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The Practical Problems of Applying Cost-Effectiveness Analysis to Joint Finance Programmes

by

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THE PRACTICAL PROBLEMS OF APPLYING COST-
EFFECTIVENESS ANALYSIS TO JOINT FINANCE
PROGRAMMES

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ABSTRACT

Joint finance is money allocated by the Department of Health to NHS authorities to promote policies of inter-agency collaboration which prevent people being admitted to hospital or facilitate earlier discharge from hospital or save on NHS resources generally. Worries have been expressed that joint finance has not been used as effectively or efficiently as it might have been. This paper is concerned with the practical application of cost-effectiveness analysis to policies or schemes which typically use joint finance.

Intensive case-studies with five English local authorities and seven NHS authorities attempted to apply cost-effectiveness analysis to items contained in their joint finance programmes over the period 1981-87. In some cases it was possible to find self-contained schemes which benefited from such an appraisal, but it also found that there were several features about the programmes which either ruled out the case of cost-effectiveness analysis or indicated the need to analyse policies which were funded in part but not wholly by joint finance.

Cost-effectiveness analysis was particularly difficult to apply where joint finance was used to fund relatively minor items such as a small, one-off grant to a voluntary organisations or when it was used to increase the provision of existing services such as home help or residential care, since it is generally accepted that these services meet a well-recognised need. The most fruitful use of cost-effectiveness analysis occurred where joint finance was used to develop new services in a particular locality and comparisons were available of similar services in other localities. The general lesson of the work was that economic appraisal needs to be targeted at major service provision which may or may not use joint finance rather than just at the joint finance programme.

COST-EFFECTIVENESS AND JOINT FINANCE

I Introduction

The purpose of this paper is to examine the problems of applying the principles of cost-effectiveness analysis to the practical world of joint finance schemes and programmes. The background to the paper is a three year research project which was funded by the Department of Health and carried out in collaboration with the Centre for Research in Social Policy at the University of Loughborough. The aim of the project was to assess cost-effectiveness and collaboration in English NHS and local authorities with particular reference to the expenditure on joint finance. The research was prompted in part by Parliamentary worries that joint finance was not being spent in a way which benefited NHS authorities or in accordance with the principles of good accountancy practice or cost-effectiveness analysis. Paragraph 4 of the Eighth Report of the Public Accounts Committee (1983) set out the criticisms contained in an earlier report from the Comptroller and Auditor General (C & AG).

"In 1981-82 the C&AG's examination of the operation of joint finance arrangements at seven former area health authorities in England showed that most schemes had been instigated by the local authorities. Generally health authorities did not hold documentation showing that full consideration had been given to NHS as well as to local authority priorities in the choice of schemes; or that there had been an evaluation of the schemes' objectives, likely costs and expected benefits to the NHS. Further, health authorities did not obtain comprehensive information from local authorities enabling them to monitor the implementation of schemes and the benefits accruing to the NHS."

Thus, a major objective of the research project was to apply cost-effectiveness analysis to schemes which had received joint finance in several

health and local authorities in England. Given the need to work in several different areas of the country and to produce analyses of a number of schemes in a short period of time, it was necessary to develop short, sharp studies as well as use longer term methodologies where time and resources permitted. The experience gained in these studies is set out in this paper to provide both a summary of the research findings as well as a discussion of the problems of putting a theoretically well-founded methodology into practice.

This paper proceeds by discussing the purposes and uses of joint finance in Section II. The theory of cost-effectiveness is then examined in very broad terms in Section III with emphasis on the general problems which occur in the measurement of both costs and effectiveness. The particular problems of applying cost-effectiveness in joint finance with its need for quick decisions on a regular timetable are discussed in Section IV. This is followed by a discussion of the need for and possibility of using information on cost-effectiveness analysis in section V. A summary of the lessons which have emerged from the research and some speculation about the future of joint finance and cost-effectiveness analysis are presented in the concluding section.

The research was carried out in five English local authorities (seven NHS authorities) outside London. Three of these authorities were county councils and two metropolitan district councils.

The main points about the use of cost-effectiveness which have emerged from the research are:

- there was little evidence that the methodology of economic appraisal

had been applied in the allocation of joint finance.

