no doubt be a cause célèbre in the quest for equality in the workplace.*

United Kingdom response

The United Kingdom has been reluctant to legislate on equality issues. Opportunity 2000, which was launched by John Major in 1991, was a voluntary scheme without legal or financial teeth aimed at improving prospects for women in the United Kingdom. Prompted by the charity Business in the Community, 14 of Britain's top employers—including the NHS—have set out their own 10 year targets to improve the position of women. As a signatory to Opportunity 2000 the NHS Management Executive commissioned a report from the Office for Public Management to profile the "issues relating to the role of women in the NHS and to build on progress in providing equal opportunities for women."

The report identified four general and pervasive barriers to equality: outmoded attitudes about the role of women; direct and indirect discrimination; the absence of proper child care provision; and inflexible structures for work and careers. It noted that dis-

*In the first test of the Dekker judgment in the United Kingdom (*Webb v EMO Air Cargo (UK) Ltd*) the Court of Appeal upheld the "comparable male" approach. Nevertheless, the possibility remains for industrial tribunals in future cases to follow the constitutional and interpretative decisions of the European Court of Justice in preference to those of the Court of Appeal or the House of Lords.

crimination could take many forms but was particularly apparent in subjective and informal selection procedures; stereotyped assumptions about the ability, character, suitability, and natural role of women; the use of insider, word of mouth, and old boys' networks; unnecessary age bars; and excessive mobility requirements.

Conclusion

Although the cause of equality enjoys a general measure of acceptance throughout the community, progress has been slow. As the commission's third action programme implies, perhaps the time is right to "pause and consider" what steps should be taken to increase public awareness of the law on equality, to monitor developments in member states, and develop a system for spreading information and legal standards in what is a most complex field.

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Leading for Health: responses

Management and information

Cyril Chantler

This is the sixth in a series of articles responding to the questions raised by the BMA's document, "Leading for Health." The document looks well beyond the coming British election and raises questions about health and health care that will be on the agenda of many countries into the next century.

The questions posed by *Leading for Health: a BMA Agenda for Health* on management and information in the health service cannot be answered without considering what sort of service is required to provide health care for the nation. Management arrangements will be influenced by the structure of the NHS, and the information required should be determined by the needs of management, medical audit, and health services research.

A national health service

Public funding of health care in the United Kingdom is by no means excessive when compared with that in other countries in the Organisation of Economic Co-operation and Development (table, fig 1) but nor is it extremely frugal. The contribution by individual people from their private income to the total funding of health care remains small in relation to the other countries in the organisation, though it is growing. Publicly funded health services tend to have low costs¹ because the provision of services is controlled centrally rather than market driven and administrative costs are low, particularly if remuneration of professional staff is constrained.

The administrative costs of NHS hospitals with their global budgets were estimated to consume 6.9% of expenditure in 1984,² whereas private hospitals billing each patient spend up to 18% of total revenue on administration.³ Administrative costs are even higher when public money is spent in the private sector because of the need to regulate the use of this money. In the United States administrative costs account for over 24% of expenditure,⁴ and most would agree that

the Americans can no longer afford a market driven system,⁵ even though their public expenditure on health per capita exceeds that of the United Kingdom (table).

I therefore assume that the United Kingdom, irrespective of which political party is in power, will continue to have a broadly publicly provided as well as publicly financed health care system and that expenditure from the public purse is unlikely to

Countries in the Organisation for Economic Co-operation and Development ranked in order of public health expenditure per person in 1990 converted to American dollars by using general purchasing power parities

	Gross domestic product	Public expenditure on health
Canada	19 925	1330
Sweden	16 320	1269
Norway	17 799	1226
Iceland	16 194	1201
Luxemburg	18 175	1189
United States	20 774	1089
France	15 568	1022
Finland	15 565	964
Switzerland	18 716	951
Germany	15 943	935
Belgium	14 672	897
Italy	14 727	865
Netherlands	14 609	858
Japan	17 019	830
Denmark	15 452	811
Australia	15 363	801
Austria	14 224	792
United Kingdom	14 907	772
New Zealand	11 822	697
Spain	11 077	573
Ireland	9 858	571
Portugal	7 879	326
Greece	7 643	309
Turkey	4 941	70

