NUFFIELD PROVINCIAL HOSPITALS TRUST
OCCASIONAL PAPERS 2

The policy of resource allocation and its ramifications

A REVIEW BY
CALUM PATON

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WITH A PREFACE BY
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CONTENTS

Editorial Note vii

Preface PROFESSOR ALAN MAYNARD ix

Digest and comment 1

The existing situation, 1. **Reforms,** 1,... **including two critical areas of methodology,** 2. **A tissue of new policies,** 3.

1 Introduction 4

2 The philosophy of RAWP 7

Summary: Primary needs, 9.

3 Formulae and categories 10

Summary: Primary needs, 13.

4 Resource allocation and planning 14

1. National and sub-Regional RAWP, 14. (a). Principles and Practice, 14. (b). An alternative approach, 16. *Inefficient medical care,* 19. **2. Sub-Regional RAWP,** 19. (a). Cross boundary flows, 20. (b). Targets and planning, 21. (c). Capital methodology, 21. (d) Capital and Revenue, 22. (e). Main alternatives, 23. **3. The planning emphasis,** 25. (a). RCCS—the funding of the revenue consequences of capital spending, 25. (b). District self-sufficiency, 26. (c). Alternatives to District self-sufficiency, 27. (d). Planning for priorities, 29. (e). Planning and RAWP: Some major controversies and issues, 29. **4. Conclusion to resource allocation and planning: 'Market' reform or 'Planning' improvements?,** 34. **Summary: Primary needs,** 35.

5 Mortality and morbidity 39

Mortality as a surrogate, 39. Alternatives to SMRs, 41. Alternative data sources for resource allocation, 42. Getting from here to there... again, 42. More research needed, 43. Controversy, 43. Politics, 44. **Summary: Primary needs,** 44.

6 Costing health care: Teaching and research 45

Diseases and costs, 45. Information, 45. Teaching and research, 46. A comparison with the US, 46. Caution in interpreting costs, 47. Future research needs and costing, 47. **Summary: Primary needs,** 48.

7 RAWP: Other policies and politics 50

Co-operation with other authorities and programmes, 50. Unification?, 51. One policy for one goal?, 52. NHS organization and other social problems, 53. Britain, the US, and politics: Comparative insight?, 53. Poverty traps, 55. Political trends, 55.

8 In conclusion 57

1. Capital planning, 57. **2. Regional and District responsibilities,** 58. **3. Medical consensus on needs,** 59. **4. Manpower and reallocation of resources,** 61. **5. Social and class differences in outcomes and access,** 61. **6. Evaluation of programmes for development,** 62. **7. Co-ordination of all public programmes bearing on health,** 62. **8. Development of specialty and patient costing,** 63. **9. The new management concepts,** 65. *Short-term,* 67. *Medium-term research,* 67. *Long-term research,* 68. **10. Consensus for efficiency,** 69.

Appendix I. RAWP and 'DRGs' 71

References 73

EDITORIAL NOTE

This series of Occasional Papers arose from the need to find an appropriate medium for longer essays on special matters of policy concerned with health services other than have in the past appeared in the Problems and Progress collections.

This paper, the second in the series, deals with the question of resource allocation which has become a crucial issue owing to the effects of redistribution of resources at a time of financial constraint. There has been some discontent at the sub-Regional level and, indeed, when the principles established from the original formula have been applied inflexibly there has been some criticism on the grounds of unfairness. Indeed it is significant that after the selection of the subject as an issue for study and the initial reconnaissance, the Trust was approached by the National Association of Health Authorities suggesting a study somewhat along similar lines.

In particular the essay raises questions of the process involved in sub-Regional allocations. It reviews the causes of most of the major problems and presents a number of policy alternatives, as well as arguing what is needed by way of further research.

Since the principles of RAWP were established and accepted as Departmental policy for the reallocation of resources, the most important change at the centre of affairs has been the formation of the NHS Management Board, the decisions of which it has to be presumed will now be fundamental to the allocating process. It is hoped the presentation of the issues in this paper will be helpful to the Board as its aim is to demonstrate that many of the key aspects of the question involve issues central to management, at the national, Regional, and District levels on which a lead must be given to ensure that the authorities are confident that decisions have been taken equitably.

The publication will be followed by two further papers with a similar objective dealing respectively with policies for health services research and for information, the twin bases of an effective policy for the use of intelligence on matters of health, without which no management can hope to be fully efficient.

G. McL.

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OCCASIONAL PAPERS

3. *A Fresh Look at Policies for Health Service Research.*
4. *Data, Information, and Intelligence.*

The Author

The author, Calum Paton, is Assistant Secretary of the Nuffield Provincial Hospitals Trust.

PREFACE

PROFESSOR ALAN MAYNARD

The development of explicit resource allocation formulae for redistributing NHS resources from well endowed and to 'needy' regions was begun in the Crossman era, supported later by Sir Keith Joseph. The refinement and extension is particularly associated with David Owen as a result of the report of the Resource Allocation Working Party (RAWP) in 1976. The RAWP formula represented a systematic attempt to equalize the financial capacity to provide health care of NHS regions in England. Similar formulae were developed in Wales, Scotland, and Ulster.

Eight years after the RAWP report it is appropriate to review its workings. This Calum Paton does in this essay, and his work and the questions he raises should be analysed in the context of ensuring the efficient use of scarce NHS resources.

Given the objectives of the National Health Service and their acceptance by all political parties, it is sensible for Government to seek to use resources efficiently and to attempt to equalize financial capacity throughout the country on a regional basis. It is however a negation of national planning for policy-makers to ignore the inter-action between RAWP and the other health policies of Government and Regions: in particular between resource allocation and planning, the latter term used widely to embrace priorities for services as well as mechanisms of delivery.

The authors of the RAWP report pointed out the need to integrate resource allocation policy and other health care policies in their final chapter. For instance, the RAWP formula excludes all expenditure on Family Practitioner Services (FPS) except their administrative costs. The maintenance of this division between a cash limited RAWP hospital budget and an open ended FPS budget has nurtured the growth of primary care services which use over one-fifth of NHS resources in a manner which is unevaluated and probably inefficient in resource use. Yet it is not this proportion as an abstract figure which is necessarily the

problem; it is the lack of integrated patient care, and frequently a poor understanding of the division of labour between primary care and hospital care, which is a significant problem.

It was obvious in 1976 that the failure to integrate the planning of RAWPed hospital services with other health services, the development more rapidly of better information systems, better service priority setting and the development of manpower planning would generate less than efficient outcomes in service provision. The planners of 1976 are the Managers of 1985: they are seeking to achieve their objectives or 'gain one's ends' as the *O.E.D.* defines the verb to manage. However, whilst in 1976 there was, as witnessed by the RAWP report, an admittedly passing awareness of the need to plan or manage the whole system, in 1985 management at the centre and at the local level is fragmented. At present a host of different 'initiatives' are underway, concerning better management but are poorly co-ordinated.

Major issues are not integrated into the management framework. There is a reluctance to recognize the need for and to develop an integrated service for client groups such as the elderly, the mentally ill, and the mentally and physically handicapped. As well as primary care there is the omission to develop and integrate into health care and other services an efficient health prevention policy.

Lack of integration of services is well exemplified by the fate of the Joint Finance programme which is a scheme to bridge the gap between the hospital system and Local Authority Social Services (LASS) and develop efficient care in the community for such client groups. The failure to use these funds efficiently to integrate services may soon lead to independent (and efficiency) minded health authorities setting up their own social service capacities because of local governments unwillingness to take on these roles. Competing social services (LASS and NHS) may be an interesting experiment but it is an unintended result of ill co-ordinated (or badly managed) community care policies. RAWP or, more generally, resource allocation must take account of variation throughout the country in the way the NHS and LASS complement each other. This essay recognizes the complexity of the issue, and that there are, of course, no easy answers.

The RAWP report was merely one element in a wider planning (now called management) process. These policies appear to have been abused by blind use of the formula sub-Regionally and the propensity of all

governments to implement piecemeal policies which should clearly be better related. Such abuse is not consistent with the efficient use of scarce resources. It results in the ill co-ordinated and possibly inefficient use of resources in some sectors, including poor intra-Regional planning of specialties and the failure to evaluate policies about priorities and the needs of client groups whose care comes from many government and non-government agencies.

It is necessary, if management is to achieve efficiency in the use of society's scarce resources, to review the RAWP process and integrate the attempted equalization of NHS operational financial capacity with the management of other inputs (e.g. capital and manpower) and the production of efficient patterns of care for client groups with competing demands. However, for this to happen management must evaluate activities across the board (not just piecemeal) and this will require careful research. One test of the Griffiths revolution will be whether evaluation and research activities are developed so that policies such as RAWP are appraised in a manner that makes explicit not only which Regions gain and lose from policy changes but also what they did with their gains and how they responded to their losses. Such basic information about the RAWP process is absent eight years after its initiation, save almost at an anecdotal level.

The grand tradition of the NHS planning and management process has been to design and implement in an *ad hoc* fashion seemingly sensible policies. As the authors of most of these policies were aware there was a need to integrate their and other activities within and outside the NHS. The failure to integrate management activities and to evaluate carefully the impact of policies ensures that it cannot be demonstrated that the NHS achieves the goals of efficiency and territorial equity in financial capacity and provision. Merely redistributing financial capacity, as in the RAWP process, may not improve efficiency or territorial equity. Only efficient decision making, illuminated by research results and information about the system's performance, and carried out in relation to clearly defined policy goals can achieve these goals.

Calum Paton's essay is a timely attempt to initiate discussion of these issues. It should be looked upon as beginning a process of revaluation. If it is successful in *generating* further debate, improved policy co-ordination and better evaluation of new and existing activities it will have made a significant contribution to the efficient development of the National Health Service.

University of York

DIGEST AND COMMENT

The existing situation

A. Low or no growth in the NHS makes sub-Regional **Resource Allocation** crucial and sub-Regional *RAWP* potentially harmful.

B. The RAWP definition of Equity in Access is essentially contested. Clarification is necessary, both as to goals and as to practical ways of reaching them.

C. Resource allocation and service provision are tenuously linked. This is not **necessarily** an objection. Yet this essay's analysis suggests it is in fact a severe problem.

D. RAWP is only rudimentary in measuring the need for effective Health Care. While both ethical and social principles and methodologies to tackle this area are, respectively, varied and rudimentary, the problem is growing at a time of scarce resources. Some movement to a new consensus is needed.

E. Standardized Mortality Ratios (SMRs) cause severe problems at sub-Regional level. The various ways in which this can happen are discussed.

F. Components of the overall RAWP target are weighted arbitrarily. This is one of the least noticed yet most important aspects of RAWP.

G. Movement to targets for resource allocation is a complex process, involving careful reconciliation of revenue and capital, and the present system is inadequate. Some of the reasons are set out.

Reforms . . .

H. Different criteria of efficiency and effectiveness in re-allocating resources require careful assessment. A variety of possible procedures exist, and care is required.

I. Revenue and capital require joint attention. This does not mean one policy is the best everywhere, in all circumstances.

Yet compatibility is necessary between different aspects of RAWP; and present procedures often fall far short of this. Different possible improvements are discussed.

J. Resource allocation and planning are separated harmfully under present assumptions. In current policy, they should be treated more coherently and as complements, but rarely are.

K. **Alternative** means of rendering resource allocation and planning compatible exist. These are, primarily:

1. Conceptual separation of the two but then inter-District payment on a 'Public Market' Basis. This option would render resource allocation **calculations** simpler and distinct from planning; but subsequent inter-District buying and contracting for services would reflect Districts' plans and prognoses for service provision as well as their basic needs.

2. Reconciliation and merging of the two in an improvement of planning (with resources linked) by *Regions.* The complex aspects of this alternative are discussed in some detail.

L. At present, sub-Regional RAWP contains incentives for mechanistic District self-sufficiency, and the subjugation of sensible planning to rigid allocations. The aim must be to choose *either* option under K. and make it work.

. . . including two critical areas of methodology

M. The use of mortality as a surrogate for either morbidity or health needs in general must be reassessed in a number of ways, as outlined in Part 5.

N. The problems of teaching hospitals, of research, and of approaches and methodologies in costing and budgeting require to be addressed on the basis of wider assumptions, as suggested in Part 6. Within these seemingly technical areas are couched some of the most severe and pressing of RAWP's problems, with direct bearing on human need and current failings (especially in London). The **poor incentives** in linking hospital care with community care, and also GP care, should be tackled **along with and in complement with** reassessments of the bases for reimbursements.

A tissue of new policies

O. The links of resource allocation to other programmes and policies require examination and reform, as argued in Part 7.

P. **General Management** to improve the handling of capital, and all the other tasks outlined, must be developed.

Q. **Regional, District and Unit** roles must be differentiated and yet co-ordinated involving improvements in **Management Structure and Behaviour**.

R. Greater medical consensus on needs is required, and more medical input to effective management (as opposed to merely supply of data) is required.

S. Specific initiatives to link budgeting and costing reforms to new methodologies for resource allocation (e.g. as outlined in Part 8(8)) are required.

T. Additionally, resource allocation to FPCs and incentives to GPs, while institutionally separate from RAWP, ought to be explored in tandem with systems of budgeting and costing. Lack of control of allocation to FPCs is a big problem (as evidenced by the recent fact that the 'limited list' idea seemed to be Ministers' only way of 'acting on' FPC expenditure, given current statutes). The primary needs are for a more effective and efficient 'division of labour' between hospitals; the community, GPs, and even complementary professions where relevant. But the current system of resource allocation has as its main feature **overall budgetary control**. This is important; but re-ordering priorities by 'macro' adjustments or cuts in budgets is crude as a policy in itself. If, for example, savings have to be found yet the hospital services have taken 'too much of a battering', cutting FPC expenditure may be the only route left. Yet not only is this difficult; it may also be inappropriate, as well as irrelevant to the task of better integrated care.

U. **The Key**
The role of the **NHS Management Board** and **general managers** in linking policy and research will be critical. Yet focus on the important substantive issues is not evident.

1
Introduction

The problem of resource allocation within the NHS below Regional level seems to have received scant attention from the present Government. This is on the surface surprising since, taken in conjunction with the current stated priorities of the Government, this issue may be more crucial than at any time since the inception of the NHS, and certainly since the origin of RAWP in 1976. Why is this?

Firstly, the Government is committed to, at best, very moderate growth in real terms in NHS expenditure. Coupled with an acceptance of RAWP at the level of national allocations to Regions, this means that 'rich' Regions set on targets to implement ministerial priorities may actually have to lose money rather than merely suffer relatively lower rates of growth, or worse, static allocations. If this gives pause to action, the only alternative is to banish the realization of RAWP targets to the hazy horizons of the future. As a result of current policy, sub-Regional allocations may imply harder choices for allocation than ever before and even closures of services.

Secondly, the Government's drives for savings and greater efficiency, laudable in themselves, mean that some common interpretations of what should be involved in reallocating resources to Districts, such as the equalization of relative resources in the name of local self-sufficiency, may be inappropriate or positively harmful. For example, pressing needs to save money may lead Districts in the direction of autarchic policies. In another related vein, isolated and fragmented 'efficiency drives' may lead to rival criteria for encouraging better allocation of resources, or at least implications for allocating resources.

Thirdly, resource allocation is in itself a major determinant of planning possibilities, whether overtly linked or not; of use of capital; of the relation between capital and revenue spending; and of the complex nature of hospitals and all other types of health facility. Consequently

this topic *in itself* is central to any moves to effectiveness, and to efficiency. However conceptually correct the institution of 'performance indicators' may be, any such criteria of efficiency may, even if adequately based, only be concerned with the tip of the iceberg.