- many developments which use joint finance are not easily subjected to economic appraisal because they are continuations of widely accepted practice, or they are piece-meal additions to existing services or they are small ad hoc grants.
- joint finance was occasionally used to develop innovatory services which would have benefited from an evaluation.
- since joint finance is one of a complicated set of sources of funds for community care, there is a case for evaluating the whole of a policy rather than just the part that was supported by joint finance.
- there would be a greater incentive for authorities to carry out economic appraisals if the funding of joint finance increased, appropriate expertise was readily at hand and more progress was made generally with some of the knotty methodological problems of measuring costs and effectiveness.

II Joint Finance

Joint finance is money allocated by the Department of Health to NHS authorities to prevent admission to hospital care or save on other NHS resources. The typical scenario that joint finance was introduced to improve was as follows. Take for example an authority where the cost of caring for a person in long-stay hospital care was say £15,000 per annum which was borne entirely by the health service. The cost of providing equally satisfactory community care for the same period would be, say, £10,000 per annum of which £4,000 fell on social service department, £4,000 on NHS authorities and £2,000 on the housing authority. The increased expenditure falling on social services and housing authorities could be difficult for them to meet from existing budgets and the person was therefore admitted to hospital. Thus, the more efficient policy may not have been implemented because of the different budgetary constraints faced by each agency. If, however, the NHS could fund the new policy by using joint finance to meet the expenditures falling in whole or part on the other agencies, it would be possible to implement the policy.

Joint finance is, therefore, an incentive to improved efficiency. It is also an incentive for collaboration between different agencies who are jointly responsible for the welfare of the same set of people. At its onset it was recognised as a means of encouraging agencies to put client welfare above their own financial interests.

Joint finance has been and continues to be spent in a variety of ways across a range of beneficiaries including a large number of schemes devoted

to services for people with a mental handicap and for elderly people (Gerard, 1987). This is not surprising since progress in the development of community care for those two groups of people has been more prolific than for groups such as people with mental illness or physical handicap. For most people with a mental handicap it is now widely accepted that an 'enabling' approach to the provision of their personal and social needs is more appropriate than a traditional model of care based on nursing and medical models (MENCAP, 1986). The growth (and future growth over the next decade) in the elderly population has also focused attention on the need to build up comprehensive and integrated residential, day and domiciliary services for those who may benefit more appropriately from community-based services than outdated and expensive hospital-based care.

III Cost-effectiveness Analysis

Cost-effectiveness involves a very structured approach to decision-making and policy planning. It comprises the following steps usually set out for rational planning models.

- i the identification of policy objectives
- ii the setting out of alternative ways of achieving objectives
- iii the economic appraisal of the alternative ways of meeting objectives
- iv deciding on and implementing the most cost-effective way of achieving an objective
- v monitoring the decision.

These steps were very much part of the guidance on joint planning for NHS and local authorities (DHSS 1976) although no mention was made of cost-effectiveness analysis.

Since cost-effectiveness analysis is aimed at making the best use of society's scarce resources, it is concerned with analysing alternative means of achieving policy objectives and entails two typical approaches:

- i to minimise the costs of achieving a given outcome
- or ii to achieve the maximum outcome for a given cost.

It is obvious from this statement that the main components of cost-effectiveness analysis are the measurement of costs and the measurement of effectiveness (or outcome, output or benefit).

All economic appraisal involves these components, but the appropriate level of analysis depends upon the way in which effectiveness is measured. Given that costs are usually expressed in monetary units, there is always the challenge to economic appraisal to measure effectiveness in commensurate ways. The term "cost-benefit analysis" would be used for appraisals which measured both costs and effectiveness in money terms. In effect, no one has produced such a work. The term "cost-utility analysis" is used where effectiveness is measured in units (eg, years of life expectancy gained) which yield results in terms of cost per unit of outcome. Cost-effectiveness analysis is the simplest model of economic appraisal where the alternative approaches under consideration can be assessed in an ordinal way - alternative A is more, less or equally effective than alternative B. This means that the efficiency of alternatives can be identified provided that either

- i the least cost alternative is not less effective than the other alternatives, or
- ii the most effective is not more costly than the other alternatives.