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FIG 1—Relation between gross domestic product per capita and public expenditure per capita in 1990 for 24 countries in the Organisation for Economic Co-operation and Development converted to American dollars by using general purchasing power parities

increase sufficiently to finance all the demands that exist. Even countries that spend significantly more than the United Kingdom are experiencing difficulties in meeting the expectations of patients and staff.^{6,7} Rationing in terms of what is provided, to whom it is provided, or when it is provided exists in every health care system in the world; many countries are currently fundamentally altering their health care systems by using methods with many similarities to the reforms recently adopted in the NHS.^{6,7}

The problem with public services is that they tend towards central bureaucratic control with an inadequate sensitivity to the consumer's convenience and wishes. Examples of this phenomenon in the NHS abound⁸ and were summed up by Polly Toynbee in 1984: "Unless the needs and wishes of patients are catered for soon, I fear that many of them will start voting with their feet, and leave the service that until now they have, in the main, admired and even loved, warts and all."⁹

Clinical efficiency and effectiveness

The management structure of the NHS must be sensitive to patients' needs and encourage clinical efficiency and effectiveness. Clinical efficiency or resource management is vital in a cash limited service and indeed is almost an ethical responsibility because profligacy in the treatment of one patient is likely to lead to denial or delay in the treatment of another. Clinical effectiveness or medical audit is a requirement, firstly, to make sure that the care that we render is effective and, secondly, to ensure that striving to reduce costs does not lead to inadequate standards of care. There are ethical issues involved in this analysis in what is, and always will be, a cash limited service, for where rationing exists the quantity of care available becomes an issue of quality. Perhaps one approach is to define acceptable quality and having achieved it to strive for the maximum efficiency. Information is required for both resource management and medical audit as there are wide variations in costings and mortality for different procedures between different hospitals.^{10,11}

A purely market driven system for the delivery of health care is neither possible nor desirable.^{12,13} Some planning concerning the delivery of services is essential, particularly in services that require complex high technology with a highly skilled, multidisciplinary team. There is also evidence that better outcomes are obtained with higher volumes for several procedures. Therefore the arguments for some planning encompass both clinical efficiency and effectiveness.¹⁴

Structure of the NHS

DECENTRALISATION OF CONTROL

My preferred structure for the NHS designed to satisfy these various considerations would have the following features. Decentralisation of authority and responsibility for the delivery of care with accountability for outcome would be encouraged with doctors and other professionals involved in the management of the service or, in Sir Roy Griffiths's words, "The clinicians must be involved closely in the management process, consistent with clinical freedom for clinical practice. They must participate fully in decisions about priority in the use of resources."¹⁵ I can see the sense of separating the demand and supply side; according to Enthoven this means institutions which are independent of the production of services should set standards and priorities, measure achievement, and seek value for money. "Until now," he has said, "the NHS has been a monopoly—as if we said to students, 'you can set your own exams and grade them.'"¹⁰

I would like to see the district health authorities and family health services authorities combine to fulfil this role with some form of local representation and strong links with local authority social services. By agreement, however, some services need to be commissioned from a wider geographical area, perhaps through consortia of district health authorities coordinated at regional level, and capital planning for building and maintenance of hospitals would also be undertaken from the regional level. Decisions concerning the overall allocation of resources made by the district health authorities and family health services authorities would clearly entail setting priorities and determining choices. None the less, the decentralisation of the management of the hospital or provider units to multidisciplinary care groups would allow the groups the freedom to develop their service within a given level of expenditure and still to make choices for the benefit of individual patients. These suggestions are compatible with the recent NHS reforms, which are beginning to show benefit.¹⁶

COMMUNITY SERVICES

World wide there is a strong movement towards smaller hospitals with shorter lengths of stay and more outpatient investigation and treatment. The development of community facilities for diagnosing and treating minor conditions and for providing care for chronically ill patients is also important. There is certainly a risk that the strict separation of the management of hospitals from community services will delay progress in this area and there are arguments for developing single management structures for community and hospital services. The problem here, though, is the risk that such organisations will be dominated by the hospitals. The role of the district health authority or family health services authority as the commissioner of services is very important in either model to ensure that community services are developed and resourced and that arrangements exist for integration between the community and hospital services.

