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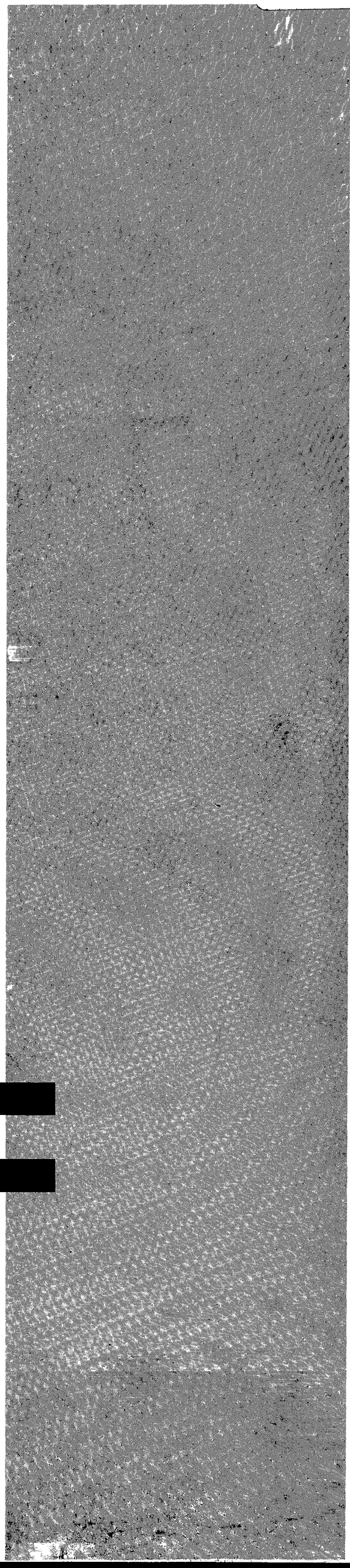
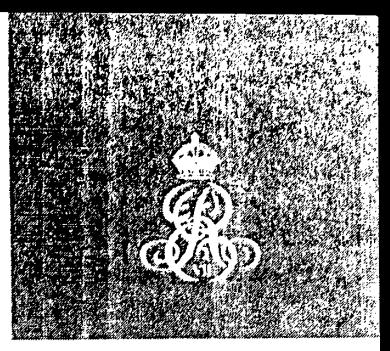


**HEALTH PRIORITY**

**SETTING**



# 1. Marginal Unmet Need

When the NHS reforms split the Health Service into purchasers and providers, health authorities as purchasers were told that a key requirement was to be able to assess the needs of the population and turn that needs assessment into specifications and contracts for health care. Slowly it has become apparent that a total needs assessment is not only beyond the ability of health authorities but may not be necessary.

Unhappily it is not always clear what is meant by 'need'. Is it 'ability to benefit' or is it some broader demand for care which may or may not be the responsibility of the health service to provide. Can a person have a 'need' if there is not the technology to satisfy that need; and to what extent can needs be untangled from wants. Need is often assumed to be analogous to illness or disease, and is usually based on epidemiological assessment of incidents and prevalence of disease in a population.

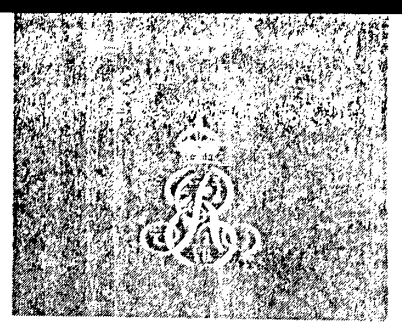
A better approach to needs assessment is to equate need with ability to benefit. Unfortunately even if everything was known that there was to know about need, it would not help in making resource allocation decisions. With a finite budget it will never be possible to meet all the potential needs which people may have. Simply generating huge amounts of data about need may complicate the process of resource allocation and lead health authorities to 'miss the wood for the trees'.

First, total needs assessment will thus not provide an adequate mechanism for resource allocation, particularly in relation to efficiency. Second, although a 'total needs assessment' may help in developing an equitable approach to resource allocation, it will not of itself help with allocative efficiency. Third, with so much 'need' which cannot be met, it may be better to identify the 'marginal ability to benefit' particularly where there are glaring examples of groups or individuals for whom care is not available. An example of this would have been the lack of provision for people with sickle cell anemia in the 1970s. One group of the population was effectively denied care even though they had the ability to benefit largely due to inequitable allocation of resources due to an institutional prejudice.

Need can be defined in a variety of ways although for the purposes of comparison it should be used in the same way for differing examples. A simple pairs ranking approach can be used for a list of marginal unmet need areas for which investment could be provided. Although this is a crude approach it is nonetheless feasible to ask a Health Authority to allocate growth monies across a range of items of marginal unmet need, assuming that the authority has been rigorous in identifying all areas of marginal unmet need and either i undertaking an initial sort to identify the most significant, or ii every item is put into the ranking list.



**Reference:** NAHAT Research Paper No.6



# 2. Deprivation Indeces and other Demographic Factors

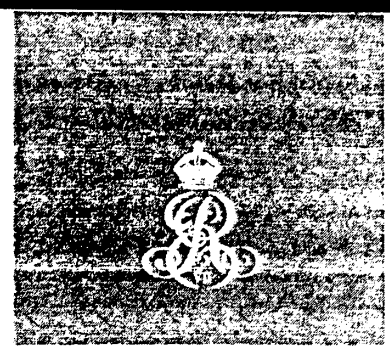
Health status in the population has been shown in a number of reports to be related to key demographic factors. The Black Report and the work by Brian Jarman have shown the importance of certain key features in both health status and demand for health facilities.