The limit to cost-effectiveness occurs where one alternative is more effective and more costly than another.

Although cost-effectiveness analysis is the simplest of the different approaches of economic appraisal, it is not easy to put into practice. The main reasons for this are the difficulties which occur in the measurement of costs and effectiveness. These difficulties are considered below in terms of

- a) concepts of cost and effectiveness
- b) the impact of costs and effects on agencies and individuals
- c) measurement problems
- d) timing of costs and effects
- e) monitoring..

The Concept of Cost

The concept of cost used in economic appraisal is based on the notion of scarcity, choice and sacrifice. Resources are always scarce and therefore choices have to be made to use them in one way rather than another. Thus choice implies sacrifice, giving up some use of resources to enjoy others. If NHS and local authorities choose to use resources to increase the welfare of one group of people, for example, elderly people, they sacrifice increasing the welfare of other groups of people with those resources. The economic cost of a resource is defined as the value of the most favoured alternative use of which it could be put. The economic or opportunity cost of a resource used to increase the welfare of Group A is the loss of welfare for group B who could also have received that resource.

Most people without a knowledge of economics would regard the cost of a resource to be the money that is exchanged for its use whether that be the price of a commodity or service to be consumed or the payment for the use of time or land or property. In many instances this lay approach to measuring resource costs will reflect the value of a resource in its most valuable forgone opportunity. The economic concept of costs constantly reminds people to question whether this is true. The relevant question for evaluating resource use is "Would this resource be used by some other organisation or

person if not used in its present or proposed purpose?" If "yes", the resource has a positive cost and the cash paid for it will most probably reflect its opportunity cost provided that it is not subject to an indirect tax (eg, VAT) or a subsidy. If "no", the resource has a zero cost.

The factor which makes for difficulties in costing policies for health and social services is that many resources are used without any cash changing hands so it is difficult to know how they are to be valued. Many services such as inpatient care, community nursing, social work have to be costed by identifying each resource that is used (eg, labour, travelling time and expenses, premises, administration overheads) and valuing it separately so that a total cost can be found by summing up the components. It is no small wonder then that there are few routine statistics on costs available for many of the health and social services.

The Impact of Costs on Agencies and Individuals

Economic appraisal is concerned with the use of all the resources in society whether that be use by the statutory services of paid labour or of patients' and relatives' time which is not customarily paid for. Any policy development or change will call forth changes in resources use which affect a number of agencies or individuals. Thus, it is common in cost-effectiveness analysis to work with a list of agencies or individuals concerned including NHS authorities, local authority departments, other public agencies, voluntary societies, patients and relatives to identify how changes in resource use impact on all the parties involved. Such a procedure is particularly apt for policies which rely on inter-agency collaboration for their effective implementation, especially at a time when many statutory

agencies are concerned with minimising expenditure on cash-limited budgets. It is very easy for individual agencies to act in their own financial interest, but behave inefficiently with regard to the costs their behaviour imposes on other agencies or individuals or on the decline in the quality of care and life of the people they are trying to serve.

Measuring Costs

There is no simple guide to measuring costs, because of the point already made in the discussion of the concept of cost. Economic appraisals require as their starting point the identification of each change of resource use likely to be brought about by alternative means of achieving objectives. Thus, any appraisal and costing exercise is tied to the context of decisions about specified policy changes. It is not possible to generalise practice outside these specific contexts. All guidelines to economic costs need to resort to specific examples to illustrate the measurement problems (Shiell and Wright, 1988).

Generally, the greatest difficulties in the measurement of costs occur where the cash paid for the resource is not an accurate reflection of its value in alternative uses or where changes in resource use are very difficult to identify. A good example of the former in community care policies is the help provided by relatives and friends. Since there is no recognised way of recompensing principal helpers for the efforts they put in, apart from invalid care allowance which has limited applicability, there is a tendency for statutory authorities to use these resources as "free goods". However, many studies have shown that this help can be extremely costly to the individuals concerned (Parker, 1985). The major problem is to find methods

of taking proper account of these resources (Wright, 1986).