The alternative for politicians of focussing on the visible tip alone, is clear. They can 'be seen' to be giving due attention to glowing examples of visible problems. What is more, 'political initiatives' are often in fact fads, designed to demonstrate good faith or display the appropriate symbols. Apart from the inadequacy of limited action, such behaviour tends to span a large number of fragmented initiatives which not only fail to gel but which also, partly as a result, fail to address the matter in hand deeply enough whether individually or collectively.

This essay is more concerned with seeking coherent and practical methodologies for allocating resources sub-Regionally than with a descriptive or historical analysis of practice in different Regions. This aim inevitably involves some consideration of different current policies in different Regions, where these reflect important, controversial or difficult areas of concern—or indeed areas where grounds for policy seem indeterminate. There is no assumption in this that a common overall methodology can be found which is applicable optimally for all Regions. Some aspects of methodology may however be of this nature; and a primary purpose will be to distinguish these aspects from others where, on the one hand, differences in approach are 'rational', based on measurable differences between Regions, and, on the other hand, differences are political or otherwise value-loaded. The latter will inevitably ensure inter-Regional differences as long as such values differ.

* * * * *

The following areas have been selected as primary focuses of attention and are reflected in the numbered Parts which follow:

2. the philosophy behind both national/Regional and sub-Regional RAWP;

3. the use of formulae at sub-Regional level for revenue allocation;

4. the relations or otherwise between sub-Regional RAWP and service planning, including the relations between *revenue* resource allocation and *capital* allocation. 'Cross boundary flows' are treated under this heading;

5. the question of mortality's suitability as a surrogate for morbidity;

6. the question of costing, especially as regards 'teaching and research' Districts;

7. the question of RAWP's links with other health, social, and economic policies e.g. the question of the desirability or otherwise of 'socio-economic' weighting; and also the question of RAWP's congruence or otherwise with political aims, trends, or fashions (e.g. 'devolution', 'centralism', 'local funding'). These two questions are naturally often related, e.g. political attitudes to funding and running the NHS as compared to (other) social services.

8. the conclusion which takes into consideration current moves, such as the introduction of the General Manager, and requirements which involve suggestions for further research.

2

The philosophy of RAWP

(a) The *philosophy* behind RAWP embraced *a particular definition of equity in access to health care.* The Working Party adopted the principle 'that there would eventually be equal opportunity of access to health care for people at equal risk' (1). This can be interpreted in more than one way. Perhaps the main uncertainty which arises is whether or not the principle is intended to apply to each relevant particular disease or condition for each person, or merely to some approximate average: that is, should each person at equal risk of kidney (heart, bronchial, etc.) disease have the same opportunity for access; or should it merely be the case that any population group has, on balance, access comparable to others in different Regions with similar severities of illness, with all the vagueness that this implies.

This question immediately poses a link between resource allocation and the uses to which it is put, i.e. services and therefore service planning. The RAWP report originally eschewed the examination of such a link: 'We have not regarded our remit as being concerned with how the resources are deployed' (2). The problem, however, is that, on one interpretation of the 'equality of opportunity' principle, such a separation is impossible, at the sub-Regional level at the very least. This question is considered in Part 4 below, in an analysis of the relations between sub-Regional RAWP and service planning. 'Planning' is taken in various contexts to embrace a variety of stages in service design and provision, from the proposed use of resources through their specific incorporation in specialty-by-specialty allocation to the operational practicalities of realizing planning goals.

(b) *An alternative equity principle* to that embraced in practice by RAWP—one which can be invoked from RAWP's 'equality of opportunity' principle but which is probably better posed as a different principle—*calls for more resources to those social classes, geographic areas*

and/or 'client groups' which are appreciably worse-off in terms of health status. An example is provided by the question of inner-city deprivation, which in fact arises in a number of areas relevant to sub-Regional RAWP and will be discussed, wherever appropriate below. Thus an 'index of deprivation' was included in North Western Region's sub-Regional RAWP formula. The Thames Regions have also explored this area to some extent and implemented changes to the pure formula. However no consensus or clear path exists; and sponsorship of supra-Regional research in this area has generally declined.

The principles which seem to be in at least some conflict here are, on the one hand, the 'equal opportunity for access' principle of RAWP and, on the other hand, equality of outcome in health status (often linked to other or broader goals of social equality-of-ends). It can however be suggested that trying to achieve equality of health-status by going beyond, or amending, the 'equity' canon of RAWP may be impossible in practice; and indeed may in practice merely involve 'double counting', on the grounds that RAWP's use of Standardized Mortality Rates (SMRs) already includes the best known correlation (at present) of worse health status due to social and geographic factors.

This particular debate is not pursued to any great extent in this essay, although the question is raised in Part 7 below, in an attempt to shed light on the extent to which health services resource allocation is a suitable mechanism for addressing such broader objectives. The practicalities of using 'health money' in co-ordination with 'social services money' for related services are briefly discussed.

(c) Another major judgement made by RAWP concerns the attempt in practice *to equalize opportunity for access for people at equal risk merely to the finance for health care: not to effective or efficient health care as measured by specific criteria, but to inputs rather than to outputs or outcomes.* This is not just a question of a resource allocation formula failing to guarantee the best possible use of resources allocated. It is also a question of the formula—openly and with clear presentation of the Working Party's reasons—eschewing the option of diverting resources proportionately more to those conditions relatively more amenable to successful medical intervention. Designing an index to achieve such a distribution of resources would be a difficult task indeed; but arguably no more, or not much more, complex in both value-judgement and empirical

detail than some other components of RAWP as presently constituted. Naturally measures of health status, and especially of changed health status due to medical intervention, would be important measures of *outcome* to consider as well as measures of *output* such as 'successful operations'. Thus a 'successful operation' may, for example, be followed by a patient's death after little time has elapsed. Here greater innovation in collection and use of medical *information* has a valuable role to play. But for present purposes this is another story which would be complex in the telling.

Unfortunately measures of health status—while showing signs of interesting development—are rather like attempts at direct measures of morbidity. Success is patchy, and neither resources nor adequate groundwork has been applied to generating promising but often local sources of data; nor has adequate thought been applied to how such measures would amend either existing resource allocation procedures or existing gauges of the worth of medical intervention. This is naturally an ethical and political problem as well as an economic and administrative one. Alternatives to SMRs are considered in Part 5 below. Although alternatives might be thought to call into question the use of formulae at sub-Regional level, and therefore to fall under the topic discussed in Part 3, the question is left open as to whether alternatives—or additions—to SMRs would mean an abandonment of the 'formula' approach as presently understood.

Summary: Primary needs

1. *Clarification of the practical meaning of the RAWP definition of equity in access.*
2. *Use of that meaning to forge a link of Resource Allocation with Service Provision.*
3. *Further exploration of relations between finance for Health Care and effective Health Care.*

3

Formulae and categories

The *use of formulae at sub-Regional* level raises several problems if the national RAWP approach is too closely used as a guide.

(a) Firstly, *there is the use of SMRs.* At sub-Regional level, the numbers of deaths by *ICD* (*International Classification of Disease*) may not be large enough to minimize the risk of producing unacceptable statistical variation, with quite possibly significant effects upon resource allocation. As a result, targets for resource allocation may be inappropriate or fluctuating or both. Thus condition-specific SMRs may be unacceptable. On the other hand, a completely aggregated SMR may be unacceptable in that the product of incidence of mortality and the costing of each disease will not be relevant, and therefore resource allocation may not reflect need. The Thames RHAs use condition-aggregated SMRs as a weighting factor for non-psychiatric inpatient services and day and outpatient services and overall SMRs for ambulance and community services (3). 'The Oxford (RHA) Working party recommended aggregating SMRs over those conditions where there are significant fluctuations' (4). The most common approach is to take averages of SMRs over a number of years (5).

Clearly there is scope for further work in this area, both conceptual and statistical—analytically to determine which strategies may be most useful in which conditions.

(b) Next, there is the *question of how the relative proportions of finance given to different components of the total target allocation to a District are 'calculated'.* This is a matter which applies also to national RAWP's distribution to Regions. The fact of the matter is that they are *not* calculated: they are attributed by a rather shaky rule-of-thumb.

To illustrate this point, consider the current components of the total allocation to Regions from central government, and to Districts from

Regions. (Ignore for the meantime sums deducted for central expenditure, Regional specialties and supra-Regional specialties and for other purposes; i.e. leave aside factors such as 'top slicing'.) Considering especially the question of reallocation sub-Regionally, there are seven components used in the ten Regions other than the Thames ones, and eight in each of the four Thames Regions. These are:

non-psychiatric inpatient services;
all day and outpatient services;
mental illness in-patient services;
mental handicap;
ambulance services;
community services;
Family Practitioner Services;
(and in Thames) maternity services.

A separate 'RAWP' formula is applied to each of these categories, to determine target allocations to Districts; and only later are the targets for each component added together which, when amounts held back under top-slicing, *et al.* are then distributed to Districts as appropriated, produces each District's target allocation. At national level, this process is illustrated diagrammatically on page 26 of the RAWP Report (6).

But in general, the proportions of overall expenditure for each component, before applying a formula to each, merely reflect previous years' actual expenditure, and are historic rather than analytical. The four Thames Regions for example use a Thames average for the proportions of actual expenditure in previous financial years. It is important, incidentally, to keep in mind the difference between target and actual allocations, to be discussed below in the context of how quickly targets are actually sought. It is easy to demonstrate that *actual* allocations in the past help to shape targets—not within each component, but by virtue of the fact that Districts' targets are naturally affected by what proportion of (actual) total allocations go to each component, before calculating targets.

This seemingly arbitrary manner of arriving at proportions in fact is another manifestation of the divorce of resource allocation and planning. There may naturally be constraints upon changing allocations between components: for example, existing capital, and the time and 'lumpy' resources needed to develop new capital, may prevent radical change in

line with conceptual analysis rather than incremental change constrained by history. But this type of factor is a constraint on RAWP in general as a process, and is no reason for avoiding the search for a better approach.

The present procedure has been implicitly criticized before (e.g. in the Black Report (7)) but such criticisms have failed to go beyond generality or cliche about 'preventive medicine' and so forth. This is not to decry prevention and other types of care but merely to decry their lack of incorporation into a respectable methodology for resource allocation and planning. In particular, a better gauge of need for resources on the part of Family Practitioner Committees as compared to hospital and other forms of care is required. This is an area ripe for profitable exploration.

The main challenges are to find a common measurement of need to allow comparison of components, which would probably mean that mortality alone is not enough; to quantify the scope for any such strategy; and to allocate resources accordingly.

(c) There have been problems with the *year chosen to measure weighted population: especially at sub-Regional level*, where changes in small populations—or, more significantly, in those characteristics of the population which most affect the weighting—can lead to wider statistically-induced fluctuations in resource targets, year to year. What is more, the precariousness of information about population in Districts provides another disadvantage to basing sub-Regional RAWP on Districts, especially on those which are not co-terminous with local authorities from which forecasts are more reliably available. Additionally, trends in population may be a better gauge of need for resources than the RAWP's advocacy of 'the estimate of the mid-year population of each Region nearest to the year for which allocations are made (8). Failure to account for trends can especially penalize growing Regions. Yet this is only one aspect of the problem. As will be discussed in Part 4, one major flaw with RAWP at sub-Regional level concerns a relative lack of concern with planning. As well as underplaying difficulties in making changes to services, especially where Districts are less autonomous, allocating resources and planning for even an accurately predicted future can cause real hardship for the present. For example the closure of a hospital or service to release either capital or revenue for the future can mean major difficulty.

Many of the latter points would not necessarily be altered by the recent

decision, due to take effect in 1985–86, to use a population projection corresponding to the year of allocation. Fluctuations, uncertainty, and slow movement to targets will still take their toll.

(d) Finally, *failure to match revenue formulae appropriately to capital formulae and methodology can be serious.*

Summary: Primary needs

1. *Reconsideration of SMRs: Types suitable at different times; limitations and possible alternatives in certain circumstances.*
2. *Components of the total RAWP target allocation to be re-assessed and jointly considered.*
3. *Such a reassessment has many angles. A key one is joint consideration of District Health Authority and Family Practitioner Service Budgets: Based on (a) the most appropriate locus for different types of care; and (b) the need to promote positive incentives for efficiency and effectiveness and to avoid perverse incentives.*
4. *More care is required in gauging practical strategies for change to improve a Districts' mix of facilities i.e. in order to make changes in revenue and capital budgets practical in expanding Districts and feasible in contracting Districts (where relevant). Resource targets and actual allocations should not be mechanistic.*
5. *Care with the year chosen to gauge (weighted) population is only one component of this task. A more crucial task is to assess movement to targets to see if planning and management can be accommodated efficiently.*

4

Resource allocation and planning

1. National and sub-Regional RAWP

(a) Principles and practice

(i) If Regions *qua* planning authorities mean anything at all, the separation of resource allocation from planning at national level, in distributing resources to Regions, is certainly more justified than such a separation at sub-Regional level. It is reasonable, except in the case of supra-Regional specialties and other well-defined exceptions, to judge Regions to be self-sufficient. This is not to say that, consequent to this, there should be *no* attempt to link resource allocation and planning, whether by way of central guidelines or by each Region. The following example suggests why. Indeed it also suggests why there is at least a case, albeit a highly contestable one, for making resource allocation (even from the centre to Regions) to some extent consequent upon the directly measured need for services and therefore planning. This case in general terms, going beyond any particular example, is stronger at sub-Regional level, and will be explored in more detail later.

The example concerns an issue introduced in Part 2(a) above. *If* it is assumed that the RAWP principles imply eventually equal opportunity of access to health care for people at equal risk *from the same conditions*, then an obvious flaw in the current system emerges. This flaw is highlighted by Steele and Dingwall-Fordyce (9). Briefly, the argument is based on consideration of the consequences of different Regional priorities even assuming that RAWP targets have been met, i.e. that services differing from Region to Region do not result from some Regions being 'richer' to an extent not justified by RAWP-determined needs. It is also assumed that services are not different because of differences in efficiency or in effectiveness of the same services in different Regions.

If different Regions rank diseases in different orders of importance, then—say—two individuals X and Y in Regions P and Q may have

different opportunity for access to renal services despite the fact that they are at equal risk. If a RAWP-derived methodology wants to do something about this, then it will have to provide incentives through manipulation of resource allocation or directives to Regions concerning services. This could be done under 'maximalist' or 'minimalist' assumptions. Granted that all (even all main) health problems cannot be tackled due to inevitable resource constraints, an order of priorities could be set, based on a ranking of disease groups. Under a more relaxed or 'minimalist' approach, general groups of diseases (e.g. serious, less serious, not serious) could be assembled and an attempt then made to ensure that there was equal opportunity across Regions for those at equal risk to treatment in each category in a broad sense, rather than for every disease.

The analysis of Steele and Dingwall-Fordyce is flawed in some respects. For example, their suggested approach for determining which Regions are 'better off' in the sense intended by RAWP—an approach which would measure changes in case-mix rather than measuring absolute case-mixes—might be open to the same objections, ironically, which they correctly apply to utilization of absolute case-mixes. But the overall point—that the RAWP formula alone cannot guarantee RAWP objectives—is good. The above suggestions seem to combine the best in Steele and Dingwall-Fordyce's analysis with an often-inferred but rarely explained criticism of RAWP's practical shortcomings. That is, to meet full RAWP objectives, control of Regions' (and certainly Districts') *use* of resources is necessary. It can certainly be claimed that RAWP was never intended to 'achieve' its own objectives' in a utopian or even comprehensive sense. But the question still arises, should it or could it do so better. The challenge is to find a way to do so better without recourse to an open-ended and unplanned insurance-based and/or fee-for-service system, in an attempt to guarantee access by patients. In any case, this latter approach would not necessarily tackle the 'supply side' as well as the 'demand side': i.e. discrepancies in availability between Regions and Districts could well be even worse.

