

The London Health Care System

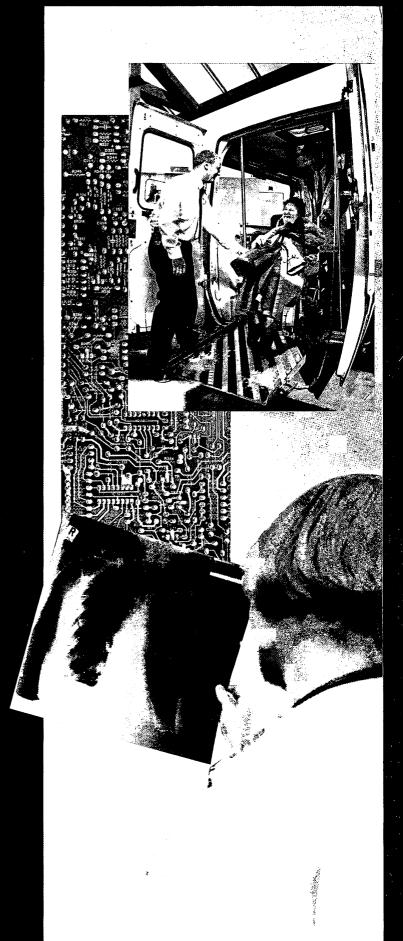
A discussion paper prepared for the King's Fund London Commission

Anthony Harrison



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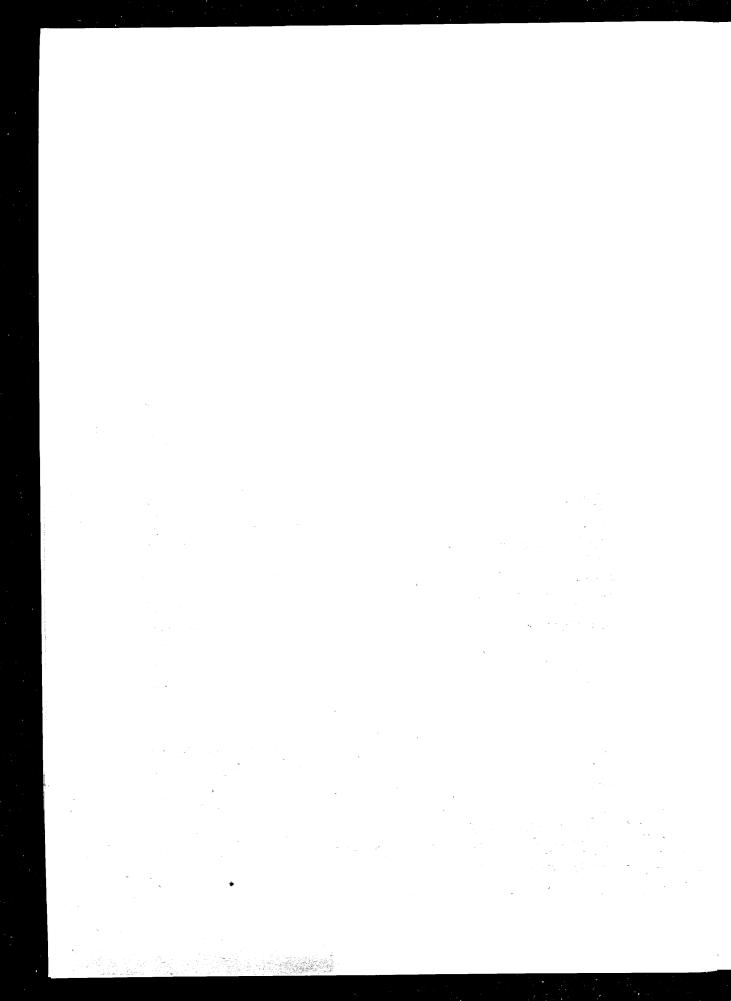
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Summary of main points

- Health care should be regarded as a 'system', i.e. a set of distinct but related activities, which interact with each other.
- The health care system comprises three main elements: service delivery, education and training of clinicians, and clinical research.
- System governance is the task of ensuring that the health care system is so designed that it fulfils top-level objectives such as maximising health gain or ensuring equity.
- The need for a system-wide approach has been recognised in official documents since the report of the first London Commission. The NHS and Community Care Act 1990 has made the case for it more compelling since it has encouraged greater flexibility in provision and in purchasing, and other changes have followed, all of which have increased the degree of interdependence between the different elements making up the health care system.
- The philosophy underlying the Act, with its emphasis on local and small-scale initiatives, has worked in the other direction. There is a strong case for the local, small-scale approach to service development, but this approach is not well suited to tackling the full range of issues which have to be faced within London.
- Evidence from studies carried out for the London Commission and other sources suggests that London's health care system often works badly. It has proved hard to change the pattern of provision in the desired direction, particularly for specialised services, linkages between different forms of provision are often poor, and there is no adequate mechanism for balancing the needs of service delivery, education and training, and research.
- Looking at likely developments in future suggests that London's health care will become more, rather than less, interdependent, and hence the need for a system-wide approach will grow rather than diminish.
- Any future set of arrangements must provide for a process of continuing change, not one-off restructuring plans and also for learning from whatever changes are made through suitable monitoring and evaluation.

- The framework provided by the 1990 Act is potentially highly flexible, and hence a large number of options are available for developing the present system, many of which might be implemented without major structural changes. But some of the systems issues identified in the paper will be hard to tackle in this way.
- The paper discusses a wide range of options for each of the main functions involved in health care provision.
- It concludes by setting out two 'policy scenarios' which combine elements from some of the options and which are designed to illustrate the tensions between centralisation and decentralisation of decision-making.

Introduction

The overall aim of any health care system is to improve the health of those it serves. In the words of the NHS Executive Planning Guidance:

The purpose of the NHS is to secure through the resources available the greatest possible improvement in the physical and mental health of the people of England.

There is no direct way of observing whether or not the NHS actually achieves 'the greatest possible improvement', as there is no agreed measure of population health, still less of the contribution of the NHS to it. As a result, ever since the foundation of the NHS, but particularly in the last 15 years, successive Governments have put into place a series of policies which, in their view, offer the greatest likelihood of the NHS achieving that broad purpose. Another broad purpose, which may conflict with the first, is equal access for equal need. This purpose has been pursued through successive changes to the way in which NHS resources are allocated but it has not, at national level, been rigorously defined in terms of the availability and use of particular services. Nevertheless, it remains a recurring theme in any discussion of the role of the NHS.

This paper is founded on the assumption that in order to increase the likelihood of these broad objectives being achieved, however they are defined, health care provision should be regarded as a *system*, that is a set of interrelated activities which need to be considered as a whole.

The paper draws on a series of reports, covering acute hospital services, intermediate care, primary care, needs assessment and the private finance initiative (PFI) which, taken together, form the London Commission's Systems Study. It also draws on the parallel studies into mental health, the care of older people, the London health economy and other, unpublished, work carried out for the Commission. These are listed at the end of this paper.

1.1 National policy framework up to 1990

While the assertion that health care provision should be regarded as a *system*, and hence considered as a whole, might seem uncontentious, in practice policy-makers have, ever since the foundation of the NHS, failed to look at it in this way, or have simplified what it entails. From its beginning, the National Health Service (NHS) has been the sum of

several parts which have been organised and planned for separately. The early NHS comprised three main strands: general practice and hospital services, which came under the Ministry of Health and community health services, which were the responsibility of local government, and hence for most purposes came under the Ministry of Housing and Local Government.

The tripartite structure was, in principle, abolished in 1974, when community health services were allied with hospital services, but that still left a service divided into two main parts, general practice and hospital and community services, each with its own funding mechanisms and its own lines of accountability. It also, of course, left social services with local authorities.

In 1976 the then Secretary of State Barbara Castle published a consultation document, *Priorities for Health and Personal Social Services in England*, which attempted to span the whole of health and social services. In its own words it was:

a new departure. It is the first time an attempt has been made to establish rational and systematic priorities throughout the health and personal social services. (para 1)

Despite its scope, the document did not, however, attempt systematically to consider the relationships between the various strands of health and social care provision. It recognised that services for such groups as mentally ill people ran across administrative boundaries, and it attempted to recognise that by presenting public expenditure on health and social care in the form of a programme budget. This aimed to identify the spending on each programme, e.g. care of mentally ill people or people with learning disabilities, no matter what its source. Unfortunately, although the programme budget continues to be presented in the annual departmental memorandum on public expenditure to the Health Select Committee,³ it has not been systematically developed since that time either at a national level or, still less, at local, London level. It continues to lump all acute nonpsychiatric care into one programme, and hence gives no indication of the individual care groups, such as cancer sufferers, receiving it. It therefore fails also to show the total resources, both community and hospital, going to such client groups. Even where, as with age groups, it does attempt to identify the resources used, the assumptions are open to question. Moreover, neither then nor subsequently has any attempt been made to include general practice within the same framework.

Furthermore, although the consultation document was ambitious enough to look right across the health and social care sector at one and the same time, it did not attempt to sketch out how the various elements making up the health and social care system fitted together. In practice, the 'vision' of the health and social care system it embodied was

the old, 1948 vision in which the distinct elements, community health services, district general hospitals, health centres, GP practices and so on had their separate roles. The task of the consultation document was to suggest ways in which each part could perform better and how their relative importance in expenditure terms should be altered in the light of new policy priorities.

Priorities for Health and Personal Social Services did 'restate the role of primary care in helping to relieve pressure on hospital and residential service by caring for more people in the community' and it also set out a series of target growth rates for each main service group which reflected the view that services for elderly, mentally ill and mentally handicapped people should attract more resources. At the same time, a central planning system was developed which in principle was the means for ensuring that resources were allocated in line with these priorities. In practice, however, these arrangements were never strong enough to achieve the target growth rates. Similarly, while the aims of the 1974 reorganisation had been to better integrate the elements of what was seen as a fragmented service, service integration on the ground remained elusive.

In the case of hospitals a blueprint had been put forward in 1962 in the Hospital Plan for England and Wales. 4 This was based on the concept of the district general hospital serving needs of its local population, except for some specialised services which would be provided in tertiary centres and simpler ones which might be provided in smaller hospitals. The Plan recognised that hospitals might carry out certain activities which other providers were better placed to do, in the following words:

In drawing up the hospital plan, it has been assumed that the first concern of the health and welfare services will be to forestall illness and disability but where it nevertheless occurs, the aim will be to provide care at home and in the community for all who do not require the special types of diagnosis and treatment which only a hospital can provide. (p9)

The Plan itself was subsequently modified in a number of ways but it proved influential in determining the subsequent pattern of hospital development, ensuring that no part of the country was without reasonable access to general hospital facilities. But no specific steps were taken to ensure that hospitals did only carry out those functions which they were uniquely placed to do. Hospitals continued to retain and accumulate functions which others were capable of discharging. Furthermore, no comparable document was issued for the other parts of the NHS.

In 1979, a Royal Commission was appointed to consider the NHS as whole - the first since its foundation. Again that consideration largely consisted of reviewing individual parts of it in succession.⁵ The chapter on hospitals concludes by considering the links between community-based and hospital-based professionals but, although it recognised that there was not an absolute barrier between them, in practice it saw the main issue to be poor communications between different groups of professionals rather than the division of work between them and how that might need to change, nor did it consider the impact that different ways of organising primary care might have on the hospital, and vice versa.

It was as late as 1986 that the first consultation document devoted to primary care appeared. *Primary Health Care: agenda for discussion*⁶ remarks:

The primary care services have never before been comprehensively reviewed. (p 2)

That review, however, focused on ways of improving those services and again did not consider their relationship to hospitals, except in respect of their gate-keeping role, the benefits of which were assumed rather than appraised. The subsequent 1990 contract contained financial incentives designed to increase the volume of preventive and promotional activity carried out by general practitioners, which might be seen as the first systematic attempt to realise the assumption set out in the 1962 Hospital Plan cited above that ill health and disability should be systematically forestalled. But no specific effects on hospital activity were explicitly anticipated.

When the NHS and Community Care Act 1990 was being drafted, there had still not been a national review of the provision of health and social care which considered the roles of all types of provider and whether, in the light of current circumstances, the way that their roles had been defined decades previously was still appropriate. In MacLachlan's words, commenting on what was then draft legislation:

There ... seems to be a gap in knowledge of how the institutions making up the complexity of the National Health Service have evolved, what criteria for example have come to be used in specific referrals from primary to secondary care, and what, with appropriate measures, the NHS is still capable of achieving in its present form ...

The Act was passed and implementation begun without any such official assessment of the way that primary and secondary care related to each other in practice. Nevertheless, this paper goes on to argue, the Act made the need for an assessment of the roles of the existing set of institutions all the greater.

1.2 The London Commission and after

The report of the first London Commission⁸ did attempt an overview of the roles of the various providers of health care. It came to the conclusion that the balance of roles between the main providers of health care services in London was wrong and that both hospital services and medical education and research should be reconfigured. Reflecting the broad ranging nature of its analysis, it recommended the creation of a new institution, termed a 'task force' which would:

assume strategic responsibility for [these changes and] be accountable to the Secretary of State for Health and the Secretary of State for Education and to the Chancellor of the Duchy of Lancaster on questions of research. (p 90)

Subsequently, the Committee chaired by Professor Sir Bernard Tomlinson⁹ also developed a series of recommendations for London as a whole, adding that:

a mechanism needs to be created for co-ordinating, across the four Thames regions and the University, consistent approaches to such matters as capital investment, formulae for and rate of progress towards capitation funding, medical and non-medical manpower planning, education and training, the provision of high-cost specialties, public health and many other matters.

Like the London Commission, it did not support the notion of a London health authority but did recommend an implementation group on the ground that it had set out a 'major agenda for reform which cannot be discharged by the individual health authorities on their own'.

The Government's response, Making London Better, 10 adopted the notion of an implementation group, but it concluded that:

change must be driven locally ... The operation of the NHS internal market will determine the precise patterns of health care in London in the future.'(p 3)

In line with that view, the London Implementation Group (LIG) was given a time-limited remit and was in fact dissolved within that time limit. The task of determining 'the precise patterns of health care' was subsequently left to the workings of the purchaser/provider arrangements which the 1990 had created. These, however, were not been set up against the background of any analysis of the kind of changes required either in London or elsewhere: whether they were 'fit for purpose' was therefore never assessed.

While these reports attempted to review health care as a whole within the London context, the foundations for doing so were not always secure. All assumed there should be a strategic shift of services from hospital to community but the case for doing was argued in an oversimple way. In the case of London, for example, the Tomlinson report argued that:

the potential scale of substitution between secondary and primary care is considerable.

In doing so it recognised that there were significant interactions between hospital and community-based services, but it did not analyse in detail how they worked. In fact, this apparently simple proposition embodies three distinct elements:

- that some services now provided in hospitals can be better provided elsewhere where access might be easier or quality better;
- that some community services offer better value than some hospital services;
- that more spending on community services would reduce the need to spend on hospital care.

None of these has been evaluated in a systematic way, either in the London context or elsewhere: they remain untested propositions, and there are important differences between them. The first implies that some services now provided in hospitals might be better provided in a different location or in a more attractive way – but they would be essentially the same services. The second involves a loss of some hospital services in favour of different community services, assumed to provide 'better value for money'. The third involves spending more in the community to eliminate the need for some hospital spending. The evidence needed to demonstrate the value of these three kinds of substitution is quite different but none of it was marshalled for or by the Tomlinson Committee.

Most recent discussion of the relationship between hospital and primary care has assumed that better primary care equals less hospital. But the opposite may be true. Better primary/community care may increase the workload of the hospital through better identification of conditions which hospitals are best placed to deal with. In other words, the roles of hospitals and other providers of care may be complementary rather than competitive. In a sense, a complementary relationship is the most familiar through the normal process of GP referral. It is less common to suggest that better primary/community care may lead to more work for the hospital. But there is evidence¹¹ of underdiagnosis of some conditions which hospitals currently deal with, and also evidence of unequal access to services which currently only hospitals supply. If better primary care reduces underdiagnosis, it will also reduce underreferral. It is an empirical issue whether the substitution effect outweighs the complementary effect.

Furthermore, there can be no general presumption that substitution works just one way. It is perfectly possible, and indeed likely, that technological developments inside the hospital – new drugs or new surgical procedures – will tilt the balance in its favour, for some care groups. A recent example is the use of anti-coagulants.

Despite these qualifications, underlying the Tomlinson conclusion was an assumption which is unquestionably valid: that the roles of the various elements in the health care system do interrelate and are subject to change, and hence, in principle at least, should be analysed and planned for at one and the same time. Whatever the general nature of these relationships, however, the way they turn out in practice is critically dependent on the policy framework within which the providers of care have to work and it is to that we turn next.

1.3 The national policy framework since 1990

While the Tomlinson recommendations were being made and attempts made to implement them, the 1990 NHS and Community Care Act was coming into force. As the extract from *Making London Better* cited above indicates, it influenced the way in which the Government reacted to the Tomlinson report. While acknowledging the value of an overview, it then relegated it to a temporary and indeed subordinate role. The London Implementation Group was given no powers to bring about the changes that Tomlinson and the specialty reviews suggested: its role was envisaged as catalytic and hence temporary.

The reason for that stance lay in the philosophy underlying the 1990 Act which envisaged a market in health provision developing within which district and GP purchasers would decide what to buy and who to buy from. The introduction of the purchaser–provider split, GP fundholding and the creation of trusts were the institutional reflections of that philosophy. So too was the later abolition of regional health authorities and their replacement by regional offices of the NHS Executive.

Within the old regime, it was the Regions, through their control over finance in particular, that exercised an overview over the way that services developed. That role had no place, at least in the Government's view, within the new regime. The introduction of purchasing as a distinct function and the creation of 'independent' providers were represented at the time as ways of decentralising decisions to the local level and allowing providers greater scope to make their own decisions. However, while these changes were being implemented, other policies were being introduced, which have led in the other direction. The requirements of the *Patient's Charter* and particularly the Waiting Times Initiative, together with the Purchaser Efficiency Index, represent a strengthening of the central role.

But more significant in the context of this paper, the introduction of explicit performance standards, taken together with a large range of other central initiatives, has created an environment in which the interactions between the various elements of the health care sector have become more apparent. This in turn has strengthened the case for attempting to consider health care as a system.

Since the early 1990s, it has been increasingly recognised that the boundaries between the different forms of provision – hospital, community and general practice – are fluid and hence the role of each can no longer be defined by such simple classifications as secondary, primary, etc. The respective roles of different providers, in this view, should be determined by what each can be shown to do best.

The 1990 reforms created a framework which in some respects encouraged the new agencies it created – trusts and fundholders – to respond to this perception. Trusts were required to adopt a business planning model which naturally led in the direction of considering precisely which activities they should carry out, while fundholders were given financial freedoms which allowed them to transfer care from one setting to another. Although these freedoms were in practice quite limited, they began a process of undermining the traditional definition of roles that had characterised the NHS up to 1990, as it was increasingly acknowledged that a wide range of work might be carried out in different settings and by different providers.

However, many care episodes involve many different professional contributions running across different providers, be these GPs, community services or hospitals and some specialised services meeting the needs of very large population groups. The new policy framework, with its emphasis on the independence of individual providers and on the needs of smaller areas, was less well designed to meet these requirements. Effective care often leads to greater interdependence rather than in the direction, which the 1990 Act encouraged, of independent action by each provider.

Important changes have also taken place at the boundary of health and social care which have also underlined their interdependence. The changes introduced by the 1990 Act – though not implemented until 1993 – in the responsibility for and finance of community care, particularly long term residential care, have had significant repercussions on the NHS. Designed to contain expenditure then borne by the social security budget, the Act altered the situation facing hospitals in respect of the discharge of patients, and introduced a new set of incentives to local authorities. The change of responsibility introduced a new institutional boundary, cutting across what had been in effect a continuum. For although hospitals did not continue to have responsibility for the care of those transferred to long-term facilities, the open-ended nature of the budget meant that in

effect they could make whatever transfers they wished, whenever they decided to (subject to the income and assets rules). They were not presented, as they are now, with a boundary which they had to negotiate.

One result has been that the way the health care system works is, in important respects, determined by the related social care system for all those care groups, but particularly frail elderly people and mentally ill people, who straddle the boundary. Not only must the interfaces or boundaries between the two systems be included in any analysis of how each works, but also there are strong mutual interactions between them, such that policies pursued by one can make the problems the other has to deal with all the harder.

To sum up: the 1990 Act intended to introduction and to a degree succeeded in introducing more flexibility into the way that health care is provided. But its implementation has been accompanied by a range of central initiatives which have both limited and distorted the freedoms it created. The pressure for measurable performance and the creation of trusts as separate 'profit centres' have given rise to incentives both to offload nonmeasured work to other providers and to focus management attention at all levels on the parts rather than the whole. In other words, while, with one hand, the Act has contributed to breaking down boundaries between providers, with the other, it has built them up again. Furthermore, the community care provisions maintained and indeed strengthened the divisions between health and social care, while leaving responsibility for major care groups divided between them.

Conclusion

Four main points emerge from this section:

- the case for a system-wide approach for London has been generally accepted;
- there has been less agreement as to how it should be implemented and what its scope should be;
- the case for adopting it is, as a result of the 1990 reforms, stronger now than it ever has been because these have created greater scope for mutual influence and interaction between different parts of the health care system;
- the 1990 Act and subsequent policy developments have failed to acknowledge this.