The Jarman index based on 8 variables has been shown to be highly correlated with health status and thus demand for health care provision. Those 8 variables are percentage figures for:

- ethnic minority population
- overcrowding
- elderly people living alone
- one parent families
- under fives
- unemployed males
- unskilled (socio-enonomic groups 4 and 5)
- people who have moved house within the previous year.

The value of deprivation indeces is to demonstrate how small areas within the health authority's district may have a high deprivation index but relatively low health care provision. For example certain areas of south Oxfordshire (e.g. Berinsfield and Littlemore) and areas of Oxford City (e.g. Blackbird Leys) are relatively high on a number of factors. Such information would suggest that the Health Authority should be targeting those areas in a variety of ways. This may require additional provision of clinics and health centres locally, or specific measures taken within acute and community health services to ensure that additional provision is made to meet the needs of those areas. For example additional screening programmes might be run in those areas or at least additional effort made to ensure that people are contacted.

This type of analysis may lead to both significantly different resource allocation priorities between acute specialty provisions and targeting of community health service and primary care activity. If for example certain areas contained large populations of socio-economic groups 4 and 5 which are prone to smoking, obesity and thus coronary artery disease and lung cancer it may be necessary for the Health Authority deliberately to ensure that additional provision is made for those areas in some way in comparison to other parts of the district.



# 3. Marginal Cost Effectiveness Studies

A powerful and simple approach to priority setting is provided by looking at current provision and exemplifying a marginal increase and/or decrease in provision and compare this with the outcomes achieved. Diagrams 1 and 2 show this in outline. Essentially the important steps are:

1. To decide on relevant health care programmes which lend themselves to analysis (for example, because information is available).

2. Analyse whether reallocation can achieve an overall increase in benefits by considering

    a. Marginal cost and
    b. Marginal quality

Expenditure can be increased or reduced by a percentage or by a cash figure to see whether a substantial change in health outcomes would result. In some cases an increase in expenditure may not achieve any significant increase in health gain, suggesting that a marginal decrease would be unlikely to have much influence either. The exercise can then be continued by taking larger and larger marginal decreases until such time as outcomes begin to be affected. Conversely a small increase can have a very substantial benefit and by repeating the exercise and increasing the input it may be possible to show at one point the improvement in outcomes begins to 'flatten out' for marginal increase in input.

It is worth noting here that when the 'margin' is used it does not necessarily imply a 'narrow' margin, or a small amount. 'Marginal' in the language of ecomomics can be a very substantial proportion of the whole.

In this type of exercise a commonsense political view is taken of the 'givens' either due to national, regional or local imperatives. For example the 'Health of the Nation' targets are now being absorbed into health authority priorities; the Department of Health has for a long time set various other specific targets, for example on waiting lists. These are more or less requirements of the system and there is little gained from lengthy arguments over the value of certain treatments where there is a political demand for activity.

At the same time it is essential to recognise local priorities and public preferences which may influence such decisions. However these are political influences and cost effectiveness analysis is unlikely seriously to change the Authority's political position on those issues.

**Reference**

Donaldson C and Mooney G. 'Needs assessment, priority setting, and contracts for healthcare: an economic view'. BMJ 1991; 303: 1529–30.