(ii) Efficiency was briefly mentioned in (i) above. One can ask the question whether incentives for efficiency can be incorporated into a resource allocation process without either perverse side-effects or the need to incorporate aspects of service planning also. If one finds that the neediest Regions or Districts are the least efficient by the criteria of

provision of similar treatments (assuming for now that the thorny problem of finding adequate 'performance indicators' has miraculously been solved), then penalizing inefficiency will have grievous side effects. More generally, penalizing inefficiency does not solve the problem that patients in an already inefficient location, with no cast-iron guarantee of either improvement in efficiency or even ability to improve, will be squeezed even more. Thus it seems unwise to tackle inefficiency with a heavy hand through the resource allocation process.

(b). An alternative approach

One possible strategy however would be to institute a system of inter-District payment *per* case or item of service, performed by Districts other than the home one. This would encourage less efficient Districts to contract with efficient ones to perform the tasks at which they were less efficient. A number of problems might of course arise. Firstly, some of the problems of 'fee-for-service' i.e. promulgation of unnecessary care might arise. Next, inefficient or merely currently under-provided Districts might be locked into a vicious circle, as they reduced capacity. And safeguards to protect patient travelling costs and preserve the concept of optimum type and location of care in different specialties would have to be devised. Otherwise dangers opposite to the dangers of self-sufficiency might emerge. Alternatively, a lot of effort and 'zero-sum' expenses might be generated as Districts fought to preserve and enhance their responsibilities: in other words, moves to 'District autonomy' based on present incentives might be diminished only to be replaced by other such unwelcome moves.

Nevertheless, such an approach could well be promising from the viewpoint of meeting the *aims* of RAWP without eschewing pragmatism, as well as from the viewpoint of efficiency.

For if a system of District-to-District (or even Region-to-Region, where relevant) payment for services were introduced, then RAWP targets could be reached *more quickly*. This would be possible *if* it were understood that Districts or Regions without the capacity to provide services or to build quickly enough, or to match revenue money to capital, could use their money to buy services elsewhere. In certain circumstances, for example, East Anglia and others likely to gain by such a principle could contract for Thames Regions' services where appropriate. But more likely this process would occur at the District level. Patterns

of provision might not change much—but the *beneficiaries* might be different (i.e. patients from previously under-funded Districts or Regions).

One interesting decision would concern *transport costs.* There is a strong argument for making Districts pay for these, to allow a rational and longer-term decision as to the relative efficiency of contracting out and investing at home (or a combination of both). Of course present policies on *when* transport costs are reimbursable would then have to be reassessed. Additionally, GPs' referral rights and consultant behaviour might be affected. But this would not be *necessary*, if incentives were devised and/or advantages of new policies pointed out.

Another interesting decision would concern whether District-to-District or Region-to-Region payments were for *marginal cost* or *average cost.* There are in fact arguments on both sides, ranging from narrower 'economic' ones to still 'economic' but longer-term ones concerning the effect upon incentives to provide care in different Districts.

One advantage of such a policy would be that the flaws in cross boundary flows methodology could be diminished. Primarily these concern inappropriate costings, 'historic' caseloads and so forth.

If there were *some* regulation to ensure that 'losing' Districts/Regions (on RAWP assumptions) in fact recouped money through this policy, at least in the short-term, then such a policy which would have to be long-term could be *both* rational *and* pragmatic. It would diminish the tendency of 'gaining' Districts without capital funds and/or plans and/or adequate expertise and/or enough time to provide new services quickly, to spend their gain on less worthy causes (sometimes cynically summed up as the 'tarmacing drives syndrome').

More significantly, it would prevent one of the *greatest* faults in RAWP—the immobility and conservatism inherent in reallocations and redistributions of medical manpower—from slowing down critically reallocations to 'needy' Districts (Regions). This is because—under this policy—the money *could* change hands: and even if the 'gainers' spent it in the 'losers' territory, it would at least be spent *on* services for the gainers, i.e. the needy, *if* RAWP is at all appropriate.

Such a system could even allow a *partial* return to the 'old' system of Districts (even Regions) bidding for new schemes and allocations. This would preserve or allow rewards for managerial or planning initiatives, yet without the eschewing of resource equity which such a system often

meant in the past. Thus the advantages of what the Americans call 'categorical' allocations could be *combined* with the advantages of 'formula' allocations: including, it is hoped, an attempt to minimize the disadvantages of both. Major beneficiaries could be teaching hospitals.

Such a policy would also be improved by *total*—or much improved —flexibility or merging between revenue and capital allocations, *and* by increased borrowing rights for Authorities *if* done on a sound financial basis. Then rational economic decisions could be made—e.g. as between provision at home and contracting with other Authorities.

Thus the advantages of a benign 'market' could be partly realized in a *public* sector context of finance, without even private provision. Alternatively the private sector's ability to provide services within this framework of costing and purchase could be assessed.

To some, such a policy would seem a radical step. Realistically however it must be accepted that radical change in policy may not be immediately forthcoming. Yet, far from weakening the 'national' character of the *National* Health Service, it would tend to increase efficiency *and* effectiveness in meeting universal or uniform standards of care where appropriate. It thus combines an attractive mix of social and market economies.

Naturally the suitability of *different* specialities for long travelling distances to care and/or economies of scale (as opposed to quick access) varies immensely. But such a framework would allow benefits and costs of *different* policies both within and between specialties and priorities to be *assessed rationally*.

One problem with inter-District payments, and indeed with *any* gauges of the relative efficiency of Districts, could be that Districts which are relatively *better provided*, or have surplus capacity, have lower marginal costs. Thus any use of such Districts' facilities by others could provide an efficient *short-term* solution but thereby remove any trend or incentive to equalization of capacity or at least more balanced provision between Districts in the *long-term*. More generally, assumptions as to relative efficiency could be misconceived: genuine differences in efficiency would have to be distinguished somehow from the above case.

A comforting corollary could be that allocations to Districts (or Regions) calculated on the basis of varying costs, including marginal costs, could lead to those better provided Districts (or Regions) getting less in the future i.e. arriving at the 'right answer for the wrong reason'.

Overall, indeed, sub-Regional RAWP at present may allow certain incentives for 'cash generation by the back door', which the replacement of a 'bureaucractic' system by a 'market' system could diminish. Of course the latter has its own perverse incentives: primarily the attempted creation and manipulation of demand, even when the consumer is in the public sector.

The analysis in the rest of the paper is based on a less radical strategy than the one just explained. However in the long term, the above ideas deserve consideration.

Inefficient medical care

A different type of 'inefficiency', if indeed the term is applicable, consists in less useful outcome *per* pound due to different medical tasks being tackled. Tackling this would require incentives for amended service planning to be built into the resource allocation process. One point which arises in this connection is that most of the RAWP categories—i.e. ten groups of specialties—cover conditions for which it would be difficult to distinguish the degree to which they are amenable to medical intervention. Inefficiency due to concentration on conditions less amenable to intervention is more likely to arise less equivocally in areas not in fact directly covered by the RAWP formula: e.g. certain types of care for elderly morbidity.

2. Sub-Regional RAWP

The most striking problems apply at sub-Regional level—and apply even to a liberally-interpreted sub-Regional RAWP. The RAWP Report was inadequate as a national policy in that it opened the door to present problems through excessive haste for political reasons. It never advocated anything resembling a *mechanistic* application of RAWP sub-Regionally, let alone any assumptions of Area, as then existed, or District self-sufficiency (10). Yet omission led to excessive copying of RAWP at sub-Regional level. What is more, a definite application of the same criteria and *principles* at sub-Regional level as at national/Regional level was envisaged (11), perhaps in tones too resounding—as judged by a hindsight which has seen inappropriate use of sub-Regional RAWP or alternatively confusion where this has not been so.

The following points inevitably involve not only a discussion of the links or otherwise between sub-Regional RAWP and planning but also discussion of the relation between 'revenue' resource allocation and 'capital' resource allocation.

(a) Cross boundary flows

No services planning *or* resource allocation at sub-Regional level can treat Districts as the natural unit or 'catchment area', the population of which can be taken as the base-line of resource and service needs. This is primarily because so-called 'cross boundary flows'— the movement of population across District boundaries from one District to another to receive treatment—are so extensive that treating them merely as exceptions can be seriously misleading as well as analytically awkward. Cross boundary flows will vary considerably not only from District to District, but also from specialty to specialty. What is more, as will be argued below, neither is it desirable that such cross boundary flows be ironed out in pursuit of District self-sufficiency, even if this is taken as a positive goal for planning and resources allocation, rather than as a defensive and dubious reaction to events on an *ad hoc* basis (12).

One consequence of District self-sufficiency being neither practical nor desirable is that, when dealing with reallocation of resources sub-Regionally, it will often be wise to adopt one existing feature of national RAWP—a feature which may not remain within national RAWP for long, given its lesser suitability there. This is the procedure whereby the formulae for both capital and revenue 'build in' cross boundary flows by adjusting *population* to account for such flows; rather than calculating allocations on the basis of Regional or District population and *then*, and only then, accounting for cross boundary flows by estimating the additional *cost* of serving extra people (or the money saved by serving fewer people, who seek care outside the Region or District).

This might seem an insignificant difference. What does it matter, after all, where the transient population is theoretically considered to reside? This is a fair point if resources are static. But if resources are increased—or decreased—from year to year, then the use of an adjustment of *population* to account for cross boundary flows will lead to the cross boundary flows being built into any future assumptions and allocations. Making an increment or decrement to allocations on the basis of residual *cost* would not do this.

Thus at national/Regional level, the latter procedure will often be preferable. Yet at sub-Regional level, the former often will be preferable, in that building in cross boundary flows may be both inevitable and desirable. (The Thames Regions for example do not convert costed cross boundary flows into a population equivalent). One question for the future is whether this has any implications for revenue and capital allocations, or for the relationship of resource allocation and planning.

(b) Targets and planning

In national RAWP, targets for capital and revenue allocations, and movement towards targets, are independently calculated. At sub-Regional level even more than at national/Regional level, the implication of this approach as a means of allocating from Regions to Districts would be that services' planning and development, the latter of which is dependent heavily upon capital allocations, would not necessarily be compatible with the revenue allocations forthcoming to each District. In fairness, the RAWP report did not suggest that 'capital RAWP' should be applied mechanistically at sub-Regional levels. Historic capital deficits were to provide one criterion of need, for example. The relative separation of capital and revenue allocations, and rigidities in the process, have nevertheless been a major problem. Capital has often been seen as 'manna from heaven', unrelated to revenue.

The problem would be more acute at sub-Regional level because smaller units would prevent an averaging out of problems or greater flexibility in use of funds as at the higher Regional level. Thus at sub-Regional level, there is in practice by no means an automatic adoption of the national RAWP principle of separating targets for revenue and capital and treating movements towards these two targets separately. There are several alternatives currently used.

(c) Capital methodology

The national capital procedure under RAWP attempts to gauge the *useful worth* of the existing stock of capital, and then to set 'RHA capital targets by notionally distributing the total capital wealth of the NHS in proportion to (weighted) population . . . ' (13).

The total capital wealth consists, naturally, of ' . . . the value of existing stock together with new capital money available for distribution' (14). Useful worth of the existing stock is very difficult to gauge practically,

due to lack of adequate information and methodology as well as the almost inevitable difficulties of such a project; what is more, the intentions of the RAWP Report are certainly not always lived up to in practice (15). Nevertheless, it would be wise to seek more appropriate methodology.

Sub-Regionally, 'Few RHAs have established working parties for capital targets . . .'; (16) and although North Western is one example of a Region which 'broadly follows the RAWP methods of valuing stock . . .' (17), there are many variations with many rationales. These should be discussed in the context of ideas for more radical but potentially practical amendments to sub-Regional reallocations than are currently implemented in any Region.

(d) Capital and revenue

One of the main problems with separating capital and revenue resource allocation as occurs in the RAWP model is that the great imperfections which exist in methods for assessing capital stock can lead to discrepancies and anomalies at District level which, like general discrepancies affecting the matching of revenue and capital, are less easily 'averaged out' there. That is because, at this level, funds are both less in total and more bound inevitably to specific projects. It is less easy to make a list of priorities for which capital and revenue can be reconciled and then only face difficulties at the bottom of the list. The fact of the matter is that, with Districts, the bottom of the list is actually not far from the top!

Some Regions have attempted to devise systems of getting around discrepancies: while South Western, for example, uses the fairly conservative system of national norms for capital, Wessex has abandoned sub-Regional RAWP in name at least and devised an ambitious and controversial system of goals for each District and also care group. It has also produced an 'investment framework' to translate current stock into goals. Wessex's subjective capital valuation, its mechanistic reconciliation of planning and resource allocation and various other characteristics likely to be questioned may well however offset its advantages.

One should ask what the theoretical alternatives are, before comparing or evaluating rival schemes—all of which, after all, may be inappropriate in one way or another.

(e) Main alternatives

It is possible to distinguish the main alternatives to adopting the approach of national RAWP for sub-Regional allocations: that is, alternatives to separating the calculations for targets for revenue and capital allocations. Different Regions focus on the following options in varying degrees, as pointed out by *Bevan and Spencer* in the study already noted, although none follow what could be described as a pure theoretical model.

(i). A *merging of* capital and revenue allocations to Districts. This could be done for each component of the total allocation (Part 3(b) above). A single overall calculation would only be possible if even this division, into seven components (eight in the Thames Regions), was abolished for resource allocation purposes. While this might seem a radical step, it is worth considering, firstly, that resource allocation to each component does not necessarily lead to actual expenditure encompassed by that component (18); and secondly, that targets for overall resource allocation are often far from the actual sum allocated, especially at a time of economic constraints, when gradual movement to targets may be inevitably slower.

Alternatively a merging of capital and revenue allocations could be done for some but not all of the components (e.g. for non-psychiatric in-patient services but not for community services). If this left individual Districts with insufficient funds for major capital schemes, then a system of *borrowing* by Districts might be a possibility: to finance capital, to be paid out of future revenue or savings brought about by the temporary expenses of investment. This would link up to the need to avoid a view of capital as somehow exogenous, and a tendency to play down the future revenue commitments incurred by capital. Whether borrowing was on the open market or from the Treasury, DHSS or Regions would of course be merely one of the practicalities requiring careful consideration. On the whole, a willingness at least to broach such questions would show that policy-makers for the NHS were *serious* about more professional management, 'business-like' where apppropriate, as opposed merely to invoking a new culture of management selectively. Indeed such a move would allow a clear demonstration that 'Griffiths, *et al.*' were not *only* centralism, an increasing worry as implementation of the latter progresses.

(ii). A *planning*-based system, with capital allocations following a

Regional system of planning, and revenue allocations being only the third—and dependent—consideration. Districts themselves could end up being incidental and secondary in this approach. One disadvantage here could be that large revenue allocations are 'over determined' by the smaller capital allocations. It is worthy of note that capital spending has been about one-fifteenth of 'current' spending between 1977 and 1982.

(iii). A *capital*-based system, with capital allocations being made to Districts and revenue allocation being subservient. The same disadvantage could apply. This might in practice be a retrograde move, away from 'objective' calculations of need.

(iv). A *revenue*-based system, where revenue allocations are primary; and capital allocations, and therefore long-term planning, have to be based on calculations of availability of finance: for example, for running new hospitals.

(v). Other alternatives which are promising in certain circumstances are greater use of 'borrowing' by Regions (as introduced in the context of (i) above) from the DHSS or by Districts from Regions, whether or not in the context of greater transferability of capital to revenue and *vice versa* (i.e. a partial move to (i) above); and a preservation of separate revenue and capital allocations, but 'project-linked', 'unit-linked' or 'priority-linked' rather than District wide. The aim in this would be greater pragmatism. While these options are obviously different, they need not always be wholly mutually exclusive. In any case, different options may have different rationales and varying degrees of appropriateness in different Regions or even Districts. Overall, better option appraisal of capital schemes seems to be a major need.