So far, however, we have not defined very carefully what we mean by a health care system: we turn to this in the following section.

The systems approach

2. 1 Outline

Health care provision can be seen as consisting of three main elements, each of which consists of a large number of distinct components:

- provision of care to patients;
- education and training of clinicians;
- clinical research.

The central assumption of the systems approach is that all these elements, and the subelements within each, should regarded as forming part of one whole which should be considered in its entirety. The task of doing that we term 'system governance' which, together with system management, comprises the fourth element of the health care system. In addition, there are related areas of activity, including social care and public and environmental health, which fall outside the health care sector itself but which may interact significantly with it. Important though these are, they are not considered in any detail in this paper.

This emphasis on the 'wider viewpoint' within the health care sector in no way detracts from the importance of the narrower focus which characterises the clinical role. The quality of care offered at a point in time by an individual clinician or even a whole institution is often independent of the wider context or system within which it is offered. Many government and professional initiatives are targeted in this way and may be effective whatever the context in which individual, or trust, works. The concern here is with the context within which specific interventions or activities are carried out.

In the pre-1990 world that context was relatively rigid: in the post-1990 world, the context can be seen as fluid. The question 'who should do what?' cannot be answered in simple terms because:

• usually there are different ways of providing the same service: for example, postoperative care may be provided in an acute hospital, an intermediate institution or at home. Different providers have different general characteristics – see Table 2.1 – but that only goes a limited way towards defining what each does;

- the abilities of individual providers vary. Some GPs or community trusts may be well organised to carry out some work that otherwise is done in hospitals, and others not. Alternatively, in some areas facilities such as community hospitals/intermediate institutions may exist; in others not. In different parts of London therefore it would be reasonable to expect different roles to be played by different forms of provider;
- needs and preferences for different forms of provision vary between areas and between different population groups; these may be defined in ethnicity terms or in terms of disease or condition or simply in terms of those who prefer one form of care, (e.g. home delivery) to another;
- the roles of providers will change over time in the light of developments both in the need for care and in the means available to supply it.

Table 2.1 Provider characteristics

- Hospitals offer a highly centralised form of care which is appropriate for services which employ specialised and immobile resources
- Intermediate institutions (of which there are many sub-categories) offer a different balance between access and costs, and possibly quality too
- General practices offer reasonable access and in clinical terms are 'competitive' across a wide range of activities
- Home care offers perfect access but may be expensive and/or not clinically safe/effective

An efficient system of organising the provision of health care is one which allows the most appropriate forms of provision to emerge and encourages the development of new forms where these offer advantages in terms of cost, quality or access. In the commercial world, this criterion is normally assumed to be met by the creation of conditions within which firms compete for business, which, to put it simply, requires them to be efficient both in production and in the identification of the markets they serve. The 1990 Act represented a limited attempt to apply this approach to the provision of health care by creating explicit purchasing agencies charged with identifying needs for care and the potential for competition between providers.

The appropriateness of this approach to health care has been hotly contested ever since. If it is rejected, the need to ensure the emergence of the most efficient forms of provision – and the correct balance between them – still remains. In other words, if the 'best' way of providing a service is not to emerge from a comparison of the services offered by a range of suppliers - the market approach - then other mechanisms must fulfil that function. Otherwise, the 'best' pattern of provision will not emerge.

While it is important that each type of care should be provided by those providers best placed to do so, that is not enough to ensure that health care as a whole is efficiently provided. For example, a hospital may increase its efficiency by increasing throughput per bed, but at the cost of higher expenditure in the community-based services, which offsets the saving made within the hospital. Similarly, the requirements of training (e.g. large numbers of patients on one site) may impose excessive costs on service users. Changes in the way that patient are treated (e.g. shorter lengths of stay) have made some forms of clinical research more difficult to implement and training to organise: changes in junior doctors' hours have made it harder to staff hospitals particularly for emergency care.

Thus one key insight of the systems approach is that each element of a service may be organised and managed in a way which appears effective but the system as a whole may perform badly. This insight applies not only to providers but also to patients, particularly those whose care requires a series of episodes involving a range of different professionals in different organisations. From the patient's viewpoint there are two main system requirements:

- that the providers responsible for different episodes link effectively together, i.e. that care is seamless or, as it is sometimes termed, properly integrated;
- that users are directed to, or are able to find, the form of care most appropriate to their needs, i.e. that *routing* is accurate.

Accurate and timely routing, however, is important for providers too. If patients are inappropriately routed, i.e. their care needs are met by the 'wrong' provider, then costs may be too high or quality low. One example of this is the use of hospital accident and emergency departments for minor ailments, when a more cost-effective and convenient alternative is available. Another is the inappropriate use of acute beds for patients who do not need the facilities of the hospital or who, having required them, no longer do so but for whom there is no alternative service which meets their need for some form of continuing care.

Next, the roles of the main elements of the health care system must be reconciled in such a way that the interests of no one of them predominates at the expense of the others. Research and training are both designed to ensure the maintenance and improvement of the way that health care services are delivered and in that sense they promote the same broad objectives. But, at any point in time, their requirements may conflict, as they do in the example given above of shorter inpatient stays, making some forms of research hard to carry out. The aim must therefore be to strike the right balance between them.

Within the new NHS, this has come to be called the 'three markets' issue; while it has always been present, the new funding arrangements brought in after 1990 have led to it becoming more explicit. The introduction of contracts for care meant that providers serving these other two markets were handicapped to the extent that in the past funding for care had been used to pay for research and training. But equally, the requirements of these two activities influenced the way that care was provided in ways that did not necessarily fit best with the needs of patients.

There remains a further requirement: there must be arrangements for overseeing and regulating the system so that its performance can be related to the broad objectives such as equity between parts of the country which it is intended to promote; and also for modifications to the roles and powers of the individual agencies if they are failing to do so. This 'governance' role falls primarily, but not exclusively, to central government, or more accurately, to different parts of central government and the central bodies of the medical and other clinical professions.

As things currently stand, the governance role for health care delivery rests mainly with the Department of Health, though other parts of central government, particularly the Treasury, have an important role too. But responsibilities for training and research are much more diffuse, involving not only the Department of Employment and Education but other research-funding bodies such as the Medical Research Council and the Cancer Research Campaign, and also professional bodies, particularly the Royal Colleges, which play a key role in determining what forms of care delivery meet training requirements.

In addition to the governance role, the system must also be supervised and managed on a day-to-day basis, to ensure compliance with these rules. We term this the 'central management role'. It comprises the range of tasks, largely carried out by the NHS Executive, involved in monitoring how the individual elements of the system - district purchasers, fundholders, trusts - perform in relation to centrally imposed targets such as those set within the waiting time initiative and also to broader requirements such as those relating to the accountability of these organisations. But again other organisations, such as the Audit Commission, play an important role.

In summary, the main conditions to be satisfied in an efficient system of health care provision are:

- the structure of provision should match need. That requires institutions which allow the most cost-effective forms of provision to emerge, for needs to be accurately identified and that the range of services should match the full diversity of needs;
- there is capacity for change and innovation, i.e. roles can change;

- the links between providers work so that:
 - providers cannot offload costs on to others;
 - users are unaffected by transfer from one provider to another;
 - routing is accurate so that matching of provision and need actually takes place;
- the requirements of health care, education and research are properly reconciled;
- there is a central governance and management capacity adequate to relate system performance to whatever broad objectives, such as equity, are determined for it.

These main criteria are described in more detail below.

2.2 Further discussion

This section expands the arguments sketched out above to bring out further what they imply with the aim of identifying the central issues, termed here 'systems questions', which must be tackled if a health care system is to work effectively.

2.2.1 The structure and balance of provision matches needs

This broad criterion can be broken down into two elements:

- definition of roles;
- range of services available.

Definition of roles

It does not need a system viewpoint to define a vast number of conditions which must be satisfied if care is to be provided in the most effective way. For example, the knowledge and abilities of clinicians are obviously vital if good quality care is to be provided, but most of the policy interventions aimed at promoting clinicians' skills do not require a systems viewpoint to be identified or implemented.

But however skilled clinicians are, their collective performance may be poor, if the framework within which they work is inappropriate. Our concern here therefore is what conditions must be satisfied for the framework within which clinicians or managers work to help individual effectiveness and the effectiveness of the system as a whole.

If the framework is to help rather than hinder then:

• the roles of the various elements making up the health care system should be so defined as to allow the most effective forms of provision to emerge.

When the present structure of purchasing and provision was set up, no thought was given to this condition: in general, the existing district structures were adopted for purchasing and most large hospitals became trusts, while community providers were structured in a variety of ways. Mergers of health authorities have in effect recognised that the original structures were wrong, but there have been few changes to trust structures other than through amalgamations of weak with stronger ones. The only major change in policy towards trust creation was the decision, in line with a recommendation in the Tomlinson report, to cease creating trusts combining hospital and community services.

Tomlinson argued that to support a transfer of resources out of hospitals, community services should be strengthened by, among other things, the creation of free-standing trusts, going so far as to suggest that the four then existing or proposed whole district trusts should be unpicked:

We agree with the Audit Commission's view, in its report Homeward Bound 12 that if CHS are broken up and spread among clinical directorates this will reduce their flexibility ... As a general principle ... we recommend that in future the formation of whole district trusts should be discouraged ... (p 15)

The proposals made in the LIG specialty reviews were an attempt to overcome the weakness of the provider structure in relation to specialised services, such as some of those for children where 2-3 centres were proposed for the whole of London and the South-East. Many of the other LIG recommendations were based on the view that the pattern of provision they found did not offer the best chances of effective care being provided because the units of provision were too small or in the wrong place.

These recommendations were based on professional judgements backed to some degree by research or audit-based evidence, about the advantages of scale and scope in hospital services. 13 In a market economy, these advantages would have emerged naturally, and changes in roles would have occurred without any need for specific intervention. Within the London health economy, there was no process which would enable or compel that to occur although the introduction of some degree of competition in 1991 did provide an incentive to change. But all the reports cited in section 1 above acknowledged that the only way a more effective pattern of provision could be realised was through central activity which identified 'better' patterns of provision than currently existed and took some steps towards seeing it implemented.

Changes such as those proposed by LIG are typically not within the power of any one agency to implement, and they may also actively provoke opposition from those who fear the effects on their own or their organisation's role. Other forms of obstacles arise

from the boundaries, be these organisational or financial, between agencies which prevent forms of provision from emerging which cut across them. Moreover, the creation of trusts as independently managed 'profit centres' emphasises rather than reducing barriers by increasing the incentive to retain activity within existing trusts, since to lose business of one kind risks losing more. For example, loss of intensive care beds – which may be justified on the ground that pooling such expensive resources leads to economies - makes it virtually impossible to continue with vascular surgery, while loss of an accident and emergency department is often regarded as the first sign of a hospital's terminal decline. In these circumstances it is natural that a hospital faced with loss of such a key function should resist it even if, taking a broader viewpoint, it would be better that the service should be transferred.

With the creation of the new health authorities, one important boundary has recently been removed, but others, such as the system of finance which divides secondary and primary care - though the White Paper Choice and Opportunity14 envisages the relaxation of that division. But those which arise from trust status or the geographical limits of purchasing responsibility remain.

Another obstacle arises from the rapid development of new forms of purchasing. With the creation of a large number of purchasers, many of them with small budgets, the issue arises as to how they combine to purchase facilities of which they themselves need very little. Where there are economies of scale or scope in the provision of specialist services. or where the effectiveness of one form of provision is influenced by the availability of another, such as a system of cancer care which requires a panoply of services from highly specialised hospitals to nurses working with patients in their own homes, a general problem of co-ordination arises. That is to say, an effective service requires a series of linked decisions if it is to be realised.

This requires some form of collaboration between otherwise independent decisionmaking units. However, the 1990 framework does not in itself provide for such forms of working; indeed in some respects, as noted above, it militates against them. The system issue is how co-ordination should be achieved for those services spanning a large number of different providers.

Range of sevices

'The full range of services required to meet the total spectrum of need should (potentially) be available.' This condition requires that needs should be effectively identified and that for every relevant need there should be a service response. In some cases gaps exist in what might be termed standard provision. Not all parts of the NHS operate cardiac

rehabilitation services and among those that do, some work within age limits that effectively rule out some categories of patient.¹⁵

This condition also requires that the mode of care delivery should respond to differences in the way people value different aspects of the service. Thus every part of the NHS provides maternity care, but the Government initiative to promote choice in childbirth¹⁶ reflects the fact that hospital-based care had become the only option available. The initiative has led to a range of service models, allowing some degree of choice for women, in the light both of clinical judgement as to risk and of personal preference for different forms of delivery.

These methods used to identify needs range from patients making their needs known, to GPs identifying the needs of their patients, through to the work of the large district purchasers and further on to the work of national groups. The system issues are whether the current methods of identifying needs are effective and whether these methods are effective in ensuring that the appropriate balance of services is made available.

2.2.2 There is capacity for change and innovation

Because of technical and economic changes on the provider side and changes in need on the purchasing side, the most effective pattern and method of provision will also change. The system must allow, indeed positively, promote innovation in service design and delivery and it must, as a consequence, have the capacity to adapt and respond to new information, whether this concerns new needs or new forms of provision.

Innovation can and does occur within specific organisations, be these hospitals or general practices, and is strongly influenced by the climate and personalities within them. This provider-driven pattern of innovation is the commercial norm. The 1990 Act adopted a different approach for although, nominally, it created a market framework, it envisaged that purchasing rather than providing would take the lead in defining what services were required.

The separation of purchasing into a distinct function and the development of the wide range of forms it now embodies could be seen as a general system level attempt to encourage change through the creation of agents not committed to any particular form of provision. However, the critical resource underlying innovation is knowledge and for the most part purchasers have less than providers of the way that care is and might be provided. In the allocation of responsibilities to purchasers, the emphasis was on identifying needs: it has subsequently changed to effective interventions. While both of these are important, there is a third element, termed here 'service design'.

For all but the simplest clinical interactions with patients, care involves a number of distinct elements often provided by different professionals and sometimes different organisations. If at each stage, care may be provided in a number of ways, it is obvious that the task of finding the best way overall is a complicated one. This task is made even more complicated if changes in technology are making new forms of care feasible and if these involve either new providers or changes in the roles of existing ones. To find the best way of delivering a service therefore requires both systematic analysis of current possibilities and the development, introduction and assessment of new forms of delivery.

The *system* question this criterion poses is whether the existing structure of responsibilities, and their surrounding incentives, is such as to allow progressive improvements in the ways such services are delivered, including changes which are not necessarily in the interests of some providers.

2.2.3 Linkages between the different elements of service delivery

'Linkages between the different elements of service delivery are so designed that organisational boundaries or those arising from the definition of professional roles do not affect the quality or the cost of care'. This criterion contains within it a number of distinct elements: *incentives, routing* and *seamlessness*.

Incentives

The incentives facing individual agencies should promote the division of activity, which coincides with the first system requirement, i.e. that the each service is provided by the most effective provider. The key requirement is that the prices used within the financial and contracting regime reflect properly all the relevant costs of providing a service. This means, for example, that if hospitals are 'rewarded' for more activity, they should not be able to offload some of the costs of extra activity on to other providers.

At the moment, hospitals are able to do this; for example, shorter lengths of stay make it easier to increase hospital activity but may also increase the workload of general practitioners and community nurses. Neither the nationally determined purchaser efficiency measures nor local contracting structures are able to prevent such offloading so it cannot be presumed that gains in the efficiency of delivery in one part of the health care sector represent equivalent gains in the system as a whole.

This criterion is particularly important where there are actual or potential shifts of activity from one provider to another. The basic requirement for satisfying it is that pricing systems properly reflect the cost implications of transfer of work. At present, the evidence tends to suggest that they do not. The pricing rules which trust providers are required to follow

are set in terms of average costs, and hence are not geared to changes at the margin. Within primary care there is no adjustment of payment for additional work (except in those areas specifically allowed by the 1990 contract), so the marginal costs of work transferred are not met by a corresponding flow of finance.

Routing

However adequate the range of provision, the service may still be poor if users are not routed to the appropriate service. The degree of matching could be regarded as a measure of effective good system performance.

Despite its importance, routing is often overlooked as an issue in its own right, even though there are many examples of ways in which the path to appropriate care is blocked. For example, the rules governing the London Ambulance Service require ambulances to deliver patients to the nearest accident and emergency department, whether or not it has the facilities to meet their needs. Other examples are the appropriate routing of patients to specialist facilities within hospitals. A report from the Royal College of Physicians ¹⁷ has argued that routing within hospitals is poor and as a result, patients are often under the case of the 'wrong' specialist. The report suggests that:

one possible approach is to employ a new type of physician specialising in emergency care, whose duties might include running an admission ward, providing immediate medical care, assigning appropriate patients directly to specialties ... (p 21)

Other studies, such as the Clinical Standards Advisory Group report on CABGs, 18 have found that routing depends, or at least would appear to depend, on access or distance to facilities.

When it comes to changes in the system of provision, the critical importance of routing emerges even more strongly. The trends within the hospital system as well as developments outside hospitals look set to increase the range of facilities available, each of which will be specialised, e.g. in the case of emergency care for particular degrees of severity or type of conditions. The effect will be to increase the need for efficient routing mechanisms, be these better patient information or professional protocols which guide the less experienced in making the right decisions as to where a patient should be treated.

The system issue is whether the structure of provision promotes effective routing. between and within providers. In the case of the Royal College proposals, as with other clinical relationships, it largely falls to individual providers to get it right. A system issue arises if routing between providers is distorted to the detriment of the patient by, for example, concerns for financial viability, e.g. if purchasers seek to restrict patients to providers within their own boundaries to avoid loss of income to their area and consequent financial difficulties.

Seamlessness

Despite the existence of barriers between providers, many services or care episodes continue to require the contribution of more than one provider. The seamlessness conditions means that users should not be aware, as far as the quality of the service they experience is concerned, that responsibility for their care is divided either in this way or between different professional groups.

Again, it is an obvious condition but one that is often not met even when it would seem a relatively straightforward matter to do so. In the case of mental health services, for example, the basic requirement of seamlessness – proper record-keeping – is often not met, still less those bearing on the interlinking of the role of different professionals, even in respect to basic processes, such as care assessments, which are often not shared.

But even if these and other working requirements worked better, that would not address the obstacles which have prevented seamless delivery where care has involved different organisations, be these within the NHS or outside it, such as social services. These difficulties arise from broad cultural differences, differences in financial rules and budgetary cycles, professional training and so on, all of which have proved remarkably persistent in the face of efforts to eliminate them.

These are not obstacles which can be eliminated simply by organisational change; some will persist, whatever the framework within which care is provided. However, changes in organisational or financial boundaries may reduce them. These could range from changes to the health/social care boundary - most radically through a merger of responsibilities into a single organisation with a single source of finance – or to the rules within which each side works. For example, greater use of direct cash payments would allow individuals to develop their own seamless services by becoming their own care managers. Changes in the training of professionals may also be required, since current methods tend to reinforce rather than reduce differences between different groups.

Whatever the direction in which solutions are sought, the goal of seamlessness is a system goal, since it transcends the goal of any one provider. The system question is: does the way in which existing roles are defined and the surrounding constraints promote this goal or does it get in the way of its achievement?

2.2.4 The requirements of education and research are properly reconciled with those of care

Activities such as research and training are essential to the long-run effectiveness of the health care system, but their requirements are not necessarily identical to those of care delivery at any one point in time. As far as system design is concerned, the issue is how the possibly differing requirements of the three main elements should be mutually reconciled.

One requirement, which recent changes in policy have acknowledged, is that there should be distinct funding streams so that, for example, the cost of providing care is not distorted by the inclusion of costs which are incurred for the other functions. At present, this condition is imperfectly met in London and elsewhere in the country. The Service Increment for Teaching and Education (SIFTE) and the system of finance for research which will be in place, following the Culyer proposals, 19 are intended to achieve this, and will generally do so. But the finance of postgraduate training does not achieve such separation, at least not in full, since it does not compensate for the time that consultants devote to training, which still has to be met from the care budget.

There are moreover subtler inter-relationships which are much harder to disentangle. These turn on job structures, rotations and patient mix, where there may be conflicts between care and training needs. For example, the Royal Colleges recently determined that an accident and emergency rotation for junior doctors was not compulsory, at a time when accident and emergency departments in many areas were stretched to fill posts; the numbers choosing it fell below the levels which hospitals had previously relied on, leading some to close temporarily. Similar and more significant pressures are evident within paediatrics 20 with the consequence, as Edwards has suggested, that further changes in hospital configuration will be necessary. But these consequences did not form part of the professional assessment which gave rise to them.

As things currently stand, responsibilities are divided at national level between the Departments of Health and Education and the largely independent Royal Colleges. At local level, there are a number of fora where training and service issues might be brought together, but none currently does so effectively and none deals with research. Thus there is no standing arrangement for reconciling these various interests, either nationally or more locally. The system question is: how should the tensions between the structure of services which is best suited to the research and teaching roles and that which is most appropriate for patients be resolved?

2.2.5 There must be a central capacity adequate to relate system performance to broad objectives

The ultimate test of whether the system works is whether it achieves whatever broad objectives are set for it. A prerequisite for that is a monitoring/analytic capacity which relates performance to those objectives. Otherwise the question: 'Is the health care system (of London) well designed or not?' cannot be answered. This kind of capacity does not currently exist, either for London or the country as a whole. As a result, it is impossible, in London as at national level, to know, on the basis of routine data or systematic focused studies, whether broad objectives such as equal access for equal need are met, or whether the current set of arrangements for delivering health care is achieving the broad objective set out at the beginning of this paper.

