be spent on monksbane?

£

Please go to Section 4 when you have put your decisions in the box.

*Adam of Barnsley (1372) *De Natura et Nomine Opus Malleficarum*.

Section 3b

Monksbane is a disease that can be caught by anybody. Feverfew, however, is much more likely to be contracted by people with certain habits and lifestyles which they have chosen to adopt. Another characteristic of feverfew is the tendency for sufferers to be of a particular personality type. They are of a choleric disposition: aggressive, demanding and ungrateful. This relationship has been well researched by an eminent group of scientists from St Barty's who have recently published their work on personality and disease. However this relationship has always been known in popular folklore. As Victorian doggerel had it,

'e's a gringer and as poisonous as yew is the man whats got feverfew.'*

Bearing in mind this information how much do you now think ought to be spent on feverfew?

£

Please go to Section 4 when you have put your decision in the box above.

*F. Smith Jnr (1978) *Semiotics and Ethnomethodology of Disease in Victorian England*, California: Albertus Publishers.

Section 4

A recent television programme in the 'Medicine and Society' series has highlighted the problems of monksbane sufferers and it has caused a tremendous increase in the donations received by the MRC (Monksbane Research Society). This money is only available for research and cannot be used for screening or treatment. There is a very powerful national pressure group representing the needs of monksbane victims and they have the ear of several key members of your health consumer watchdog body. In addition your organisation employs a number of consultant medical staff who have made their reputations developing treatments for monksbane.

There is pressure from these groups to spend *more* on monksbane than you are currently spending, i.e. more than you have agreed to spend on monksbane in any of the previous sections.

Bearing in mind this new information how much of the £70k do you now think ought to be spent on monksbane?

£

When you have entered your decision in the box please go to Section 5.

Section 5

Your research indicates that the percentage of the population that can be screened for each disease, and therefore the proportion of sufferers from each disease that can be identified and treated, is as shown in the following table.

Identifying and treating sufferers

Amount spent on screening £K	Percentage of feverfew sufferers identified	Percentage of monksbane sufferers identified
10	30	5
20	51	10
30	63	15
40	72	20
50	79	25
60	86	30
70	92	40

This means that an expenditure of £10k on feverfew and £60k on monksbane will enable you to treat 30 per cent of the sufferers from both diseases. To put it in other words, people with the two diseases will have an equal chance of being identified and treated.

Assume that at present the £70k available is split between the two diseases as follows:

feverfew	£40k
monksbane	£30k

Bearing in mind this new information how much of the £70k do you now think ought to be spent on monksbane?

£

Please go to Section 6 when you have written your decision in the box.

Section 6

It would be possible to treat the £70k budget for feverfew and monksbane as a combined budget and not allocate it between the two diseases. That means you would treat feverfew and monksbane sufferers as they presented themselves through their GPs until the budget ran out (if it did).

Would you take up this option to run a combined budget and work on a first come/first served basis?

Please tick the appropriate box and then go to Section 7.

YES	<input type="checkbox"/>
NO	<input type="checkbox"/>

Section 7

What is your current allocation of the £70k between the two diseases?

Monksbane £ Feverfew £

If you are planning to spend most of the £70k on feverfew complete this section.

You have just been told that someone very close to you is suffering from monksbane. How would you now allocate the budget between the two diseases?

Monksbane £ Feverfew £

If you are planning to spend most of the £70k on monksbane complete this section.

You have just been told that someone very close to you is suffering from feverfew. How would you now allocate the budget between the two diseases?

Monksbane £ Feverfew £

Now proceed to the scoring and interpretation information.

Scoring and interpretation of monksbane and feverfew

Evaluate your answers by working through the boxes below.

Section 1

How much did you decide to spend on monksbane? £

- If it is zero (£0) then you score HIGH on UTILITY.
- If it is £20k or less then you score MEDIUM on UTILITY.
- If it is more than £20k you score LOW on UTILITY.