Difficulties in identifying changes in resource use occur in many cases of administrative resources or large blocks of capital such as hospital buildings. Thus policies which propose to increase the establishment of home helps need to include the cost of the increases in supervisory and administrative loads that are caused as well as the cost of the extra home helps. Estimating resource use change as the number of patients in hospitals declines is also a very complicated business (Normand and Taylor, 1987). Costing change in the workload and use of staff such as social workers, community nurses and general practitioners is also bedevilled by identifying how their time is used in treating different people or in administrative and clerical tasks and how usage varies under different policy scenarios.

Thus, the problems involved in measuring costs need careful thought, new data collection and accurate valuation if they are to be solved. Consequently, costing alternative courses of action is a time consuming exercise for trained people and if proposed expenditures in a joint finance programme are to be appraised, this time and resource use must be made available. It follows, therefore, that the proposed expenditures need to be of sufficient magnitude to warrant such resource use.

The Concept of Effectiveness

In public policies the concept of effectiveness is concerned with meeting stated objectives. Thus, if a community care policy is concerned to increase the quality of life of, for example, people who have suffered a mental illness, the effectiveness of that policy has to be measured in terms

of improved quality of life of the people concerned. The terms outcome, output and benefits of public policy are also used to describe effectiveness and for this paper all these terms are treated synonymously.

Impact on Different Agencies and Individuals

Policies will impact differently on the agencies and individuals concerned. Given that community care policies are aimed at improving client welfare, the main concern will be the effectiveness of policies in achieving these objectives. Principal helpers will also be affected. In addition, there is the problem of the differential use of staff in the public services. Thus, policies which are aimed at substituting home-based for hospital care will affect the welfare of staff employed in different services. Thus, analysis of policy changes may well have to identify the ways in which staff morale can be maintained during changes in employment.

As with the approach to costing, the measurement of effectiveness has to start with a listing of the individuals and organisation affected. This process will be less involved than in costing exercises and will be dominated by changes in the welfare of clients and their principal helpers. The measurement problems, however, are much more difficult.

Measurement of Effectiveness

The measurement of effectiveness faces the problems common to all measures:

- 1 Validity - the ability to measure the properties intended to be

measured,

- ii Reliability - the ability to record the same measurement for identical situations even though measured by different observers,
- iii Sensitivity - the ability to accurately reflect changes in the property being measured.

The first problem is particularly difficult to overcome since validity of measures is usually assessed by checking them against an already accepted yardstick. The measurement of effectiveness of public policies is in too early a stage to possess comparative yardsticks.

The other problems can only be tackled empirically in the context of specific measures which have to be tested in repeated situations using different observers to test reliability and sensitivity. Again, this painstaking work is very time consuming for skilled personnel. Progress is usually made in economic appraisals where appropriate measures of effectiveness are readily available.

The design of measures of effectiveness follows a recognised pattern:

- i the identification of the components or dimensions of a measure,
- ii measuring along each component or dimension, and
- iii combining different components or dimensions into a single composite measure.

The measurement of changes in client welfare can be used to illustrate these steps using the care of elderly people as an example.

The main dimensions for measuring changes in individual welfare have been listed as follows (Challis, 1981):

- a) Maintenance of independence
- b) Improvement of maintenance of morale and psychological well-being
- c) Nurture
- d) Compensation for disability
- e) Social integration
- f) Development of community support
- g) Maintaining or improving family relationships.

It is possible to make progress with measurement along each of these dimensions and there is a vast literature to illustrate these points so there is little reason in going over it all here (Challis, 1981). The important aspect which affects this paper is that while it is possible to measure progress along separate dimensions, progress has not been made in combining them into a composite measure.

In some instances it does not matter that there is no single measure. For example it is possible that one policy performs better on all dimensions than another. It is, therefore, the more effective policy. In other instances, it is possible in comparing alternatives for one policy to score better along some dimensions but worse along others so that it is impossible to say which is the more effective policy. It is these cases that require a method of rating each dimension so that scores along each one can be combined into a single dimension.

These difficulties of measuring effectiveness pervade all public

policies and the lessons that have been learned so far indicate that for many analyses there has been sufficient progress in measurement to allow some decisions to be made, but that in the end professional judgement will often be needed to weigh one dimension against another.