In general, systems which allow for little flexibility (e.g. revenue *always* being capital dependent or *vice versa*) tend to have grave faults. There can therefore be advantages to provision of a separate basis for capital and revenue calculations, when compared to *some* alternatives. The main fault is that the two tend to be divorced to such an extent that 'gaining' Districts often receive revenue that they cannot use as profitably as 'losing' ones: even, sometimes, indeed from the viewpoint of the population of the gaining District.

One of the main problems with translating the national RAWP approach to capital and revenue down to sub-Regional level is that too

many advantages of other approaches are thereby lost, while disadvantages not necessarily applicable or strong at national/Regional level, emerge at Region/District level.

The following features in some ways illustrate the complexity of relating resource allocation to planning and the relation between capital and revenue.

3. The planning emphasis

(a). RCCS—the funding of the revenue consequences of capital spending
It is desirable in some cases *not* to fund RCCS. This is because automatic funding of whatever Districts or Regions decide upon in the way of capital schemes, does not encourage prudence or a healthy scepticism in planning; or even adequate consideration of whether or not the proposed scheme provides the best value for money.

On the other hand, failure to fund RCCS can lead to inadequate coordination between capital and revenue. Movement towards targets for each can ignore the basic logistical fact that developments are rarely smooth. Thus, building a health-care facility will mean *at first* a need for much capital but little if any revenue, and *later* not much capital but a sudden rise in the need for revenue probably when the facility is both commissioned and operating. Resource allocation may not reflect this process; at best, money will have to be used in ingenious or *ad hoc* ways to do what is necessary, and the rationale of RAWP—to provide resources to fit needs—will very likely be undermined as a result of this. In other words, it is no defence to argue that there is a requirement to stick to RAWP *if* the letter rather than the spirit is the only aspect viewed.

Planning-based and capital-based schemes, (ii) and (iii) above, fund RCCS, as their aim is to define service or capital needs, respectively, and then to provide the necessary revenue to allow them to be run. Indeed RCCS will be the main basis for revenue allocation in these cases. Neither the national RAWP approach nor the revenue-based approach (iv) above, fund RCCS. One alternative—the merging of capital and revenue allocations to provide a single total allocation as in (i) above—would naturally remove the problem in this sense.

There is a strong argument for funding RCCS in underfunded Districts *if* Districts are indeed to be retained as the main base for planning. This is because such a procedure is likely to fulfil both the requirements of

moving towards targets and also of promoting the partially necessary 'lumpiness' in allocations for development. It should however be noted that if a District is underfunded for capital but not for revenue, this may not apply.

Funding RCCS in underfunded Districts is a procedure already followed by several Regions, in parallel with the principle that revenue development money is 'allocated according to the relationship between a District's target and actual expenditure' (19). Of course, although RCCS tends to benefit Districts which are deprived of *both* capital and revenue, this only occurs if the capital expansion (with revenue consequences) tends to go to these Districts. The politics of planning may produce a different result to the apparently rational one. This is of course true of planning in general. Although, for example, District self-sufficiency is generally considered to be a consequence of resource allocation, it could also be a result of dogmatic planning.

It can generally be assumed that there is no rigid rule about RCCS applicable in all Regions in all circumstances. This is a conclusion which will be seen to be applicable to many aspects of sub-Regional resource allocation. It is not that the 'national RAWP' model is always wrong: rather that it is by no means always appropriate. Neither is some absolute theoretical alternative likely to provide a panacea. Pragmatism is probably necessary.

(b). District self-sufficiency

This is a feature which is generally agreed to be promoted by the operation of sub-Regional resource allocation on the national RAWP model (and, incidentally, also by alternatives on the lines of the Wessex approach). There are several reasons for this. Firstly, applying the national RAWP formula in a straightforward manner assumes that the *norm* is for Districts to provide their own populations with the full range of services, except of course for initial deductions to reflect the Standard Increment For Teaching (SIFT), the cost of RHA administration, *et al.*, and later deductions from each of the seven (or eight) categories to reflect Regional and supra-Regional specialties and services. Cross boundary flows can of course be dealt with by amending either population or cost (see 2(a) above). Use of the national RAWP model however assumes that such flows are an alternative, or a lesser consideration. They may be the opposite, i.e. major or quite natural, as well as efficient. The statistical

processes involved in applying the national RAWP methodology sub-Regionally may be rendered quite dubious if patient flows are significant. In general, seemingly sophisticated methodologies can be rendered quite absurd by inappropriate data or the inability to find data that is adequately accurate.

It is worth pointing out, incidentally, that RCCS is probably less necessary where Districts *are* 'naturally' self-sufficient and where patient flows are minimal. This is because the relatively greater ease in determining capital and revenue requirements—without having to decide which patient flows from District to District are worth preserving and otherwise—over a longer term will allow more flexibility in adjusting Districts' allocations. As a result, capital and revenue can be 'calculated' more easily without being forced merely to add RCCS automatically on to a capital scheme.

(c). Alternatives to District self-sufficiency

It is all too evident that the concept of District self-sufficiency has its shortcomings. Yet attacking the concept raises thorny questions for planning and resource allocation. 'Political' problems as well as methodological complexities are involved. Firstly, if the District is not the most suitable locus either for containing all the health facilities required by its population or for undertaking planning, then a greater Regional role and Regional pressure may be required. This would accord with an increasingly held view that complex 'formulae' for sub-Regional resource allocation, as well as ironically providing as much scope for manipulation as more pragmatic approaches, allow Regions to eschew active planning and managerial roles and shelter behind a facade of pseudo-science.

Next, there arises the question of what are the best arrangements for sub-Regional resource allocation, if there is not to be District self-sufficiency. If the aim is to integrate resource allocation more successfully with planning and to give more centrality to the latter, then the *goals* of the RAWP process, encapsulated for convenience by the phrase equal opportunity of access, could be served by a system that was more planning orientated. One variant of this (20), presently at early stages of investigation, suggests that Districts' health needs could be approximated by a system of planning by norms; that a gravity model (21), could be used to indicate both actual and possible flows to hospitals *for different specialties and categories of specialty*, with the goals of equal access and of

the eradication of underprovision and overprovision in mind; and that the rival claims of say, economies of scale and proximity to health care then be adjudicated in an all-embracing framework.

It is important to stress that no cut-and-dried, simple formula for sub-regional resource allocation exists. It is also important however to keep in mind that sub-Regional RAWP itself has many forms: the point of exploring alternatives is two-fold, involving both gradual development of new methodologies for the purposes of comparison and, more immediately, ways of improving existing practice.

Planning by 'norms' is itself, of course, open to many criticisms e.g. that norms merely reflect existing practices and habits, or at best an average of such practices either nationally or Regionally. 'Planning by norms' may also tend to ignore issues of *marginal* change i.e. which developments should have priority.

More sophisticated systems of planning are nevertheless available. For example, the development of the Nuffield/Exeter Decision Support System has led to the creation of a Planning Sub-System with three alternative methodologies for planning: planning by norms; planning by a forecast of resource consumption; and planning based on assessment of need and efficiency (22). Planning even by a forecast of resource consumption is of course also open to criticism: namely, that it is just an extrapolation of trends based on existing patterns of bed and service usage. Hence planning based on assessment of need may seem the most sophisticated of the three. It is only fair to point out however that even this system—although, unlike the others, it seemingly separates the assessment of need and the use of resources—is dependent on existing practice. For the 'assessment of need' as generally carried out in practice is not autonomous of existing patterns of usage but attempts to be more scientific by (say) choosing a combination of resource usage and resource provision from a variety of alternatives in existence in different Districts, or by taking some 'average' of different combinations.

At least the main RAWP formula, it can be claimed, attempts to measure objective need, although doing so imperfectly. Its proponents claim that no better system yet exists; and that (for example) mortality is the best statistical surrogate for morbidity that exists, even where morbidity seems diametrically opposed to mortality, e.g. with the long-living elderly, who seem to place demand on resources in inverse proportion to their mortality rate. Nevertheless an imperfect system such

as RAWP, however admirable its intentions and methodological breakthrough, may have severely deleterious effects if the planning process works from different assumptions, i.e. extrapolation from, or averages of, existing patterns of usage. These may often be inherited from long before the days of RAWP, and based on facilities inherited likewise.

(d). Planning for priorities

Efforts to reconcile planning and RAWP under current policy may mean that official health services priorities are not provided for, e.g. for the elderly, and certain care groups not 'written in' to the RAWP formula or adequately accounted for by proxy. Additionally, change in health service priorities, often based on political needs or even 'fads', is generally thought to be too quick to allow their fulfilment, given the lag between initial capital allocation and subsequent revenue commitments when the service or facility is operative.

(e). Planning and RAWP: Some major controversies and issues

(i). Losing and gaining. One main controversy concerns whether sub-regional RAWP is meeting the goals which seemed to motivate RAWP's original design. Although national RAWP is generally leading to some redistribution from the 'rich' South to the 'poor' North, its effects *within* Regions often seems to be adverse from the viewpoint of 'poor' Districts, which are nevertheless 'losing' Districts. This problem is accentuated, of course, when these 'losing' Districts are situated in 'losing' Regions, as in the Thames Regions, especially South East and South West Thames. A redistribution from the inner city to the suburbs often creates this problem which is accentuated even further when 'losing' inner city Districts contain expensive teaching and research functions, widely believed to be inadequately recompensed under the RAWP formula.

Consider the position of an inner city District (e.g. Lewisham and North Southwark, in South East Thames, or City and Hackney, in North East Thames) which, under sub-Regional RAWP, is assessed to be no longer responsible for patients which 'flow across boundaries' into the District. Such a District will tend to go above its target (perhaps suddenly and dramatically) because it will retain the funds for its hospitals and their caseload but lose the obligation to treat extra-District patients, at least to the same extent. Thus the District will lose growth—or, especially at a time of retrenchment, be forced to make cuts, conceivably large cuts.

Lewisham and North Southwark is a good example. On the other hand it will retain immediate as opposed to targeted funds to run hospital beds which are theoretically no longer required (given the discrepancy between theoretical 'long-term' targets and allocations). *Either* possible course of action open to the District may well have perverse incentives. If the District seeks to maintain its present caseload and policy, it will have severe financial problems. On the other hand, if it attempts to divest itself of existing responsibility in order to realise on the closing of beds and/or hospitals, then, despite being a 'losing' District it may have too much current (as opposed to target) money, given the responsibilities of the 'gaining' Districts. The latter in turn may not be able to turn their gains into services quickly or adequately enough.

(ii). Pragmatic planning. This leads directly to another major problem with RAWP: its lack of a mechanism for 'getting from here to there' i.e. for planning *year-by-year* changes in hospital workloads and so forth, to reach targets in a workable and pragmatic manner. It is no good merely to say that it is a job for planning and not a resource allocation procedure, if the latter makes planning in an orderly manner well-nigh impossible.

There is a growing need for detailed empirical work to provide a joint resource and planning model and information system, to model realizable year-by-year changes in hospitals' overall workload, specialty mix, case mix, occupancy rates, length-of-stay, theatre sessions, training facilities, etc (23). In this connection Gordon Forsyth and Rosemary Varley (24) have stated, succinctly and aptly that 'Since planning deals in futures, there is conflict between RAWP, operating retrospectively, and the planning function, operating prospectively.' Recent changes in the year taken for the purpose of calculation of targets will only alter this observation in small degree. There are wider implications however. If RAWP were to deal in 'futures' more, e.g. by assessing future population, trends, and needs, it is quite conceivable that existing needs, e.g. inner cities with declining population but severe socially-based health problems partly related to decline, would be neglected even more than at present.

(iii). Different Regions. It is important to point out that different Regions often have very different characteristics, and that using the basic RAWP formula sub-Regionally may be a more suitable approach in some than in others. The broadest division is probably between 'shire' Regions (e.g.

Wessex, or South Western) and urban Regions. The former tend to have a more natural District self-sufficiency than the latter; and an important consequence of this is that the original RAWP formula or an equally or more 'mechanistic' alternative may be more appropriate. The Thames Regions provide the most compelling argument to the contrary. Given the greater 'artificiality' of even certain Regional (let alone District) boundaries in London, the upheavals associated with a mechanistic District equalization would often be absurd. South West Thames is moving away from sub-Regional RAWP altogether. It is interesting to note that Merseyside, in which the Liverpool District has some of the significant problems of being an 'inner city' District with teaching responsibilities, has also been witnessing a fairly intense debate at Regional level recently over the use of the original sub-Regional RAWP.

(iv). Paying losers? Even if a District is judiciously assessed to be a 'loser' in the long-term, the short-term implications may not be clear. Instead of gradual movement towards a target of lower income for such a District—say by equal reductions, year by year—the best policy may be to fund *increases* in that District in the short-term: say, in order to provide the necessary funds for capital which will in the long-term purchase revenue savings, e.g. for a rationalization which replaces a mental hospital with community care facilities. This could have resource allocation implications extending right to the centre: as changes at unit level have implications at District level, which in turn have implications at Regional level, and subsequently national level.

An analogous argument is that long-term savings overall may require short-term increases overall, by a similar logic i.e. as old, less efficient services have to overlap with new services, for a temporary period of simultaneous funding.

This logic is naturally related to the earlier argument that resource allocations are 'lumpy' by nature, and that the separation of capital and revenue allocations, or even their reconciliation in an over-mechanistic manner, often fails either to reflect this or to account for related problems.

One District's surplus may of course be another's deficit, and co-operation may be possible, on the type of 'market' model outlined in 1(b) above. But this institutionalizes inter-District discrepancy, which is often undesirable for other reasons. The main locus of benefit from a 'market' or co-operative policy to allow a 'gaining' District to use a 'losing'

one's facilities is likely to be the *urban* setting: where geographical proximity, ease of transport, and concentration of services can all help.

(v). Units. The unsuitability of many Districts to play the role of self-contained receptacles of funds means that greater thought will have to be given to the nature of health service Units at sub-District level. In practice, units are often in effect geographical or 'functional' i.e. certain types of hospitals, on the one hand, or divisions of 'community care' on the other. There is perhaps a need to think more in terms of goal-based units, whether or not based on client groups. This could be linked to 'Griffiths' type reforms in management structures and in roles for top management.

(vi). Manpower. It is wise to ensure that at the national level resource allocation is related to both Consultant and Senior Registrar appointments. Only since 1978 has there been any overt attempt to link RAWP allocations to Regions to manpower criteria. At sub-Regional level, it would also seem wise to give more attention to resource allocation and medical manpower. Especially if a more flexible approach to sub-Regional resource allocation is to develop, it would be useful to seek a greater practical consensus on which specialties are best organized as, respectively, District or sub-District specialties, Regional specialties and intermediate ones. If resource allocation is not only to relate better to planning but also to effective and efficient delivery of service to the patient, then the organization of health services and even of individual hospitals to this end should become more rational. This should occur in the context of 'benefit-cost' analysis and priorities. Not all objectives can be fully met; and sometimes it may of course be necessary to site hospitals, or to continue to use existing hospitals, in less than ideal places: if the costs of so doing are less than the benefits (say) of money released for other purposes.

In this general connection, recent debates (often tied up with proposals for financial and managerial reform) about, for example, the location of the consultant's contract ought not to be pursued without consideration of overall implications for planning and resource allocation. If, for example, consultants were to be employed formally by Districts in order to bring the contract closer to the place of work and increase accountability, it might be a boost to District self-sufficiency. Thus

certain negative effects could stem from the fact that administrative boundaries do not neatly accord with the workload of (say) two consultants in each specialty, i.e. a District's remit may not be a natural locus for medical care.

The 1982 reorganization's effect upon resource allocation probably did not help, in that new boundaries were bound rationally to imply new 'gainers' and 'losers' from the viewpoint of resource allocation: yet politics could often intercede by preventing 'losers' losing. Thus there resulted a policy that was neither one thing nor the other i.e. robbing Peter to pay Paul was impossible even when desirable. This is not to imply that post-1982 boundaries are less or more rational than pre-1982. It is merely to argue that change was not likely to help in this aspect.