Section 2

How much did you decide to spend on monksbane? £

- If it is £15k or less you score LOW on INDIVIDUAL NEED.
- If it is more than £15k but less than £35k you score MEDIUM on INDIVIDUAL NEED.
- If it is £35k or more you score HIGH on INDIVIDUAL NEED.

If you answered Section 3b ignore this box.

Section 3a

How much did you decide to spend on monksbane?

 £

- If this is the same amount as you decided in Section 2 you score LOW on DESERVINGNESS.
- If you have reduced the amount spent on monksbane by a third or less compared with the amount in Section 2 you score MEDIUM on DESERVINGNESS.
- If you have reduced the amount spent on monksbane by more than a third compared with the amount you spent in Section 2 then you score HIGH on DESERVINGNESS.

If you answered Section 3a ignore this box.

Section 3b

How much did you decide to spend on feverfew in Section 2?

 £

How much did you decide to spend on feverfew in Section 3b?

 £

- If the two amounts are the same you score LOW on DESERVINGNESS.
- If you have reduced the amount spent on feverfew by a third or less compared with the amount in Section 2 you score MEDIUM on DESERVINGNESS.
- If you have reduced the amount spent on feverfew by more than a third compared with the amount in Section 2 then you score HIGH on DESERVINGNESS.

Section 4

How much did you decide to spend on monksbane?