The main reason for that is that the links between health care provision and improvements in health are inherently hard to demonstrate. Those in charge of the health care system particularly the Department of Health and the NHS Executive - have the task of defining the rules - constraints, incentives, penalties bearing on purchasers and providers, which have the best chance of bringing about the greatest possible improvement in the nation's health. But they must do this without the detailed knowledge required to demonstrate the links between those definitions and rules and their impact on health. In large measure therefore, their task is to design the framework within which, it is presumed, other organisations - trusts, GPs, etc. - are enabled to promote that broad objective.

This task, which we term 'system governance', comprises the following:

- defining the roles of the various elements, e.g. the purchaser/provider split, the GP and dental contracts;
- influencing the context within which they work, i.e. the scope for independent action they enjoy and the constraints under which they work, through, for example, the financial and other rules to which they are subject;
- directly or indirectly inducing desired changes in their behaviour, e.g. through circulars etc. bearing on clinical effectiveness, or through sanctions and rewards.

Given the statutory nature of the NHS, central government cannot avoid responsibility for the definition of roles, but it can define those roles more or less precisely and it can be more or less precise in the actions it takes to influence both the context and the content of clinical activity.

In broad brush terms, the central agencies may decide whether to attempt to centralise or decentralise responsibilities. Given the size of the NHS and the important of decisionmaking by individual practitioners, de facto decentralisation has always been significant. In the first 40 or so years of the NHS, that local freedom was overlaid with substantial constraints, such as national determination of pay of NHS staff, national contracts for GPs, tight control on capital spending and limits on recruitment. These were perceived at the time as being highly constraining.

Research carried out for the Royal Commission in the 1970s ²¹ found that:

there was a strong feeling that decisions were made, and perhaps could only be made, at too high a level. (p 91)

The report goes on:

There were other comments: that sectors were subject to endless controls from above, that policy made at area and district dealt in too much detail, leaving too little freedom and manoeuvrability at the sector and hospital levels. (p 91)

In contrast, the dominant rhetoric in the 1990s has been that of withdrawal from central interventions of the kind that led to suchlike comments, under a range of slogans:

- local priorities in purchasing decisions;
- making decisions closer to the patient;
- a primary care-led NHS;
- local pay.

Implicit in this approach is that 'small-scale' decisions such as those made by fundholders or individual trusts, can ensure that the system requirements set out above are met, albeit within a framework of general national policies and a massive quantity of central advice and exhortation. As noted above, the notion of planning of the kind carried out by regional health authorities has been largely rejected. Reflecting that stance, the nature of the responsibility of regional offices has been radically curtailed relative to the role previously discharged by Regions.

But the reasons why the NHS had a planning system steered by Regions in the period before 1990 have not disappeared. Indeed, the Government has recognised the case for taking a viewpoint wider than that of the individual purchaser or provider in a number of areas, including the following:

· so-called supra-regional services, such as liver transplantation and craniofacial procedures, which have been supported nationally for a long time;

- cancer care, through the Policy Framework for Commissioning Cancer Services;²²
- paediatric intensive care, where the Government has intervened²³ and effectively taken over responsibility for ensuring that supply is appropriately organised.

The case for a central role in these areas is essentially the same at national as at metropolitan/regional level: the population served by these services is larger than that for which any one purchaser is responsible. Thus there is a critical relationship between the first criterion, which bears on the scale and scope of provision and the fifth, which relates to the way the roles of each part of the system are defined. Put oversimply, system governance – the definition of the roles of providers and purchasers – should reflect whatever is known about the most effective form of provision and be so designed to create the conditions within which it can emerge.

For many services, a clinically and cost-effective service, if that is defined in terms of broad client groups such as cancer care, is larger than any one purchaser or provider as these are currently defined. The structure of cancer services set out in the Policy Framework not only includes specialist centres serving large populations but also stresses the importance of effective links between both hospital providers and community providers. Where, as with cancer, the appropriate planning unit is larger than any one purchaser or provider, there is a risk that the current structure of purchasing will not be effective, as a recent report on specialist services from the Clinical Standards Advisory Group ²⁴ emphasises:

Commissioners with responsibility for purchasing specialised services need to consider the needs of large populations. In the current structure, commissioning takes place at two levels, neither of which is particularly appropriate for specialised services. (p 55)

This alone does not mean that larger purchasers or providers must currently be created than exist, but the rules and constraints under which they operate should enable the most effective forms of provision to emerge even if these are larger in scale than either. That might be achieved through selective control of provision as with supra-regional services, to regulatory intervention, such as that which used to be exercised by regional health authorities via control of capital funding, through to simple provision of information and advice, such as that recently issued for child health in the community, ²⁵ in the hope that 'independent' purchasers and providers will follow it. And incentives of various kinds can be created to encourage collaborative action even within a decentralised governance system.

Whatever the style of management, however, the centre's role remains demanding. To put it in simple terms: if the health care system is to be consciously designed in the light of the 'system conditions' set out above, that would require a large degree of understanding of the way the current system functions and how any change in system design would affect it. This would be true if even that redesign proposed that the centre reduced its role substantially, since to do that would imply that the 'decentralised' system would meet the objectives set for the system as a whole. The answer to the question: Does the system work well? remains its responsibility because only the centre can change the rules under which the other parts of the system work.

To sum up this section: the centre should be in a position to demonstrate whether the system works well or not. If it cannot demonstrate the links between its policies and their effects on health, it can nonetheless aim to show whether the criteria set out above are being met, and that in turn implies a monitoring role able to demonstrate whether, for example, routing is accurate or, whether care is in practice seamless or not, or whether providing units are of the appropriate scale.

Thus the system issues arising from the fifth criterion are first: whether the means are available to demonstrate that the system is working well, i.e. according the broad criteria set out above and in line with any other broad criteria such as equity between areas or population groups it is intended to serve and second, where the broad criteria are too vague to be measurable, whether the rules and constraints governing the roles of purchasers, providers and professionals are such as to create the best chance of them being met.

2.3 Practical considerations

In practice the question: 'Will the system work well?' cannot be answered with complete confidence because information is typically poor, understanding limited and ability to forecast the future weak. None of the reports into London cited earlier attempted either precise forecasts of the future nor estimates of the significance of the connections between the various changes they proposed; nor at national level does the Department of Health make the attempt.

Had they tried to do so, they would have found these tasks impossible given the information available to them. There is simply no way of forecasting the future development of the health care system as a whole, or even of tracing from published data sources the key links between the various elements which form it. The confidence which underlay, for example, the 1962 Hospital Plan is hard to achieve in the current climate of continual change. Thus to argue for a systems viewpoint is not the same as to argue for a 'topdown' blueprint of the future pattern of care. There are too many imponderables, as section 3.2 demonstrates, for any such blueprint to carry conviction.

One response to this fundamental limitation is to tackle parts of the overall system on their own. In a sense, this approach is against the grain of the argument of this paper. But just as practical considerations limit the role of the centre, so do they argue for breaking down the total system into parts which can themselves be analysed as a whole. The crucial question is: 'How should such parts, or sub-systems, be defined?'

An obvious criterion is to take parts which are particularly closely related, either because they serve the same clientele or because they use similar resources, or because they are linked closely in a geographical sense. The studies of mental health services and of care of older people carried out for the London Commission follow the client group model and it is argued in the Annex (pp. 81–103) that emergency care should be considered as a system in its own right, precisely because of the close relationship that exists between the various ways in which it might be provided.

Although this strategy is often appropriate, in a number of circumstances it is not. Focus on broad areas such as emergency care, older people or mentally ill people runs the risk of ignoring other key interconnections. For example, the difficulties which many hospitals have had with emergency admissions stems in part from changes in the way that elective care is provided, particularly the shift to day surgery which has reduced the pool of beds available as a flexible contingency reserve to deal with unplanned variations in admissions. Thus in some respects, the hospital can be regarded as a system in its own right by virtue of the strength of the interactions between the various activities it provides.

A central question therefore is: 'At what point in the system are the interactions between the sub-systems allowed for?' At present there is no systematic attempt to do so, with the consequent risk that policies are inconsistent.²⁶ In principle, the answer to that question turns in large measure on the question of where the relevant knowledge and understanding resides. In other words, the greater the knowledge available at the centre, and the greater its management capacity, the stronger the case for a larger central role; the less its advantage in these respects, the greater the case for small-scale incremental change and for developing processes which exploit the knowledge available among clinicians managers and others and for removing obstacles to change at local level imposed by centrally set rules.

In practice, of course, the governance and supervision of the health care system have never been designed as a whole with consistent regard to the criteria set out in this section. The major reforms introduced by the 1990 Act left large areas untouched and even after several further years of continuous revolution, that remains true. Were such a redesign attempted, if only on the drawing board, it would have to begin from an analysis of the

nature of the issues with which it would have to deal - in our case the situation in London. It is to that we turn next.

The London health care system

This section begins by setting out a number of reasons why London's health system is different from those in other parts of the country. In general, the differences are those of degree, but cumulatively they tend to underline the interdependences and tensions between the different components of the health care system within London. In this way, they support the central argument of the paper. In the second part of the section, the forces making for change both within London and elsewhere are discussed. These also tend to support this central argument.

3.1 The current situation and recent trends

London's health care system is in most respects like that in other parts of the country. But some features are distinctive:

- an ethnically and socially diverse population, which means that needs identification
 is a particularly critical process, and a concentration of some particular categories of
 needs, such as mentally disordered offenders;
- a pattern of hospital provision which means that catchment areas overlap, resulting in a greater degree of potential competition between hospitals than in other areas;
- a concentration of research and training facilities, which means that there are greater
 potential conflicts between the different roles that hospitals in particular play. The role
 of research is particularly important in the North West and North Central sectors, and
 of much less importance in the East;
- a continuing role as a supplier of health care services to the rest of the country, particularly the South-East of England;
- quality of general practice, as indicated by premises and practice composition varies greatly. Areas of poor primary care provision remain and fundholding is less well established than in other parts of the country.
- the structure of both providing and provision varies considerably between different parts of the Capital. The MHA report on acute hospital configurations in London points to the diversity of ways in which acute hospital activity is organised: there is no one model of care;
- London providers gain a considerable part of their income from purchasers outside
 their own district so there are strong interconnections between different parts of
 London. This pattern also has implications for the role of purchasers themselves and
 their ability to determine the pattern of provision;

- a number of specialised activities which are found only in a few hospital sites and hence have wide catchment areas both within and outside London;
- the large number of local authorities, which means that there are more boundaries to negotiate than is typical elsewhere in the country.

These characteristics, described in more detail in The London Health Economy, tend to strengthen the case for a systems viewpoint, suggesting as they do that the strength and significance of the linkages between different parts of London's health care system are likely to be greater than in other parts of the country. But the diversity in terms both of needs and patterns of provision might lead to there being, for the purposes of analysis, not one but several systems relating to different parts of London.

3.2 Pressures for changes

The summary points set out above reflect the situation as it is. In the rest of this section, we consider some of the factors making for change both in the demands on the health care system and the way those demands are met.

The first London Commission identified a large range of factors making for change within the health care sector, noting that:

Health and health care cannot be divorced from the social, environmental, technological and political influences which shape them.

Events and developments since have served to underline that conclusion but make it no easier to determine their implications for the future pattern of health care delivery and the relationship between that and the other components of the health care system. In the next part of this section, we revisit some points of the earlier discussion where new elements have entered the equation.

3.2.1 Needs, demands and quality of care

In London as elsewhere, the use of health services of all kinds has continued to grow. Perhaps the most significant development in the 1990s has been the growth in emergency medical admissions. which represents an almost entirely unanticipated extra load on the hospital system, in particular, but also on the ambulance and community services. The factors underlying this growth are not well understood, despite a large amount of analysis, and hence it is not possible to say with confidence whether the trend will continue or not.²⁷ At present it seems prudent to expect that it will. This inability to forecast and explain the rise in admissions represents a massive failure on the part of purchasers to understand the needs of their populations.

While emergency care has provided an only too tangible source of pressure on London's health care system, other factors are also at work with, perhaps, equally important implications in the medium-to-long term. Responsiveness to patients now represents one of the three top-level objectives for the NHS. The planning guidance issued in 1996 refers to: 'meeting the needs of individual patients and ensuring the NHS changes appropriately as those needs change and as medical knowledge advances'.

Responsiveness may, however, require different ways of delivering what is clinically the same services, i.e. it may be more a matter of responding to changes or differences in preferences rather than needs. Perhaps the most striking example is the national policy Changing Childbirth which, though a central initiative, was developed as a result of pressure from the 'grassroots' for access to forms of care which, still, are not generally on offer. Similarly, home-based care such as 'hospital -at-home' may not be cheaper than hospital inpatient care, but it may be preferred by users. So too may smaller, intermediate institutions, relative to large acute hospitals. Furthermore, demand may also express itself for care that the NHS is currently weak at providing, e.g. for access to services which do not form part of mainstream provision and for better or more convenient access to those services it does provide.

While this objective has come to the fore, so too has explicit concern about the clinical quality of care. The LIG reviews aimed to identify the best configurations of hospital services on the basis of professional judgement and, in some cases, research evidence. In general they concluded that larger units than currently existed were more likely to provide better clinical outcomes. These conclusions are in line with most clinical opinion and most of the research on the link between scale and quality. However, recent reviews by the NHS Centre for Reviews and Dissemination²⁸ have pointed out that the precise nature of the link between scale and quality, i.e. whether it holds indefinitely or only up to a given threshold, and the reasons for it, remain unclear. In particular it has proved hard to isolate the importance of the personal experience of the individual clinician from the collegiate experience of the hospital and to distinguish those factors inherent in largescale provision from those which are generally but not necessarily found in larger units.

Whatever the professional opinion or research evidence is, the crucial test is what actually occurs. There is very little information, and virtually none on a routine basis, which bears on the quality of care actually on offer, apart from Patient's Charter indicators, which bear only on process. The Department of Health is currently intending to require the publication of a small range of indicators of quality of hospital care following some way behind the Scottish Office, which has been running such a programme since 1994.²⁹ Its caution reflects the fact that the first set of indicators is perhaps best seen as the beginnings of what will be a long process of attempting to show how effective health care provision actually is and what the best means of demonstrating it is. The conclusion drawn here is that there will be an increasing onus on providers to demonstrate quality of the care on offer. This in turn will require a capacity to modify services in the light of what emerges as to the quality of the existing ones and hence the design function will gain steadily in importance.

3.2.2 Medical and information technology

In the past few years there have been major changes in the way that acute hospital care is provided, leading to much shorter lengths of stay and increases in intervention rates particularly among elderly people. These trends can be expected to continue. But many other developments are on the horizon which could transform the way that health care is provided. For example:

- organ transplantation including artificial or animal organs;
- the use of in-built computers to aid drug release;
- biotechnology leading to improved monitoring procedures and more specific drug, vaccine and hormone treatments, including artificial blood cells;
- genetic diagnoses and therapy, leading to better and earlier diagnosis or the elimination of certain categories of disease.
- new drugs, e.g. for osteoporosis which would reduced hospital admissions;

While change resulting from developments such as these appears inevitable, its implications for the pattern of provision are not easy to disentangle: some new technologies appear to favour hospitals because of their expense, others home-based delivery because they make it safe to offer care in the home which was once the preserve of the hospital. A major review of medical technology ³⁰ concluded:

For the future, the tension between centralisation and decentralisation seems likely to grow.

This ambivalent conclusion can be illustrated from the field of information technology. The Riverside Community Trust has pioneered a nurse-run casualty service which is supported by a TV link with Belfast Royal Infirmary. On the one hand this enables part of the work of an accident and emergency department to be done in a non-hospital facility. On the other, it enables a centre of expertise to deploy that expertise over a wider area. It is easy to envisage a small number of diagnostic centres, which could be based almost anywhere since distance would be immaterial, serving a very large number of such services - or GPs for that matter - allowing simultaneously dispersal and concentration.

The difficulty, as the quotation above suggests, is to estimate the relative importance of these different impacts. No one has convincingly done that, but what does seem clear is that new technology will enlarge the scope for new forms of provision, both in clinical and organisational terms and hence further underline the conclusion reached above that the scope and potential scale of substitution between different modes of care delivery will increase. That in turn means that the health care system will have to improve its capacity to choose between them and hence to determine the best 'mix' of provision.

3.2.3 Staffing

Numbers of medical staff have increased steadily in recent years but nevertheless reports of shortages in a number of areas have become increasingly common. The policy that the Government is pursuing towards the reduction of junior doctors' hours combined with the changes stemming from the Calman report 31 is making it hard to maintain medical cover on all existing acute sites. As things stand, this creates a pressure for reducing the number of sites from which acute care is delivered, since that makes it easier to maintain cover with the existing levels of staffing, particularly for those specialties central to the provision of emergency care. The effect of the two initiatives is in reality to take out of the medical workforce a substantial proportion of its working time as have other pressures such as the pressure on senior clinical staff to engage with management resulting from the 1990 reforms. The result has been calls for a redefinition of the consultant role and for a rethink of hospital staffing structures.³²

The Government has given approval for the expansion of the medical labour force, but that will take time to influence the numbers of doctors available. Already some hospitals are finding it hard to deal with the pressures they face, e.g. from emergency admissions and waiting-time targets, with their existing complement of staff. In a large number of specialties, there are persistent difficulties in filling posts.

It would be wrong, however, to infer that further concentration of services is inevitable simply as a result of changes in the medical labour force, even though that is the way that pressures currently are working. In a number of parts of the country, clinicians and hospital managers are responding by rethinking the way that services are provided, by using nursing and other staff in what have been traditional medical roles, by recruiting from other countries, and by challenging the rules, written and unwritten, on the way that medical staff is deployed. Without this type of innovation some smaller DGHs might well have either closed by now or become large cottage hospitals.

The key question is what configurations of hospital services will be viable in the future. As noted already, the DGH has been the 'recommended package' for more than 30 years but trends in medical staffing, technology and pressures for improved performance and quality are leading some to conclude that general hospitals must be much larger than many such hospitals are now, serving regions of some two million people rather than districts.³³ However, according to the Royal College of Physicians;¹⁷

General hospitals serving populations of some 200-300,000 are likely to continue to be needed ... [But] such hospitals cannot provide all types of care, and hospital with facilities for specialised and highly specialised care ... will continue to be required and will cover populations of one million or more. (p 23)

The report goes on to say that:

Innovative ways of providing care to cover the spectrum of needs are likely to evolve and new approaches to the provision of integrated general and specialist medical care currently being piloted may well prove valuable. (p 23)

The development of hospitals over the past 30 or more years has been associated with increasing degrees of specialisation among medical and also nursing staff. The Royal College reports represent a recognition of the continuing importance of the generalists' role and of ensuring that specialisation is not pushed too far. But as the second quotation indicates, how the balance should best be struck remains unclear.

In brief a number of forces, of which medical staffing is only one, are coming together to suggest the way that hospital services are provided may have to continue to change. Some appear to push for greater concentrations of medical staff and other resources than most hospitals currently deploy.

However, innovation of various kinds may be able to modify or offset these forces. Such innovation may be technical, for example, using IT it may be possible to monitor the condition of patients 'at a distance', and hence make configurations of intensive care provision viable which currently would not be practical; or they may be professional – involving, as the Royal College of Physicians suggests, a rethink of the roles of the general and specialised physician; or they may be organisational - involving, as the Audit Commission and others have recently suggested, 34,35 some specialisation of roles as between hospitals, and hence agreed routing procedures to them.

Important changes are taking place within general practice as well, which again have implications for the future pattern of provision. Across medicine as a whole, recruitment and career expectations are changing. In general practice, this appears to have led to a growing reluctance to take on the responsibilities of partnerships and to seek more flexible ways of working. Furthermore, the changes in hospital career structures appear to have reduced the relative attractions of general practice to those coming into the profession.

Similarly, there are tensions similar to those in acute hospitals around the scale and the scope of general practice which turn on the nature of the medical expertise employed in it. Although the strength of general practice is often seen as lying in its 'specialising in being generalist', the growth of medical knowledge makes it harder to realise. Another is the growth in the primary care team and the range of its responsibilities. As these develop, a natural response – already apparent in some cases – is for members of the team to specialise in particular groups of patient or particular roles, which could open the way for the development of integrated services for children, older people or other care groups, across the health care sector as a whole. The primary care White Paper, *Choice and Opportunity*, puts forward proposals which would allow such services, but also many others, to develop.

The White Paper envisages that there might be a greater role for employed GPs, that new forms of practice may develop giving a greater role for other professionals and that the contract within which all GPs currently work may be determined by local circumstances. It also suggests that the current division between finance for hospital and community services and general medical services might be relaxed.

This White Paper, like the preceding one on dental services,³⁶ proposes that new forms of provision and finance should be developed on a pilot basis. This sensible, if cautious, policy reflects the fact that it is not clear just how NHS providers – not to mention the private sector – will respond to the opportunities that will exist if the White Paper proposals are enacted. But if this approach is to work, the health care system will have to possess sufficient learning capacity to absorb the lessons that the pilots throw up.

3.2.4 Research and teaching

There are forces making for change in the other two main elements of the health care sector but what their outcome will be is equally hard to predict.

