

National Health

PRIME MINISTER 4.



Sir Derek Rayner will
let you have his reactions
next week.

DEPARTMENT OF HEALTH & SOCIAL SECURITY

Alexander Fleming House, Elephant & Castle, London SE1 6BY

Telephone 01-407 5522

From the Secretary of State for Social Services

MAP
7/3

Tim Lankester Esq
Private Secretary
10 Downing Street
London
SW1

arb

5 March 1980

Dear Tim,

WASTE AND THE NATIONAL HEALTH SERVICE

You wrote to me on 16 May last about the problem of waste in the public sector, outside central Government. In my reply of 7 June I explained that the Secretary of State wanted to follow up our initial response with a more comprehensive report on the efforts which the Department and the NHS together are making to tackle inefficiency at all levels in the Health Service.

We have felt it right to delay this further report until we had had time to consider the analysis and recommendations of the Royal Commission on the NHS. The Royal Commission was specifically charged with considering the best use and management of resources in the NHS, and we needed to take their views into account in reviewing our measures for dealing with inefficiency and waste in the NHS.

The Secretary of State has been urging health authorities to review their efforts to improve the use of resources in the NHS. The purpose of this report is to set out:-

- a. what the Department and the NHS has been able to achieve so far; and
- b. what we are planning to do to ensure that the NHS is run more efficiently.

WHAT WE MEAN BY WASTE

I should make clear what we mean by waste in this report. The Department has, for some years, been seeking to ensure that resources are applied where they are most needed. The establishment of major policy priorities, the introduction of the NHS planning system, and the implementation of the Resource Allocation Working Party report are examples of major initiatives designed to ensure that resources are allocated to policy objectives endorsed by Government after the fullest consultation with all concerned within and outside the NHS. That is the first step in seeing to it that the taxpayers' money is well spent.

The second step - and the main focus of this report - is securing maximum efficiency in the use of resources once they have been allocated. While the Government determines the level of expenditure on the NHS, and national policies and priorities influence the broad disposition of resources, the ways in which money is spent and staff resources used are largely determined by the day to day decisions of doctors, nurses and other staff at the operational level. Any attack on waste has to reach - and influence - those decisions.

ACTION ON THREE BROAD FRONTS

It is against this background that the Department has developed its approach to reducing waste. Action is being taken on three broad fronts as follows:-

- a. encouragement to local management to secure greater efficiency;
- b. central initiatives to control particular costs;
- c. further developments in management and control systems.

The action under way or proposed on each front is described in the report annexed to this letter; but it may be helpful to set out the wider policy framework:-

a. Responsibilities of local management

The Government's proposals for making changes to the organisation and management of the NHS - published last December in "Patients First" - will simplify the structure of health authorities (removing the area tier) and strengthen unit management (greater delegation to the hospital and the community services). Thus the service will be more responsive to local needs and greater responsibility will be placed on staff at the operational level, where most decisions on the way money is spent are taken. In the meantime Ministers and NHS management have increased their efforts to foster local initiatives designed to improve the running of the service.

b. Central initiatives to control particular costs

Greater delegation to the operational level requires central Government and the Regional tier to withdraw from detailed intervention in local matters. But the statutory responsibilities of Ministers and the functions of the Accounting Officer put an obligation on the Department to take the lead in introducing major measures to encourage a better use of resources. Recent examples of this are the target of £30 million savings from streamlining the NHS; the tighter guidelines for controlling management costs; and the decision to establish the NHS Supply Council. The Department must also identify and disseminate examples of "good practice" (as in the drive to achieve energy savings).

c. Developments in management and control systems

The Department, in partnership with the NHS, is continuing to develop systems to give managers better information and better budgeting and control mechanisms - better information systems is the goal of the Steering Group on Health Services Information; better budgeting and control mechanisms through locally based budgets and experiments with incentive budgeting. Much of the work in this area is directed at administrators, but health professionals, particularly doctors, must be - and are - involved.

E. R.:

The Secretary of State hopes that this letter and its enclosure set out clearly the 'efficiency strategy' the Department is following. The Government's pledge to maintain planned expenditure on the Health Service brings with it an obligation to ensure that every effort is made to cut out waste. There is still much to be done on all three fronts referred to above:-

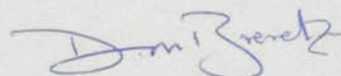
- fostering to the full local initiatives;
- giving priority to curbing the growth of particular costs; and
- maintaining the best possible systems for effective management.

But - as summarised in the Appendix - there are special factors which distinguish the NHS from other large organisations, and it is relevant to make what comparisons are possible with the health services of other countries.