Timing

The timing of costs and benefits is important. Deferred costs are preferable to costs occurring immediately whereas benefits occurring immediately are preferable to deferred benefits. This reasoning follows the concept of time preference or the notion that people generally prefer immediate to deferred consumption. Economic appraisals take this factor into account by the use of discounting and this ensures that a benefit or cost of £x in year 1 is given a numerically higher value than in subsequent years 2, 3, 4 and so on.

Monitoring

All economic appraisals are riddled with assumptions and uncertainties. Quantifying resource use, assessing effectiveness, choice of discount rates and timing of costs and benefits often involve major uncertainties. Although the impact of many of these factors can be assessed by altering the values contained in the analysis and making them sensitive to different assumptions, decisions have to be made on the basis of "best guess" of the uncertain effects. Monitoring of policy implementation will reveal how good the guesses were and whether certain assumptions proved false enough to merit a change in policy. Thus, the appraisal is not a once and for all exercise, it needs to be under regular review and a good cost-effectiveness analysis will

indicate key variables in the appraisal which might, if changed, require a revision of policy. The main implication of this approach is an explicit account of the way in which the analysis was carried out.

IV Cost-effectiveness and Joint Finance

Work in this research project has identified a lack of cost-effectiveness analysis. On interview most officers in NHS or local authorities were well aware of the need to appraise options but suggested several reasons for not undertaking such work in their own authorities. Specifically, it was pointed out that the methodology of cost-effectiveness is complicated and time consuming and requires specialist skills to carry it out. Cost-effectiveness analysis is costly itself and must therefore be prepared to be assessed in terms of its own efficiency criteria. There may well be cases in deciding on policies and programmes where it would not be appropriate to use cost-effectiveness analysis. These may be summarised as circumstances in which:

- changes in resource use are negligible
- the proposed policy has been evaluated in other authorities
- the proposed policy is a continuation of existing services
- the proposed policy forms only one part of a major programme
- an evaluation requires major methodological advances.

If we concentrate on joint finance alone many of these circumstances are relevant and were used by offices in NHS and local authorities in this study as well as witnesses from DHSS to the Public Accounts Committee (1983) to explain the lack of appraisal of joint finance programmes. However, the main argument of this paper is that although these circumstances may apply at least to joint finance programmes, they do not apply generally to the policies which joint finance helps to fund. Each circumstance will be discussed in turn.

a) Changes in resource use are inconsequential

It is true that in all the authorities which contributed to the main study a considerable proportion of schemes agreed on the joint finance programme involved total expenditures of less than £10,000. Such schemes were not considered worthy of cost-effectiveness analysis. Officers in NHS and local authorities stated that they thought that cost-effectiveness analysis or option appraisal should concentrate on schemes costing £50,000 or more. In a similar vein, Sir Kenneth Stowe told the Public Accounts Committee that

"I say that because it is of the nature of the schemes that we are talking about that they related to very small sums of money"

(Public Accounts Committee, 1983, p2)

Certainly, it is important to avoid "taking a sledge hammer to crack such a nut" with cost-effectiveness analysis. However, there are two dangers which need watching. The first is that small expenditures over several years can add up to substantial expense and secondly that, although the joint finance contribution to an activity might not be great, the cost of the whole activity may be worthy of a full appraisal. Officers in NHS and local authorities guarded against the former danger by setting out capital and revenue consequences over the life of schemes. The second danger is more difficult to guard against and provides examples where activities or programmes need to be evaluated as a whole.

Experience in the research project illustrates the problems involved.

In the first case, rather fortuitously, it was possible to identify a self-contained scheme which could be appraised. This involved the establishment of day care for very frail elderly people (Gerard, 1988). Subsequently, it became more difficult to identify schemes involving major changes in resource use which were funded solely through joint finance. This led us in the second half of the project to concentrate on policies, namely respite care for families of children with learning difficulties, which had used joint finance as part of their funding, but which were also supported by routine health or local authority finances. In addition, it was possible to study these policies in several authorities to include different approaches to the provision of respite care (Gerard, forthcoming).