Research

The main issue here is a national one, which has potentially significant implications for London because of its concentration of research facilities. This is whether the existing spread of activity between institutions currently considered as research centres is now inappropriate in the light of the competitive centres elsewhere in the UK and in other countries. There are pressures within the higher education sector, reflected in the grading procedures for research quality, for the development of a small number of

research universities designed to meet this challenge. The agreed amalgamation of London's medical graduate and postgraduate medical schools has gone some way in this direction, but perhaps not far enough since the new and much enlarged institutions are probably still too numerous to compete at the highest level.

More narrowly, the implications for hospitals of the new funding arrangements have yet to be unravelled, but the implications for London, given its concentration of research facilities, may be considerable. As Pickles has pointed out, ³⁷ 'It is more than possible that the main losers will be London-based senior academics who are among the most powerful (and productive) figures in the profession.'

Teaching

There are a number of related issues which could lead to substantial change in the links between medical training and the provision of care. These stem in part from actual or desired changes in the way that medical training is provided and in part from changes in the role of teaching hospitals as providers of care and the relevance or otherwise of their current caseload to training. The implications of the changes resulting from the Calman report on postgraduate training have already been referred to and they have yet to fully work through. As they lead in the direction of a complete rethink of the consultants' role in hospitals, these implications will be very far-reaching. The report from the BMA on the consultant's role³² set out options which would have important implications for care delivery: for example, the two models which gained most support within those involved in the study implied changes to the development of specialist services, with important implications for hospitals not providing them, i.e. DGHs or, as an alternative, the development of inter-hospital co-operation among DGHs allowing each some degree of specialisation.

Some further changes, e.g. a greater emphasis on the community as opposed to the hospital as the site for training, may be predicted with some confidence since changes in this direction are already evident and have been urged for some time.³⁸ Other possible changes, such as development of multi-professional training, are more speculative, and hence their implications for services have yet to be identified. But the boundaries between professions are increasingly being recognised as arbitrary.³⁹ Multi-professional audit is now widely accepted, at least as a concept, but education of professionals is largely separate and structured in different ways. Yet if the clinical effectiveness agenda is to develop, that may have to change in ways which may impact on the other two health care 'markets'. At present provider trusts are left to find their own way through the complexities arising from the different ways in which the professions organise their training requirements.⁴⁰ But it seems a reasonable expectation that more systematic attention will be given to these issues with subsequent changes in the way that training is organised.

3.2.5 Summary

The factors and forces set out briefly above are complex and impossible to predict on detail. Nevertheless two main conclusions can be drawn from the this section:

- all three parts of the health care sector will continue to change. What their individual course of direction will be and what shape the sector will take overall is hard to discern, but there are important mutual interactions between them;
- many of the areas where change may be anticipated will add to rather than diminish
 interdependence, as technical and other developments continue to blur the boundaries
 between different forms of provision and between professions.

If these conclusions are correct, a further one follows:

• in contrast to what was concluded in earlier reports, the governance and management of London's health care system must be geared to permanent change, not occasional restructuring. One-off, temporary arrangements are not appropriate.

Assessing London's health care system

The previous section has described some of the important current features of London's health care and the ways in which it might change. Using the criteria set out in section 2, the following section assesses London's health care as a system. In many if not most respects the data available fall short of what is required systematically, across the full range of services, to test whether and in what respects these criteria are satisfied. Furthermore, as virtually all the analysis of services carried out for the systems study, as well as those into care for older people and the mental health services shows, there is tremendous variation as between different parts of London.

4.1 Using the criteria

Criterion 1 Structure and balance of provision

The analysis of the first London Commission, the Tomlinson report and the work of the London Implementation Group all suggested that the structure and balance of London's health care services should be changed: that secondary care should be given less weight and primary care more and that some services should be restructured within the secondary sector.

The question of the balance of provision was addressed by a series of actions relating to primary care designed in particular to strengthen not only general practice, but also — within the London Implementation Zone (LIZ) — community health services. The impact of these initiatives, designed explicitly to effect change in favour of primary care, is discussed below. The issue here is whether or not the continuing 'system rules' allow the appropriate balance to emerge through the decisions of purchasers within their standard financial allocations and the rules governing their use.

In line with the arguments set out in sections 1 and 2, we conclude there is no reason to believe that such a balance will emerge, either through market/competitive processes, or through the current contracting structure based on negotiation rather than competition. This conclusion is based on several strands of evidence.

First, the knowledge required to determine an appropriate balance is often lacking, The Tomlinson recommendation in favour of primary care was based on a very broad view of the kind of change that should take place between hospital and community. As some of the supporting studies demonstrate, it is not always easy to show what that change

should be in the case of particular services. In relation to intermediate care, for example, the research review carried out by Andrea Steiner as part of the Systems Study concludes that there may well be a general case for services which focus on the continuum of care and the transition between dependent and independent states, but the amount of rigorous research bearing on the best way of organising such care is very limited.

The overview paper on care of older people argues that:

Not enough is known about the 'right' proportions of the different components of care and support (acute, rehabilitation, long-term etc.) which might ensure the most effective, or indeed the most efficient, combination with available resources. (p 59)

It follows that it is not possible to demonstrate exactly where and in what respects the balance of care for this client group is inappropriate either in London or elsewhere, nor to be confident that the ability exists to identify it.

The same conclusion can be drawn for mental health. As official advice recognises, care for mentally ill people requires a range or spectrum of services. But it is not specific as to how the right balance of provision along that spectrum should be identified. The report to the Commission on London's mental health found both that no London services were comprehensive and also that there were very large variations between them. The conclusion of one chapter runs:

The planning of London's mental health services needs both to be capable of responding to expanding knowledge about how to help people with mental health problems and to achieve stability of direction through a programme of long term ... Currently, services feel under pressure to make short term responses to policy demands. Yet this may be at the expense of long term organic development of the service ... Developing a framework for services that is responsible, dynamic and respectful requires strategic judgement and committed action ... (p 259)

The issues are the same as those for the care of older people. The overview paper to the Commission found that:

Although there are examples of innovation and a great deal of commitment, there is little consensus on the way forward for older people's services.

In both cases, the key insight of the systems approach applies: that the efficient operation of any one form of provision depends on the appropriate availability of other forms of provision. In the case of elderly people, for example, as Millard and Maclean have

emphasised, 41 the scale and availability of rehabilitative care has major implications for the efficient working of the acute hospital and the costs of continuing care outside it, as well as for the well-being of the patients themselves. In the case of mentally ill people, there are significant relationships between the different forms of provision, but the vast variation in the pattern of services itself suggests that they are not adequately understood.

At present London does not have available to it the design capacity appropriate to handling issues of this complexity and scale. The question of service design falls uneasily between the roles of purchaser and provider: it involves a number of tasks including needs assessment, service specification, service development, organisational development and training. While the latter two clearly fall to providers, and the first, at least in principle, to purchasers, service specification and development, the key elements of service design, are less easy to allocate to one side or the other and as a result, as the discussion of purchasing below brings out, it tends to be given low priority.

Specialised services

The specialty studies carried out within the auspices of LIG concluded that London had too many units providing services of this kind and hence that rationalisation on to fewer sites was required. As noted above, since those recommendations were made, the relationship of scale and scope of hospital services to quality of care has received further examination. This work has tended to suggest that the advantages may not be as clear as previously supposed, but on balance the evidence continues to suggest that quality is linked to scale, though the precise nature of that relationship remains to be determined – and it will of course vary from service to service.

This conclusion is supported by developments in service planning since the LIG reports were published. In respect of both cancer and renal services, national level committees have concluded that care for these large groups of patients should be planned on a scale larger than any one London purchaser. The report of the Health Strategy Unit review of renal services, 42 like the LIG report on renal care, recommends the creation of units serving very large populations, i.e. 2.5–3 million supported by a network of local services. The report of the expert committee on cancer care reached similar conclusions, which the Government accepted, as already noted, and made the basis for future planning of these services.

In practice, however, London has made very little progress towards changing the pattern of the specialised services towards a smaller number of larger units. The rationalisation of capacity that the LIG reviews recommended, while accepted in principle, has been resisted in practice and hence in the case of coronary artery bypass grafts, for example, a number of providers are operating at levels below the LIG recommendations.⁴³

In fact, there are some signs that provision of these services has become even more dispersed, as some hospitals have established them in order to strengthen their overall position. As a case study ⁴⁴ of services in South London puts it:

The reviews ... recommended that many of the specialised services should be transferred.. into a neighbouring hospital ... This [possible] outcome led to senior management further strengthening the 'threatened', more specialised services ... (p 147)

It goes on:

Even if the speciality was losing contracts, it was allowed to have significant increases in all resource areas. (p 147)

In the event, the threats which the hospital concerned perceived in the LIG reviews did not materialise, but the same kind of response is apparent elsewhere, and for very similar reasons.

Emergency care

In common with other parts of the country, London's health care system has appeared to be under strain, as a result of across the board increases in demand. In particular, hospital capacity for dealing with emergencies appears on occasions to be inadequate, leading to admission delays and transfer of patients to other hospitals, sometimes outside the Capital itself.

This might appear to be a matter for individual hospitals alone and hence not a system issue. They can indeed do a great deal on their own, e.g. through the introduction of admission wards and other improvements to internal organisation and staffing. A recent study of one London hospital found that the vast majority of delays it had been experiencing in discharging patients were due to failures and poor performance within its own organisation. However, the nature and level of the demand which hospitals must deal with does to some degree depend on the performance of general practitioner and other community-based providers, including the ambulance service and also the range of services they are able to offer, as a recent report 45 from the Chief Medical Officer has argued.

At local level, London has seen a great deal of experimentation with new services both within hospitals such as the King's College Hospital developments in accident and emergency services,⁴⁶ and outside, sometimes in association with the London Ambulance Service. However, as the Audit Commission ³⁴ has noted, there may be a case, on quality grounds, for further concentration of accident and emergency facilities

within London and, although this also remains to be demonstrated, for the designation of some hospitals as trauma centres.

The Annex (pp. 81-103) argues that the right balance of services will only emerge if emergency care is analysed on a wider basis than that available to any one provider of care, or indeed any one purchaser. Technological and other developments are extending the range of service possibilities both within hospitals and in the community and some roles – those of the ambulance service in particular – are being developed and rethought. As with services for older people and mentally ill people, the key weakness is the lack of service design capacity across the full range of relevant services.

Elective care

Elective care as such has received very little study specifically in the London context but the issue of appropriate scale which arises in respect of specialised services also applies: most of the specialised services are providing elective procedures and most of the evidence relating to the benefits of scale relates to elective care.

Only a limited amount of analysis has been carried out on the current pattern of activity in London, and it is not possible, with the data routinely available, fully to describe it. However, analysis by London Commission support staff confirms that there are wide variations in the level of service as between different parts of the Capital of a scale unlikely to be explained by differences in needs.

Purchasing

The question of scale has usually been analysed in relation to the supply of care, not its purchasing, so there is little direct evidence to draw on. The London Health Consortium/ Policy Studies Institute needs study suggests that health authority work on needs assessment suffers from being carried out in its present small-scale framework. It found that even in total only small amounts were being spent on needs assessment and the scale of individual studies was typically small. Their estimated mean cost per study was £13,783; their estimate of the total spent per authority on needs assessment was about £71,000. They found:

some duplication of effort across health authorities. While some needs assessment work ... can only be conducted on a local basis, other more broadly based needs assessment could be conducted over a number of health authorities to gain economies of scale.

The report found needs studies did affect the purchasing of services in many instances – precisely how many could not be established – but a number had no impact. It also found that in respect of many commissioning decisions no needs assessment information was available and where it was available, in some cases those responsible for making decisions were not aware of it.

The overview paper on care for older people concludes that:

it would appear that population needs assessment makes relatively little impact on services configuration. (p 33)

The report on London's mental health found that:

Many health authorities, in particular, seem simply to have insufficient people working on mental health issues to make any real impact upon local services. (p 352)

These findings underline the conclusion relating to service design set out above. Service design requires, like the delivery of a clinical service, a critical mass of expertise of several kinds. While the core tasks are of course clinical, those needed to design a system of care, be it for mentally ill people, emergency care or the care of older people, include analytic, research and organisational skills, the need for which has been generally neglected. In the case of all three services, there are close interactions between the different kinds of service they require, both within the NHS and between the NHS and social care. While these links are generally recognised, the precise way they interact, and hence the nature of their interdependence are poorly understood. Needs studies alone shed little light on them: they require a broader range of information relating to the links between different forms of provision and an understanding of their mutual interaction. This requires information relating to the flows of patients between providers and the way those might be altered by changes in the way that care is provided. That in turn requires a wide range of knowledge about 'how things work' and the ability to relate such knowledge from a wide range of sources to the needs and situation of a particular area.

The same applies to other services. It was accepted from the time that implementation of the 1990 Act began that purchasers would have to have access to the best information possible on the value of the full range of clinical interventions, and that central initiatives were required to ensure its availability. A large number of initiatives were taken to achieve this. However, it appears that in general purchasers remain less well informed than providers and as a result, it is difficult for them to impose themselves on the way that services are delivered. The Health Care Strategy Unit report on renal services, for example, was prepared partly in response to purchasers' own perception they were not well enough informed. It reaches very similar conclusions to those from the Clinical Services Advisory Group report on specialist services:

Until recently, purchasing for renal services has commonly been carried out at regional level. With the changing role of regions, this function is being passed back to districts. However, as individual districts have assumed responsibility for purchasing renal services, some have found they lack the knowledge, experience and expertise to carry on the same level as previously. In many instances this is being addressed by the formation of consortia or the adoption of lead purchasing arrangements.

As end stage renal failure is a relatively uncommon condition affecting few people in an average district, districts will inevitable find it useful to form larger groupings in order to be able to plan effectively for the service. (p 11)

If it has been hard for general purchasers such as districts to develop the required expertise across the full range of clinical areas, it is now even harder since the Government imposed target reductions in health authority management costs.

The issue of scale, however, is not just a matter of knowledge and expertise. Within London many purchasers are faced with providers of hospital services which draw on sources of income from all over the Capital and outside as well. In these circumstances, they find it hard, as individual agencies, to ensure that the pattern of care they want to see is achieved and also hard to act in concert with other purchasers to the same end.

The conclusion we draw in relation to criterion 1 is that it is not possible to be confident either that the existing structure of services is correct or that the present arrangements are such as to ensure that the right pattern of provision will either be identified or implemented in future. This lack of confidence stems in part from lack of the knowledge required for defining such a 'right' pattern, in part from the current pattern of responsibilities which in some areas are too narrowly focused to cope with the tasks of service design for complex services and large populations, and in part from the inability of purchasers as presently structured to bring about changes even where there is general consensus as to their desirability.

Criterion 2 Capacity for change

In many respects, London's health care system has proved to be capable of rapid change.

Hospitals

As noted in the MHA report on acute hospital services, hospitals have been growing in absolute size (measured in terms of activity, not beds, on each site) largely because of amalgamations of activity on to fewer sites. Their study found that from the 1980s into the 1990s, there had been considerable change of this sort:

The configuration of acute services across London has changed dramatically since 1981 and continues to do so. Of the 171 sites used for acute hospital services in 1981, 47 had accident and emergency departments, a further 70 provided acute hospital services from sites which did not have accident and emergency departments, 11 were stand alone maternity hospitals and some 43 were single speciality hospitals of one kind or another. By 1995, the accident and emergency services had been consolidated on to 34 departments, some of these on new hospital sites. Of the 70 acute hospitals which provided services without the support of an accident and emergency department, only 10 remain. Many of these 70 hospitals were small acute hospitals, some with only one or two wards providing general medicine and surgery.

The report goes on to point out that although many sites had closed altogether, 39 were now being used for other health services.

As The London Health Economy records, London's hospitals have made large reductions in their bedstock and improved throughput per bed. In these respects change has been more rapid than was envisaged at the beginning in the 1990s but it has been in line with trends in acute services generally and also with specific expectations for London.

At the level of individual services, there is also evidence of innovation. Work carried out by the Centre for Policy on Ageing for the London Commission has identified examples of leading-edge, home-focused care, improvements to admission procedures and in their words, 'innovative thinking being put into practice in the field of day care and provision and in preventive or supportive services'. More generally, they found that:

A great deal of effort is being expended on introducing new ways of doing things.

They also found, however, that there were many obstacles to the widespread adoption of schemes of this kind, many arising from differences in professional views as to their suitability and value and also marked differences between different parts of London.

The report on London's mental health came to similar conclusion:

Within districts, excellent innovative projects may be found alongside traditional hospitalbased services. (p 258)

The report suggests that while some highly effective individuals have been able to bring about change, there appears to be a low general level of innovation even where it is clear that changes should be made: for example, the 'strong evidence in support of the effectiveness of home-based care has not translated into practice on the ground.' Some of

the obstacles may lie within individual organisations but it also appears to lie, as the earlier quotations suggested, in the general lack of a capacity to plan and design services.

Primary care

The report on primary care carried out as part of the Systems Study found that over a range of indicators, there has been considerable change since 1991. LIZ monies have been successfully used to develop premises and the facilities and staff working within them. Other changes not attributable to LIZ, e.g. in the numbers achieving immunisation and screening target rates, have also occurred, even though, as reported in *The London Health Economy*, performance still lags behind the rest of the country.

However, what limited information exists suggests that some of the features which the programme was designed to eliminate still persist and that obstacles to change remain. For example, the proportion of single-handed GPs has changed very little. Furthermore, the report found that the problem of high entry costs to general practice remains, with GPs facing negative equity if they make significant investments. There are also signs that many of the innovatory schemes which these funds were used to support are unlikely to continue, i.e. the LIZ monies have been regarded as non-recurring funds. Some LIZ projects – around 16 per cent of total spent – were designed to alter the balance of care as between primary and secondary services. In practice, however, many appear to have met need previously not identified rather than transferring care from one setting to another.

Finally, reflecting wider changes in the medical labour market, general practice in London is increasingly being provided in ways which may not, in some areas, provide a secure basis for further development. Those entering the profession appear less willing to commit themselves to general practice by entering into partnerships in what up to now has been the traditional model.

Capital finance

The process of change, particularly but not exclusively in hospital services, is often highly dependent on the availability of capital funds; in the early days of the LIG, this was a critical factor in effecting change. However, since then the Government introduced, for reasons unrelated to London, the requirement that major schemes should be included in the private finance initiative. A large number of schemes critical to the reconfiguration of acute hospital services are currently within that process.

A survey of such schemes in London carried out as part of the Systems Study by Richard Meara found that the process of putting the schemes through the PFI process had produced a number of benefits e.g. in terms of scheme content and design and also because it allowed for much bigger schemes to be considered. But in line with the rest of the country, it is proving hard to reach deals which satisfy all the interests involved. The report on London's mental health also found obstacles in this area although it did not attribute them to the private finance initiative.

As Meara's report points out, the cost of most schemes has risen, and while there are good reasons for this, e.g. higher specifications, it raises the issue, also not resolved, as to whether the resulting capital charges can be afforded without cutbacks in other services. In brief, there remains a major question mark about whether or not the restructuring envisaged in Tomlinson, as modified by subsequent discussions, can actually take place.

Unless the issue of capital availability is resolved, little major restructuring of London's health care system is likely to occur. As things stand, it does not appear that the private finance initiative will deliver. But given the pressure on the public finances, it is hard to see that public capital will again become available in the quantities of earlier years. As Meara puts it:

London needs to implement the agenda of Making London Better, and the acute sector rationalisations are essential to unlock change and release resources. The private finance initiative is the key to that lock, but will it work? The conundrum remains.

Finally: the obstacles to change do not lie solely within the rules and constraints governing the health care system. In some cases, such as Bart's and Edgware Hospitals, the most serious obstacles to change have been posed by public and political opinion. In others, it is clear that professional and organisational opposition to proposals, e.g. for rationalisation of specialties, has been sufficient to block them entirely or to modify them. Change in the governance of London's health care system will not eliminate obstacles of these kinds. The question – not addressed here – is whether change in governance will increase the chances of their being overcome and whether the formal system of governance can effectively relate to the people it ultimately serves.

We conclude, in relation to Criterion 2 – that a health care system should contain a capacity for change and innovation – that London's capacity is lower than is required to bring about restructuring of the kind that successive reports have considered necessary and that capacity may be reduced further by the failure of the private finance initiative to deal with the complexities of the schemes required to reshape London's hospital services.

Criterion 3 Linkages

Research at national level by the Audit Commission, the Clinical Standards Advisory Group, the Social Services Inspectorate and academic workers, 47,48,49,50 has consistently shown that linkages between the various elements of the health care system are often poor leading to a service which is far from seamless, routing of patients inaccurate and the division of roles between providers not cost-effective.

Evidence relating specifically to London from other studies confirms this general finding. A study carried out for North Thames⁵¹ of the experience of GPs attempting to find beds for their patients found that 'major problems for urgent admission persist.' These difficulties were found to be most serious for acute psychiatric cases and elderly people with complex chronic morbidities. These difficulties were put down by two-thirds of the GPs in the survey to bed shortages, but there were also complaints about communications with hospitals, which ranged from poor switchboards to the uncooperative behaviour of hospital doctors.

Difficulties have also been found at the discharge end. The study by the Centre for Policy on Ageing, in line with earlier work in London,⁵² also identified poor interfaces both between hospital and community services and between health and social care, leading to bed blocking and unnecessary pressure on beds for both acute physical and mental illness.