**DIAGRAM 1**

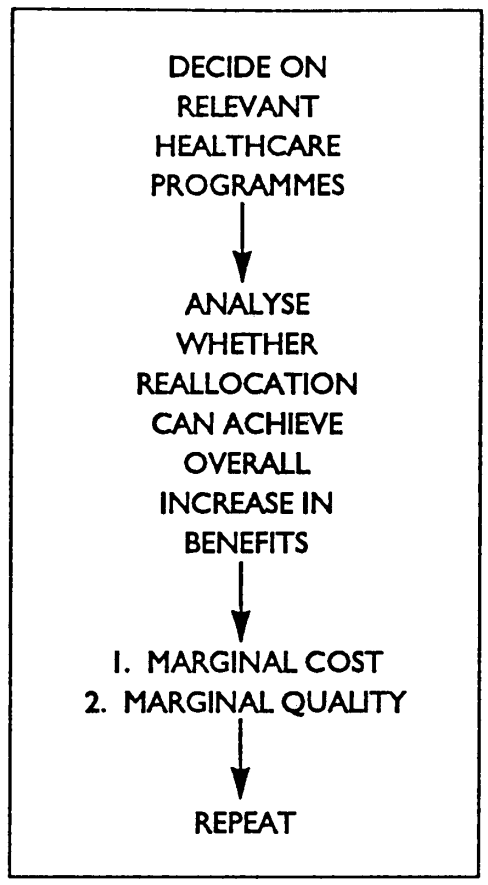
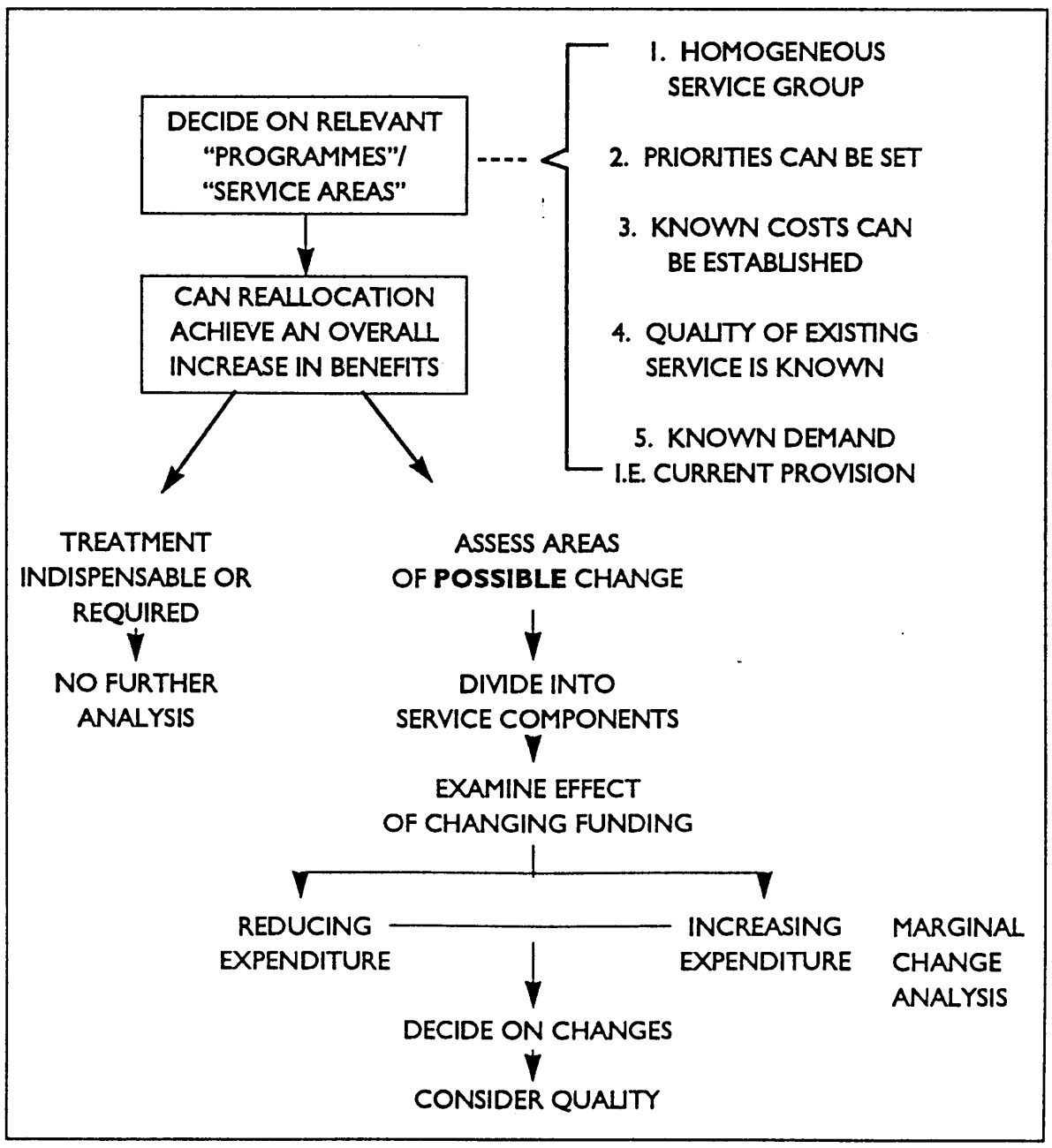
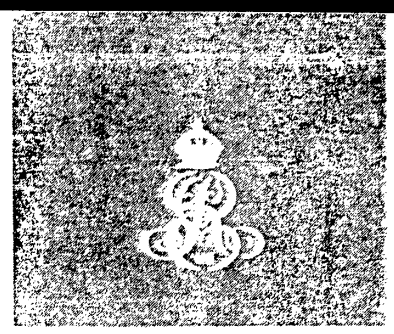



DIAGRAM 2





# 4. Cost Utility Calculations

Cost utility methods are exemplified but QALYs (quality adjusted life years) or QWB (quality of well being) methods.

The basic idea behind QALYs is that an index is derived via public sampling of people's prospective view of living with varying levels of disability and stress. Two of the first people to undertake this work were Paul Kind and Rachel Rosser who produced a now famous Kind-Rosser Matrix (see Table 4). Further work has been done during the last decade and alternative health status indicators derived (e.g. Euroqol - see attached Tables 2 and 3).

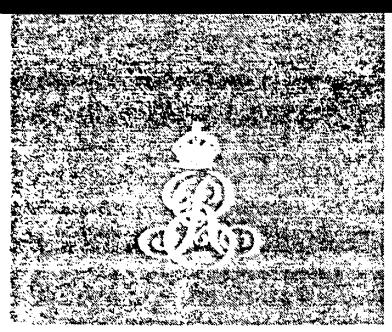
A quality adjusted life year is derived by multiplying the quality of life for an individual by the number of years over which that quality will apply. It is thus possible to measure marginal increase or decrease in quality as a result of an intervention. For example if a person would have had a 50% quality of life for 5 years followed by death, without an intervention, but 10 years of life with a quality of 80% due to an intervention then there is a clear marginal increase in quality and longevity. One QALY is one quality adjusted life year i.e. 10 years at 10% quality or one year at 100% quality.

Those who argue in favour of QALYs do so on the basis that one QALY unit is the same for everyone. This of course is slightly disingenuous in that interventions in the young are likely to generate more QALYs than interventions with elderly people.