ACCOUNTABILITY

Accountability for both provider hospitals and for district health authorities would be to the regional authority or office of the NHS Management Executive. Districts would be funded as presently planned according to capitation with adjustments for morbidity, mortality, possibly social deprivation, and the costs of providing services in a particular geographical area.

COST ANALYSIS

In terms of management costs and information required there is a considerable difference between a service which is required to price per item of service and one where costs are analysed to enable valid comparison of hospitals' performance.^{17,18} Most of the work of any individual hospital will continue to be derived from one particular district health authority or family health services authority and the relationship between the two would be best described by a service contract specifying the quality and quantity of work to be achieved for a given amount of money rather than the detailed pricing of each item of service rendered. Contracts based on prospective pricing would be reserved for transfers in from other authorities either by contract or as extracontractual referrals. For these cases and for referrals from general practitioner fundholders there would be a national system for grouping inpatient and outpatient care into a limited number (perhaps five to 10) of bands according to the main diagnosis. Significant extra costs caused by, for instance, intensive care or expensive investigations, would entail an agreed extra charge. This would not necessarily imply a national pricing system as hospitals

could set their own charges for each band. The aim would be to achieve the benefits of cost analysis in promoting clinical efficiency and effectiveness without the bureaucracy associated with detailed pricing.

Management

SPENDING

Most people, not only doctors, resent resources spent on administration and argue that more good would result if more doctors, nurses, and other professional staff were employed. Such considerations probably underly the BMA's question: "What proportion of the NHS budget should be spent on management and administration?"

As already discussed, the administrative costs of NHS hospitals are low, and figure 2 shows that the increase in the number of professional and technical staff as a proportion of all NHS employees has exceeded that of administrators and clerical staff over the past eight years. The question is really too simplistic, as good management can improve the efficiency and effectiveness of clinical care. Figure 3 shows how the cost of treating patients in hospitals has changed over the past 10 years after allowing for movement in pay and prices in the health service.

FIG 2—NHS staff in post by main staff groups for England (source: government's expenditure plans, 1991-2 to 1993-4¹⁹)

FIG 3—Average costs per inpatient day or case from 1978 to 1986 by type of hospital and by specialty from 1987 to 1989 (source: government's expenditure plans, 1991-2 to 1993-4¹⁹)

Reports by the Audit Commission have shown how better management can improve both surgical services and the use of nursing resources.^{20 21} At Guy's Hospital between 1985 and 1988 yearly expenditure was reduced by 15% or £8m each year without a reduction in the volume of patients treated.²² I suspect that the proportion of the NHS budget to be spent on management and administration will vary from hospital to hospital and service to service. If outcomes are compared both in terms of cost and quality of patient care then it will become apparent where changes in the mix of expenditure are required.

INFLUENCE

With respect to the BMA's next questions: "What should be the relative influence of professionals, managers and politicians? How may the best balance be achieved? How should they work together? How can professional advice to decision makers be provided?" Various models in clinical management

have been suggested.²³ The arguments for clinicians participating fully in the management of their services are compelling.^{15 22 24} Briefly stated, in a cash limited service everyone has a requirement to maximise efficiency and effectiveness. The quality and quantity of patient care is largely determined by the professionals, particularly doctors and nurses, and it is imperative that they work together to achieve this by pooling their professional expertise rather than patrolling their professional boundaries. Unless they are fully involved in the management process and accountable for its outcome it is difficult to see how this can happen. Proper safeguards to protect their clinical responsibilities to their patients, their time, and their standards are essential.²² The key is the management team, with the provision of proper administrative support for clinicians with a management role so that they can continue to fulfil their clinical responsibilities. It is important here to re-emphasise that when Sir Roy Griffiths proposed the concept of general management for hospitals he did not intend that "the results should be yet another profession in the National Health Service to work in parallel with other professions"¹²; rather he intended that all who are involved in the delivery of service should contribute to the management of it.

As long as the NHS is almost wholly financed out of taxation it is inevitably and rightly bound to the political process. That process is very much concerned with the allocation of national resources, and it is the function of politicians to reflect and interpret the debate and then to make decisions, which are often very difficult, about how these resources should be deployed. Professionals obviously contribute to the debate and influence the usage of the resources provided for health care within the structure discussed above.