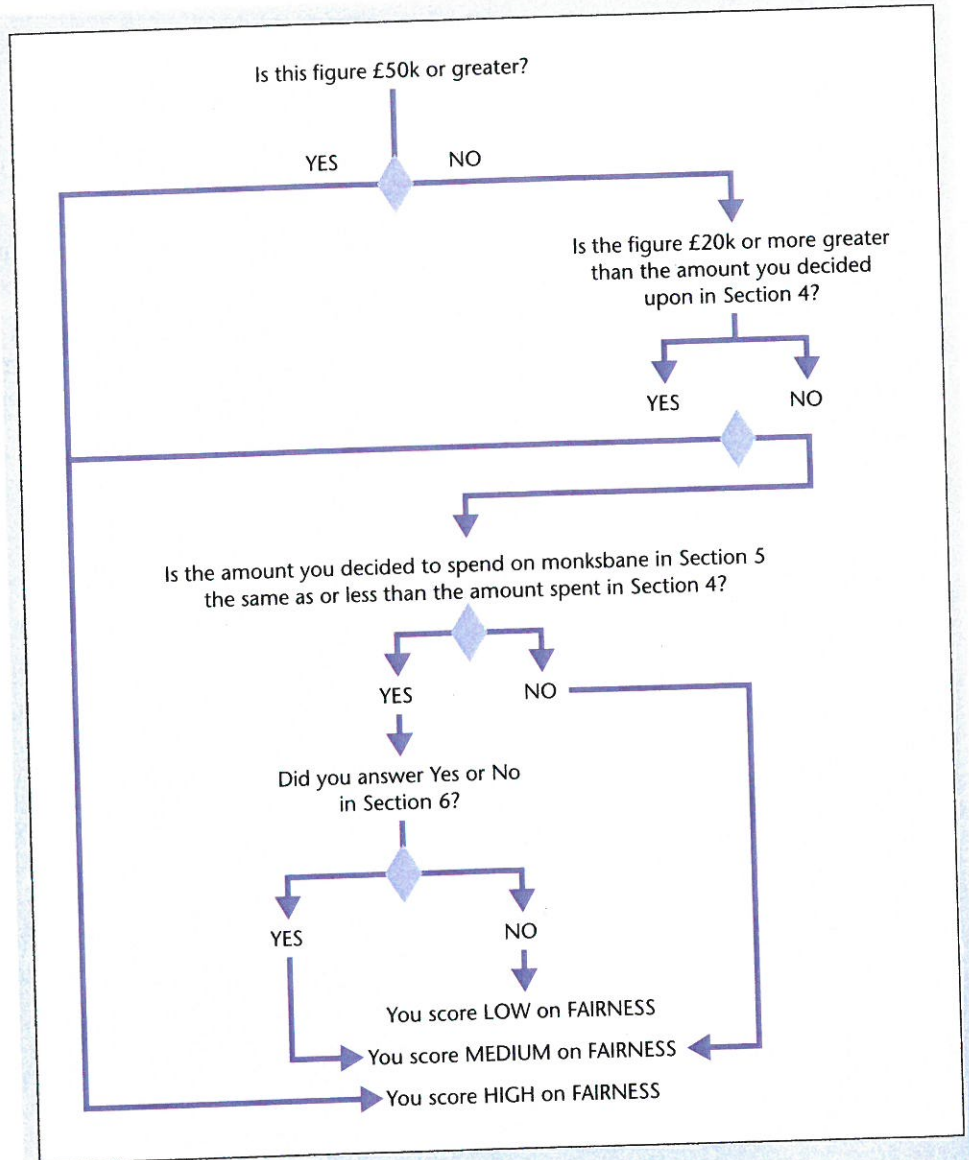
 £

- If this is the same as you spent on monksbane in Sections 3a or 3b you score LOW on ECOLOGY.
- If the amount is £5k more than you spent in Sections 3a or 3b you score MEDIUM on ECOLOGY.
- If the amount is £10k or more than you spent in Sections 3a or 3b you score HIGH on ECOLOGY.

Sections 5 and 6

How much did you decide to spend on monksbane in Section 5?

 £



Section 7

- If you increased the sum spent on the disease which affects you personally, then you score **HIGH** on **PERSONAL COMPETENCE AND GAIN**.
- If you kept the allocation the same you are **LOW** on **PERSONAL COMPETENCE AND GAIN**.
- If you decreased the allocation you are **VERY LOW** on **PERSONAL COMPETENCE AND GAIN**.

Transfer your score to the grid in the table below by placing ticks in the appropriate cells.

Heuristic	Low	Medium	High
Utility			
Individual need			
Deservingness			
Ecology			
Fairness			
Personal competence and gain			

Source: Fisher (1998)

The value heuristics of resource allocation

Each of the six value heuristics for resource allocation will be explained by reference to the information provided to the decision-maker in *Monksbane and feverfew*.

Utility

Utility is a value concerned with allocating resources in a way that maximises the common good (or the beneficial impact of services). Utility values the maximisation of the quantity of good done. It is a form of utilitarianism.

In Section 1 of *Monksbane and feverfew* you are given enough information to apply utility as a value. If the graph is studied carefully it is clear that at any point money spent on feverfew will always save more lives than will be saved by spending it on monksbane. The way to save the most lives is to spend all the money on feverfew and none on monksbane. Those who make this decision are using the utility value. Not everyone can bear to do this. Those who know that rationally any money spent on monksbane costs the lives of feverfew sufferers, who might otherwise have been saved, may find themselves unable to spend nothing on monksbane at all. They therefore decide to spend a small amount on its treatment. This suggests that they are not entirely at ease with the utility value.

Utility is the heuristic that underwrites much management theory, and management science in particular. The development of QALYs, in health policy studies, provides an illustration of this approach. QALY stands for quality-adjusted life years (Gudex, 1986) and is a measure of the benefit, to the average patient, of a medical treatment in terms of additional years of life and of the quality of life. Once the benefit of a medical intervention is measured its cost can be calculated to produce a ranking of treatments in cost-effectiveness terms. Haemodialysis produced a cost per QALY of £9,075 while for scoliosis surgery the cost was £194. The latter treatment will therefore produce more benefit for any given sum of money than the former. There have been many criticisms of the utilitarian QALY approach, as reported in Pereira (1989) and Baldwin *et al.* (1990), but it is still persuasive to many.