The usual way in which QALYs are used is to calculate a cost per QALY for differing types of interventions. The classic examples usually given are that the cost per QALY of persuading a young person to give up smoking is probably in the region of £200 whereas the cost per QALY for a heart transplant in a relatively elderly person may be well over £10,000. QALYs can be useful in comparing similar procedures amongst a group of patients with similar needs. For example it is possible to calculate the cost per QALY for coronary artery by-pass graft for mild angina (one vessel disease), and severe angina (with three vessel disease). The cost per QALY is considerably lower for the latter than the former because the increase in quality of life is that much greater in the latter.

QALYs on their own however are dangerous in comparing unlike forms of care. Oregon found this when calculating QWB scores for differing condition-treatment pairs. The cost per QALY for a tooth filling came out better than that for appendectomy! Two problems with QALYs are worth noting. First, there is a great deal of controversy about the extent to which QALYs are "ageist"; and second most work which has been done has been based on public preferences giving a prospective view of how they would feel to live with a particular disability or disorder. It is now fairly evident that people who are living with disabilities or disorders give their own quality of life a much higher score than individuals considering what it might be like to be disabled in some way.

**Reference:** Williams A and Kind P 'The Present State of Play about QALYs' Centre for Health Economics, University of York, 10 October 1991.



## TABLE 1: ROSSER'S CLASSIFICATION OF ILLNESS STATES

| Disability | Distress |
|---|---|
| 1. No disability | A. No distress |
| 2. Slight social disability | B. Mild |
| 3. Severe social disability and/or slight impairment of performance at work.<br>Able to do all housework except very heavy tasks. | C. Moderate<br>D. Severe |
| 4. Choice of work or performance at work very severely limited.<br>Housewives and old people able to do light housework only but able to go out shopping. | |
| 5. Unable to undertake any paid employment.<br>Unable to continue any education.<br>Old people confined to home except for escorted outings and short walks and unable to do shopping.<br>Housewives able only to perform a few simple tasks. | |
| 6. Confined to chair or able to move around in the house only with support from an assistant. | |
| 7. Confined to bed. | |
| 8. Unconscious | |

## TABLE 2: THE EUROQOL DESCRIPTIVE SYSTEM (as at the date of the 3 surveys)

**Mobility**

1. No problems walking about.
2. Unable to walk about without a stick, crutch or walking frame.
3. Confined to bed.

**Self-Care**

1. No problems with self-care.
2. Unable to dress self.
3. Unable to feed self.

**Main Activity**

1. Able to perform main activity (eg work, study, housework).
2. Unable to perform main activity.

**Social Relationships**

1. Able to pursue family and leisure activities.
2. Unable to pursue family and leisure activities.

**Pain**

1. No pain or discomfort.
2. Moderate pain or discomfort.
3. Extreme pain or discomfort.

**Mood**

1. Not anxious or depressed.
2. Anxious or depressed.

**Note:** For convenience each composite health state has a six digit code number relating to the relevant level of each dimension, with the dimensions always listed in the order given above. Thus 112232 means:

1. No problems walking about.
1. No problems with self-care.
2. Unable to perform main activity.
2. Unable to pursue family and leisure activities.
3. Extreme pain or discomfort.
2. Anxious or depressed.

## TABLE 3: MEDIAN VALUATIONS FROM 3 SURVEYS

| Health State | Median Valuations | | |
|---|---|---|---|
| | Lund | Frome | BoZ |
| 111111 | 100 | 99 | 95 |
| 111121 | 86 | 84 | 86 |
| 111112 | 75 | 70 | 75 |
| 111122 | 70 | 68 | 70 |
| 112121 | 65 | 70 | 65 |
| 112131 | 50 | 59 | 60 |
| 112222 (a) | 35 | 40 | 43 |
| 112222 (b) | 39 | 40 | 40 |
| 112232 | 35 | 35 | 33 |
| 212232 | 22 | 25 | 20 |
| 222232 | 10 | 10 | 7 |
| 232232 | 7 | 5 | 6 |
| 322232 | 4 | 2 | 5 |
| 332232 | 1 | 1 | 4 |
| being dead (a) | 0 | 0 | 3 |

Noted: 2 valuations are reported ((a) and (b)) for the states that were repeated on successive pages of the questionnaire.

## TABLE 4: ROSSER'S ORIGINAL MATRIX (All 70 Subjects)

| DISABILITY RATING | DISTRESS RATING | | | |
|---|---|---|---|---|
| | A (None) | B (Mild) | C (Moderate) | D (Severe) |
| I (None) | 1.000 | 0.995 | 0.990 | 0.967 |
| II (Slight social) | 0.990 | 0.986 | 0.973 | 0.932 |
| III (Severe social or slight work) | 0.980 | 0.972 | 0.956 | 0.912 |
| IV (Work severely limited) | 0.964 | 0.956 | 0.942 | 0.870 |
| V (Unable to work) | 0.946 | 0.935 | 0.900 | 0.700 |
| VI (Confined to chair) | 0.875 | 0.845 | 0.680 | 0.000 |
| VII (Confined to bed) | 0.677 | 0.564 | 0.000 | -1.486 |
| VIII (Unconscious) | -1.028 | NOT APPLICABLE | | |