b) The Proposed Policy has been Evaluated Elsewhere

Joint finance is often used to support services which are new to the providing authorities but which have been tested out in other localities. For example, one authority included in the research project had used joint finance to introduce a "Crossroads Attendant" scheme into its area. These schemes had been tested out elsewhere and the results of the exercise have been published (Phillips, 1982). It would not have been worthwhile to repeat such an evaluation unless local circumstances had raised previously unidentified problems. In effect, there is now a useful body of literature on evaluation in community care (Wright, 1987) day services (Carter, 1981) intensive domiciliary support schemes (Challis and Davies, 1986) that can be tapped to provide the planning teams which bid for joint finance (or the members of Committees which control its allocation) a ready-made methodology or evaluation to justify (or check) bids.

c) The Proposed Expenditure is a Continuation of an Existing Service

A considerable amount of joint finance in the authorities included in the project was devoted to the extension of well developed services. For example, out of 327 schemes, the seven health authorities used joint finance to fund 269 schemes which were additions to existing services. The list of schemes include the home help service, residential care for elderly people, social work support, occupational therapy services, group homes, hostels and day centres.

It could well be argued that these services are so well established and accepted that there is no need to evaluate them. However, two questions spring to mind. Firstly, following the worries expressed by the Comptroller and Auditor General as set out in page 1, how well do these expenditures meet the criteria for the use of joint finance in that they are of benefit to health authorities? One immediate response is that all these services contribute to keeping people in the community and therefore save expenditure on NHS accommodation. However, this statement applies to a considerable part of the expenditure of local authority social services departments, so it will always be difficult to draw a line between services to be provided out of general funds and those to be met from joint finance. The second question concerns the evaluation of existing services and whether we are confident that they could not be provided in a more cost-effective way. Questions have been asked about the effectiveness and efficiency of well-established services such as meals-on-wheels (Johnson, Gregario and Harrison, 1980), day care (Carter, 1981), training centres for people with a mental handicap (Seed, 1988), and the design and organisation of residential care (Kellaheer, 1986). New ideas and philosophies and the pace of technological change would

suggest that even well-established services need to be monitored and reviewed in a rational planning system.

d) The Proposed Activity Forms Only One Part of a Major Service

The funding of secretarial assistance to a community mental health team or of a psychologist to a community mental handicap team are examples of joint-finance being used for the partial support of a major service. It would be very difficult to evaluate the joint finance supported contribution to such services. Again, these uses of joint finance raise questions about how one particular aspect of a service was deemed to be the one that was of benefit to the NHS. In effect, any evaluation needs to be concentrated on the service as a whole and not just on the elements supported by joint finance.

e) An Evaluation Requires Major Methodological Advances

The need for time and trained manpower to apply and develop cost-effectiveness analysis followed the "small expenditures involved" as the second most common reason for not carrying out more evaluations of schemes supported by joint finance. Some schemes will be of this nature and special studies need to be designed to evaluate them. However, this is not a reason for doing nothing about evaluation, but rather a reason for being limited in the number of things it is possible to do within manpower constraints. Some very useful pieces of evaluation on services such as augmented nursing care (Gibbins et al, 1982) or a Family Support Unit (Donaldson and Gregson, 1989) have been carried out with help and advice from other research units. Measurement of effectiveness may require the application of a difficult

methodology, but it is often possible in cost-effectiveness studies to manage with quite crude measures at times, so it is often worthwhile making some attempt even if there is a lack of sophistication in the final analysis.

Thus, the general theme which emerges from these discussions is that while there may be very few joint finance schemes which would benefit from a detailed economic appraisal, there are many programmes or policies which may or may not contain joint finance schemes which would so benefit. Thus, it is more worthwhile to press for economic appraisal generally rather than just for the appraisal of joint finance schemes.

If one holds this general perspective, then the picture on the use of cost-effectiveness shows a more positive response to criticisms about the lack of appraisal than just reviewing the methods of allocating joint finance. The general build-up of knowledge from academic research, option appraisals and in-service evaluations is providing information on community care which will guide NHS and local authorities into allocating resources to the most effective services. This is particularly true for services for elderly people (Davies and Knapp, 1988) and will optimistically improve for services for people with learning difficulties (Shiell and Wright, 1988) and for people with a mental illness although the pace of development has been very slow (O'Donnell et al, 1989). Lessons from the development of the care in the community pilot project (Renshaw et al, 1988) will add to this knowledge base.