(vii). Economic retrenchment. At a time when resources will be under increasing pressure for the foreseeable future under governments of all political persuasion, it makes less sense to redistribute resources in the name of District self-sufficiency in areas where cross boundary flows are more rather than less natural or possible. As always, one has to strike a balance between accommodating existing patient behaviour in travelling to services or otherwise and seeking to amend it. These points stem from the fact that redistribution is a lengthy procedure, taking (say) more than ten years, during which existing services will be unreasonably squeezed yet new services inoperative or barely operative. Along with some of the other characteristics of sub-Regional RAWP of the less flexible variety, such a policy can lead to 'half-finished hospitals' on the one hand and, in gaining Districts, revenue that is not usable nearly as productively as it would have been elsewhere.

(viii). Striking a balance: Assessing claims of sub-Regional RAWP's perverse incentives. Although it is legitimate to point to some perverse incentives related to an inflexible sub-Regional RAWP, it does not follow that *each* 'demonstration' of such is valid. For example, it is sometimes claimed that Districts will seek to prevent 'exports' of patients (i.e. cross boundary flows to other Districts), while also seeking imports, in those specialties associated with the highest funds, i.e. acute specialties. This, it is argued, will give a raw deal overall to such specialties as geriatrics. This may be true in many significant cases: and it is up to Regions to have adequate planning capability to prevent such behaviour leading to

duplication, inefficiency or both. In genuinely 'underfunded' Districts, however, the RAWP formula will take into account needs in *both* acute *and* other specialties (at least to the extent that the formula is worthwhile at all): that is, if a District intends to spend new funds to make up underfunding on (say) geriatrics, repatriating acute patients also will lead to new finance by the criteria of the formula rather than poaching funds from such Cinderella services (25).

(ix). Better management. The advent of 'Griffiths' especially and a greater emphasis upon efficiency more generally provides a motivation for quicker and more professional treatment of capital projects, and therefore less danger that, by the time facilities are commissioned, either revenue is not adequately available or earlier perceived needs have been superceded. In this connection, there is conceivably too much central direction on the small and not enough on the big issues.

(x). Fluctuations. Unacceptable fluctuations from year to year in targets and also allocations based on too great a reliance upon formulae can have a grave effect upon both planning and service delivery.

4. Conclusion to resource allocation and planning: 'Market' reform or 'Planning' improvements?

The analysis in this Part has concerned a variety of ideas. These vary from adjustments to aspects of the present RAWP to wider ideas for reform.

Two main alternatives for reform exist. Firstly, there is the more radical alternative of allocating by RAWP to Districts (on the basis of an improved calculation, where relevant) and then leaving Districts to contract on a *'market'* or fee-for-service basis with each other, rather than inter-District mobility being accounted for bureaucratically by 'Cross Boundary Flows'. This idea was briefly presented above. A following essay by Professor Alain Enthoven will present the idea of an 'internal market' and explain why Cross Boundary Flows without *direct* payment can lead to poor incentives. In particular, current worrying trends towards refusal to accept patients from outside the District—or even hospital catchment area—are directly related to this issue.

Secondly and alternatively you can *plan* (i.e. rather than using a

'market' reform) more flexible and rational intra-Regional services, as outlined above in greater detail than the 'market' option. This implies that *Districts* are not necessarily given RAWP targets on the assumption of District autonomy or movement to District self-sufficiency.

The first option would require considerable change in *culture* as well as in procedures for accounting and management. If this reform were instigated without a District fulfilling its requirements and opportunities in practice, then ironically a worse situation than the present could arise.

If the second approach were more widely adopted (and there are moves towards it in some Regions), the danger is, in the absence of *effective planning*, of a more bureaucratic system without commensurate benefit.

The second option does not *wholly* preclude the first. Thus, for example, more Regional planning could still leave Districts free *within* their allocations, no longer necessarily strictly on 'sub-Regional RAWP' assumptions, to purchase and trade. Nor does the first option mean that Regions cannot advise and prescribe as to the most *likely* sources of 'market' success i.e. as to which capital schemes and expansions or reductions in services by Districts would be wisest. The 'market' can thus be aided by information for planning. Simple, polar opposites (e.g. the market *v* planning) rarely describe either reality or the ideal situation.

Overall, the most important thing is to develop a coherent and flexible strategy and minimize incompatibility.

Summary: Primary needs

1. ***Choice of approach** in relating resource allocation and planning is vital at sub-Regional level.*
2. ***If a 'simulated market' approach of Districts contracting for each other's services is chosen,** even in part, the practicalities must be carefully assessed. The following are crucial:*
   choice of pricing systems;
   decisions as to whether hospitals/units or Districts receive and allocate money from outside the District—and evaluation of key incentives in each option;
   and transport costs.

3. ***If a 'planning' approach is chosen, leading to better reconciliation of resource allocation and planning,*** *then a much more flexible approach must be taken than currently exists in many Regions.*

   (a). Cross boundary flows from Districts assumed in many ways to be autonomous may often **not** *be the most apt way of proceeding.*

   Regional *planning, and allocation* **intra-Regionally by the Region** *to render it coherent, may often be necessary.*

   (b). Units will require better calculated budgets to reflect costing systems geared to specialties, diagnoses and/or patients (as appropriate).

   (c). Planning and commissioning hospitals, merging or transfer of services, and closures or changed priorities are minimally accounted for in the resource allocation process as biased by sub-Regional RAWP.

4. *Capital and revenue allocations should be merged or made more flexible. Revenue consequences of capital need careful attention, yet no standard approach seems universally suitable.*

5. *General economic retrenchment affecting the NHS as a whole will necessitate careful and often radical action in 'losing' Districts. District self-sufficiency is likely to prove increasingly a dangerous chimera.*

6. *There are many substantive management needs—and management training needs—which require attention to deal with this whole area.*

7.

Epilogue: A paradigm of the problem

It has often been considered that 'planning dealt with the future whereas RAWP dealt with the past'. That is, planning used predictions of future need for services; whereas RAWP used easily outdated data. Changes in the years used for RAWP data have partly altered this.

In **another sense,** *however, RAWP is often ahead of planning. Revenue allocations (or even targets) can be given immediately under RAWP, yet planning in the sense of capital projects may take years to come to fruition.*

Therefore as planned hospitals in cities come into operation, the population trend may be already reversed—to favour **suburban** *settings in particular. New facilities may be ready in cities; and revenue for them may be short or non-existent. This will compound the already drastic starvation of centres of excellence, e.g. London's major teaching hospitals.*

The answer is not necessarily to plan eventual 'equalization' of care District-by-District (and even within Districts' different areas), while trying to cushion the blow for (or 'manage the decline of') old centres and city hospitals. Thus arguing that new capital projects are necessary all over the place may be wrong. This is not to deny that many will be necessary, especially since the potential patient will benefit from proximity to services in different degrees in different specialties.

In **some cases,** *capital planning is coming to fruition in the wrong places. This may even occur at sub-District level, e.g. even a gaining District may close small but useful hospitals in order to provide greater concentration and 'use the extra revenue'. This may be easier due to capital/revenue switching being on the increase, although in general the latter is valuable.*

Overall, however whether a 'simulated market' or 'planning' approach is taken, inter-District co-operation may be beneficial. Specialization and economies of scale may be useful, especially since 'local hospitals' are less likely to have emergency, intensive, and urgent diagnostic care. Those who can benefit from those hospitals may be those in less of a rush, overall. Thus, as long as transport costs are taken into account, District self-sufficiency again appears a chimera.

It is all the more ironical, then, that the **politics** *of hospital closures often seems implicitly to demand not only District self-sufficiency but* **community** *self-sufficiency. Such politics embraces all parties.*

'Local care' is of course desirable in many cases. Relatives want to visit chronically ill patients, the elderly, et al. *The task is to provide a* **balance**. *Furthermore, that balance involves more than the NHS. If there were more effective and efficient placement of chronic and elderly patients in appropriate care, there would be less pressure on* **all** *forms of NHS hospital. (This is yet another topic, of course!)*

While RAWP may now deal with 'futures' more than before, planning is intended to do so to a greater extent. Delays in capital development often prevent this being so, but the **long-term future** *is unpredictable, e.g. overall economic policy and social structure causes geographic changes often unforeseen despite sociological generalization about trends. In any case, the current 'move to the suburbs' may not imply the need for services to do likewise unequivocally.*

Slow planning is an urgent problem for the NHS Management Board. Yet just on occasion it may produce the right answer for the wrong reason. That is, protection of centres of excellence and the technical and economic benefits of scale may be the most crucial task (more so than reflecting suburbanism): as long as patients' use of such services is eased as much as possible.

This concluding paradigm of the problem is intended to suggest—again—that there are no easy answers, but guiding themes based on realistic principles.

5

Mortality and morbidity

The basic question here concerns the suitability or otherwise of a system of resource allocation which uses mortality ratios as virtually its sole basis of weighting population, associated with costings of treatment. Two main defences of the practice are, firstly, that there is nothing better available and, secondly, that mortality is the best surrogate for morbidity that is known. Neither of these arguments is universally accepted; nor will they necessarily continue to be true as guides to planning.

Mortality as a surrogate

This is the argument that was primarily used by the original Resource Allocation Working Party (26), although the quality of mortality data was also considered important. The only exceptions to the use of SMRs as a main component of weighting came in certain skin diseases and conditions of pregnancy; in FPC administration which is 'a tiny proportion of the available revenue funds'; and in mental illness and mental handicap in-patient services.

This view tends to argue that additional weighting factors—whether for morbidity arising from specific conditions, for social deprivation or whatever—leads to 'double counting' i.e. that SMRs themselves reflect such factors. But just because mortality and morbidity are correlated does not mean that *both* may not be higher and yet separate in certain Districts, or *vice versa*. Thus counting both would not be double counting.

It is further argued that conditions which are least related to mortality as a measure of need for health services (such as hernia) do not show great geographic variation. Indeed this would require a 'flat rate' increment additional to SMRs to account for such conditions.

It is further argued that a large majority of admissions to hospital are caused by coronary heart disease and chronic bronchitis and related

respiratory problems. For these conditions, mortality is a close index of prevalence and therefore a good surrogate for mobidity.

On similar lines, the RAWP resisted the weighting of SMRs differentially, in relation to each SMR's suitability as a surrogate for morbidity in the relevant condition.

Much of the argument that recommends eschewing alternatives to mortality data is geared to resource allocation at national/Regional level rather than at *sub-Regional* level. At the latter level, the use of *condition-specific* SMRs is often impossible or undesirable in practice because of the fact that smaller populations lead to wilder swings, less 'dependable' data and therefore untenable variations in Districts' positions above or below their targets. Similarly, *single non-specific* SMRs are used in Scotland and Wales in distributing to Areas and Districts respectively. Yet, while it is wise to abandon a 'spurious striving after accuracy' (27), there may also be disadvantages in condition-aggregated SMRs.

Again, it can be questioned whether 'around eighty per cent' of admissions to hospital are caused by conditions for which mortality is a close index of prevalence, or whether this figure continues to be true even if it once were. In any case, it does not follow that mortality from these conditions is a similar proportion of overall mortality. That is, a RAWP system based on *total* mortality may therefore *undervalue* these key illnesses. These constitute the eighty per cent of admissions where 'demand' and 'need' (admittedly not necessarily treatable need) are probably more in line with each other than in the case of other illnesses where utilization probably may not reflect the most pressing needs. Other illnesses may have relatively higher mortality rates yet less prevalence —and indeed less susceptibility to *cure or care or rescue* in hospital. This is compatible with mortality and prevalence for the eighty per cent just described being correlated geographically.

This does not necessarily mean that measuring morbidity would produce a better result but that might certainly help, in the cases of those other 'twenty per cent' illnesses. Amendment of methodology as regards mortality measurement might in any case be called for.

Additionally, it is not proven that admissions to hospital reflect need for health services as opposed to need for health. This is naturally a broad point, again raising the question of efficacy of medical procedure (whether curative, caring or preventive) even for grave conditions where the need for health service resources seems natural. If resource allocation

is to tackle objective as opposed to historical criteria of need, then such questions must be addressed. Otherwise it is possible that conditions for which the NHS can do little might attract disproportionate resources. Indeed planning and manpower allocations would have to be more strongly linked to resource allocation, were greater attention and resources to go, relatively, to conditions characterized by greater medical efficacy.

In the midst of such analytical priorities, however, it must be remembered that the NHS has the important task of rescue as well as cure or care. Social principles and norms also dictate that such rescue may often be an expected and legitimate function for the NHS: even when 'cost-benefit analysis' might show it to be not 'worthwhile', (e.g. because the patient dies in any case within the month or even year). Failure to rescue is an indictment of any health-care system.

Next, condition-aggregated SMRs hinder a specialty-by-specialty attribution of costs in the RAWP formula as is done in the case of condition-specific SMRs and potentially hinder any resulting link of resource allocation to the planning of specialties and manpower.

Thus there is need for greater attention to the suitability of SMRs at sub-regional level, for the above (and indeed many other) reasons. In particular, ways of introducing local pragmatism—without abandoning a striving after objectivity for political gerrymandering—require exploration. The question arises, would any amendments of the SMR approach lead to *additions* to the present formula system (say, further weighting) or its abandonment either for an alternative formula or for no formula at all? Much thought is needed in this area, let alone research and investigation.

Alternatives to SMRs

There is a danger that, especially at sub-Regional level, additions to the formula could lead to an over-complex calculation liable to produce 'wild swings' in the sense discussed above. Abandonment of the formula requires either data of a quality adequate to promote an alternative formula or methodology or else an overt recognition that, in the future, (especially sub-Regional) resource allocation will involve the abandonment of attempts at 'objective' measurement of health needs. Especially in areas where these needs are currently able to be addressed by health services, this might be a rash step.

Alternative data sources for resource allocation

The main problem with alternative data sources i.e. concerning more direct measurement of morbidity amenable to treatment by health services is that they tend to be *either* of dubious accuracy *or* patchy and/or localized, and requiring much investment and time to be available nationally. Similarly, little consensus exists as to how different categories of morbidity from different conditions could be translated into a methodology for resource allocation even were the former problem to be suddenly solved.

Social class is highly correlated with SMRs overall and also with most measures of morbidity. It has therefore been suggested that social class might be suitable as an indicator for resource allocation. Data however is often tenuous, and subjective factors impinge heavily even when objectivity can be agreed.

In stressing this point, it is nevertheless important to state that varying local factors will often mean that morbidity has to be gauged by criteria additional or alternative to mortality statistics. Mortality may admittedly be a good surrogate even in the most surprising instances. For example, concerning, the need for care for the elderly, it has been estimated that the Scottish system of not using mortality as a distributive gauge within SHARE (the Scottish RAWP) for population cohorts above the age of 64 makes little difference to actual allocations. This is surprising, for caring for the elderly might be expected to require resources in an inverse relationship with mortality. Nevertheless this and other surprising 'average' effect may fail to apply in particular local instances. And it is such instances which are most likely to be relevant to *sub*-Regional resource allocation.

The challenge, then, is not only to identify alternatives to mortality, but to identify *when* and why they are most likely to be needed.

Getting from here to there . . . again

Basing targets for resource allocation upon SMRs fails to build into the formula a gauge of the *cost* of changing health service volume, content or type, where necessary. Naturally it can be claimed that the mode and speed of approaching targets can account for difficulties in transformation e.g. the temporary expense of cheaper options. This is frequently not the only reason in practice; and difficulties may be greatest in Districts with high 'morbidity', temporary or otherwise, but low mortality due to a number of factors—conceivably even emigration from the District.