The second type of linkage identified above was routing, i.e. the match between needs and services. Routing, however, has rarely been regarded as an issue in its own right, and hence only a limited amount of information is available on it. The mental health study found evidence of poor routing, which resulted in inpatient facilities being inappropriately used. But it concludes that the data available are so poor that a description of current routing pattern as between the full range of mental health facilities is not possible, and hence that it is does not allow a comparison of the facilities available and the client groups for which they are most suitable.

One area where routing data are available is access to hospital services. National studies by the Clinical Standards Advisory Group and others ^{24,53} have consistently found variations in access to specialist and mainstream elective services which it is hard to explain in terms of variations in needs. In respect of hospital services, analysis by the London Commission support staff shows a similar pattern of variation. Utilisation of specialist eye services, for example, varies from 1.7 finished consultant episodes per thousand population in Croydon to 4.15 in Brent.

Extensive research over the past 15 or so years has shown that there are many reasons why linkages can be poor, and hence that system level change is only one means among many of potentially improving them. Hence much will continue to turn on individual professional practice, and hence action within organisations – e.g. the poor communications identified in the North Thames study – and between professionals at the level of both practice and training. It is also arguable that routing to specialised services could be improved by changes in professional practice within primary care and purchasing generally. However, the persistence of poor linkages illustrated in the examples cited here suggests that a system level response might be required to deal with them.

A large volume of official advice has been targeted at them over many years and the NHS Executive's annual statement of priorities continues to emphasise their importance. The Green Paper *Developing Partnerships on Mental Health* ⁵⁴ records the wide range of initiatives which have already been announced which were designed to develop what it describes as 'complex and interlinked services', and then sets out a series of options for what in this paper would be called 'system changes', i.e. changes to the constraints and financial rules within which the various care providers work. But the paper does not consider the care of older people where the same boundary issues arise as with mental health.

Criterion 4 System consistency

As noted already, there have been major changes in all three components of the health care sector since the first London Commission reported, but the full effects of these changes is yet to show through. The mergers among medical schools will be a drawn-out process: likewise the implications of changes to the funding of medical research will take a long time to become apparent. Similarly, changes to the content of medical training and also its manner of delivery will also take time to be implemented.

As things currently stand, there has been no attempt systematically to examine the implications of these changes in each of the three markets for the other two. The changes to junior doctors' hours and those arising from the Calman report in postgraduate training, both occurred without calculation of their knock-on effects in terms of extra costs and reorganisation of hospitals. Similarly, to take another example, as the report on London's mental health records 'there is a serious risk of liaison psychiatry failing to find adequate resources by falling between the two stools, academic and NHS'.

These examples tend to confirm Pickles scepticism about the extent to which the interrelations between research and care are currently recognised. The only conclusion to be drawn here therefore is that it is not possible to be confident that, where conflicts and tensions arise between them, they will be resolved in what has been termed here a 'consistent' way, i.e. one in which the differing interests are reconciled for the benefit of the whole.

Criterion 5 System governance and management

London's health care system is largely governed by national rules and by national modes of system management. Accordingly, the conclusions reached here are not specific to London.

Governance

The discussion has already identified a number of areas where the rules and constraints within which the organisations responsible for providing and purchasing care work are not appropriate to the situation in London. In respect of roles and responsibilities, the discussion of criterion 1, which relates to the structure and balance of provision, and criterion 2, which relates to innovation, has suggested that the current arrangements cannot be relied upon to produce a pattern of provision which matches needs. In particular, neither competition between providers nor planning by purchasers as presently configured appears likely to achieve desirable change in the pattern of service provision where this involves a sector or a London-wide perspective or whether the interdepences are, as in the case of emergency care, particularly close between different forms of provision. This is partly a question of harnessing the necessary skills and partly a question of the size and role of the organisations concerned.

Management

Many of the current management tasks carried out by the NHS Executive, such as those relating to routine monitoring, e.g. in relation to the Patient's Charter, fall outside the present discussion. But one national management instrument, the purchaser efficiency index, through its emphasis on countable episodes has created incentives which both obstruct changes of the pattern of health care delivery and, precisely because it ignores system-wide impacts such as the impact of increases in hospital 'efficiency' on other providers, may reduce efficiency in the system as a whole. There is general acceptance that it is not a true efficiency measure, and indeed has significant deficiencies such that, in Appleby's words:55

The perception at local purchaser and provider level is that the Department and Ministers attach great weight to the Efficiency Index in target setting and monitoring terms – a weight which, given the technical problems in its construction, many feel the index cannot bear. (p 8)

The Index continues in use for lack of alternative means of demonstrating improvement in NHS performance as a whole. While Appleby's report for NAHAT has made a number of proposals for alternative measures, all require substantial research and hence time before they are feasible.

■ System monitoring is weak or sporadic

For the purposes of national policy, there is of course an extensive system of monitoring and, through the Inner London chief executives group, reports have been produced on particular issues such as the supply of beds.⁵⁶ But there is no regular reporting on how well the system is performing in terms of either improvement to health, which would be hard to demonstrate, or equality of access for equal need - which could be.

A small-scale study carried out as a pilot for the Department of Health on hospital use in one London health district found wide variations in utilisation rates between small areas within it.⁵⁷ Much of this variation was linked to deprivation but for some diagnoses was not. The study was not able to show, on the basis of the information available to it, why these differences emerged. But if equity of access is one of the 'top-level' objectives of London's health care system, then analysis of this kind has to be carried out on a systematic basis. As the authors indicate, however, the level of the skills required is likely to be beyond those available to most district health authorities.

The lack of information also affects service planning. The report on London's mental health found that:

One of the most significant issues ... is the difficulty in obtaining good information. Obstacles to obtaining a comprehensive view of mental health services available to the population of each area include the large number of providers and variety of ways in which they collect information, the lack of regularly updated centralised reviews of service availability, variations in provider catchment area, the need to assess turnover in order to know how available services really are and the difficulty in fitting a great variety of models of care into a fixed set of categories. (p 287)

The report goes on:

In the absence of good quality information about current service provision in every area, it is difficult to see how rational planning of a comprehensive range of services can take place. (p 287)

In the case of primary care, there is no information on the quality of the services offered. Judgements continue to be made in terms of physical assets (e.g. premises), practice structures (e.g. the number of single-handed GPs, and the number and range of primary care teams), for lack of any measures bearing directly on quality itself. The same is true for the other services provided in the community such as district nursing, where the contracting currency continues to be 'contacts' despite the long-recognised objections to such a simple measure. A better minimum data set for these services has been promised for many years but still fails to materialise.

■ System understanding is weak

The central theme of this paper has been the interdependence of the elements of London's health care system. But although such interdependences can be described in general terms and set out in terms of diagrams, they cannot be mapped in terms, for example, of the flows of patients between providers because the data required do not exist. The London mental health study points to the major weaknesses in the information available, the resulting inability to show how patients move round the various parts of the system and the overlapping roles of the different agencies which do collect information.

Against that background, it is not possible fully to describe how this particular service functions, never mind to predict how its functioning might be affected if specific changes were made to it, either in terms of new facilities or organisation. The same is true of other services, particularly emergency care which involve a large number of different providers.

As the mental health report puts it:

There appear to be problems arising from the way in which policy is made and disseminated. The health aspect of mental health policy in the Department of Health is made by expert clinicians and focuses increasingly on 'the what'. However it says little or nothing about 'the how', that is the process by which change is achieved in a complex service system

The report on primary care makes a similar point about policy-making in that area:

The amount of centrally directed change affecting primary care since the 1990 contract is unprecedented. It has often failed to recognise the complexity of the primate care system in its own right and so, at times, has had unforeseen impacts: for example, the introduction of LIZ workforce flexibilities may have led to a shortage of available locums for larger practices. (p 14)

In respect of services for older people, the report from the Centre for Policy on Ageing suggests that:

Most ... purchasers seem to be tackling [the] organisational challenge in a piecemeal way – rather than taking a systems – wide strategic view of bringing about change in all the interconnected health care functions that are performed for older people.

These findings reinforce the conclusion drawn above in relation to purchasing and service design: that capacity to deal with the complexities which services such as these present is rare.

■ Corporate or institutional learning capacity is low

The London Implementation Zone programme of primary care development was initiated rapidly with the commendable aim of making rapid progress towards eliminating what were seen as long-standing weaknesses in London's primary care. It was recognised at the time that the impact of the resulting projects should be evaluated, but how it should be done was left vague. A King's Fund study ⁵⁸ of the evaluations that were carried out concluded that:

If evaluation is a concern, then the LIZ experience does not provide a model ...

As consequence, it is impossible to say how the programme has changed primary care. It goes on:

it is not possible to say how levels of access to primary care have changed and to what extent any changes are attributable to 1,000 projects in the LIZ programme except perhaps in one or two health authority areas.'

That said, the task of evaluating such a large and geographically extensive programme is a large and difficult one, which only a very substantial investment in monitoring and research could have addressed. But the fact remains that although, as the King's Fund report acknowledges, the work that was done generated a greater deal of learning which will be useful in any future attempt to evaluate innovation, a great deal needs to be done before an adequate learning capacity is in place. This is a particularly significant weakness, if the future development of primary care is to proceed through pilot schemes, as envisaged in *Choice and Opportunity*.

The conclusion in relation to Criterion 5 is that the existing arrangements for system governance and management do not provide confidence that the London health care

system is so organised as to ensure that the broad objective set out at the beginning of this paper is likely to be met. Such a conclusion, of course, could be reached for other parts of the country since the technical difficulties, lack of knowledge and of basic information are common factors. Weaknesses of these kinds cannot be overcome by changes in governance and some indeed may be inherent, given the complexity of the present situation in London and the factors set out in 3.2 above, which will tend to increase that complexity.

In a sense therefore any governance or management arrangements will fail to provide complete confidence that the health care system can be guided to whatever high level goals are set for it. The need may therefore be to find that system of governance which best deals with uncertainty and limited knowledge – a 'least bad' set of arrangements.

4.2 Discussion

The central question, which the evidence set out in the previous section and in the other studies carried out for the London Commission, poses is whether the weaknesses and challenges they reveal can be handled within the existing 'system rules'.

Many can be: most of the recommendations made in the mental health report could be adopted by individual purchasers and providers: the same is true of the work on older people. For example, the mental health report suggests there should be more homes with 24-hour waking nursing staff for highly disabled patients. These are small -scale facilities and can be designed and introduced on a local basis. Similarly, many ways of improving emergency care are rightly the responsibility of individual providers. This is true, for example, of many of the measures suggested by the NHS Executive and others for the reorganisation of hospital admission and discharge procedures.⁵⁹

Others could be tackled in this way if health authorities obtained new powers and if restrictions on the role of GPs and both hospital and community providers were lifted as the Government has recently proposed, in particular:

- new forms of primary care provision, as envisaged in the White Papers, Choice and Opportunity and Primary Care: delivering the future;60
- · easier switching of finance between primary and secondary care with the merger of general medical services (GMS) and hospital and community health services (HCHS) finance into a single funding stream, which makes it easier to transfer care from one setting to another;

variations in types of primary care contract, also envisaged in *Choice and Opportunity*, which would allow new forms of provider to emerge and both hospitals and community care to enter into general medical services. These should make it easier to remedy gaps in services and to provide seamless services where currently interfaces are poor.

However, others cannot not be tackled purely at the local level:

- emergency care, particularly at the severe end of the spectrum and for issues that run London-wide, such as ambulance services and intensive care provision;
- interfaces between the finance and provision of care on the one hand and research and training on the other;
- specialised care services serving large parts of London, as well as other parts of the country.

The main conclusion of this section therefore is that the management of London's health care system will have to be designed to deal with a number of issues that run wider than the remit of those currently responsible for purchasing and provision. However, that conclusion is not sufficient by itself to determine how they should be tackled. Such issues may be tackled in a variety of ways:

- providing information and analysis about the current situation, in the expectation that
 existing institutions, including the Department of Health as well as NHS agencies,
 will respond;
- development of processes which would assist them to do so, e.g. on the lines of those
 organised by NHS Anglia and Oxford in relation to emergency care ⁵⁹ which combined
 literature based work, Delphi exercises and interactive events involving the key
 stakeholders in the Region;
- creation of new mechanisms for inter-relating the work of the existing institutions,
 e.g. a London-wide consultative body, as recommended by Tomlinson or other structures designed to encourage collaborative action across what are now institutional boundaries:
- an overhaul of the existing institutions within the framework of existing legislation, e.g. creation of a London region or the creation of new purchasing authorities with different responsibilities to the present ones;
- entirely new institutions which would require legislative change such as the merger
 of social and health care authorities.

The original London Commission used the first route as did the Tomlinson Report, i.e. both provided analysis and information for others to respond to. The subsequent creation of LIG and allied central initiatives, such as the Task Forces for mental health and primary care, all worked within the then existing framework. But that framework has itself changed in ways which should make it easier to effect change across wide areas:

- there are now only two as opposed to four regional authorities, both arms of the Executive, with responsibility for London;
- the new health authorities have responsibility for all forms of health care, and their boundaries more closely match those of local authorities. In principle therefore, they should be able to achieve an optimal balance between different forms of provision and better relate health to social care;
- over and above these formal structures, GPs have been developing a range of consortiatype arrangements which promise to promote better linkages between services and other forms of co-operation exist such as those between health authorities for the purchase of ambulance services.

These developments suggest that London is now better able to handle 'system issues' than it was five years ago. But GP consortia are as yet untried in many parts of London and may prove unstable where they do exist, while the new health authorities still only command part of the scene by virtue of their size. Although the simplification of the regional structure in itself assists with system issues, by reducing the number of organisations involved, the new regional offices do not have the same capacities as those they replace to analyse and monitor developments, largely because there has been a conscious decision to reduce their role. We conclude therefore that London is not adequately equipped to deal with system issues.

Policy options

The central question to be considered in this section is whether the governance of the London health care system can be improved, i.e. whether the structure of constraints and incentives which define the roles of the individual elements of the system – be these trusts, GPS, district purchasers or whatever – can be modified so as improve performance.

The choice of structure should largely depend on the challenges with which it has to deal, and hence the kind and scale of changes that appear likely to happen in the future. The previous sections have suggested that the second system criterion – capacity for change and innovation – will be particularly important, since the way in which the first and third criteria – the balance of services and the links between them – are met, will alter over time. That in turn will make it harder to meet the fourth and the fifth criteria, which concern the links between care provision and the other parts of the health sector and the governance and management of the system as a whole.

5.1 General possibilities

The management framework for the London health care system as things currently stand is largely determined by national policies and hence is largely the same as in other parts of the country. The main exception is the LIZ programme which will shortly be concluded. It follows that in large measure the issues discussed below relate to that national framework, and hence much of the discussion draws on research into that, not specifically on London.

The discussion which follows is set within the framework of the 1990 Act. Since its introduction, the scope for change within that framework has been shown to be enormous and the recent White Paper *Choice and Opportunity* has demonstrated further what its potential might be. That potential has yet to be systematically explored. In what follows, we consider a number of areas with the aim of identifying the range of options which might be considered within it and how they bear on the weaknesses in London's health care system. The areas considered are:

- · purchasing structures;
- providing structures;
- · finance;
- London system governance;

- relationships between care, education and research;
- relationships with other policy areas;
- · technical issues.

All these inter-relate, but we begin by taking each in turn.

Purchasing structures

The 1990 Act introduced the division between purchasing and providing with the creation of district level purchasers. Since then the structure of purchasing responsibilities has changed radically with the merger of health authorities into larger units and the development of small-scale purchasing led by GPs. As a result, the structure of purchasing is very diverse but, even so, the scope for further development seems considerable. There is a great deal of experiment at local levels, particularly in involving GPs in commissioning and the Government itself is pressing ahead with new ideas. In particular it has established a series of total purchasing sites where GPs are given responsibility for allocating the total budget, along with other experiments in respect of GP fundholding.

A study by Nick Mays and Jennifer Dixon⁶¹ of the King's Fund Policy Institute has concluded:

The rapid and unplanned development of a plurality of purchasers for hospital and community health services has, perhaps inadvertently, established the preconditions for further far more radical changes.

They go on to argue that:

The consequences of having a complex and diversified set of purchasers have barely begun to be recognised.

In other words, as the authors show, it is hard to come to clear conclusions on the relative merits of the different forms purchasing has taken or indeed on the benefits of an explicit identification of the purchasing function. Another King's Fund Policy Institute study⁶² has found little systematic evidence that district purchasing has had a significant impact on the pattern of care. The evidence on GP fundholding is more positive, but here too, both the King's Fund study ⁶³ and a recent Audit Commission report ⁶⁴ have suggested that much of the apparently favourable effects attributed to it do not necessarily arise from fundholding itself.

Despite this sceptical conclusion, it would be hard to make an argument for abandoning an explicit definition of the purchasing role and reverting to formula distribution of funds to individual providers. But the purchasing role need not take the form in which it is currently found.

The structure of purchasing which exists now with its mixture of district and GP fundholding and the potential for further development that it contains (such as total fundholding), does bear on some of the system issues identified above. For example, the incentive structures created by total purchasing should create greater pressure for innovation around the primary/secondary boundary than currently exists. This is particularly relevant to emergency medical admissions and the use of accident and emergency services, i.e. the areas of demand for service which are currently 'open access' and hence not controllable. At present GPs, whether fundholders or not, have no incentive either to reduce their referral rate or to develop alternative ways of meeting their patients needs. Early results from the total fundholding pilot studies 65 show that those participating were actively considering emergency care as an area for service change.

However, in other respects, the new forms of purchasing may make the situation worse. A recent study on the links between housing and health, 66 concluded that it was in some respects now harder to link the two than under the 'old regime', in part because the post-1990 arrangements have increased the number of agencies which must be party to any agreement on common policy and in part because of the instability in personnel and management structures which the 1990 reforms have led to.

Moreover, the range of forms which currently exist do not address what is perhaps the central issue surrounding purchasing in London of whether its scale and structure is adequate to managing the type and scale of change which the pressures described above seem likely to require. The main emphasis of the present Government's policy has been to encourage small-scale/local purchasing involving GPs rather than purchasers with a wide-ranging remit supported by some degree of analytic/research capacity. We have already referred to the views of the Clinical Standards Advisory Group which suggest there are risks attached to this approach.

In some contexts, e.g. the arrangements made for specialist purchasing, that issue has been addressed. At one extreme, there is a single national purchaser for such small services as dental training and secure accommodation for psychiatric patients. For a group of so-called specialist services, the Government has recently appointed an advisory committee. For yet others, the lead purchaser model has been adopted - in the case of the London Ambulance Service, four purchasers act for London.

Alternatively, even within the existing territorial structures, intermediaries can be envisaged. There are in fact already a few examples of these: for example, a number of NHS regions used an intermediary to purchase the care required to reduce their waiting lists to national target levels. Such an intermediary can act over any territory: its role is determined by its function, not its location.

In this example the regions concerned effectively contracted out for a function they were not well placed to perform. The same approach can be used in other ways. We argued above that service design has been relatively neglected as a purchasing function and drew on the renal services review as an example of purchasers appearing underqualified to do what in principle is required of them. It is easy enough to imagine the design function being contracted out to specially created agencies, which would be able to pool the expertise now dispersed in a large number of organisations. The alternative would be to modify the role of the district level purchasers in such a way that expertise in particular services could be developed for London as a whole. This could mean a sharp reduction in the number of purchasers or, if the present number were retained, some agreed specialisation between them.

Furthermore there is a case, in the light of the evidence presented on (lack of) seamlessness, for considering what Mays and Dixon term more radical options than any set out here. They describe three:

- integrated primary care-based purchasing organisations drawing on both HCHS and GMS funds:
- · integrated health and social care purchasing organisations, which would extend into what is now social services;
- a mixed economy which allow private as well as public purchasers.

The framework proposed in Choice and Opportunity would allow the first of these but not the other two.

The main conclusion to be drawn from this discussion is that, although territorially based general purchasing has been the dominant form, it is not the only way in which purchasing agencies might be defined or change achieved, without disturbing the current structure of responsibilities. There are also options which would undermine that structure and which might have benefits in relation, particularly, to the failures described above in relation to System Criterion 3, which bore on linkages between services. Overall, there is ample scope for further development of purchasing forms.

Providing structures

In contrast to purchasing, the structure of responsibility for providing has not changed a great deal as a result of the 1990 reforms, although the physical pattern of provision has. There have been only a few trust mergers and, although Tomlinson successfully recommended the creation of separate community trusts, this pattern was not imposed on the trusts which had already been configured as combined acute and community providers.

The factors making for change set out above suggest that substantial changes in the pattern of provision may be necessary. If that is so, then the question is whether the current structure of provision will facilitate them.

The LIG service reviews implicitly concluded that those structures were in many ways not appropriate to services requirements. Instead they defined forms of provision where responsibility for a service was shared between hospitals – i.e. hub-and-spoke models, which involve greater or less degrees of co-operation between them. The Cardiac Specialty Group, 43 for example, set out a number of requirements for effective links between secondary and tertiary centres but they held back from proposing changes to hospital trust structures and indeed did not systematically develop how their proposals might work. Nevertheless, their proposals implied the need for collaborative rather than competitive links between services in different hospitals and between hospital and community services.