Of course, there is still room for more work. Innovation in service delivery as well as doubts about or suggested improvements to well-established services will ensure that. Some joint finance schemes which

provide substantial new services in particular areas will also need evaluation. The main lesson to be learned is that setting up suitable procedures and encouraging staff to think in terms of analysing alternative approaches to meeting objectives will improve resource allocation procedures generally as well as improving the allocation and monitoring of joint finance. A good example of this occurred in that part of the project which was carried out by research staff of the Centre for Research in Social Policy of Loughborough University. In one authority, staff had been worried about the lack of formal criteria and methods of allocation and monitoring of joint finance. Consequently, they developed a structure and process for scrutinising all joint finance bids. Although the process stopped short of a full economic appraisal, bids for joint finance were checked firstly for technical eligibility and secondly for their full cost or resource implication. Moving towards a more thorough investigation of bids in terms of cost and effectiveness was under consideration although officers realised that this would take some time to achieve.

The importance of developing good information systems and explaining the literature on the evaluation of different forms of service provision were recognised by the Working Group in Joint Planning (DHSS 1985) when they recommended the appointment of joint information groups to supply joint planning teams with information on, inter alia, finance and service provision and pointed out that such a group should also "keep abreast of research and good practice elsewhere". There are good regular sources of information on research projects, in progress and completed, published by research funders such as the Department of Health, Economic and Social Research Council. Organisations such as the Centre for Policy on Ageing publish a regular literature review of books and articles on many different aspects of policies and services for the care of elderly people. There are also various research groups which meet regularly for members to exchange information on service developments and policy reviews. It is not the lack of information but its abundance and the need to keep up to date with it which often proves to be problematical.

The literature on cost-effectiveness analysis itself is not in excessive supply. The most useful sources of information on economic appraisals are those articles which review a whole series of studies such as the one produced for the Wagner Report on residential care (Davies and Knapp, 1988). In addition, there are good reviews of measures of effectiveness (Renshaw, 1985), quality of life (Kind, 1988) and quality of care or environment (Raynes, 1988) which are useful in setting up evaluations. The message which comes from this literature is that there is no shortage of measures and the main problem is to find the instruments which suit

particular local circumstances and individual appraisals.

There are also useful guides to the methodology on costs (Shiell and Wright, 1988) or to economic appraisal generally (Drummond, 1980). Sometimes it is possible to carry out rather crude but effective costings where one alternative is clearly cheaper than the others. A neat example of this occurred in the research project with the development of day care for frail elderly people. In this case, the new development was more expensive per attendance than the existing day centres for elderly people but less costly than day hospital attendance. Since the existing day centres could not cope with very frail people, and day hospitals provided intensive programmes of rehabilitation, the new day unit filled an important gap in the provision of services at an appropriate cost level.

In certain circumstances, the costings used in a major study can be adapted to use in other pieces of work. For example, costs from a study of alternative patterns of care for elderly people (Wright, Cairns and Snell, 1981) have been successfully applied to other appraisals (Challis and Davies, 1986; Kyle, Drummond and White, 1987) and the cost savings accruing from the closure of a hospital for people with a mental handicap have been modelled for general use (Normand and Taylor, 1987). Although great care is needed to ensure that the methodology is being translated correctly to other appraisals, this approach can save a considerable amount of time and yield very useful results in practice.

The third area where there is considerable expertise to draw on is the measurement of consumer attitudes to services. Although a considerable amount of this activity has been applied in acute services (Carr-Hill et al,

1989) and there may be difficulties in using the methodology in long-term care for people with mental illness or mental handicap, the work in this project has shown the importance of seeking the attitudes of both users and non-users to the service provided. In the case of day services for frail elderly people (Gerard, 1988), views on the service provided were obtained in a short interview with users. In the study of respite care for children with learning difficulties, the attitudes of parents who used and those who did not use the service were collected to see what, if anything, put people off using services as well as what was good, bad or indifferent about them for users (Gerard and Wright, 1988). All this work was carried out to a very tight schedule so that results could be obtained within a four to six month period. Since it was carried out by one researcher, it shows that it is possible to review, monitor and appraise services in the time periods which apply to the regular cycle of decisions which govern the allocation of joint finances.