# 5. Ranked Categories of Care

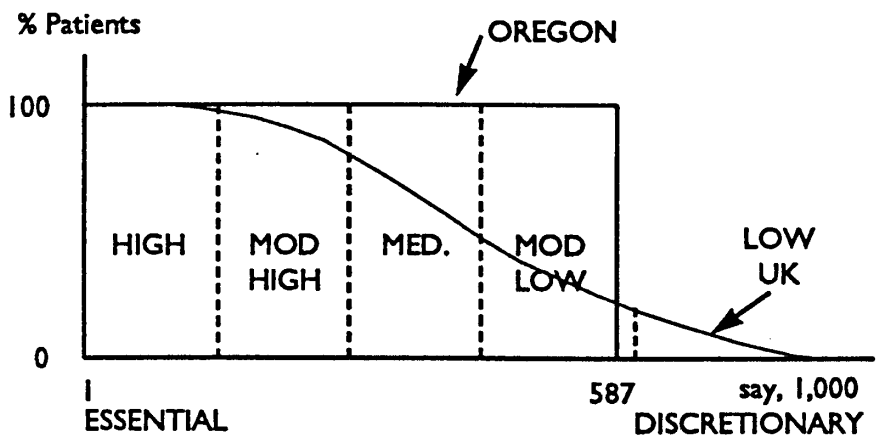
One output of the work in Oregon was a series of categories of care. The 17 categories in their original list (see attachment) can be supplemented with categories for long-term care, mental illness and substance misuse.

It is not particularly helpful to rank the categories 1 to 17, but rather to use a ranking exercise as a way of examining the criteria which are used. This usually produces a 4 or 5 point scale from very high to moderately low priority, or in the Oregon case a 3 point scale - essential, very important, and important to individuals.

Producing a 5 point scale is helpful in that it can then be used to suggest divisions of treatment-condition pairs for the purposes of developing protocols. The protocols would be agreed between the purchasers and providers and establish the boundaries and constraints on clinical freedom. It can be seen in the attached diagram that at the 'high' end, a purchaser would agree that all patients in those categories would be treated and that there would be little need for any specific protocol. In the moderately high category the purchaser might agree with the treating clinicians that some minor constraints might be required but that by and large clinicians would have a fairly free hand to decide who should be treated or not.

The third and fourth divisions would have progressively tighter constraints on clinical freedom and agreed mechanisms for deciding on who should be treated. Finally in the fifth (or in some systems the sixth or seventh) divisions condition-treatment pairs would usually refer to innovative or very expensive treatments. These are presently dealt with by ECRs and would probably continue in that way. Additional categories (not ranked): 18 19 20 : Cover mental health care, chronic care and substance misuse.

**DIAGRAM**

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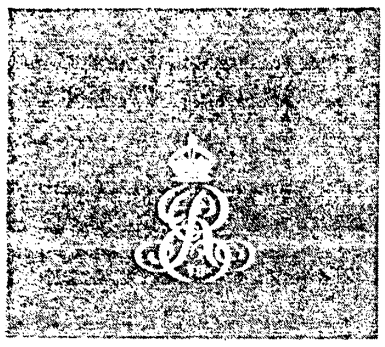

## Categories of Health Care: The Oregon List.

### ESSENTIAL

1. Acute Fatal, treatment prevents death and allows full recovery: ie. appendectomy for appendicitis; non-surgical treatment for infection of the heart muscle (myocarditis).
2. Maternity Care, including most newborn disorders: ie. obstetrical care for pregnancy; care of the newborn.
3. Acute Fatal, treatment prevents death but does not allow full recovery: ie. non-surgical treatment for burns; treatment for severe head injuries.
4. Preventive Care for Children: ie. immunizations and well-child exams.
5. Chronic Fatal, treatment improves life span and quality of life: ie. non-surgical treatment for insulin dependent diabetes; medical and surgical treatment for treatable cancer of the uterus; medical treatment for asthma; drug therapy for HIV disease.
6. Reproductive Services, excludes maternity and infertility services: birth control and sterilization.
7. Comfort Care: pain management and hospice care for the end stages of diseases such as cancer and AIDS.
8. Preventive Dental Care, adults and children: exams, cleaning and fluoride treatment.
9. Proven Effective Preventive Care for Adults: ie. mammograms; blood pressure screening; Pap smears.

### VERY IMPORTANT

10. Acute Nonfatal, treatment causes return to previous health: ie. non-surgical treatment for acute thyroiditis; medical treatment for vaginitis; fillings for cavities.
11. Chronic Nonfatal, one-time treatment improves quality of life: ie. hip replacement; corneal transplants for cataracts; rheumatic fever.
12. Acute Nonfatal, treatment without return to previous health: ie. relocation of dislocated elbow; repair of cut to cornea.
13. Chronic Nonfatal, repetitive treatment improves quality of life: ie. non-surgical treatment for rheumatoid arthritis; gout; migraine headaches.

### VALUABLE TO CERTAIN INDIVIDUALS

14. Acute Nonfatal, treatment speeds recovery: ie. medical treatment for viral sore throat; diaper rash.
15. Infertility Services: medical treatment for infertility; in-vitro fertilization; artifical insemination.
16. Less Effective Preventive Care for Adults: ie. routine screening for those people not otherwise at risk, such as diabetes screening if the person is under 40 years old and not pregnant.
17. Fatal or Nonfatal, treatment causes minimal or no improvement in quality of life: ie. aggressive treatment for end stages of diseases such as cancer and AIDS; medical treatment for non-genital viral warts.

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18. Mental health care for acute and chronic mental illnesses including behaviour disorders.
19. Chronic care for mainly elderly people including dementias, Alzheimers disease.
20. Substance misuse and alcoholism treatments.

Each health service on the list is presumed to include necessary ancillary services such as hospital care, prescription drugs, and medical equipment and supplies necessary for successful treatment.

Source: Oregon Health Services Commission, Prioritization of Health Services, 1991.