The Secretary of State and his colleagues will continue to keep a close personal eye on progress.

I am sending copies of this letter to John Wiggins (Treasury), Geoffrey Green (Civil Service Department), Godfrey Robson (Scottish Office), George Craig (Welsh Office), Sir Robert Armstrong, Sir Derek Rayner, and Sir Kenneth Berrill.

Yours ever



D. BRERETON

ENC

REPORT ON THE MEASURES TAKEN OR PLANNED TO ELIMINATE WASTE AND INCREASE EFFICIENCY

A. RESPONSIBILITIES OF LOCAL MANAGEMENT FOR EFFICIENCY

The aim is to release resources for much needed improvements to patient services by eliminating inefficiency and waste wherever possible. In a decentralised service like the NHS it is essential to foster effective motivation in local management - through the ways set out below - if this aim is to be achieved.

i. Changes in structure and management of NHS

Criticisms of the 1974 reorganisation of the NHS were summed up by the Royal Commission as:

- too many tiers;
- too many administrators, in all disciplines;
- failure to take quick decisions;
- money wasted.

The major objectives of the Government's proposals for change, described in the Consultative Paper, "Patients First", are:

- a. The strengthening of management arrangements at the local level with greater delegation of responsibility to those in the hospital and in the community services;
- b. Simplification of the structure of the service in England, by the removal of the area tier in most of the country and the establishment of district health authorities;
- c. Simplification of the professional advisory machinery so that the views of clinical doctors, nurses and of the other professionals will be better heard by the health authorities;
- d. Simplification of the planning system in a way which will ensure that regional plans are fully sensitive to district needs.

These proposals lie at the heart of Ministers' strategy for improving efficiency. Any attack on waste depends on strengthening local management and giving them greater responsibility for the efficient use of the resources available to them.

ii. Cash Limits

The Royal Commission noted that NHS administrators and treasurers welcome the additional discipline imposed by cash limits; they make authorities decide on priorities and enforce economy. To assist sensible management of cash limits and to discourage a year end spending spree, there is an arrangement that authorities can carry over up to 1% of revenue under-spend into the following financial year. It is open to question whether this is enough but too much flexibility could detract from the discipline of cash limits. A balance must be struck and it is intended to keep this under review. It is for health authorities to ensure that wasteful expenditure is avoided in the final stage of the financial year.

iii. Local initiatives

There are many instances of local initiative which have identified and achieved significant savings. For example:-

a. A Barnsley consultant analysed the routine investigations carried out annually for his clinic. He found that only 1% of haematology and urinary tests had any influence on diagnosis although the tests cost £7,800 per year. By discontinuing such tests where clinical history or examination indicated the diagnosis, he has achieved an annual saving of £2,800.

b. At St Bartholomew's annual expenditure on parenteral feeding was reduced from £13,000 to £5,000 following a decision that it could be introduced, except for those in intensive care, only after prior assessment by or on behalf of a consultant gastro-enterologist.

c. Restrictions on the use of agency staff. Merton, Sutton and Wandsworth AHA(T), for example, have estimated that in a full year they will achieve savings of some £200,000 as a result of restricting the use of agency staff, particularly medical staff, while preserving levels of service.

What is significant about these examples is neither the sums involved - which in isolation are modest - nor the precise way in which the savings were achieved, but the fact that the initiatives were taken locally. The current constraints on public expenditure have brought home more widely the need for positive action to seek out inefficiency. The specialist health press, including the medical and nursing journals, has recently published a number of articles demonstrating scope for economies. The Department is considering how local initiatives might be further encouraged, over and above the introduction of more conducive management arrangements as outlined in i. above. Some action has already been taken:

- The National Association of Health Authorities is producing a guide to good practice - a register of ideas developed in the NHS for improving effectiveness and efficiency.

- Ministers have been given their personal encouragement to individual staff initiatives designed to improve the running of the service. For example, the Minister for Health met the Savings Committee of Beckenham Hospital set up on the initiative of a consultant surgeon to see what savings could be made by making staff cost conscious, cutting down waste and making economies wherever possible. The Minister's visit helped to publicise the venture and will, it is hoped, encourage similar initiatives elsewhere.

- The Department has been encouraging more authorities to introduce staff suggestion schemes. The North East District of the Kensington, Chelsea and Westminster AHA(T) has just launched an imaginative scheme, along these lines, designed to encourage both staff and patients to make proposals for saving £1 a day. The underlying assumption is that, however conscientious managers are in seeking economies, staff providing services are often in a better position to suggest ways of doing the work more efficiently.