More research needed

It is often alleged that existing measurements of 'morbidity' may not reflect needs for health services. Furthermore, gauges of 'morbidity' may depend on health service utilization through GP records or hospital admissions, and therefore may reflect existing supply to a large extent as indeed may certain 'planning based' systems of allocation. Mortality for its part however may reflect the outcomes of health services as well as the need for them. On one extreme hypothesis high mortality may even reflect a preponderance of diseases where treatment tends to be ineffective. This is unlikely to be the main explanation, but may have some contribution to make. The possibility of amending general mortality data may be a profitable future focus. If, for example, existing work on this topic progresses further in distinguishing mortality from conditions amenable to medical intervention due to bad practice, from mortality due to lack of resources, then one avenue for exploration will potentially be opened. Such avenues require a stable and long-term commitment by government to health services research.

Controversy

It should also be pointed out that the correlation between mortality as used in the RAWP formula and morbidity is not a fact universally accepted. Again, as implied above, high mortality may be correlated with high morbidity as a simple regression relating only these two variables. Yet *both* these measures may represent separate needs requiring resources—say, the allocation of many more resources to a District/Region than to one with lower mortality *and* lower morbidity. Charges of 'double counting' may not always be a reasonable reaction to requests for extra resources for 'morbidity'.

Increasingly this correlation between mortality and morbidity is being called into question. Another controversy concerns whether RAWP adequately categorizes diseases. Its combination of SMRs and 'specialty' costings may often attribute 'costs of treatment' to illnesses formally under one *ICD* heading but bearing little relation in terms of cost. A system of 'double checking' RAWP's mortality-orientated categories of disease by broad specialty, perhaps with costed treatments in Districts stressing morbidity data, is one broad possibility.

Politics

It should be pointed out that morbidity is likely to be a more subjective classification than mortality, even if and when measures of morbidity are theoretically acceptable. While the present system leaves different Regions (and Districts to a greater or lesser extent, depending upon Regional policy) free to make and follow priorities, there is nevertheless a clear basis for allocation; and service planning has to reflect this at least minimally (i.e. even if only by constraint). If morbidity were to become a more direct basis for allocation, an implicit boost might be given to the cause of greater local determination of health service needs. The implications of this for funding could be significant, and not always compatible with the RAWP principle of equal access to either services or finance for those at equal risk. Additionally, local priorities would imply partially local funding, unless funding were to be unlimited or arbitrary. This would take resource allocation into the minefield of reconciling central and local funding, whether by central commitment to 'revenue equalization' within an overall budget or not.

Finally, the '*pro* SMR' *v* '*anti* SMR' debate naturally attracts contributions better distinguished for their politics than for their intellectual basis. The debate has predictably been used in this way by militant Districts within Regions to justify their claims for more resources, depending upon which side of the argument is convenient. It would be prudent to ensure that any alternative system of bidding for funds is subject to strong central adjudication at Regional level.

Summary: Primary needs

1. *Mortality is an (increasingly) inadequate surrogate for morbidity at sub-Regional level.*
2. *Condition-specific SMRs are often inadequate statistically, yet condition-aggregated SMRs can cause problems of interpretation (e.g. in specialty costing and planning). A rigid formula is unlikely to prove useful.*
3. *Any wider basis for resource allocation must avoid the dangers of subjectivity, which could give a boost to localism in defining health needs. This in turn could lead to greater input by sectional interests.*
4. *As a result, morbidity data sources must be improved both in substance and organization.*

6

Costing health care: Teaching and research

Diseases and costs

It is important that resource allocation reflects the actual costs of treating actual diseases, not theoretical costs attributed to theoretical categories. In this context, both the categories and costs used by RAWP require re-examination. A recent Departmental study perhaps provides a starting point (28). At sub-Regional level, general cost variations are conceivably less important than Region-to-Region variations, but the *application* of costs to treatment for diseases is likely to be hampered by the fact that aggregate SMRs are frequently used; also that SMRs are less likely to 'average out' at sub-Regional level as a suitable proxy for *treatable diseases* as opposed to general mortality from all death-causing diseases.

Thus specialty costing at sub-Regional level is likely to require refinement. It may well be that a more planning-orientated model of resource allocation will be necessary to relate specialty costing to relative allocations to specialties. Again, planning affects costs in that different sites and different arguments (e.g. concentration *v* dispersal of care) incur different costs—both *per* specialty and possibly overall. Ideas in planning give rise to a need for costing, which may then give rise to a need for amended planning, to maximize benefit/cost ratios under conditions of budget restraint, yet within the context of practical plans.

Another area worthy of further investigation is the relative uses of average and marginal costings in different circumstances, when planning, allocating resources or setting targets for efficiency.

Information

The quality of information is another problem, accentuated at sub-regional level (as with so many other problems) because there is less likely

to be an averaging out of errors or distortions when numbers are lower; that is, errors are likely to be more significant. Hospital Activity Analysis (HAA) and Annual Hospital Return (ŚH3) data are often divergent.

A further need associated with more sensitive costing of diseases and treatments (whether to be used in conjunction with SMRs, morbidity and/or 'planning' models of resource allocation) is the development of medical record-linkage. This would allow, amongst other things, developing comparisons of different hospitalization policies (e.g. whether a 'short stay' policy leads to higher readmission for certain conditions, and therefore higher costs rather than lower ones).

Teaching and research

It is increasingly agreed that sub-Regional RAWP has caused problems for many major teaching hospitals (e.g. in the Thames Regions and in Merseyside). Buxton and Klein (29) listed some major aspects which are not accounted for by RAWP. These are, primarily, research as a whole; the demonstration of new techniques (which may in *some* cases portend future savings); and the extra costs of providing 'specialist' (or high quality or exceptional) services to patients from a wide area. That is, treatment of cross boundary flows in the formula is inadequate. More generally, SIFT as a whole is frequently criticized as inadequate in many ways. The 'centre of excellence' concept is hardly recognized by RAWP.

The picture is clouded further by the existence of Districts containing expensive teaching hospitals *and also* health-related social problems untreated by the formula. Thus there is often little scope to make up 'unjustified' cuts, as far as teaching and research are concerned, by using leeway elsewhere.

The answer lies in the realm of broad health services policy rather than tinkering with formulae. Indeed a close link of management with policy is necessary; and a special consideration of the place of training, education and research in the service context is urgent.

A comparison with the US

Recent introductions of 'prospective payment' linked to Diagnosis Related Groups (DRGs) in the US have raised many worries in that country as regards teaching hospitals, centres of excellence and university hospitals in general (30).

In the US, case-by-case reimbursement on a prospective basis may

afford incipient parallels in its aggregate effect on hospitals with the RAWP formula's use of 'assumed costs' for an indirectly gauged workload. It is true that in Britain, there is more flexibility for altering aggregate allocations given the radically different system of 'central' planning at District, Regional, and national levels. It will probably be worth monitoring the possibly deleterious effects in the US of inappropriate gauges of cost for 'special cases' in general e.g. complicated illnesses of the type likely to be treated disproportionately in 'centres of excellence'.

Caution in interpreting costs

Caution in interpreting costs (e.g. in searches for efficiency and attempts to use the resource allocation process for this purpose) should always be uppermost. For example, Districts or Regions with lower average costs may have these because they are (relatively) overbedded and therefore by Parkinson's Law can admit 'less serious' cases which are cheaper in the aggregate. This may apply in certain areas of Scotland, for example. Indeed this possibly adds to the effect that Scottish hospital costs are sometimes lower, reflecting the fact that, although there is—*ceteris paribus*—more money *per capita* in Scotland, there are even more hospitals and beds per thousand population. In general if 'overbedded' areas have lower average costs, the incentive might be beneficial as far as national RAWP is concerned i.e. to place a lower cost weighting for the Region as a whole Part 4(1)(b) and therefore lower its target allocation. This point was raised in 6(1) above. Yet this could have deleterious effects upon teaching 'centres of excellence', especially if sub-Regional RAWP prevented the most wasteful areas from being cut instead.

Future research needs and costing

Many projects in health services research concern innovations in service delivery, often involving a different mix of different health care professionals. It is often tacitly assumed that, if research is productive of helpful conclusions, the implementation of such research affects health planning but not resource allocation except in *ad hoc* ways at the level of (say) the particular health facility affected.

Innovations may however produce care that is either more expensive or cheaper. Greater effectiveness, efficacy and/or efficiency may be obtained in conjunction with either. Consequently, there is a need for assessment of new techniques of this sort, and possible advocacy of

implementation of new approaches or additional approaches where appropriate. In the long run, this may have implications for *both* specialty costing and for the relative balance of worthwhile specialties. Change in categories used for costing of treatment (e.g. *ICD* chapters) may even be implied.

The implication is that, in the long run, resource allocation should concern itself with 'outputs' and 'outcomes', at least within specialties; and that as a result weighted populations may reflect not only amended categories of disease/treatment but also altered costings. This in itself may affect the extent to which mortality is a suitable surrogate for morbidity in different areas. For although this argument is pitched at the purely general level, its main thrust is that categories and costings should be reassessed more frequently and radically than at present. This has particular relevance at sub-Regional level, where innovations and altered costs may be adopted in some Districts (or Regions) but not others. Whatever their conclusion, Regions ought at least to give special consideration to their policies for funding innovation and for advocating change in practice. Thus, an innovation in treatment may mean that a certain type of morbidity, less related to mortality than previously treatable morbidity within that particular disease category, becomes treatable.

Sub-Regional resource allocation naturally is not compelled either to follow national RAWP's categories or to relate resource allocation to planning. But, especially concerning the latter, the constraints imposed by a dissonance of the two could be harmful.

One practical illustration of this concerns the possible variation in costs for the same specialties, *ceteris paribus*, due to differing ages and types of hospitals. Planning may be constrained by legacies from the past to which the rational assumptions embodied in RAWP bear little relation. That is, RAWP's 'specialty costing', being a kind of average, may have little relevance to special cases which are not the consequence of correctable inefficiency.

Summary: Primary needs

1. *Specialty Costing is often too crude; disease costing and patient costing may be necessary* **in certain circumstances**. *Deciding when ought to be the task of a Management Board concerned with intelligence.*

2. *Teaching Districts—inevitably involving a great preponderance of medical research also in teaching hospitals—are suffering severe problems, especially when sited in 'losing' Districts. This area requires urgent attention.*
3. *A specific research programme in this area is urgently needed.*

7

RAWP: Other policies and politics

The whole area of making allocations is a minefield of conflicting ideologies, proposals, and alternatives: made more complex frequently by conflicting methodologies and general principles, which require to be brought into the general perspective.

Co-operation with other Authorities and programmes

Measures of overall need for health services are extremely difficult as well as subjective, and measures of morbidity are thus both tenuous and contestable. Nevertheless there is inevitably a difference between (say) two Health Districts, otherwise alike in terms of health needs and resources: one of which works in conjunction with a co-operative and high-spending local authority, and one of which does not. Although absolute need may be difficult to define, relative burden is clearer to grasp.

RAWP is essentially a central mechanism of allocation, based on criteria of need translatable more or less (depending upon local planning and implementation) into health services and facilities at a pace dependent upon how quickly targets are to be met. Yet local authority expenditure is based on a different system, despite some common features and even recent convergences. Localities have power to raise revenue; there is local definition of need, subject to national constraints; and there are highly imperfect systems of matching local and national revenue along with highly imperfect systems of reconciling local and national objectives (e.g. as regards housing, education, certain types of social welfare).

In this context, even a 'perfect' system for NHS allocations could run into what economists might call a problem of the second best: that is, the circumstances whereby otherwise optimal allocation within the NHS could produce a worse result than theoretically less optimal allocations because of a failure of other policies to be either related or optimal or

both. Failure by a local authority to provide certain facilities for the elderly, for example, could lead to a burden upon the NHS which had a pervasive effect upon other categories of NHS expenditure.

Again, perverse incentives created by financial and institutional fragmentation between the NHS, local authorities and other sources of care tend to be increased or at least complicated by an uneven pattern in relative responsibilities throughout Regions and the nation as a whole.

The 1974 reorganization of the NHS, while eradicating some sources of fragmentation in health policy and health-related social policy, created (along with local government reform and personal social services reform) some new patterns of fragmentation, although admittedly the pre-1974 unity in these latter areas had been crude or even accidental. However helpful joint financing has been, and indeed it promises more, there is a limit to what such policies can achieve.

Unification?

Unifying policy programmes and facilities is however a highly problematic exercise. There are grave difficulties of all sorts—economic and political—in, for example, centralizing all social expenditure, although there are interesting opportunities as well. There are even graver difficulties in unifying by decentralizing to local authorities—even if central constraints, norms on expenditure and 'revenue equalization', for example, were to be implemented to save the concept of the 'NHS'. This is true even if more sophisticated schemes of inter-authority revenue redistribution were implemented e.g. revenue equalization, whereby spending the same amount *per capita* places an equal tax burden on authorities or individuals of varying wealth, or income. If revenue equalization is to be controlled fiscally and rendered compatible with a global budget, this could impose precepts on richer authorities, which in turn would limit the extent to which poorer authorities could impose financial burdens on the others through choosing to spend more. This is because the precepts on the richer authorities would increase their tax burden and reduce differentials more quickly. As a result, the poor could not remain the poor for long, if they spent a lot and attracted a lot of cash; and the redistribution in their direction would cease. Such schemes of course have their anomalies and perverse incentives as well as their benefits.

Additionally, the question arises as to whether revenue equalization or

block grants (or whatever scheme of matching local funding with central funds is chosen) is to be specific to each policy area, or whether finance say from education to health is transferable. Either option has its opportunities and problems. For example, too much local leeway can allow certain professionally acknowledged needs to be ignored while locally popular ones are promoted. Trendy causes or causes supported by political muscle can triumph over more respectable ones (using that word in as neutral a sense as possible). Yet 'local democracy' is also necessary.

The NHS itself lives with an uneasy but probably creative tension between centralism and localism, professionalism and politics. Yet the consequences for a resource allocation or reallocation policy are that *even more when one looks at the 'big picture' of overall public policy*, pragmatism is called for.

One policy for one goal?

Whether RAWP should incorporate the need to be consistent with other social policies, is a question which raises just as much controversy. Some economists, political economists, and social administrators argue that a separate policy for each goal is the best norm. Others point to the destructive consequences of discordant policies. Thus Gordon Forsyth points to the opposite tendencies often inherent in RAWP and inner city policies (31).

A somewhat cautious conclusion seems to be that both rules have their place, and that it is quite an art, or at least quite a pragmatic effort, to judge when each rule seems more appropriate.

Thus, it is by no means clear that RAWP *should* automatically account for 'social deprivation' at sub-Regional level. That could well be considered the job of some other policy. Even 'discordant' policies may merely be policies which, quite beneficially, moderate or limit each other. Thus help to the 'inner city' from one policy is diminished by another, but only because the inner city problems are transient and other factors have to be accounted for.

It is nevertheless conceivable that patterns of population distribution—that is, concentration *v* sparse distribution—may have important implications for resources. So may different *types* of hospitals, differences which may not be detected in capital appraisal. These areas require further investigation. Viewed another way, the effects of inner city policy itself may be diminished or destroyed by RAWP's effects cancelling out

aid: *not* merely because of the economic net total of aid being less but because of a critical point being reached e.g. a minimum acceptable level of welfare or care being breached. That is, policies can affect each other in ways other than a purely aggregative or linear, or other than even purely quantitative, way. Consequently, this too is an area of the greatest difficulty where painstaking pragmatism is called for.

NHS organization and other social problems

The extent to which NHS resources are intended to cover broad social problems naturally has implications for organization within the NHS, and indeed for the methodology used to tackle sub-Regional resource allocation. For example, if the NHS has to cater for a wide range of services for the elderly in general, there may be more of a case for treating them as a special client group in the resource allocation process. This is not to deny central characteristics of caring for the elderly which are shared with the non-elderly, but to point to special problems with sub-categories of the elderly such as those with *senile dementia*, just as all cohorts of patients contain groups with particular problems.