# 6. Patient Centred Care Purchasing

This approach requires an 'a priori' policy that services should be locally accessible and patient focused. A forthcoming publication from the Kings Fund College - 'Purchasing Patient Centre Care' provides a model for tackling service developments using this approach. The attached diagram is more or less self-explanatory. Health authorities determine which areas of need they wish to consider and then analyse the health care provision to meet that need by the processes of care and the locations at which those processes can take place. The health authority will usually choose locations which are as close to the patient as possible or as accessible as possible. This enables processes to be shifted into the primary and community health care setting wherever possible.

It is essential, of course, to ensure that the outcomes achieved are at least as good in the more local setting as they would be in an institutional or secondary care setting. Nonetheless the approach to location/process/outcomes is an analysis which may then lead to improved efficiency and possibly equity in the allocation process.

A good example of this is in protocols for diabetes. Crisis admission and emergency care should be avoided wherever possible by developing the most responsive services possible, which in turn will increase efficiency and reduce unnecessary costs.

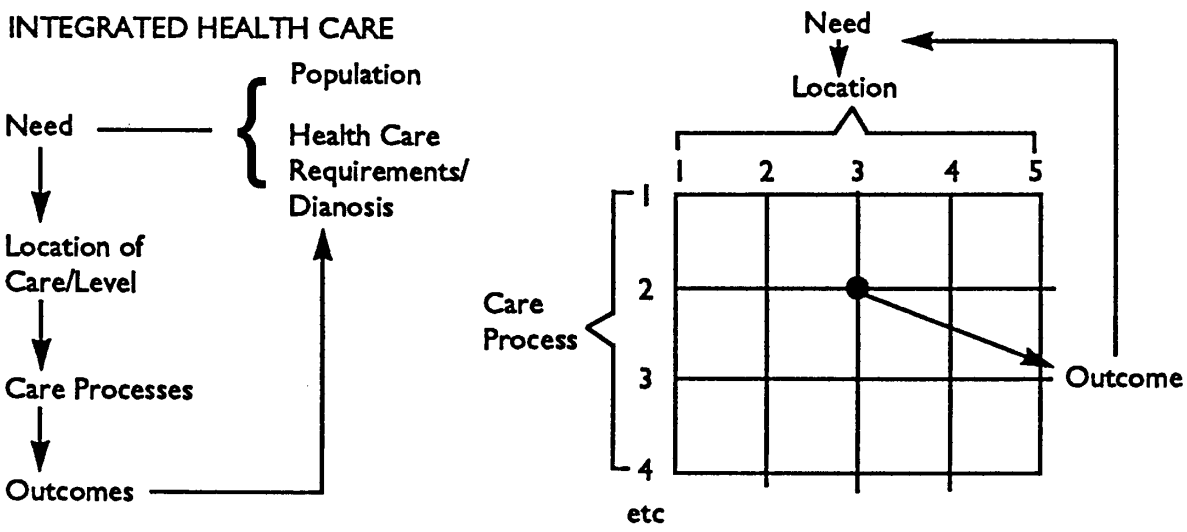


**DIAGRAM 1**

Each node is a conjunction of 'Location' and 'Care processes' and creates an outcome for the patient

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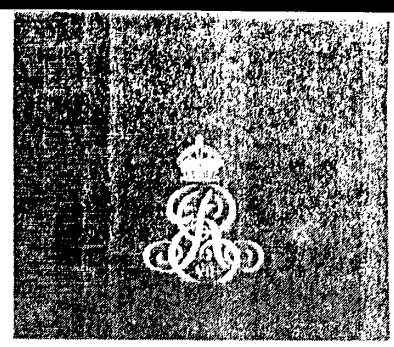


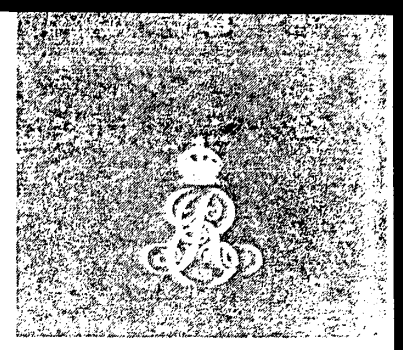
# 7. Zero Based Commissioning

Zero based commissioning is a term used by some health authorities to describe exercises not unlike that carried out in Oregon, but possibly undertaken in a more prescriptive way based on fewer factors. ZBC is similar to zero based budgeting common in some parts of industry. In this approach every service is identified or 'product line' (i.e. consultant/specialists) and a cost applied. On the basis of a number of factors (e.g. equity, access, responsiveness, efficiency) a list is drawn up in rank order of all the services. A cumulative cost is calculated from the top down until a point is reached at which no further services can be funded. Having identified the break point a number of services on either side are scrutinised more carefully. Eventually a set of services which will be funded is agreed and some services are either discarded or not funded.

Some local authorities have undertaken such an exercise and have split various services into separate components. For example provision of swimming baths can be divided into Monday to Friday, Saturday and Sunday. Each is costed separately. A similar process could be undertaken with health services. It suffers the same problems as that found in Oregon of drawing what may be an arbitrary line between those types of care which will be funded and those which will not.

One advantage of this type of approach, however, is in forcing a health authority to identify all services or products which it considers to be essential and those which are desirable but optional.

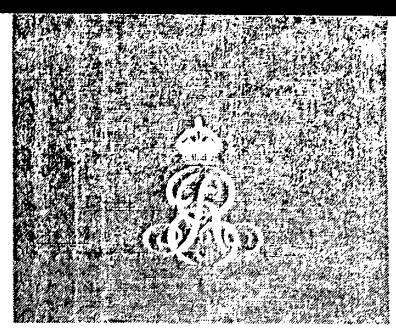
ZBC is different from 'ranked categories of care' and condition-treatment pair divisions in that it does not necessarily require treatment-conditions to be identified. Rather, blocks of service or products can be defined without detailing what precise clinical provision is made.