If they had developed their own line of argument, they might have concluded that organisational models based on broad services are more important that those based, as are existing hospital trusts, largely on sites. Although the 'services' approach was not adopted as the leading approach when trusts are created, there are examples of it which have arisen since. For example, in East London paediatric services within the acute hospital are the responsibility of the community trust. Similarly, Moorfields runs outreach clinics for specialist eye services in every sector of London, and outside London the Walton Centre does the same for neurological services within Merseyside. The success or otherwise of this form of service turns largely on those responsible for this particular range of clinical services, not the sites or trust structure concerned.

These examples indicate that it would be possible to envisage provider structures based on services which might run across current trust boundaries. They might also run between primary and secondary care.⁶⁷ At the moment, links of the latter kind are hard to effect because of the way finance is allocated to the two sectors. But the financial proposals made in Choice and Opportunity allow this and hence open up the way to new provider structures straddling the two and in the process altering the way that services are accessed. That approach might be relevant to mental health services or indeed any service group with chronic conditions or with needs such as those of minority ethnic elders, which a specialist provider might better meet.

More generally, a range of options can be envisaged which take the present trust structure apart and create new units based on broad services – be these specialised activities, general ones like emergency care, or local acute hospital services. This would mean in effect a recasting of the trust role to that of clinical support rather than management in its present sense, i.e. the role of trusts would be to provide the hard and soft infrastructure required to run clinical services, which would themselves become a management unit. In one or two cases, e.g. some community-based staff in the smaller professional groups, have formed themselves into free-standing organisations which contract with several trusts. The same approach has been suggested for hospital-based consultants.⁶⁸

The same line of thinking can be developed in relation to community-based services. As noted already there are tensions within general practice arising from its developing role as provider and purchaser. Some of the tensions may be relieved by new forms of relationships developing between community trusts and general practices, aimed at allowing the latter to preserve their 'small-shop' character, while at the same time handling tasks such as data and contract management which are not central to that role.

In short, as with purchasing, there is scope for envisaging different forms of provider even within the 1990 Act structure. That structure was in fact highly conservative both in the extent to which it reflected existing patterns of organisation and also in respect of the financial regime to which trusts have been subject. The strict requirements in relation to a required rate of return and external financial limits are suited to subordinate elements of a centralised system of management, not the independent units that trusts were intended to be. A more relaxed regime would allow greater scope for innovation and risk-taking. A recent review of the trust regime ⁶⁹ recommended some relaxation particularly in relation to costs and pricing rules, specifically:

- removing the ban on cross-subsidisation;
- removing the ban on earning surpluses in excess of 6 per cent;
- allowing surpluses over 6 per cent to be spent with external financing limit clawback.

It also suggested that, in the context of longer-term contracts trusts should be able to retain unplanned surpluses, which would allow greater room for manoeuvre.

Finally, there is scope for envisaging modifications to the powers of trusts to allow them to better address some of the boundary issues referred to above. A report from the NHS

Trust Federation⁷⁰ has argued that changes should be made to allow a level-playing field between the independent sector, local authorities and trusts in relation to continuing care so as to create greater scope for the provision of seamless services.

Finance

Current

A key obstacle to changes in the way services are provided is the division between primary and secondary care finance, which makes it hard to make significant shifts in activity or to plan services across the boundary between the two.

As noted above, in *Choice and Opportunity*, the Government envisages possible changes to the finance of general practice which would allow greater flexibility, both in terms of new providers but also in ways which will reduce the impact of the current division, i.e. by making it clearer what is or not included in general medical services. It is cautious, as far as the overall division of finance is concerned, but does suggest that there should be experiments in genuinely bringing together the separate funds into single budgets. To do this properly would involve the further step of allocating HCHS and GMS within a single formula and thereby allow complete local discretion as to the allocation of resources between different forms of service.

If the division between primary and secondary care finance is abolished in whole or part then, as noted already, the way would be open for new forms of provider to emerge. These would be particularly relevant to some of the existing weaknesses in London's health care system. It should allow, for example, forms of provision to develop of the kind identified above which focused on groups who perceived themselves not to be well served within the existing pattern of provision, e.g. a community mental health service for minority ethnic elders. It could also open the way for providers to specialise in particular functions such as routing. A core skill of some community trusts, for example, is interfacing between professionals in different organisations. That skill might be 'hived off', allowing the specialist provider which resulted to offer an objective choice among the available alternatives, and that in turn would encourage small-scale providers to develop serving small population groups.

Of course this proposal does not address the boundary issues around health and social care. Only major changes in the scope of the NHS on the one hand or of local authorities on the other would address these. Both would involve consideration of range of issues outside the scope of this paper (e.g. source of local finance).

Merger of the two main streams of NHS finance would entail the risk, apparent even within the existing rules, that resources would be sucked into the acute sector. Despite the emphasis in official policy statements in favour of a 'strategic shift to the community', there are no technical means available of comparing the value, at the margin, of shifting resources from hospital to community or vice versa. In its absence, the current set of central incentives has worked towards favouring more hospital activity and will continue to do so. There are no ready-made solutions: hence the approach suggested in *Choice and Opportunity*, of piloting such changes in the rules seems the right one.

Another set of possibilities turn on the way that central finance is allocated. In the past, Regions played a key role, top-slicing for certain activities and determining themselves how much each district should obtain. In the years since 1990, this scope for regional discretion has been all but eliminated in line with the decentralist philosophy of the 1990 Act, although the LIZ programme could be seen as a form of top-slicing for a very broad area of activity.

The case for non-specific, capitation funding covering HCHS and GMS is, in London's circumstances, a strong one. Where needs are diverse and central capacity to identify that diversity weak, then there is a case for maximum local discretion in the way funds are utilised, which a fluid boundary between primary and secondary care allows. But as with the London Ambulance Service, any city-wide service purchaser would want a central budget or a process for levying what was required to pay for such a service and it might, following the pattern of recent NHS Executive initiatives, wish to finance some innovatory activity through challenge funds. In this way some degree of competition between purchasing agencies could be created, e.g. by allowing different organisations to manage special programmes, such as a future version of LIZ.

A final area to be considered is the financial regime for particular agencies. The trust regime has proved very restrictive, quite opposite to the original intentions. Not only has the route to capital funds been made more complicated with the introduction of the private finance initiative, but also, as noted already, the strict insistence on common pricing rules and annual financial performance targets, together with restrictions on the retention of reserves, has created an inflexible regime.

While the review of the trust financial regime referred to above proposed a number of changes which would relax some of these constraints, it did not consider the case for developing the trust regime, so as to allow new forms of provider within the framework of the NHS nor to allow trusts substantially greater control over their own finances although it did suggest some relaxing of the strict annuality rules which rule out the accumulation of reserves. This restriction makes it hard for trusts to withstand loss of

income on the one hand and, on the other, to commit resources to the development of new projects or services.

Some change of this sort appears necessary if the freedoms envisaged under Choice and Opportunity are to develop: otherwise trusts will find it hard to take risks in terms of service development and innovation that will allow them to compete with other forms of provider.

Capital

In the 'old' NHS control of capital spending was a key mechanism in the hands of regional health authorities in guiding the pattern of service provision. In the 'new' NHS, the system effectively continued since trusts did not gain easier access to capital funds. Now all sizable schemes must pass through the PFI process.

Although the Initiative has been successfully used to finance a large number of small schemes, the vast majority of these are in the area of support rather than clinical services. The next stage, of moving on to clinical services themselves has proved more difficult. As pointed out above, within London the process appears to have come to a halt.

If it does, then a major change of policy towards the finance of capital projects will have to be made. At the moment it is hard to see what that might be. The current public expenditure forecasts imply a rapid reduction in capital finance from public sources and very limited prospects of growth. In January, the Department of Health announced that some additional public funding for capital schemes would be made available, but the amounts concerned are small. It would seem that a totally new way forward will have to be found, e.g. a further relaxation of the Treasury imposed constraints on the use of privately raised capital.

London system governance

In the usual sense of the term, there is no governance structure for London's health care, i.e. no single organisation with overall responsibility for it. Only a small number of services are managed London-wide. North Thames and South Thames regional offices do have broad responsibilities but are not generally empowered to adapt the national framework to London circumstances and they do not currently extend to attempting to realise a particular pattern of provision, i.e. they do not see themselves as regional planners.

The absence of 'command' structures would seem to indicate that the Government believes that purchasers and providers can 'sort out' between them the issues which overlap their respective boundaries. The significance of this is different on the purchasing from the providing side and also according to the areas which need 'sorting'.

As noted in the previous section, the Government has been moving towards a small-scale experimental approach. There is a great deal to be said for this strategy. It is highly appropriate where there is significant uncertainty about 'how the system works' and what the impact of change would be and also where there are significant local differences in both the needs of patients and the abilities of clinicians.

However, the earlier analysis has suggested it will fail in three circumstances:

- · where change, to be effective, has to be carried out on a large scale, i.e. where smallscale change is not cost-effective because of high start-up costs. This appears to be particularly relevant to those services where community-based provision may be substituted for hospital services. Work within the King's Fund Policy Institute has found that start-up costs are usually high but at higher levels of activity, transfer could look economic;
- · where service restructuring change can only be achieved if large-scale changes are made. An example of this would be changes in the location of accident and emergency facilities; while much of the consolidation that has gone on so far has been within district, the next steps as foreshadowed in the Audit Commission report would require planning on a large scale to demonstrate its overall impact;
- where the situation to be addressed is too general to be addressed piecemeal, e.g. the rules governing the provision of ambulance services which would, even if confined to a sector of London, affect more than one district or where there are common issues which are best tackled on a joint or collaborative basis, e.g. the 'right' level of intensive care provision, or the scope for new forms of provision such as emergency care.

The first can be addressed within a single district, since in principle purchasers have the requisite overview, but the lack of transitional finance on a continuing basis may still be an obstacle. If it is right to argue, as we have done above, that the London health care sector is set for further change, then mechanisms will continue to be required to deal with both service restructuring and system-wide issues.

The critical question therefore is whether the type of change expected in London's health care system falls mainly into the first category, which can be addressed by piecemeal change, or, alternatively, whether it falls into any of the three circumstances set out here. The answer is 'both' although without careful analysis it is not always clear on what side of the line a problem lies. For example, a study of discharge delays in one London hospital found, that the vast majority were due to its internal procedures, not the 'system rules' within which it had to work.71 That reservation to one side, many changes will continue to be made on a piecemeal basis by clinical teams, hospital managers and GPs, etc. and in most circumstances this is the only way in which change can be effected.

But the central argument of this paper is that many of the changes required in London do not fall into the category where small-scale incremental change is appropriate. If that is accepted, there remain several ways in which that perspective can be reflected, either in institutional change or in new ways of working inside the existing framework or some combination of these. But whatever the precise institutional framework, this approach requires a sustained commitment to designing, implementing and monitoring whatever forms of provision are considered best on the evidence available - in sharp contrast to the official response to the report of the first London Commission, with its tight timetable and temporary arrangements for implementation.

As John H James has pointed out, 72 the data which the LIG groups had to work on were often very poor, but there was general agreement among clinicians about the organisation of tertiary services and the direction change should take. This allowed conclusions to be reached fairly easily as to the nature of the changes required. Implementation was another matter, as James points out:

..the purchasers, whose use of market freedoms has exposed the problems, are not capable of achieving the strategically balanced outcome ... Nor even if the purchasers came up with a strategy could they implement it alone. (p 37)

In other words, it was assumed that the new purchasing structure should be able to achieve changes of a kind that the previous regional structure had been unable to impose. Subsequent events have confirmed that they are not adequate to that task.

More fundamentally, the LIG process (through no fault of LIG itself) was fundamentally inconsistent. Designed to be based on evidence about the most appropriate forms of provision for a particular range of services, it did nothing to ensure that arrangements existed to allow plans and new developments to be modified in the light of what new evidence emerged, either about the effectiveness of what was proposed and implemented or from experience elsewhere as to the more effective forms of provision. In other words, an evidence-based approach to formulating change entails a commitment to these further stages of learning – to a process in other words involving interaction between central policy-making and events 'on the ground'.

This point has been partially but not fully grasped at national level, where a commitment to piloting and evaluation, e.g. of total fundholding, contrasts with the rapid and unevaluated implementation of the key features of the 1990 Act. This commitment, extended in Choice and Opportunity, represents an acknowledgement that the health care sector is too complicated and the scope for individual initiative too large, to allow those responsible for the governance of the system confidently to predict the impact of their

Relationships between care, education and research

Thinking about these relationships, still less any systematic investigation, is almost entirely absent and hence possible ways forward are harder to define. At minimum, a forum is required where the different interests and areas of potential conflict can be identified but if that is to be effective serious analytic and research effort is required to establish the nature of the interconnections and the implications of further change.

Relationships with other policy areas

With *The Health of the Nation* initiative the Government formally recognised the importance of a wide range of policies to the promotion of the overall objective set out at the beginning of this paper, which fall outside the health care system itself. For example, a recent report ⁷³ has argued that part of the emergency workload of the hospital stems from inadequately heated housing, while the study of services for older people identifies other services such as transport as being important to their health and welfare. This paper has not tried to define how these policy areas should be linked into the governance and management of the health care system but such a consideration should form part of any proposals for change.

Technical issues

In concluding the discussion of systems in section 2, it was acknowledged that information and understanding of the interconnections between the various elements would inevitably be imperfect, and hence that any attempt to pursue the systems framework might have to be made on a partial and often judgemental basis. But if the general case is accepted, then a number of tasks are implied, ranging from the feasible to the extremely difficult. However, the extent of their feasibility and difficulty depends in part on the framework within which they are to be carried out. We illustrate the issues with some examples drawn from recent technical developments.

Care pathways

A number of providers and purchasers are developing the notion of care pathways (under a variety of names) to address system criteria 1 and 2 in relation to specific care groups. Put simply, they involve a systematic identification of all the elements involved in providing a service, from start to conclusion of a care episode, and within that service, all the options along the way, which may lead to different patients following different routes through the care system. Although the approach has sometimes been used within

Purchasing structures

Allied to this, a number of authorities are developing purchasing strategies based on care groups, which cut across existing provider boundaries. In some cases one provider may be given lead responsibility for managing a contract covering several providers, thus blurring the distinction between the purchasing and the providing roles.

Equity audit

The notion of equity audits has been developed in recent years in response to repeated findings that access to services varies from one area to another in ways which cannot easily be explained by differences in morbidity.⁷⁵

Simulation models

Models are being developed which allow parts of the health care sector to be simulated by computer and the implications of changes in the way that care is provided or in the level of demand, worked out. A small number of such models have been developed bearing on particular functions, such as the admission of patients to hospitals or, more ambitiously, to functions such as intensive care which involve a number of providers. A pilot project has been started within the King's Fund aimed more widely still at the emergency care system.⁷⁶

Performance measures and audit

Thinking and practice in both these areas are still linked to the individual intervention or agency but as we have argued throughout this paper, many services involve a series of interventions and many agencies. If these linkages are to be tackled, new ways of auditing and monitoring are required. They will have to be based on patients, not institutions.

Service design

Examples of service design can be found, and indeed pathway analysis falls into this category, but it remains an underdeveloped activity, often carried out by groups too small to muster the expertise required or working to too tight schedules. At present it lacks proper recognition as a distinct function involving a wide range of disciplines.

To conclude, these developments indicate that attention is now being given, albeit often on a very small scale, to systems issues and that progress can be made within existing structures, albeit in a partial way. In relation to the day-to-day improvement of services that may well be appropriate. But the wider issues relating to the health care system as a whole remain.

5.2 Policy scenarios

This paper has argued that some of the weaknesses of London's health care system can be ascribed to system-wide issues, and hence individual purchasers and providers cannot resolve them on their own because they are either responding to central government requirements (e.g. the efficiency index) or working within constraints (e.g. those relating to finance), over which they have no control.

Against this background, any strategy for the reform of London's health system might be more or less radical. At one end of the spectrum, a root-and-branch strategy, a new system might be designed from scratch. That would involve measures such as a redefinition of the health/social care boundary and/or a relocation of responsibility for health care to local government, which would have major fiscal and constitutional implications. Although the case for such a transfer has been frequently argued,77 we leave it to one side since it involves issues wider than those considered in this paper.

Perhaps more important even than these would be to allow London Health to develop its own NHS within very broad, centrally determined parameters. The central argument for this approach is that London's problems are more complex than those in other parts of the country and hence different 'rules' are required. The official response to the report of the first London Commission, limited though it was, recognised that 'London was different', but did not press through the argument to its logical conclusion. But in fact such an approach simply develops the 'local choice' theme underpinning the 1990 Act (at least at the time it was being proposed) and also the potential for variety inherent in Choice and Opportunity.

Options such as these would of course be highly controversial and slow to effect but they might be considered for the medium term. The options developed here are feasible within the (spirit of the) framework of the 1990 Act and the changes proposed in Choice and Opportunity. However, as the White Paper itself indicates, that framework is capable of being used in a wide variety of ways. To illustrate the possibilities we set out here two possible ways forward for the management of London's health care system, setting these at the extreme ends of the familiar dimension of centralisation and decentralisation. These draw on some of the ideas and possibilities put forward in section 4.

Scenario 1 Centralisation

This scenario is built on the notion of London Health, a single, financing, commissioning, purchasing and regulatory agency for the whole of London. This centralisation of powers would not mean that, on a day-to-day basis, it attempted to carry out those tasks now discharged by districts and by GP fundholders. Rather, it would be intended to give it the ability to intervene to make structural changes as and when required, to develop service models, to monitor the performance of the other agencies, and to support innovation.

The separate elements – purchasing, providing, finance and system governance – are of course related. If the argument were accepted for a 'high-level' purchaser for specialist services then it would be natural to finance it through a London-wide budget. Similarly, some of the work done within the older people study suggests there is a case for aiming for greater service cohesion across the many services they require. That cohesion might be furthered by creating a distinct budget for that client group. Day-to-day responsibility for purchasing could be devolved to agencies which could demonstrate an ability to create seamless services. Some of these agencies could themselves be providers, e.g. community trusts might take responsibility for some provision and for commissioning from hospitals, nursing homes, etc.

This scenario would be compatible with the range of purchasing structures that have come into existence since 1990 and indeed it might even allow new forms to develop, with the crucial proviso that London Health would have the powers to:

- top-slice funding for particular services where it considered that changes in structure were required;
- offer financial incentives to innovation in particular parts of London, e.g. through challenge funds of the kind currently being offered by the central Executive, but available only in London;
- require clinical audit procedures for services running across existing provider boundaries;
- restructure trusts so as to create new business units;
- set common rules, e.g. for ambulance services where there were strong argument for a common approach across the Capital.

At London level, it would develop a financial framework along the lines of a programme budget which:

 identified spending and activity on main user and service groups including specialised services; set out service standards, and where feasible, outcome indicators for these.

It would monitor services against those standards and indicators.

Naturally such an organisation would have to work within the nationally determined policy framework, e.g. in relation to corporate governance and other rules of public service. But it would be for discussion how far London Health could absorb the roles of the regional offices, particularly in respect of capital development so that its powers over providers could be strengthened.

The main concern with this scenario would be the risk of extra layers of bureaucracy emerging and hence London Health becoming, as the first London Commission feared a London-wide organisation would be, a brake on change rather than a promoter of it. The best way of envisaging it therefore is as a standing task force with strong reserve powers to bring about change but powers which would be used only on a selective basis, e.g. where local agreement could not be reached or where particularly difficult issues had to be tackled. Of course, it might well prove hard to combine the necessary powers with the necessary degree of abnegation so its powers and methods of working would have to be very carefully designed. The trick to be pulled off would be to devise an organisation that, routinely, would *not* seek to approve every local initiative, but could, occasionally, intervene decisively.

Scenario 2 Decentralisation

This scenario is based on the notion that developments since 1990 in the purchasing, and to a lesser extent the supply, of health care services can be pushed further by giving individuals and groups of individuals control over purchasing, and by introducing a greater variety of suppliers, albeit largely within the framework of the NHS. Essentially it would develop the ideas set out in Choice and Opportunity which are intended to allow a greater range of suppliers of health care to add to the range of purchasers of services that has already developed.

The avenues this opens up could lead to a great deal of innovation bearing on some of the current weaknesses in London's health care system. It would in particular allow community trusts or new forms of primary care provision to emerge, better adapted to the circumstances of those parts of London, primarily the inner city, where weaknesses are more evident. It would allow these or other similar organisations to become service integrators for large client groups such as elderly people. It would also allow new forms of provision specialising in small client groups to develop in ways which might ease some of the interface difficulties identified elsewhere in this paper.

The essence of this option is that it is not prescriptive: that it further frees up the system so as to allow innovation and change, in both service delivery and service design. It could be seen as extending the freedoms that the more energetic GP fundholders have already enjoyed to a wider range of agencies.

Within the NHS, the rules and constraints applying to subsidiary organisations have been seen, since the 1970s, as too constraining. The post-1990 changes such as fundholding can be seen as a recognition of that. These freedoms, however, come at a price- in terms of extra transaction costs – and they also pose risks, e.g. to notions of equity since diversity will inevitably lead to differences in standards and levels of provision (more accurately, since standards vary now, they will tend to make those differences larger). So this scenario runs the risk of not being acceptable in relation to 'high-level' objectives.