Additionally there may be a case for organizing health service units, in part, not only on the basis of both geography and 'type of care' but also on the basis of 'type of client'. This might allow greater co-ordination, at the managerial level, of alternative forms of care e.g. to allow more overt consideration of *what* type and location of care would suit an elderly client.

In the abstract there may be a need to provide for resource allocation taking into consideration all complementary policies; just as there is a strong argument for including Family Practitioner Committee expenditures in reallocation policy. But it is a long way from theory to practice. For example, the huge difficulties in attempting to co-ordinate expenditure on (say) hospital, community, and FPC facilities may be small by comparison with issues raised in (say) taking into consideration expenditure presently controlled in part by local authorities.

Britain, the US, and politics: Comparative insight?

It was observed in Part 4 that the separation of capital and revenue calculations can cause difficulties within RAWP, especially at sub-Regional level where actual projects have to be planned within Districts. It is interesting to note that, despite the US's hugely different system,

difficulties which are at least analogous are arising there over the emerging system of rate-regulation through prospective reimbursement, which is an indirect form of reallocating resources. One important difference, of course, is that Diagnosis Related Groups in the US concern several sub-specialty disease categories, not the relatively few overall *ICD* specialties used by RAWP.

In the US, one can again consider present movement towards 'consolidated' DRGs (Diagnosis Related Group-based reimbursements) which cover capital as well as revenue costs. It is claimed that it is necessary to co-ordinate the incentives of the capital payment system with the incentives of the prospective pricing system for operating costs, in order to provide flexibility to hospital management (32).

There is much logic in this case. However, separating capital and revenue reimbursements (as they are best called in the US) or allocations (as for Britain) can allow other types of flexibility into the process. For example, since capital costs tend to be 'large and lumpy', it may be important to identify them specifically and cover specific costs, especially where long-term savings require short-term capital investment.

Often it is politics which provides what Americans would call 'the bottom line' to such dilemmas. That is, *both* options may be subverted or changed out of recognition by the political process. In the US for example, if capital and revenue are separated, the former may be cut to the bone. Alternatively, capital decisions may become highly politicized. For example, if Medicare eventually includes a specific capital component gauged by prospective payment rather than retrospective reimbursement, then those hospitals which 'win' and 'lose' respectively may do so on politically-motivated clauses. On the other hand, if the consolidated approach of merging capital and revenue reimbursement is adopted, capital spending again may be squeezed, although less perceptibly.

In Britain, the process is different in many ways, although similar in some. For example, since in Britain resource allocation occurs in the aggregate rather than *per case*, there is less chance of overt hardship for an individual hospital or patient through inadequate resource allocation being earmarked specifically for the individual. Yet there are inadequate incentives for effectiveness and efficiency which directly affect the individual hospital or patient; and as a result, the overall allocation process is likely to have to lead to rationing of care (in the absence of infinite resources) by a different process.

The 'politics' comes into *who* decides who gets what. Health Authorities may allocate and plan; but doctors have much more of a say in how the resulting facilities are used. Consequently, there is need for greater attention to be paid by doctors to the function of allocation, just as ultimately non-medical staff may have more say in the use of resources. *This is a task which could fit nicely into the schedule of any ambitious new NHS Management Board and the General Managers.* The optimum aim should be to involve doctors in clinical and management budgeting and then expect them to play a greater team role in monitoring as well as allocating resources.

Yet in the event there is rarely a neat solution—in this case, neither merging capital and revenue allocation nor separating them—which can exclude politics. The task is to identify the perverse incentives in *either* scheme and the likely effects of the political system. The same applies to many aspects of resource allocation other than merely the capital/revenue debate.

Poverty traps

In Britain, there is no 'cut-off' point as regards use of the NHS (as distinct from Medicaid and such programmes in the USA) and so unemployment and poverty traps are less of a problem. The same is not necessarily the case with social welfare in general. Any changed system of allocation based on a changed demarcation of NHS and non-NHS responsibilities would have to take the opportunities and effects of change as regards this type of disincentive into account. For example, greater centralism in social welfare as well as in the NHS (in line with diminution in local government autonomy) could iron out some perverse incentives in (say) caring for the elderly or for other 'special groups' who depend on both the NHS and other forms of welfare. Yet it could also create new perverse incentives: for example, direct services to certain categories of the poor only, can create a poverty trap.

Political trends

Political trends affecting NHS and other relevant policies must always be accounted for. At a relatively 'micro' level for example, the relation of clinical and management budgeting to a resource allocation procedure which uses a frequently different methodology for costing would have to be considered. At a 'macro' level, other concerns can affect RAWP. For

example the original separation of capital and revenue RAWP at the national/Regional level was largely related to government desires to control all capital spending, including health service and many other variants. This again raises the question of whether 'a different policy for each different goal' should be the operative assumption or not. That is, should the question of whether the NHS would benefit from merging capital and revenue allocations have been considered on its own merits and other questions (e.g. the stability of the economy-wide construction industry) tackled by other mechanisms?

But the most important trend to gauge is probably the current state of the see-saw between a superficially-defined 'devolution' and an equally superficially-defined 'centralism' in the NHS. Any sub-Regional resource allocation policy is quite likely to be affected by the current fashion in this respect. Now in many respects we have a 'centralist' Conservatism, which followed hot on the heels of a 'decentralist' Conservatism. Any succeeding 'left wing' policy for the NHS might involve, ironically, moves to decentralization, and 'local definition of needs', even within the NHS. Dr Owen, associated with the development of RAWP in his days as Health Minister, now also reputedly favours the decentralist line (33): perhaps partly in deference to the necessary politics of SDP-Liberal co-operation.

In this type of context, it is unlikely that complex formulae will ever produce the intended result. All that is likely to happen is that the parameters of such formulae will be manipulated.

The task, then, is to modify sub-Regional RAWP by increasing flexibility, but *not* by writing that flexibility into the formula in a mechanistic way.

8

In conclusion

The foregoing analysis is designed to highlight the important immediate issues for an NHS for which **specific forms of better management** constitute a major priority. The principal of these which span the analysis are listed below.

1. Capital planning

The planning of capital developments and management of capital requires much more attention than has been given hitherto.

(i). Capital allocations should be less arbitrary. At present, although there is a strictly limited flexibility allowed to health authorities between capital and revenue spending, **mostly in transferring capital to revenue**, capital spending is often tied up with policy objectives completely extraneous to health policy (e.g. macroeconomic policy; public works; the needs of the construction industry). This approach can be defended; but this seems to be one of the cases where one policy for each goal (see Part 7 above) seems more appropriate than pursuing a number of goals with one hybrid policy. Thus, it would be better to decide the NHS's capital policy **by reference to NHS needs**.

To draw an analogy: if, during competitive tendering, Health Authorities said to the government, 'we're including the unemployment benefit and total social security costs of workers made redundant by awarding a support-service contract to a private firm in the costs of such an option', the government would presumably not be pleased. Yet that is the same principle. An alternative to considering such welfare costs to be the cost of the private tender, of course, would be to consider them a **social cost** of a more efficient and/or effective health service (if it were so). That is, such a policy might not be chosen. But at least the decision-making process would then allow **clear** analysis and open acknowledgement of trade-offs, rather than the present mish-mash of half-identified objectives.

The Public Expenditure Survey Committee could well be a forum for such trade-offs.

This would accord with recent suggestions to move to more overt and rational programme budgeting at central level.

(ii). Next, and closely related, **capital and revenue allocations must be better reconciled.** This essay has laid out the seeming alternative options.

(iii). More professional accounting systems are required, especially concerning the treatment of depreciation. A brief account of some of the paradoxes of the present, often rudimentary, approach has recently been entitled 'the Portakabin mentality' (34). What is more, equipment as well as buildings is a suitable focus for Authorities in assessing capital and depreciation.

(iv). All these require a specific **management function to be identified at Regional and District level** for these purposes, integrated with the decision-makers of the team of officers or management team. It is an irony that the NHS's greater scope for rational resource allocation and planning than (say) that of the US health system is not being used to the full.

For example, there is the possibility that 'consolidated DRGs'—if introduced—in the US will allow at least a minimal joint accounting of a hospital's capital and revenue needs and costs. Yet in Britain, capital depreciation is a much neglected area; and this neglect causes in many cases in the long run, decrepit facilities and inevitably worse health services.

2. Regional and District responsibilities

There is a need to come to a more overt and **satisfactory demarcation of Regional and District responsibilities.** This, too, is of course related to capital and revenue policies. The aftermath of the Griffiths Inquiry ought to provide a clear opportunity, not only to make management more professional and management responsibilities more task-related at each level, but to forge more coherent line management where appropriate from the DHSS through to unit level.

At present, RAWP has some of the characteristics of what would, in the US generally more than in Britain, be called a 'formula grant' programme. That is, on the basis of a formula, money is allocated from a

higher to lower level of 'government' (in this case, the Department of Health, Regions, and Districts) with the recipient level free to make the exact allocations in line with its priorities. This may seem more objective than what are in the US called 'categorical programmes': centrally stipulated programmes often thought to be susceptible to 'parcelling out' to special interests. Yet manipulation of formulae may let special interests in by the back door: and lead to domination by special interests to a greater extent (35).

The same may often apply with sub-Regional allocations, where seemingly objective discussions in Health Authorities over priorities, formulae, weightings, and so forth may mask a carving up of spoils for pet projects. Such an effect is likely to be increased where local government, 'local politics' and 'local interest' representation on Authorities is significant.

Categorical programmes can be bad if abused; yet often are more effective in targeting upon need if properly handled. If Regional decision-making is supplemented by flexible and intelligent translation of those decisions at District level by bureaucrats (i.e. in the NHS context, the District Management Team or its equivalent) then greater benefit may accrue. That is, as far as RAWP is concerned, there may be a greater case for a more active central (i.e. Regional) role than is often recognized in allocating resources for, and planning, hospitals, and facilities—especially at a time of resource constraints when the awkward side of District self-sufficiency can be very expensive and wasteful.

A greater investigation of top slicing and of Regional specialties, on a more systematic basis, is a potentially rewarding task.

3. Medical consensus on needs

There is a need for greater consensus between **general practitioners and specialists** reflected in FPC and District Health Authority relationships on some main health needs and measures of need. This is potentially relevant to RAWP in a number of ways.

(i). There is scope for a greater use of GPs, and especially group practices, for some routine diagnostic, basic curative and caring work presently done by hospitals.

It seems conceivable in time that FPC budgets will be subjected to the same principle of reallocation: otherwise, there is an incentive to shift

costs from those hospital services subject to RAWP to those not so controlled. It is believed by some administrators and Health Authority members that this is especially true for renal services, in particular dialysis.

Without constraints common to both Health Authority and FPC services, it is likely that the FPC workload will **both** contain some tasks inappropriate to general practitioners **and** also omit certain tasks which the general practitioner team could perform more efficiently. More generally, the present lack of planning capacity of FPCs can be a chronic problem.

Yet basic research is needed on how best to link resource allocation and planning for FPCs, to Health Authorities (whether Regional or District). The separation of DHAs and FPCs is bad, **although** the main objective under the recent legislation is allegedly to take matters of resource allocation to FPCs, and also planning of FPC workloads, beyond the present rudimentary stage.

What is more, coherent links of general practice to joint finance and local authority Social Services may be a worthwhile area to consider.

(ii). But this is not the only question. Even **granted** present demarcations, there is some considerable disagreement between GPs and hospital specialists as to the most pressing health service needs. GPs and hospital specialists are of course only one example from the array of professions or sub-professions failing to agree. This ties in with the point made near the beginning of the essay, in Part 3(b) above, concerning arbitrary allocations among the seven (or eight) components of RAWP. That is, should relatively more money go to inpatients; to community services; to the mentally ill or handicapped; or to FPCs . . . ?

For example, to take merely a few different viewpoints recently articulated, are the main priorities those of the hospital-based acute and chronic diseases (e.g. more needed for renal disease), or those of the Department's 'Priorities' document produced in the late 1970s, or those of the 'Black-Pole' index? (36).

This is an area where greater consensus is required, in the search for at least a rough, working measure of relative need in different specialties and parts of the health service.

4. Manpower and reallocation of resources

There is a need for more forcefully directed **research and investigation concerning how manpower needs must be linked with RAWP**, and the implications for medical education, career structures and manpower incentives and controls. The last aspect should be of interest to an active Management Board. RAWP, priorities and manpower are a trio which must be jointly considered to underpin any effective planning process.

As with all health services research, as also discussed in 9(c) below, clear demarcations and cooperation between the Management Board and the Office of the Chief Scientist, or whatever new research arrangements develop, will be necessary.

5. Social and class differences in outcomes and access

Some attention must be given to **social deprivation and class/stratum differences in outcomes (e.g. measures of health status) and access to health care.** The best approach is probably **not** tinkering with formulae since there is some danger of either double counting or merely troublesome complexity: due partly to over-refined formulae applied to statistical populations or cohorts which are too small at sub-Regional level.

Instead, attention to aspects such as the following may be more fruitful.

Transport costs incurred in reaching health care, and possible influences on planning. If it is agreed that greater reimbursement of the poor's transport costs is necessary, then it may be worthwhile to seek to balance the benefits of economies of scale in location of facilities against possible costs incurred either by the poor or their reimbursement. This type of exercise may best be more formally incorporated into the planning process. What is more, the full opportunity cost may be considered a worthwhile criterion in assessing the merits of travel to health care. A worker may lose wages in so doing, for example.

Implementing sub-Regional reallocation more forcefully than hitherto **where the worse-off benefit**, in the face of interest-group and pressure-group opposition from the more articulate middle-classes. This is, it is sometimes not RAWP so much as gerrymandered RAWP which hurts the socially deprived.

Tackling more general social deprivation e.g. housing; nutrition; environment; through closer association with Social Security and the Department of the Environment in appropriate social security and environmental policies (37).

6. Evaluation of programmes for development

There is need for **greater consistency in the NHS in the valuation of life and freedom from morbidity**. This implies a greater use of criteria of effectiveness and efficiency in evaluating technology, programmes and—ultimately—allocations. It also implies less 'political' interference from the centre i.e. a directive to implement a programme based on political or pressure group influence or bureaucratic inflexibility. In any case, such 'fads' tend to change too rapidly to allow the resource allocation and planning processes to keep up. That is, central directives on, say, one aspect of a budget may take a long time to be translated down to Regions, to Districts and finally to be translated into services, possibly involving capital investment and building.

While tardiness in implementation can and should be improved in many ways in many cases, some aspects of it are inevitable. Ill thought out directives with ill thought out revenue consequences are the hallmark of a lack of managerial professionalism as well as political weakness.

Instead, the influence and authority of the Department—and especially the NHS Management Board—should be used to promote consistent and **longer-term** policy, stimulating re-assessment of priorities and therefore allocations, RAWP formulae, and advice where necessary.

New developments in valuation of life, such as 'Quality Adjusted Life Years', are worth monitoring. Careful assessment as to practicality and acceptability is of course necessary.

7. Co-ordination of all public programmes bearing on health

The need for greater **stability in resource assumptions and allocations** is something which applies to the public expenditure process in general.

Recent interest in more professional programme evaluation during the budget process (38) could be harnessed to greater assessment of the value of health programmes and patterns of expenditure both under the aegis of the DHSS and other Departments where relevant. The aim would be to provide greater co-ordination not only among NHS and extra NHS programmes within the DHSS but also among health-relevant programmes more generally.

Such greater professionalism in programme analysis would not challenge, but provide opportunities for the enhancement of, parliamentary sovereignty and scrutiny. Reform need not be purely executive-orientated.