# 8. Historic Funding with Exemplified Cuts and Reinvestment

One very simple way of looking at investment priorities is related to ZBC (see 7 above). Instead of complex analysis of need or effectiveness, the effect of a 1, 2, 5, 10 or 20% cut in services is identified and reinvestment then undertaken on the basis of ranked local priorities. This is not dissimilar to the marginal cost-effectiveness studies proposed by Donaldson & Mooney but is more sweeping. In 3. above it is suggested that national and regional givens should not be tested unnecessarily. In this approach all services should show the effect of a cut, perhaps a substantial cut, in their basic funding and what the implications would be. Exemplifying a 5, 10 or 20% cut can demonstrate very clearly what a providers priorities are and these can then be compared with priorities established by the purchaser.

This is the method often used by health authorities at present, although too often the exemplification of cuts is relatively minor (eg 1 or 2%).



# 9. 'Necessary Care' - The Dutch Proposals

A report was issued last year by the Government Committee on Choices in Health Care in the Netherlands. Essentially the Committee proposes that a four level filter be developed to determine what care will be provided. The levels are as follows:

1. Necessary care

2. Effectiveness

3. Efficiency

4. Individual responsibility

A basic package of care is defined on the basis of these four criteria which act as a funnel limited by certain rights.

Necessary care is defined on the basis of the ability to function normally in society but is rooted in notions of solidarity. Care is necessary if that care makes participation on society possible. Effectiveness and efficiency are the same as discussed here, and the main difference is thus the proposal to use "individual responsibility" as a criterion. Their intention is to define the responsibility for obtaining and paying for treatment, **not** responsibility for the condition itself.

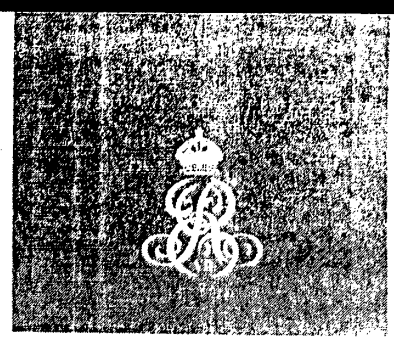


Individual responsibility is related to availability, cost and broad social policy. So, for example, in Holland it is proposed that in-vitro fertilisation would be left to individual responsibility, because, although the cost is relatively high "(an individual) does not have the right to the ability to have children". They go on to say that "neither the interests of the community nor the norms and values of the society would seem to justify such a 'compulsory solidarity'". Similarly for homoeopathic medicines - it is claimed that these are affordable for everyone and therefore can be left to the individual, as can housing and living costs except where an individual requires a nursing home. "Solidarity is then an obligation and is justified".

Thus the key differences from other priority setting procedures are:

- Is the care necessary to enable participation in society?

- Can it be left to individual responsibility?



# 10. Local Policy Development for Broad Investment Strategy

A number of simple tools have been developed in various Health Authorities to enable broad policies to be generated. Examples of these are shown, the second is from Mid-Essex Health Authority and is a 4 x 4 matrix, which is completed by a range of correspondents providing a "steer" as to the general investment priorities for the Authority.

The first is from Waltham Forest Health Authority and, again, is a simple 18 box matrix with similar functions.

A number of these sorts of mechanisms have been developed as a way of giving the Health Authority an overall legitimacy for its broad investment strategy. These approaches do not help with individual priority setting especially as the Health Authority will usually be more than aware of any gaps.

An alternative approach is to work with GPs as proxies and to ask them to rank, say from 1 to 10, what services they consider to be either lacking or inadequate in a particular area.

| CATEGORY | CHILDREN RANK 1–6 | ADULTS RANK 1–6 | ELDERLY PEOPLE AGED 75+ RANK 1–6 |
|---|---|---|---|
| Healthcare which prolongs life and reduces pain or disability in people who are severely ill or disabled | | | |
| Healthcare which prevents illness amongst people who are currently well | | | |
| Healthcare that does not prolong life but does reduce pain or disability in people who are severely ill or disabled | | | |
| Healthcare which improves the quality of life in people who are mentally ill | | | |
| Healthcare which prolongs life but does not reduce pain or disability in people who are severely ill or disabled | | | |
| Healthcare which may prolong life and/or reduce pain or disability – but is not yet proven (eg. HRT for osteoporosis) | | | |

| Type of Health Care | Life Cycle | | | |
|---|---|---|---|---|
| | INFANTS<br>Prenatal -<br>12 months | CHILDREN<br>1 - 18 years | ADULTS<br>19 - 64 years | ELDERLY<br>65 years<br>and others |
| CRITCAL | Neonatal intensive care | Organ Transplants<br>Open Heart Surgery<br>Heart attacks and stroke<br>Trauma and other emergency surgery<br>Severe burn care | | |
| LONG-TERM | | Nursing Home Care<br>Home Health Care | Hospice Care<br>Adult day centre care | |
| SHORT-TERM | Visits to physicians and other health professionals brief hospitalisations for conditions such as: earaches broken bones, infections, childbirth, gallbladder problems, ulcers, backaches, hernias | | | |
| PREVENTIVE | Maternity Care<br>Well-baby check-ups | Physical examinations<br>Immunisations<br>Well-child check-ups | Screening for cancer, high blood pressure, cholesterol level | |

The 16 squares show the types of health care services required at the various stages of life cycle.

critical = care for acute life-threatening conditions;
long-term = care for chronic or disabling conditions;
short-term = care for acute, not life- threatening conditions;
and preventive = prevention or early detection of ill health.