INVOLVEMENT OF HEALTH PROFESSIONALS

My answers to the BMA's questions "Should doctors and other professionals be involved in managerial work? How should this be organised and at what level should they work?" will already be apparent. Doctors should be involved at all levels. The nature of their involvement, however, will be different at different levels. At Guy's Hospital the system initiated in 1985²² continues to evolve. Authority and responsibility with accountability for delivering a clinical service according to a business plan is being devolved down to care groups or teams of doctors, nurses, and others who provide a specific clinical service. Care groups that work within a specialty are coordinated by a management team that provides administrative support. The operational responsibility for the hospital is vested in the management board, which is chaired by a clinician and on which all the clinical directors sit along with the unit manager and functional directors. Clinicians participating in management should be given full responsibility and authority and be accountable along with their colleagues in the management team for the fulfilment of properly constructed business plans. In my view they should resist the imposition of management structures which exclude them or simply involve them in advisory roles.²²

Information

EXPENDITURE

To outside observers the lack of relevant information for management in the NHS is surprising.^{8 10} Considerable resources are now being devoted to changing this. For instance, in 1990-1 revenue expenditure on resource management, medical audit, and information technology totalled £64.7m with another £54.6m devoted to capital in these areas.¹⁹ Certainly the new

NHS will require better information systems if it is to be effective.²⁵ The BMA asked a number of questions concerning information such as: "How much information is needed? What information is required? How may it be most cost effectively collected? How should it be made available and to whom? Where do priorities lie in funding health, administrative, and management information systems?"

STANDARD SYSTEMS

It is certainly possible to spend and waste a good deal of money in this area. The cardinal test that we have applied at Guy's Hospital is that the information technology should in the first instance be designed to improve patient care and that, secondarily, the information necessary to analyse costs and quality of care should be gathered through the same systems wherever possible. There is a strong case for a mandatory minimum set of information to be gathered for both inpatients and outpatients, identifying the patient with a unique NHS identity number, date of birth, sex, residence, dates of admission and discharge, identification of the doctor in charge, diagnoses, procedure, and outcome. Such a system should eventually allow the long term outcome of clinical intervention to be monitored and will facilitate the national initiative on health services research. It is also important that management accounting systems are introduced into all hospitals if resource management is to work,²² and again the systems utilised should enable valid comparisons to be made throughout the service. A lead by the NHS Management Executive in determining national minimum datasets and accounting practices is required.

The NHS is, and should remain, a single service, sensibly decentralised but with clear accountability for performance to the centre. In this respect each part of the service should be required to comply with standard systems where this makes sense. As well as accounting practices and the acquisition of minimum information, standard practices should be introduced to govern transfer of patients between different institutions such as tertiary referrals or extracontractual referrals and, again, the minimum information required for the task should be determined.

NEW SYSTEMS

Many of the new information systems being introduced will, or should, improve patient care directly. For instance, the decentralisation of the organisation of outpatient departments with direct booking to the office of the clinician concerned is facilitated by a computerised patient information system for both inpatients and outpatients and aids the preparation of clinics so that all the information required is available at the time of consultation.²² Such systems can also reduce the amount of clerical work required in the wards from junior doctors and generate standard discharge summaries and outpatient letters. Computer linkage of the laboratories with the wards facilitates the transfer of information, and costing data required for resource management is easily added on to such a system.

Computerised information systems to support medical and clinical audit linked with the total hospital information system are very important. It seems likely that more and more clinicians will be agreeing

guidelines for the management of certain types of cases and auditing outcome in terms of deviance from guidelines and success of treatment, both in the short and long term. Such information systems will be necessary if the full potential of health services research in increasing clinical efficiency and effectiveness is to be realised.

To me the acid test is will the expenditure improve patient care and, if not, is it justified? The same criteria can or should be applied to the information that is collected other than that required for the minimum national dataset. Another important criterion is that wherever possible the information should be collected only once and computerised information systems should be judged by the extent to which they allow professional staff to devote more time to patient care rather than clerical work.

The final questions asked by the BMA concerning information relate to the need for health services research to determine the value of clinical interventions. A national system of collecting minimum data for each patient episode as discussed above should provide a very powerful tool to enable the questions to be answered. In the words of John Roberts, "The potential for learning about the effectiveness of various treatments is awesome in a closed medical system such as the NHS, especially with the information technology that the government has pushed and that general practitioners are adopting."²⁸

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