RAWP in particular would work better if less susceptible to resource assumptions changing unnecessarily frequently: and greater capital/revenue stability is also necessary. This is not the same thing as 'stability' at the 'micro' level (e.g. clinical or Departmental budgeting) where continual readjustment will be necessary. But adequate stability of overall resources and priorities is often overlooked.

8. Development of specialty and patient costing

Improvements in **specialty costing and patient costing** could go a long way to improving the crude allocation of costs for teaching and research, under the RAWP formula, as discussed briefly in Part 6 above. (Appendix 1 outlines even more briefly one possible avenue.)

(i). Clinical and management budgeting reforms could be important here. Nevertheless success will depend on **how, why, and by whom** such reforms are used.

One possible application would be to use **clinical and/or management budgets** to forge a link between referral and treatment of a patient and the model of inter-District payment introduced in Part 4 above. That is, a variety of comparisons could be made to assess the relative worth of treating within the District and contracting with other District(s) for treatment, in different specialties. (In the long run, such assessment could be useful in both planning services and deciding whether to invest in local capital or to contract outside.)

If doctors are to refer outside the District, then the main acceptable justifications would be medical need; efficiency and cost; and quality or relative effectiveness. Certainly any interpretation of referral policy on grounds of cost alone would be totally unacceptable, as are most **crude** performance indicators. Nevertheless, in the long run and as more data emerged, it could be hoped that a picture would emerge as to both efficiency and effectiveness of different places of treatment.

A guiding rule could be that, *ceteris paribus*, treatment outside the District would be justified if its total cost (ideally including transport and other opportunity costs of time and travel to care) were lower. Naturally

other things are not normally equal! Travel on grounds of medical need, effectiveness and/or quality is for example justifiable.

The core question which arises is how doctors can **help District management** to make sense of such a policy. Even if clinical budgets are enforced with 'text book' sophistication and strength, it could be argued, it is **GPs** primarily who refer patients. The option of clinical budgets held by GPs is certainly impractical in the short-term; undesirable to many in any case; and inconsonant with a variety of present policies.

Resultingly, careful and sensitive clinical/management budgets would have to work **indirectly**, in this realm at least. The decision by a consultant or other hospital doctor to treat a patient would, in an effective clinical budgeting system, be taken more in line with overall resource assumptions. This is not to say that budgets should be used dogmatically: indeed careful and continual reassessment would be vital. However the aim would be to ensure trade-offs where necessary. Such decisions would only be 'unethical' to the strictest deontologist; and even formalist ethics of this sort might be able to justify such policy. After all, the doctor's contractual obligation is surely to the potential patient as well as to the presenting patient. Such a policy would be necessary to link care of the individual and overall social care in the context of resource constraints.

But how could such an incentive work, it can be asked, if GPs from District A can refer patients to District B, incurring possibly open-ended costs for District A and perhaps subsidizing inefficient care or care that was poor value in District B. Alternatively, GPs might refer within the home District even if it were less efficient and/or effective.

The hope would have to be that hospital doctors in District B, if their service were 'poor value', could be constrained by clinical budgets in their **home** District, such that extra income would not offset their difficulties. Of course the opposite might work. The extra income might be a Godsend! This is the perverse side of fee-for-service payments. Or doctors might solve their local difficulties by recourse to 'under-supply' i.e. keeping within budgets by treating less people. However overall, the result might be that resource constraints, waiting times and waiting lists discouraged GPs from referring there.

Such a policy would only provide success in certain circumstances, it seems: e.g. where value for money could be communicated to the GP by an incentive. The separation of control of resources and planning in the GPs realm from overall resource control in Districts (i.e. the separation of FPCs) seems most unhelpful here also.

On the other hand on an optimistic yet pragmatic understanding of professional ethics, there would be some scope for positive incentives to work: hospital doctors might become more efficient, and GPs more sensitive to their patient's needs (although the latter would be aided by economic and structural changes in general practice).

It can generally be demonstrated that reforms such as **clinical budgeting** have to be assessed carefully and linked closely to **reforms in information collection and use and improvements in management structures and training**. Alone, they might find difficulty in reconciling incentives for District managers and doctors.

Other reforms to complement—say—the linkage of **clinical budgeting** and **'simulated market' reforms** might be necessary, e.g. a regulated or restricted reimbursement from one District to another. The aim here would be to force GPs not to refer to consultants outside the District **especially** if they were 'inefficient' and the reimbursement were inadequate. Such a policy itself would depend on the constraint imposed by **limited** inter-District payment reaching the consultant's Department, either directly or indirectly through District policy.

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(ii). Another important **costing** reform could be greater use of cost (or profit) centres in Districts or even Regions, i.e. the purchasing of services by Units and Departments from central or competing providers rather than direct provision. This whole area is a large one, and cannot be done justice here.

9. The new management concepts

(a). The NHS Management Board. If the Griffiths reforms are to have relevance to the question of sub-Regional RAWP, the primary impact perhaps ought to be at the level of the **NHS Management Board:** not in issuing directives but in advising on broad strategy and even in acting as a 'clearing house' from which opportunities and dangers based on experience can be learnt. Such a role would obviously depend upon the Board having enough by way of infrastructure, to fulfil this role.

A major implication of this survey is that **Regional** rather than District activism is perhaps best suited to the task of reconciling resource allocation and planning. This is not to imply that 'centralism' ought to

replace 'devolution' in the NHS, on the dubious logic that the Griffiths changes reverse 1982's 'devolution', itself a move away from the 'managerialism' of 1974. It is merely on **this** issue that a strong Regional role seems reasonable, based on the substantive logic of the policy area itself. Generalist debates about centralism and devolution often tend to be sterile and incapable of accounting for the particular facts in hand.

The need to devise a flexible form of sub-Regional resource allocation means reconciling capital and revenue; resource allocation and planning; formulae and glaring needs or priorities; mortality (especially avoidable) and morbidity and so on. Additionally, **monitoring** the appropriateness of formulae or their lack is important.

(b). The General Managers. Consequently, the Regional General Manager may well be a key individual: not in dictating policy but in stimulating awareness of rival needs and trade-offs and in being the catalyst for consensus. In practice the Regional GM may be 'first among equals'; or in a line relationship with other chief officers as a form of chief executive; or even **boss** of an increasingly corporate organization where old-style functional officers are increasingly augmented by specialty and 'substantive' officers at the level of the managerial team.

The question of 'limited term' constraints for senior managers is a complex one, however. While it has positive incentives, it may lower the quality of initial recruitment **given** current reimbursement levels. (The same may apply with medical personnel.)

However different Regions may interpret the role, there is scope for more judicious and stable Regional strategy on resource allocation. Monitoring and amending will be important, and a stable structure to fulfil this role is likewise important. New ideas about how to contribute to monitoring will be vital. Although 'Diagnosis Related Groups' have a lot of perverse incentives when used for reimbursement and cost-control in a private system as in the US, they ironically may have quite different uses as a gauge of **workload and average expected cost** when used as a management tool in a public system. They would have to be used flexibly, and account for age and severity of illness. But as a measure of workload more specific than 'RAWP'—type specialty yet less past-determined than activity statistics and historic costs, they could undoubtedly be useful.

(c). Research as an integral part of management. No management

system can afford to ignore the place of research, investigation and innovation. There is a surfeit, not a deficit, of possible research topics. The best plan is to break these down into short-term investigations and medium-term and long-term research. (Short-term is understood to mean about a year or less.)

Short-term

Some profitable **'short-term' topics for investigations might be:**

(i). The possibility of monitoring the appropriateness of RAWP allocations (especially sub-Regionally) by the use of British-style 'DRGs'. This could involve 'expected' or 'reasonable' costing of a District's workload not only by specialty but by more detailed 'Diagnosis Related Groups' —amended where necessary or suitable for use in Britain. The rationale and prospects for such a policy are set out below in Appendix 1.

(ii). Different practical problems and opportunities concerning the link or otherwise of **revenue** and **capital** resource allocation in different Regions.

(iii). New approaches to service planning in Regions, and new proposals for service planning more generally, which attempt to get around some of RAWP's problems by creating a more dominant role for planning. There are indeed one or two projects in embryo already, seeking support.

(iv). Opportunities for 'top slicing' by Regions.

(v). Relative allocations to the seven (or, in the Thames Regions, eight) components within RAWP at sub-Regional level.

(vi). How Regions have attempted to combine 'priorities' and resource allocation.

Medium-term research

(vii). Changes in case mix and, as far as can be measured, 'unmet need' in Districts which claim to be needy or hard done by.

(viii). Changes in costing in specialties which have undergone innovation; and/or changes in priorities within specialties as a result.

(ix). 'Cross boundary flows'—criteria for when they are desirable/undesirable; trade-offs between economies of scale and proximity to services for different specialties etc.

(x). Teaching and research—possible options for reforming the present system of funding as determined under sub-Regional reallocation.

Long-term research

(xi). The most promising sources of specific measures of morbidity other than mortality which might have **practical** import for resource allocation. For example, the aetiological epidemiology of diseases and morbidity resulting might allow greater quantification of when health services (as opposed, say, to environmental factors) can or cannot make a tangible contribution.

(xii). Ways of incorporating 'morbidity' into a methodology for allocation without producing even more complex and mechanistic formulae.

(d). Research and policy in a democracy. It is to be hoped that any long-term research will lead not only to publications but to opportunities for 'influence' and advocacy at a high level. Of course the best possible approach would be government-sponsored or at least government (or NHS Management Board)-initiated research which was intended to produce suitable policies for implementation.

More quickly there is adequate material already in existence for a re-awakened interest in the topic to take practical form. This could draw on already-existing points and suggestions concerning the operation of sub-Regional RAWP. Given the lack of salience of in this topic as it stands, it is important to present it quite genuinely and appropriately as central to moves for 'efficiency', 'maximum use of existing resources' and 'better management' (e.g. of capital) in allocating and planning the use of resources.

Action on sub-Regional RAWP is—formally and practically—very much a matter for **Regions**, not just central government. A plea for greater attention should be geared significantly to Regions. A mechanism for co-ordinating Regional interest in, and action on, the topic could well be the Management Board, if it gets off the ground satisfactorily. Of course, there is already no lack of Regional awareness of the topic: indeed it has become the subject of Regional working parties and even great controversy (often based on rival interests) in many Regional Authorities. The uneven manner of tackling the problem (one example being the relative backwardness of capital management and 'capital RAWP') is a

strong symptom of the absence of adequately streamlined and strong 'R & D' at Regional level in the NHS.

The statutory powers of the Department (and of the new Boards, which are not the product of statutory change) are limited in many ways, on many interpretations. Suspicion of 'centralism' (as embraced by the Department) on the part of Regions exists just as significantly as does suspicion by Districts of Regional 'centralism'. The relative failure of Regions in the past to develop clear and coherent policies on issues well within their remit often makes necessary the kind of initiatives (such as Griffiths) which can be interpreted as centralism. Added to this, admittedly, is the fact that—in order to promote policies which rightly enjoy consensus support as integral to the purposes of the NHS—greater 'centralism' in setting priorities than is often welcome is often necessary.

Nevertheless the better Regions fulfil their implicit function of developing coherent policies to tackle agreed purposes, the less will be 'arbitrary diktat' from an ill-equipped centre. One of the more laudable purposes which new management arrangements and the Management Board could help to fulfil is the promulgation of expertise both greater and better organized at the centre, and the accompanying forging of clearer managerial structures and purposes throughout the service: which can indeed promote **greater** power at a lower level if clearer responsibilities are more unequivocally accepted.

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10. Consensus for efficiency

The above observations are relevant to the kind of focus which the new **NHS Management Board** will generally wish to make. While long-term stability, to take an important example, depends on party politics to a large extent, the above areas are noteworthy as ones where adequate political consensus ought to be achievable. Better management should appear as friend, not foe, of the dominant NHS interests; and a better resource allocation process is part of better management. In present economic circumstances, the issues behind 'sub-Regional RAWP' are in fact moving almost unnoticed to centre stage. Some of its central aspects ought to be tackled before the uneasiness about the NHS and its ability to sort out the major problems degenerates into something worse.

APPENDIX I

RAWP and 'DRGs'

One of the main criticisms of RAWP is that it is divorced from planning. Ironically an 'objective' system of resource allocation is more likely to contribute to this than (e.g.) systems of straightforward market reimbursement: the important proviso being that such systems only reconcile resource allocation and planning by diminishing the import of both. To return to a resource allocation process where existing facilities and perceived needs based on past practice dominated allocations would of course be to lose many of the advantages of 'objectivity' sought by RAWP, however imperfect. Half-way houses such as the 'Crossman formula', on the other hand, are imperfect substitutes, and can be too crude to be effective as policy instruments at times of economic retrenchment.

One way of using RAWP but also seeking to monitor its effects would be to check the actual caseloads of—say—a few 'demonstration' Districts by using DRGs' (although not necessarily in their US form) to analyse admissions and lengths of stay. Work has already been done in Britain by the CASPE team on applying DRGs to a District. With the right adjustment this could also supplement work already started using the principle of 'DRGs' to measure caseloads in an attempt to monitor the extra costs of teaching hospitals. One approach could be to examine the basis for a Region's allocations to Districts (i.e. on what data?) for a given period and then to compare the hospitals' caseload using 'DRGs' for that period.

If it seemed that mortality figures were not very useful as a guide to relative expense in different Districts, then an interesting by-product would be light shed also on the 'mortality *v* morbidity' controversy. In other words, DRGs could become a supplement to morbidity data.

The rationale for using DRGs **selectively** would be to produce a norm for costings and to compare Districts' allocations with (say) expected aggregate costs by Diagnostic Related Groups. A further step could be

attempts to move towards actual patient costings, with better 'performance indicators' emerging from an ability to compare a patient's actual cost with his 'expected' DRG cost. This could help to reduce any anomalies arising in practice from the fact that RAWP calculations are applied to **populations** but weighted by **specialties**. While patient, client group and population costings on the one hand and specialty, disease or diagnosis costings on the other hand may be viewed as two sides of the same coin, there is often need for reconciliation between the two approaches in **practice**. Thus resource allocation in Britain often is based on the former weighted by the latter, whereas service planning tends to take account of the latter. 'Specialty costing', 'management and clinical budgeting', *et al.* may tend to reinforce the latter. Fee-for-service systems stress episode costing (i.e. specialty or disease costing): like Britain's public NHS, indeed. A move towards operative patient costing might imply a different structure of health-care delivery from **either** the NHS as currently organized **or** fee-for-service (such as the 'simulated market' model, which has some characteristics of the HMO but in a British context).

Needless to say, and importantly, the main problems with DRGs also would apply *viz* the fact that 'DRGs' themselves only produce an average cost of existing practices, not an 'ideal' cost; multiple episode patients; the varying severities of illness; and adequate classification of different population cohorts.

It is vital to stress that the aim would **not** be a rigid use of DRGs; nor even necessarily their widespread—and expensive—development and use. What **could** be developed, however, is a valuable and flexible tool: a yardstick (and merely one of many) by which the usefulness of sub-Regional RAWP could be gauged. Only a few Districts need by chosen, as long as a wide spread of types was included. Pragmatic balance rather than strict scientific randomization, *et al.* would seem to be the order of the day. It would be important to avoid wholesale import of 'DRGs', induced by a trendy identification with the latest buzz-word or acronym!

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Nuffield Provincial Hospitals Trust
Occasional Papers 2

The policy of resource allocation and its ramifications

A REVIEW BY

CALUM PATON

The RAWP report was merely one element in a wider planning review, essentially part of the management process which to be effective has to include policies other than geographical equality. It is specially important since the policy of reallocation has been accepted by all political parties. This essay is a timely attempt to initiate discussion on the wider issues, and in examining the use which has been made of the formula seeks to evaluate it. If it is successful in generating further debate, improved policy co-ordination and better evaluation of new and existing activities, it will have made a significant contribution towards a more efficient management of the National Health Service.

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