Please assign a priority to each of the 16 'health care building blocks' in the following way:-

5 'highs'
6 'mediums'
5 'lows'

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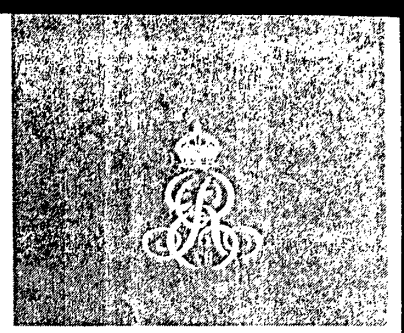
# Possible Examples Suggested for Each Approach

| | Approach to Priority Setting | Example | Possible Exercise to Demonstrate Usefulness |
|---|---|---|---|
| 1. | Marginal unmet need | Oxfordshire 8 investment proposals | Paired ranking |
| 2. | Deprivation Indeces | Oxfordshire demographic information | Relate deprivation to access to healthcare |
| 3. | Marginal cost-effectiveness | (Requires detailed local information) | (Requires extended work) |
| 4. | Cost-utility calculations | Kind-Rosser Matrix and Euroqol | Value health states |
| 5. | Ranked categories | Oregon 17 + long-term care | Ranking on 5 levels |
| 6. | Patient centred purchasing | Possibly CHD process analysis | Location- process preference testing |
| 7. | Zero based commissioning | Services or 'product lines' | (Requires extended work) |
| 8. | Historic budget reinvestment | Mental health services | Rank 12 investment items |
| 9. | Necessary care | Personal responsibility | Analysis of preference |
| 10. | Policy development | 4 x 4 matrix | Rank 16 boxes H, M or L |



# Annex 1

## 1. Technical Efficiency

- Maximise output for given input
  Maximise health for given input
  Maximise survival for given input
  Maximise quality of life for given input
  Maximise QALYs for given input

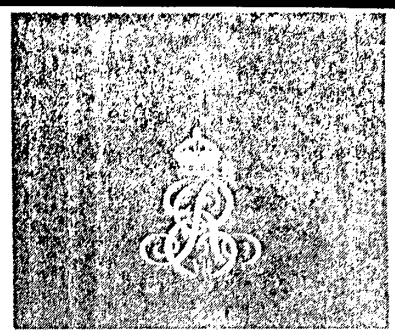
- Evaluation of effectiveness of medical treatment.

## 2. Productive Efficiency

- Minimise cost at maximum output
- Minimise cost per unit of survival
- Minimise cost per QALY

## 3. Allocative Efficiency

- Maximise value at given cost
- Ensure the right mix of outputs are achieved based on the value given to competing outcomes. (Requires the relative worth of the resource use to be assessed)



# Overview

Resources can be allocated to healthcare in a variety of ways. Ten major approaches are described here. All of these fall within a number of ethical and economic constraints, and yet health authorities differ in the extent to which they place emphasis on important factors. For example, which of the following should be the dominant statement?:

1. Resources should be allocated in proportion to sickness.
2. Resources should be allocated in proportion to estimated potential health gain.
3. Resources should be allocated in proportion to the resources required to eliminate capacity to benefit.
4. Resources should be allocated on an equal per capita basis to ensure equality of access.
5. Resources should be allocated so as to minimise the variance in the populations health or illness.

No perfect resource allocation model can be devised because there will always be a trade off between:

- efficiency
- effectiveness
- equity

Various suggestions have been made:

(i) Equal treatment for equal need.

Unfortunately need is never equal, even if it can be measured. No two patients are the same, and so "equal treatment" degrades into "equal inputs" or "equal expenditure". But in practice equal expenditure may quite clearly be counter to natural justice. Better perhaps to borrow Ronald Dworkin's phrase and attempt to treat people with "equal concern and respect". Unfortunately this language does not help in resource allocation.

(ii) Distribute healthcare to diminish health inequalities.

In principle many people might subscribe to this. Unfortunately inequalities in health are not due in large part to inequalities in healthcare. Although upper income families use proportionately more healthcare, the inequalities stem from income itself, lifestyle, employment status, housing and accommodation.

(iii) Equity rather than efficiency.

Efficiency can be described in at least three ways.

- technical efficiency
- productive efficiency
- allocative efficiency

(these are described in more detail at Annex 1)

Although technical and/or productive efficiency can be tackled, allocative efficiency drives out equity and vice versa.

# Approaches to Priority Setting

1 Marginal unmet need

2 Deprivation indeces and other demographic factors

3 Marginal cost-effectiveness studies (Donaldson-Mooney)

4 Cost - utility calculations (QALY or QWB based approaches)

5 Ranked categories of care leading to condition-treatment pair divisions and protocols (following Oregon)

6 Patient centred care purchasing - "a priori" policy on local accessible patient focussed services

7 "Zero based commissioning" - largely cost-effectiveness studies

8 Historic funding with exemplified cuts and reinvestment on ranked local priorities

9 'Necessary care' - the Dutch proposals

10 Local policy development for broad investment strategy.

Each of these methods is described in more detail on the separate sheets. It should be noted that all methods depend on health authorities adopting certain basic values and criteria on which to base resource allocation decisions.

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