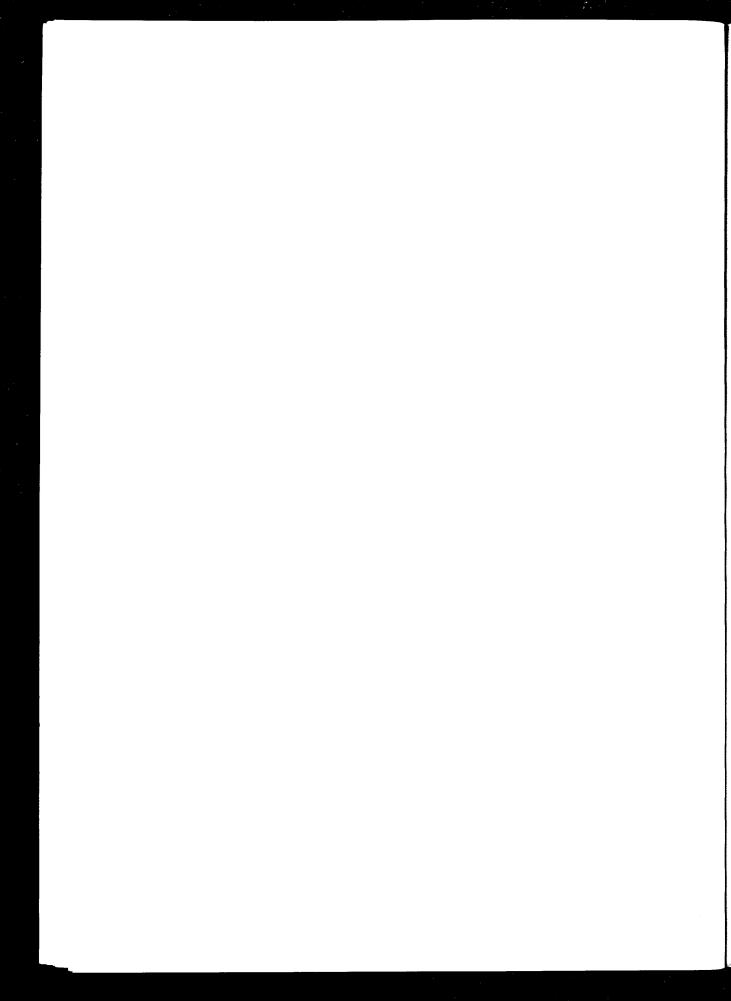
Within the framework of this paper, the main challenge for this scenario is how to respond to the system-wide issues set out earlier. To do this would require some institutional innovation which would encourage collaborative or collective working of a kind which does not currently exist even within what is a relatively large-scale structure of district purchasers and hospital trusts. It may be that entirely new agencies would develop, providing service design, commissioning, contracting and management services for the small scale organisations on which this model would be based, i.e. a range of intermediaries. These might, for example, be an avenue of development for community trusts, many of which already play an integrating role as between hospital and community services as well as social care, and who already possess a substantial organisational infrastructure on which such services could be based. This is very close to the role set out in the previous scenario because both require integrating organisations if they are to work.

But while the decentralised approach might be able to deal with some issues of this type, it is hard to see how it would allow resolution of those arising from actual or potential conflicts as between different health care providers or between the three elements of the health care system. That would leave them to be resolved by pressures from elsewhere, e.g. from the funders of higher education or of research, leaving health care to adapt as best it can or make it impossible to effect changes of certain kinds, e.g. where major restructuring of services or organisations is required.

5.3 Concluding comment

We conclude by emphasising that the two policy scenarios are intended purely as 'thought experiments' not as policy options. Any practical future will inevitably involve elements of both since in many respects they are complementary and indeed may be mutually reinforcing if means or process could be found whereby central learns from local as well as vice versa.

The challenge for those thinking about the future of London's health care system is to match the problems which have to be tackled with the appropriate set of institutions. The report of the first King's Fund Commission posed such a challenge to the then Government by clearly identifying a series of problems to be tackled. In their essentials, although much has changed, those problems remain. A different response is needed this time round.



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London Commission Studies

Systems

The Systems Study of which this is the main report consisted of a series of studies covering different parts of the health care sector. These include:

- A Survey of Needs Assessment Activities in London Health Authorities, by Naomi Fulop et al., Policy Studies Institute and London Health Economics Consortium
- Primary Care in London, by Virginia Morley and Peter Holland
- A Survey of Acute Hospital Configurations in London, by MHA Consultancy
- Intermediate Care: A conceptual framework and review of the literature, by Andrea Steiner
- A Capital Conundrum: The effect of the private finance initiative on strategic change in London's health care, by Richard Meara
- Accident and Emergency Care at the Primary Secondary Interface, by Emilie Roberts and Nicholas Mays

In addition, this report has drawn on three parallel studies for the London Commission:

Older People

Older People Programme: Overview paper (unpublished)

A Review of Services for Older People in London, by Kenneth Howse and Gillian Dalley, Centre for Policy on Ageing

Towards an Analysis of the Health and Social Care Needs of Older Londoners, School of Health Care Studies, by Linda Challis and Joanne Pearson, Oxford Brookes University

Health Status and Health Care Utilisation amongst Elderly Persons in Britain, by Maria Evandrou, King's Fund Policy Institute

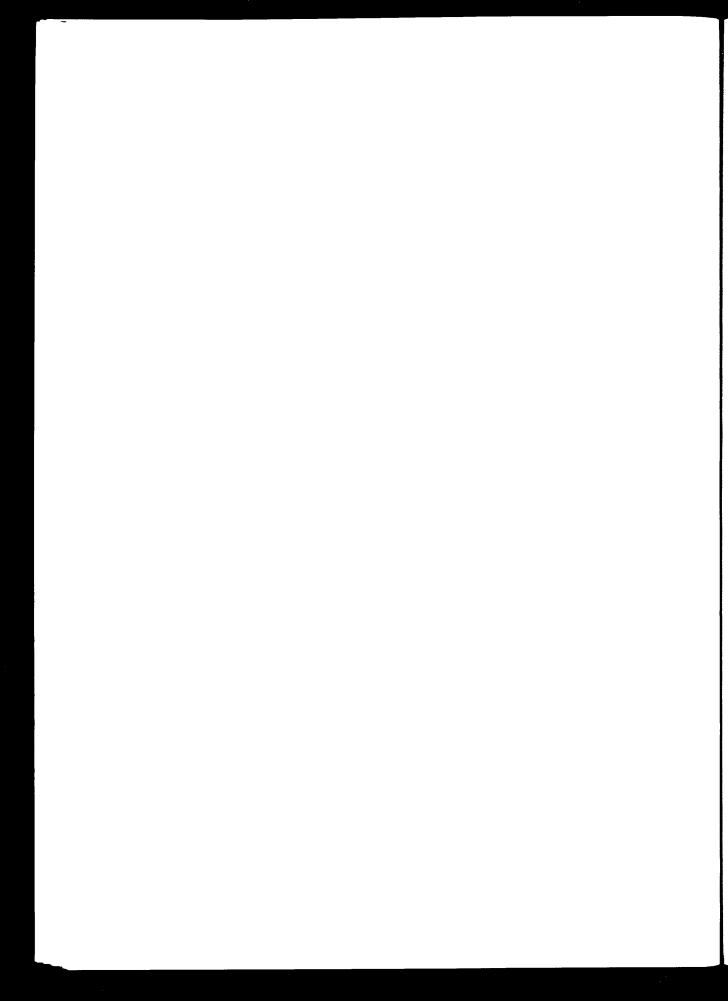
Mental Health

London's Mental Health, edited by Sonia Johnson et al., London: King's Fund 1997

Health Economy

The Health Economy of London, by Seán Boyle and Richard Hamblin, London: King's Fund, 1997

Emergency care



Summary

Emergency care services are under strain and performance is sometimes poor. Furthermore the pressure of demand, allied with budgetary cuts, is making it hard for hospitals to meet their elective targets. How emergency services are managed and provided is, therefore, critical to the performance of the health care system as a whole.

Although demand appears to be rising, the underlying factors are poorly understood. But while it is not possible to make confident predictions, it would be unwise to assume that it will stabilise unless changes are made to the way care is provided. However, developments are already occurring and others becoming feasible which could transform the way that emergency care is provided and make better use of the available resources.

Because the scene is changing rapidly and information in many areas deficient, it makes no sense to attempt to define a blueprint for the future pattern of provision. But there is a case for viewing the emergency care system as a whole: because all the forms of provision inter-relate or overlap and because there are issues which run right across the spectrum covering London as a whole.

There are various ways in which this might be done, ranging from the creation of an entirely new purchasing structure to encouraging informal means of working together within existing structures.

1. Introduction

The prompt provision of emergency care is perhaps the most important requirement of any health care system, at least in the minds of its users, who wish to know it will respond effectively if their life is in danger or if they are faced with a less serious threat to their well-being which nevertheless requires a rapid response.

In recent years, the way that the NHS provides emergency care has been frequently criticised for not meeting the standards reached in other countries, particularly in respect of serious injuries, or indeed which it has set itself in respect of speed of response. In London, as in other parts of the country, facilities have been under evident pressure: some accident and emergency departments have had to close temporarily for lack of staff, patients have experienced long delays finding a bed, and the demands of emergency care have led to cancellations of elective work.

In response to such evidence, the NHS Executive announced in the first half of 1996 a series of measures and published a series of reports covering accident and emergency departments and intensive care beds, culminating in the statement in the 1997/78 Priorities and Planning Guidance which emphasised the importance of emergency care:

Every health authority should ensure that effective arrangements are made to meet appropriate demand for emergency care, taking account of seasonal variations.

This statement was issued primarily in response to the difficulties being faced by hospitals. Since it was issued, the Chief Medical Officer has published a report on services within the community.

In addition to these departmental publications, reports from the Audit Commission, the National Audit Office and the Clinical Standards Advisory Group have confirmed that performance is sometimes poor and that changes will have to be made in the way that care is organised, across the whole of the health care sector.

Within London itself, hospitals appear to have been facing the same pressures as those in other parts of the country leading to delays in admission, and there have been other failings more specific to the Capital, for example, the speed of response of the London Ambulance Service (LAS) has been heavily criticised as falling below accepted standards, although it is now achieving purchasers' targets.

The striking feature of the reports listed in the Table 1 is that they are largely concerned with particular providers. The starting point of this paper is that the full range of provision and of need – what we term here the 'emergency care system' – should be analysed at one and the same time.

2. The emergency care system

There is no agreed definition of what counts as an emergency: to a large extent what is or is not an emergency is a subjective matter. A number of studies have shown wide variation between clinicians and also between clinicians and patients as to what constitutes an emergency.

Of course, in many circumstances, there is little doubt that care is urgently needed, but in others it is not clear what the right course of action is. A cut may be safely dealt with at home, and a chest or abdominal pain may be transitory. In either case, however, the sufferer might decide to refer themselves to the formal care system 'to be on the safe side' or they may 'wait and see'. Similar judgements may be made by professionals where the symptoms are unclear. It follows that it is best to think in terms of a spectrum of urgency ranging from a cardiac arrest, where care must be offered within minutes if it is to be effective, to conditions such as ill-defined pains where the person suffering them may decide that no action need be taken and hence does not contact the formal care system.

Table 1 Emergency care: recent reports

Clinical Standards Advisory Committee, Urgent and Emergency Admissions to Hospital

Audit Commission, By Accident or Design

National Audit Office, NHS Accident & Emergency Departments in England

NHS Executive (Anglia and Oxford), Opportunities in Emergency Care

NHS Executive, Review of Ambulance Performance Standards

NHS Executive, Review of Emergency Care in the Community

NHS Executive, Report of the Working Group on Guidelines on Admission to and Discharge from Intense Care and High Dependency Units

NHS Executive, Guidelines on Admission to and Discharge from Intensive Care and High Dependency Units

NHS Executive, Paediatric Intensive Care

University of Sheffield, *The Cost-Effectiveness of the Regional Trauma System in the North West Midlands*

University of Sheffield, Health Care Needs Assessment: accident and emergency departments

Department of Health, Review of Ambulance Performance Standards

Royal College of Physicians, Future Patterns of Care by General and Specialist Physicians

London

House of Commons Health Select Committee, London Ambulance Service

South Thames (West) Regional Intensive Care Committee, Evidence of the Inadequacy of Intensive Care Provision

NHS Executive, Accident and Emergency Services in London

NHS Executive (North Thames) A Blaire et al., Emergency Care Services: a resource handbook

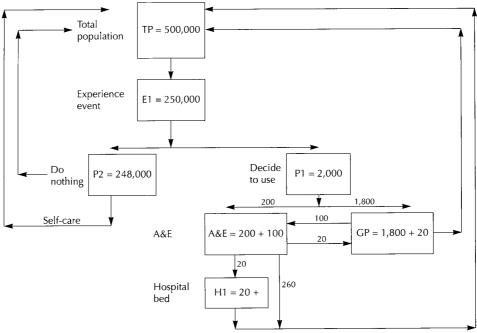
While logic suggests there is no clear boundary to the emergency care system, in what follows we will consider primarily those services within the NHS – termed here the formal care system – which are currently available to deal with demands which appear – to patient or clinician – to require immediate attention. However, the fuzziness of the boundary between urgent and non-urgent has important implications for demands on the formal system. In particular it means that:

- there may be considerable divergence between patients' views and professional views as to what is an appropriate use of the formal system;
- changes within the informal system may have important implications for the formal system i.e. demand for the latter can rise even if need i.e. morbidity or risk of injury is constant overall;
- equally, changes within the formal system which, for example, improve access, may lead to increases in usage, even if need is constant overall.

When they enter the formal care system, patients currently have two broad choices: to visit their GP or attend a hospital accident and emergency department. Figure 1 illustrates the provision of emergency care at its simplest.

Taking a population of 500,000, it assumes that half experience some sort of event that they might consider an emergency. Of this, only a small fraction decide to access the formal care system, in this simple example, their GP – who might refer them to hospital – or the hospital accident and emergency department which might admit them or refer them back to their GP.

But within those two broad options, the range of possibilities is wide, and getting wider. In a number of areas, including parts of London, minor injuries units are in operation which provide a spectrum of care overlapping with that provided by hospital accident and emergency departments and general practice. In some cases, patients are encouraged to contact either hospital or primary care services by phone and may not need to visit either, if advice and reassurance is all that is required. As a result, a 'map' of the system may be complex since both providers and patients may have a range of choices open to



KEY:

TP = Total population

E1 = Numbers experiencing what might be an emergency event

P1 = Nos. deciding to use formal care

P2 = Nos. deciding not to

Arrow = Flows of patients

Figure 1

them. Patients may access care directly at a range of entry points – GP, accident and emergency department, emergency care centre, minor injuries unit or indirectly phone, while providers may seek advice from each other or refer patients: see Figure 2.

Within the figure the roles of the different forms of provider overlap. The accident and emergency department may be virtually comprehensive in what it provides: others more specialised, but there is no sharp division of functions.

As the system becomes more complex, it becomes harder to describe and understand it. We have found it helpful to identify five key functions which may be provided either separately or in combination:

- consultation or advice:
- · decisions on treatment;
- · routing;
- transport;
- · treatment.

These apply both to the individual and the professional. The mother whose child has fallen over may consult herself as to whether treatment is required and give it herself, or seek advice, take the child for treatment or call an ambulance. Similarly, the GP or junior doctor in an accident and emergency department.

Each element may perform well or badly, and whether it does or not is largely the responsibility of its own management. But each may perform well, and yet the system as a whole may not be as effective and efficient as it might be. Such an apparent paradox could arise if:

- access is poor because local facilities are not available, so treatment is obtained too late or in an inappropriate high-cost manner;
- patients do not reach the part of the system which was most appropriate to their needs
 because routing is poor, e.g. if, as a result of current protocols, ambulances do not
 deliver them to the most appropriate hospital or take them to hospital when other
 forms of care would be more appropriate;
- the balance between different providers is wrong because some are providing services which others could do better e.g. where hospitals treat patients who could be treated more effectively in the community;
- some desirable or cost-effective options are not available because no potential
 provider has had the incentive or opportunity to provide them. For example, the role
 of the ambulance service has until recently been confined to transport: it has recently

							Diagnostic skills							Sev	erity
	Open Access	Open 24 hours	Triage	Telephone Access	Advice	High (eg consultant)	Medium (eg GPs, juniors)	Low (eg protocols)	Investigations (eg X-ray)	Nursing care (not treatmt)	Spec. support (eg surgery)	Admin/arrange admission	Capacity to prescribe	MinorTrauma & Illness	Major Traum: & Illness
1. Tertiary centre	?					No his concernation with the second second								."	
2. Major A&E department															
3. Minor A&E department														·	
4a. Observation ward							·								
4b. Inpatient									.4.						
5. Community hospital with A&E department									Limited						
6. MIU – doctor-led									Limited						
7. MIU – nurse-led				-					Limited				?		
8. Telephone advice line					-										
9. Ambulance				·											
10. Rapid response		?												Chronic healt	h problems
11. GP (incl. deputising)	May neo	ed appoint hours	ment						Limited						
12. GP Co-op & centre		Out of hours							Limited						
13. Crisis intervention														Specific (eg m	nental health)
14. Pharmacy		Rota								,			Non-prescrip drugs		

Key: Shaded areas = service usually or potentially offered

Figure 2

been extended to a defined range of treatment, but it could be extended to cover routing as well. Other functions such as advice and routing have until recently not been seen as significant in their own right: who did them was largely a matter of historically determined convention.

Failures such as these arise for a variety of reasons which can be summarised as a lack of any conscious process of system design. In London and in the rest of the country roles have developed piecemeal. The 'terms of reference' of accident and emergency departments and GPs are effectively open ended, ill defined and overlapping. The way in which ambulance services work – i.e. their routing role – and the performance criteria to which they work have been defined independently of the context in which they operate. Thus ambulances are set performance targets for getting to patients, but there are no targets for the total time from their 'collection' to definitive treatment.

While closure of accident and emergency facilities and pressures on general practice have forced experimentation with new forms of provision, this has on the whole not been part of any wider process of trying to find the right balance of facilities. Development of options spanning the boundaries of hospitals and community-based providers has been hindered by the separate financing streams for hospitals on the one hand and primary care on the other. No one agency has had responsibility for continuing monitoring and assessment of performance – though that role could be played by the new health authorities. Until recently, the only part of the system for which performance standards were set was the ambulance service. Now Citizen's Charter targets have been set for triage in accident and emergency departments and for emergency admissions to hospital. But no standards are available relating to the appropriateness of different settings, nor is there any regular reporting which bears on the outcomes actually achieved.

3. Current position

As there is no agreed definition of what counts as an urgent demand, and because little is known about GPs' work, nearly all the data available refer to hospitals leaving many parts of the system totally undescribed. It is not possible therefore to provide a complete description of what is happening either in the country as a whole or in London. This section sets out briefly some of the main features of the current system in London: more detailed tables are annexed (see pp. 102–103).

Trends in demand

From the national and London-specific evidence available, the main points which can be established are these:

- demands on the system are very diverse, ranging from major incidents to the trivial: both major trauma (e.g. serious road traffic accidents) and serious medical emergencies (e.g. heart attacks) form only a small part of demand – less than 0.5 per cent of the total. Perhaps 18 per cent of LAS ambulance calls might be described as serious;
- overall, the number of demands, be these measured by 999 calls or hospital admissions,
 on the formal emergency system is rising;
- the reasons for the rise are poorly understood but in our view the increase stems more from changes in the readiness to seek professional advice, rather than in the underlying exposure to risk or the underlying morbidity;
- both the absolute number of calls per thousand population and the rate of increase vary from year to year and from area to area within London;
- for planning purposes, peak levels of demand are critical, but although some patterns are well established, e.g. increases in chest conditions in the summer and falls in the autumn/winter period, no reliable forecasting methods are available;
- knowledge of how people respond to new ways of providing emergency care is very limited.

Overall, the main point to emerge from the demand studies summarised in the reports cited in Table 1 particularly the Anglia and Oxford study, is that the future level of demand for urgent care cannot be predicted with confidence, still less the impact of changes in the way that care is organised and provided. In particular it is not possible to say whether the increase observed in hospitals reflects changes within other parts of the formal care system such as the effective availability of GP services, changes in GP behaviour or changes within the informal care system, i.e. whether people on average are more inclined to consult the formal care system than they used to be. Evidence can be found which supports all these possibilities.

Provision in London

For the reasons indicated, it is not possible to provide a comprehensive description of the way that demands for urgent care are met within London. However, the main features are:

- 34 hospitals provide accident and emergency services and emergency medical admissions, a reduction of 13 sites since 1981: a smaller number provide for emergency medical admissions only. Within the 34, there is considerable variation in facilities available and in throughput. By comparison to other parts of the country, most Londoners are close to an accident and emergency department;
- there are no designated trauma centres, although one or two hospitals come close: many patients are referred on or transferred to other hospitals from those they are taken to initially;

- a number of new forms of service are being brought in, particularly where accident and emergency departments have closed, and some experimental services, such as the Riverside Minor Injuries Clinic;
- some GP practices are now linking together to provide out-of-hours services; in one
 or two instances such services are being developed in conjunction with community
 trusts;
- ambulance services are provided by a single agency. In accordance with national policy, most are now staffed by paramedics and a new system of priority despatch is under consideration which should better target resources on urgent demands;
- the Emergency Bed Service operates London-wide.