It has to be recognised at times that it is not possible to measure all the costs and outcomes of a proposed project. There is, however, a good case for making a start on an economic appraisal because of the way it helps to clarify objectives and sharpen up the formulation of problems. These two points alone concentrate minds on the issues involved and provide a challenge to produce better data or analysis. The framework of economic appraisals focuses attention on the costs to all the agencies and people involved (including informal carers) as well as on the potential benefits. It also sets out an agenda for monitoring projects as assumptions about the impacts of costs and benefits are tested with the practical implementation of planned projects. Such an approach would go a long way to assuaging the worries expressed by the Public Accounts Committee (1983) that not enough

consideration is given in the allocation of joint finance to the benefits (or cost-savings) the projects bring to the NHS.

VI Conclusion

The research project found very little evidence that cost-effectiveness analysis has been used in the allocation of joint finance. However, there was also very little evidence that joint finance was not being used for the purposes for which it was designed, namely the benefits it could bring to the NHS in terms of better services for patients or lower costs of service provision. Given that so many community based services are likely to save NHS resources by preventing admission to or expediting discharge from hospital care, it would be difficult to identify expenditures which do not benefit the NHS. In effect, there are a number of reasons why officials of health and local authorities would be discouraged from using sophisticated methods of evaluation.

Firstly, joint finance is not a major resource for health or local authorities. The amount spent on joint finance is less than one per cent of NHS expenditure (DHSS, 1987). Given the problems which exist over the other 99 per cent of expenditure it is little wonder that many people would perceive joint finance as a relatively low priority. Such an attitude would be very acceptable if total expenditure over several years on a joint finance project was relatively low. Cost-effectiveness analysis uses resources and has to be subjected to the same tests as the projects on which it is needed. However, it has to be remembered that some projects involve expenditure over several years and final programme costs may well make cost-effectiveness analysis worthwhile. In addition, joint finance has at times of extreme financial stringency been one of the few sources of growth which can be used to expand services and this should provide an incentive to use the money wisely.

Secondly, the time scale for allocating joint finance is short. There is an annual cycle of decision-making centred on joint finance as well as the regular pressure of monitoring existing projects. The understandable reaction to this pattern is to concentrate on the allocation of funds rather than on analysis of alternatives. However the research did carry out pieces of analysis which could be undertaken within those time scales (Gerard, 1988).

Thirdly, joint finance is often used on a piece-meal rather than whole-service basis. For example, authorities choose to use joint finance to fund a secretary or a community nurse or a social worker to a mixed-discipline community team. The other parts of the service are funded through conventional budgets. Any analysis must therefore be aimed at the whole and not just at the jointly financed part of the service. This problem greatly affected the research. It was extremely difficult to identify projects solely funded from joint finance. Thus in the later stages of the study attention was focused on policies partly funded by rather than projects wholly funded by joint finance (Gerard, forthcoming).

Fourthly, many authorities lack the personnel with experience to use cost-effectiveness analysis routinely. Although, cost-effectiveness and public sector economics form part of the qualifications and training for some staff in both health and local authorities, the methodology is often difficult to put into practice without close supervision by someone who has considerable experience of it. It may be some years yet before such expertise is readily on hand in most authorities throughout the country.

Finally, joint finance has lost some of its significance since the acceptance of the policy to close long-stay hospitals in favour of the development of community care. Potentially, the closure of these facilities would release amounts of money which would make joint finance spending look rather insignificant. Practically the pace of the implementation of this policy has been very slow for reasons which have been well-documented and broadly accepted (Audit Commission, 1986). The future of joint finance of community care as a whole is now under review as part of the changes proposed in the White Paper on Community Care (Department of Health, 1989). However, the need for interagency collaboration in community care will remain and the original justification for the introduction of joint finance may ensure its continuation.

This is not the place to speculate on the relative merits of the ideas put forward in the debate on the organisation and finance of community care. Suffice it to say here that the role of cost-effectiveness analysis will be enhanced rather than diminished because the proposals for reform are concerned with the more efficient use of existing resources. This research project showed, however, that local and NHS authorities will need to be equipped with the necessary resources and expertise if the objectives of an efficient and effective set of services are to be achieved in the new "mixed economies" of social care.

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