There is no way of judging from routine, i.e. regularly and systematically collected information how well or badly these arrangements work in terms of service to patients as a whole or to particular groups of patients. When failures come to light, they tend to concern dramatic life-and-death incidents such as failure to find an intensive care bed or poor ambulance response, but these incidents do not show:

- how many lives might have been saved had services been better organised or
 provided with more capacity, i.e. how many potentially saveable lives are being lost
 because of delays in access. A recent study of intensive care has suggested (with
 some caution because of the methodology) that lack of capacity is leading to a
 significant number of deaths;
- the extent of other, less dramatic, aspects of poor performance such as long waits.
 However, the Clinical Standards Advisory Group report, *Urgent and Emergency Admissions to Hospital*, found that admission performance in the four Thames regions was significantly slower than elsewhere in the country;
- how performance could be improved in terms of cost, quality and access, e.g. through the introduction of new forms of service.

4. Redesigning the system

General considerations

The design of an emergency care system requires a balancing of three key considerations: quality of service, access and cost. These tend to conflict. The changes described above in the way that emergency care is organised largely reflect cost pressures and concern with quality at the expense of access. It has been shown in a King's Fund Policy Institute Study, *Acute Futures*, that these relationships are not well understood and they are almost certainly different for different types of patient and for different population groups. System design is therefore not a purely technical issue but involves weighing the interests of one group of patients against another. Thus time delays are critical for some patients,

but not for others, and within the group for whom time is critical, the interests of the cardiac patient may not be the same as those of the severely injured.

Forces for change

There are several factors making for change in the way that urgent care is provided:

- the financial and other pressures arising from the increase in workload. The increases in demand for urgent care recorded above have required extra resources, have made it harder for hospitals to meet elective targets and have led to an increase in the number of cancellations. Purchasers and providers have therefore been looking for more costeffective delivery of existing services and also at ways of reducing demand or channelling it elsewhere;
- the risks of poor clinical outcomes inherent in some features of current arrangements is being increasingly recognised - though many of the central weaknesses have been known for years;
- difficulties in recruitment to some hospital posts. In response to the difficulties facing hospitals in staffing accident and emergency departments, the Government has relaxed restrictions on staffing ratios;
- opportunities for new forms of provision.

Both technological and managerial innovation is resulting in new ways of providing a response to urgent care needs. The potential of IT developments appears to be particularly significant since they lead to improved access while allowing further concentration of services. The framework offered by the primary care White Paper Choice and Opportunity should allow the development of new organisational forms; as the out-of-hours developments indicate, some such possibilities exist within the current framework but the proposals in the White Paper would greatly extend the scope for new forms of provision to emerge.

Options for change

The immediate result of these pressures is that both the need for change is being recognised and the number of options is increasing. In what follows we draw selectively on a number of reviews, including a review of the primary/secondary interface carried out specifically for the London Commission. The aim here is only to give an indication of the areas for development or change which recent research or experimentation suggests may be desirable.

■ More self-reliance, i.e. use of the informal system

The central message of the CMO's report is that personal behaviour can be altered so as to reduce the number of calls on the formal system. The report identified the need to empower people to recognise emergencies, to deal with them and to know who to turn to for professional help. It proposed a national 888 number which would in the terms used in this report provide an advice and routing function, when people were unsure what to do.

There is already some experience with telephone contact points in accident and emergency departments and general practices which suggests that they do reduce calls on the formal system. Virtually all the studies involved have been small-scale, i.e. involving individual hospitals. However, more ambitious schemes are emerging which could greatly extend the extent to which patients could take advice before using the formal care system.

The CMO's report also proposed a *National Education Campaign* targeted on high-risk groups on how to recognise and treat emergencies and how to seek advice.

■ Better general practice/community-based services

The department has recently negotiated new payments for GPs' out-of-hours work, and many are developing co-operative arrangements to ensure an adequate night-time service while easing the burden on individual GPs. There is scope for more flexible surgery hours and, perhaps, better booking systems which allow emergency access, which could in turn reduce the use of hospital services.

In addition, a number of community trusts or social service departments are developing rapid response services which support people in their own homes. These help GPs to reduce emergency admissions and may also allow hospitals to discharge patients, if they do arrive in an accident and emergency department, back to their homes without admitting them. The experiments with total purchasing by fundholders will create new incentives to develop services along these lines.

■ Revise hospital procedures

In response to the pressure imposed by emergency medical admissions, a large number of hospitals have attempted to improve their procedures and experiment with new forms of service. These include deploying general practitioners and nurse practitioners within hospitals to deal with those conditions for which the facilities of the hospital are not required and the use of admission wards where patients may be examined and diagnosed before returning home with a treatment plan or being admitted as necessary. The Royal

College of Physicians has recently suggested that a new type of physician specialising in emergency care should be developed, whose functions might include running an admission ward and routing patients (if required) to specialists. These measures are claimed to reduce calls on the more specialised facilities of the hospital and also that some patients may be diverted away from hospital altogether.

This approach can be extended using the 'atrium' concept developed by Muir Gray which envisages what is now a hospital accident and emergency department as a general facility for determining how patients are best treated, which might in principle be run in conjunction with other trusts or a GP co-operative. The key insight is that the hospital is not necessarily the best place for treatment but is normally the best place for the first two key functions identified above - advice and decisions on treatment. Thus patients may be assessed by hospital staff but leave with a treatment plan involving community-based professionals.

■ Restructure hospitals

The main options here concern the possibility of grouping all the services required to deal with serious emergencies, particularly trauma. The case for trauma centres was made in a report from the Royal College of Surgeons, on the basis of a comparison with the USA. Each might serve some 2 million people.

Following this report a trauma centre was set up at North Staffordshire. A recent report from the University of Sheffield has suggested that the benefits are not substantial, concluding that:

there is no evidence that the trauma system which developed between 1990 and 1993 in the N W Midlands was a cost -effective service for major trauma.

Possible benefits for major trauma from fully developed trauma system in Shire areas of England are probably modest compared with previous reports from the USA and such systems may not be cost-effective in these terms.

However, as the report acknowledges, their results do not rule out the possibility that trauma centres would be valuable in large urban areas, and hence it remains a possibility that trauma centres would make sense in London.

Irrespective of the outcome of this debate, there remain strong pressures to reduce the number of sites from which accident and emergency services are provided. The Audit Commission concluded that their number should be reduced: the criteria they proposed for considering reduction would apply to several hospitals within the London area.

Concentrating A&E services in fewer, larger departments offers the potential for short-term operational advantages and improved standards of care:

- it would be possible to increase the number of hours per week during which there are senior A&E doctors or specialist A&E staff (for example, nurses trained to care for children) on-site;
- the quality of training received by junior doctors could be improved, with consequent benefits for patients;
- it would be somewhat more straightforward to roster staff to match expected workload and to retain the flexibility to deal with unexpected demands; and
- more A&E departments would be sited in hospitals where supporting specialties and services are available.

The arguments for concentrating emergency services into fewer, larger A&E departments are thus based on quality of outcome rather than cost. The balance to be struck is between access for all patients (made easier by having many, smaller departments) and quality of treatment for the seriously injured (improved by larger centres).

Although the objective is to improve the quality of care, the main driving force is medical staffing. In the words of the Audit Commission report:

the availability of doctors and nurses with the required skills is limited. Consequently, some change to the current pattern of A&E services may be necessary to maintain even the present quality of care. This is likely to mean closing some smaller departments or developing them into minor injuries units, and concentrating full A&E services on fewer, larger sites. There is in any case some doubt as to whether the present configuration of emergency services is the best one. There are clearly difficult balances to be struck between maintaining (or improving) access to A&E services, providing better facilities and higher quality care, and treating patients efficiently. The debate should be drawn wider than the appropriate number and distribution of A&E departments, by considering whether some of their current functions could be better carried out elsewhere.

The Anglia and Oxford study came to a similar conclusion arguing for further centralisation for trauma and life-threatening emergencies. It further argued that emergency care works best when it is provided by 24-hour multi-professional teams dedicated to the task and not involved in other forms of hospital work. One implication of these proposals is that hospitals would specialise in forms of emergency care, with

only some handling serious trauma, some handling other accident and emergency work and some only emergency medical admissions. This would imply a re-emergence of the acute hospital without accident and emergency, the type of hospital which was largely eliminated in the period 1981–1995 but which still exists in some parts of London. However, this form of hospital risks duplication of expensive facilities and may be difficult to staff.

Substituting community-based for hospital care

The literature review carried out for the London Commission has found that there is a large amount of experimentation under way, ranging from minor injuries clinics to home-based emergency responses, sometimes in conjunction with social services. A few, such as the Westminster Clinic, employ IT to allow the nurses providing the service to seek the advice of hospital-based staff. However, very few of these experiments have been validated rigorously and most remain small scale. As a result, their implications and potential have yet to be explored. Their main role may lie in rural areas where distances are greater and where it is often hard to maintain a significant medical presence.

For example, the logical extension of the Westminster model would be national centres for consultation, which could be accessed by any appropriate clinician but such a facility would only make sense if there were a network of Westminsters. But there is no obvious locus from which such a service might be organised.

In fact, this model is essentially the atrium model divested of its physical form, i.e. it is based on a virtual hospital, which could be anywhere in the world with the necessary communications links. The number of ways in which it might be developed is therefore vast.

■ Improve systems management

The LAS is currently considering prioritisation of calls to allow a rapid response to serious incidents. Other areas where system management might be improved include improving access for GPs to hospital consultants, allowing advice to be access by telephone or rapid but not immediate access.

A more fundamental issue of systems management turns on the 'rules' governing access to services. At the moment, access is free and hence unmanaged, particularly in hospitals. The system of priority despatch currently being piloted in the ambulance services is one form of management, i.e. rationing access in terms of severity, but neither this nor similar triage within accident and emergency departments bears on total demand.

Total purchasing, currently being piloted by fundholders in around 60 sites, will allow and encourage new ways of managing access. The fundholders themselves may wish to find ways of limiting demands on their own budgets which would in effect extend their current gate-keeping role to all forms of hospital service. At the hospital end, there are several ways, all likely to be very controversial, of limiting access, ranging from refusal to treat certain conditions to charges for treatment which might have been carried out elsewhere. A large number of management options are already in operation, but others have been scarcely tested, particularly the scope for 'self-management'.

Obstacles to change

The Anglia and Oxford study concluded that:

To resist change in the way emergency health care is provided is no longer an option.

But at the same time, there are many obstacles to change:

 many options have not yet been fully evaluated. For the country as a whole, the Sheffield needs study concluded:

The relative cost-effectiveness of the various configurations of arrangements for dealing with major and minor conditions is an underresearched area which should be addressed as soon as possible.

- the relationship between options is not understood but they need to be considered together. Much of the research and innovation in practice has been targeted on specific functions, or specific institutions. As a result, little attention has been paid to the way that all the elements fit together. The means to analyse and plan in that way are not however available because of the patchiness of the available information about the current pattern of use and the possible impact of new forms of provision;
- existing institutions do not provide a view of the system as a whole. In the words of the Audit Commission:

The advent of purchasing agencies provides an opportunity for integrated planning of primary and hospital emergency care according to the needs of the local population. Decisions about the location of A&E departments are integral to those about the distribution and scope of other local services. They cannot be made in isolation, or even just as part of the primary care continuum. But even with the integration of primary and secondary commissioning, the geographical fragmentation of responsibility for purchasing emergency care compounds the difficulty of formulating strategies and bringing about major change.

Planning needs to be co-ordinated at regional level to achieve an optimal distribution of emergency care facilities for a population wider than that of a single commissioning agency's patch. In particular, it would be advantageous for at least one hospital in each area to have access (preferably on-site) to sub-regional specialties such as neurosurgery, plastic surgery and cardio-thoracic surgery. This 'major' site would need to serve a large local population but also offer good access to a wider catchment area for which referral criteria and funding arrangements would have to be developed. There may also be scope for large A&E departments in neighbouring trusts within metropolitan areas to specialise in particular conditions, as well as providing a general A&E service, as has been proposed in Leeds. Appropriate use should be made of input from geographers, urban planners and epidemiologists to inform the planning process.

How wide this overview needs to be is a matter for careful analysis in its own right. There are national issues or topics such as research, the GP contract and medical staffing policies as well as the new ideas such as the 888 number and national education campaigns which the Department of Health is involved in. But it has been reluctant to recognise a role of the kind envisaged by the Audit Commission's report, in part because it runs against the philosophy embodied in the NHS and Community Care Act 1990 with its emphasis on decentralisation of responsibility to local purchasers and competition rather than collaboration between providers.

As things currently stand, there are metropolitan issues running across London as a whole, such as the role of the LAS and the EBS, and sector issues such as the appropriate organisation of accident and emergency services where the scale of analysis may be a population of 2–3 million, i.e. the catchment of a major trauma centre. With the exception of the LAS and EBS, all purchasers and providers have a remit which is restricted in geographical terms and hence smaller in scope than some of the possible changes that might be envisaged. Equally, however, at local level, they face common issues in trying to find the best form of service and allowing to properly for interactions between the various forms of provision. In other words, even at local level, there are system effects, and hence some centrally organised support may be helpful.

5. The way forward

The evidence is not available to make it possible to define unequivocally a 'best system' for providing emergency care within London. But it is nevertheless highly opportune to attempt to define how such a system could be identified and implemented which would overcome the weaknesses set out above.

Many of the measures required to maintain and improve the way in which the emergency care system works must remain the responsibility of individual health authorities, trusts

and general practitioners. There is already a great deal of scope, which *Choice and Opportunity* has enlarged for 'bottom-up' initiatives. If the White Paper is implemented vigorously, the way will be opened up for a great deal of innovation at local level. Even without it, the development of total fundholding, if allowed to continue, is likely to lead to both new forms of provision and pressures on existing providers to change their modes of operation. Equally, district level purchasers could be effective in promoting changes at the primary–secondary boundary.

We have identified a number of areas where a wider perspective may be required or where there are issues which run across the whole of London:

- hospital structure, particularly the pattern of accident and emergency provision, i.e.
 whether further concentration and specialisation of function would be desirable;
- the role of hospitals offering emergency medical admissions without accident and emergency;
- the role of the LAS, i.e. its routing role and the extent to which it provides care as well as treatment:
- validation of new options and definition of their system role;
- · monitoring performance and standard setting.

These areas could be addressed in several ways. The most radical option could be to create an emergency care purchaser for the whole of the Capital, or for each of the five sectors, and at the same time restructure trusts to reflect a division between emergency and elective functions, and develop emergency care contracts for all other providers. Such an option would only make sense as part of the larger reform of the national framework within which the London NHS operates.

To create a single purchaser need not, however, mean the creation of an entirely new structure. It could use the existing purchaser structure for local services and confine its purchasing – as opposed to financing – activities to a narrow range of services where the broader interest was particularly important and those other issues such as the operational requirements set for the LAS which run right across the Capital. That could be achieved if a London authority were created with a limited range of powers, including the ability to 'top-slice' finance.

At the other end of the scale is the option provided by the Anglia and Oxford Region which worked entirely within the current framework of purchasing and provision. This reviewed all the available literature, worldwide, bearing on the provision of emergency care and then brought all the key players together in a number of occasions to debate the options available for improvement. This process resulted in a number of

broad recommendations, or more accurately agreed positions, for purchasers and providers to follow up within their own fields of responsibility. These included a rejection of trauma centres, the need to develop primary care and closer partnerships with social care. Other propositions, for example, that DGHs could continue to take emergency admissions without an accident and emergency department, were unresolved and had to await further evidence – which might of course undermine some of the agreed positions.

However, the project did not have available to it any way of allowing for the interactions between different ways of providing emergency care. In effect, that stage was left to the participants, albeit informed by the available evidence. Furthermore, it is not a continuing process, although it could be reconvened if required.

Between these two options lie a large range of other possibilities, reflecting different degrees of centralisation and dispersal and different divisions of role in respect of both purchasing and provision. Given the importance of innovation and the scope for new forms of provider, there is a strong case for allowing local variety to emerge, supported by advice and information from the Department of Health and bodies such as the NHS Centre for Reviews and Dissemination, and hence a dispersal of control over purchasing. However, that does not address those issues which cut across providers or affect London as a whole or large sectors of it.

For example, the current standards in relation to both ambulances and hospitals emphasise process and even in that respect they are far from complete: as noted already, none relates to the outcomes of care and they all relate to the actions of individual providers, i.e. ambulance standards relative to speed of response by the ambulance service, not the overall speed of response to the incident. But outcomes depend on the performance of all the providers involved and the efficiency with which they work together.

The question of standards links closely with the question of purchasing and providing structures, since they raise similar issues relating to the extent to which there should be common policies across the Capital. The same is true for reporting on how well the system is performing as a whole, either through better data capture within the service or patient sampling. As noted above, the reporting and audit mechanisms now in place remain geared to the activities of individual providers rather than the emergency care system as a whole, an issue which will become all the greater if a greater diversity of purchasing and provision develops. These mechanisms are also weak in identifying poor performance for particular groups of the population, whether these are defined geographically, ethnically or in some other way.

6. Concluding comment

The field of emergency care is rapidly changing. The key question is: what arrangements should be in place to ensure that the best options for improvement are chosen? Two major studies, by the Anglia and Oxford Region and by the Audit Commission, both accept that change is required but, while there are many pointers to the form which some of that change should take, there remain many unknowns.

At the moment, London lacks an accepted mechanism for:

- demonstrating how effective, or otherwise, the current arrangements are, overall and for particular sections of the population;
- systematically exploring the new options available;
- reliably implementing the changes that information from either source might suggest are appropriate.

Exhibit 1 Hospitals: emergency admissions

	% Change								
Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total for Year				
1991/92									
1992/93	1.4	1.3	-3.3	3.8	0.7				
1993/94	2.7	1.1	5.5	3.8	3.3				
1994/95	2.4	2.8	0.6						

Note: These are financial quarters. So 1st quarter is 1 April-30 June. Each quarter's data are corrected for the number of days in the quarter. Figures show change from previous quarter/year

Source: C Garrett, Trends in Emergency Admissions in London, London Monitor 1996

Exhibit 2 Key findings

Providers

- The average annual increase in emergency admissions across acute providers in London was 1.3 per cent for the period 1991/92-1994/95. Similar analyses in other parts of the country have reported average annual increases of up to 4 per cent.
- Of 27 acute providers in London with suitably consistent data series, four have experienced average annual increases over the period 1991/92-1994/95 of 5 per cent and above. Some of these increases result from service changes either at the hospital concerned or at a local provider, e.g. a new hospital, or a nearby hospital closing accident and emergency. One provider out of the 27 experienced an average annual decrease in excess of 5 per cent.

Purchasers

- The average annual increase in the emergency admission rate per 1,000 population resident in London was 1.6 per cent for the period 1991/92-1994/95.
- There are large variations in admission rates per quarter between health authorities: from 12.4 admissions per 1,000 population in one London authority to 20.1 admissions per 1,000 population in another.

General observations

- Age is a significant factor in determining emergency admission rates. Large variations were shown with males aged 85+ having a rate six times the average and females aged 85+ having a rate approximately 4.5 times the average.
- The ratio of finished consultant episodes (FCEs) to admissions has increased from 1.12 to 1.15 between 1991/92 and 1994/95, taking London acute providers as a whole. This explains 48 per cent of the increase in emergency FCEs in this period. The remainder of the increase in FCEs is due to an increase in admissions. Therefore trends in emergency admissions measured in terms of FCEs will overstate the increase.

Source: As for Exhibit 1

Other data

Accident and Emergency: analysis is not yet available for trends over time at local level. At national level, total and new attendances have not been rising in recent years. In 1994/95, Londoners (including visitors to the Capital) made more use of accident and emergency departments than non-Londoners in inner-deprived and high status areas: see the table below.

		Lon	don		Non-London				
	Inner- deprived	Mixed- status	High- status	Total	Inner- deprived	Mixed- status	High -status	Total	
1st A&E per 1,000 pop	397	237	315	309	309	218	234	228	
A&E per 1,000 pop	441	259	355	343	351	259	298	277	
Source: The Health Economy of London, London: King's Fund,1997									

The rates vary between parts of London: see the table below.

Data	North West	North Central	East	South East	South	London
1st A&E per 1,000 pop	304	340	334	316	251	309
A&E per 1,000 pop	336	370	361	370	280	343

Calls on ambulance services

Calls on ambulance services in contrast have been rising -6 per cent nationally between 1993/94 and 1995/95 – there has been a steady rise since 1988/89 (local figures not available). Rates of emergency journeys per 1,000 population are higher in London than in any other part of England except Greater Manchester.

The London Health Care System, by Anthony Harrison, has been prepared as a discussion paper to inform the work of the second King's Fund London Commission. The Commission's remit is to review the changes that have taken place in London's health services since 1992 and make recommendations about a way forward for a comprehensive pattern of health services to serve London into the 21st century.

Although health care involves a set of discrete activities which interact with each other across primary, secondary and specialist care, it is rarely viewed as a system. Primary care, community services, hospitals and continuing care are seen separately. Education, training and research add a layer of complexity, often functioning independently.

The London Health Care System makes the case for an integrated approach to health care in the capital. All aspects of service delivery should be seen together, as well as education, training and research, to permit the impact of changes within the system to be better understood and managed. The report includes a detailed case study of emergency care in London, which has national relevance.

The London Health Care System is the third in a series of reports published for the London Commission by the King's Fund. It has been published in advance of the Commission's final report in order to stimulate debate about the future of health care in the capital and to inform the Commission's recommendations.