CENTRAL INITIATIVES TO CONTROL PARTICULAR COSTS

i. Management costs

In 1976 the previous administration launched a review of management costs. The objectives were:

- a. A national reduction of 5% (£11 million at 1976 pay levels) over the period to March 1980.
- b. Each RHA to reduce the proportion of its resources devoted to management over the same period from a national average of nearly 5.2% to 5% or less.

Both targets have been met - £16 million at 1976 pay levels has been saved and the national managerial proportion has been reduced to under 5.2%. These reductions have enabled resources to be switched to direct patient care.

Further action is planned on 2 fronts:

- Continued restraint on management costs throughout the transitional period from the present management arrangements to the introduction of the new structure (ie at least until the end of 1983).
- Over the next 3 to 4 years, a reduction in the costs of management of up to 10% through streamlining the structure of the NHS. Much of the reduction will come directly from abolishing a tier of administration, some will result from improved management arrangements within authorities and the remainder from the Government's general drive for greater efficiency.

ii. NHS supplies

The purchase of supplies for the NHS accounts for roughly 1/6 of health authority spending. In 1978 the Salmon Committee identified a number of short-comings of the supplies arrangements:

- An unnecessarily fragmented organisation suffering from poor

co-ordination, lack of information, bad communication and inadequate staffing.

- Inefficient local purchasing and storage arrangements.

- The lack at all levels of essential management information to develop effective supplies policies.

The Department has been working towards -

a. More effective and wider co-ordination of purchasing (it is estimated that at least £30 million could be saved by co-ordinated purchasing arrangements*).

b. More economical storage arrangements;

c. More accurate forecasting in respect of equipment requirements, coupled with common equipment standards.

In January the Secretary of State announced his decision to establish a National Health Service Supply Council to carry forward the work under (a) to (c) above. The major responsibility for NHS supplies policies will be transferred from the Department to the new Council which draws its membership mainly from the NHS. The Council has been charged with carrying out its function in such a way as to encourage a strong and innovative UK health industry, capable of satisfying the needs of the NHS and of building up a successful export market.

iii. Energy consumption

The cost of energy used in the NHS is running at about £160 million a year. The Departmental Works Group has been involved in encouraging health authorities to reduce their energy consumption. There have been some successes:-

* Essex AHA, a multi-district Area, provides an example of what can be achieved. As a result of centralising supplies it has been able to redistribute, on a recurring basis, extra revenue allocations amounting to some £250,000 a year. This saving has made possible the opening of 3 additional wards - for geriatrics, orthopaedics and a 5-day female surgery ward. Further savings are expected when the single Area store for Essex is in full operation with its computer assisted stock control and information system.

- A 10% reduction in boiler fuel consumption from 1972/73 levels.
- A 7% reduction in electricity consumption over the same period.

Potential savings in the next decade are estimated at 25% to 30% of the 1972/73 consumption levels - or about £40 million a year at current price levels. This concern with controlling energy costs has led to research and development work from which it is hoped to derive performance indicators for monitoring NHS energy consumption.

iv. Standardisation of hospital design

The Department's Works Group has produced standard plans for new health building, with the intention of reducing the time and effort spent at the design and planning stage. The 'Nucleus' design, for example, has led to a reduction in the planning and design time of 6-18 months per project. Its main features are:-

- Utmost economy in capital and running costs consistent with acceptable clinical and service standards.
- Limited choice of content, but sufficient flexibility so that hospitals can be tailored to different service planning priorities.
- Strict adherence to cost limits.

Development costs of Nucleus up to 1981/82 are running at about £3.4 million. Over 40 health authority schemes are using or considering using Nucleus design in full or in part. Taking account of expected savings in fees and project time, the Department is already in credit to the tune of about £300,000 and this will grow as the number of Nucleus projects increases.

In addition the Works Group is attempting to bring together its initiatives on energy consumption and low cost design. It has set up a consortium of private firms to examine ways of developing a low energy Nucleus design by incorporating building and engineering devices which minimise energy consumption.

v. Wasteful working practices amongst ancillary staff and ambulancemen

In 1977 the Controller and Auditor General reported on deficiencies in the management of ancillary staff, in particular:

- Inefficient rosters.
- Inadequate arrangements for recording, certifying and paying overtime.

The Department asked authorities to review all aspects of overtime, stressing the need to tighten procedures for recording, certifying and checking overtime and to take action to curb abuse of overtime arrangements. Subsequently quarterly returns were called for from Regions on the percentage of the total ancillary wage bill paid for overtime. Since 1977 this percentage has held pretty steady at about 7%.

Following a clear lead given in evidence to the Clegg Commission by the NHS Management Sides concerned, the Commission (August 1979) was critical of continued inefficient working practices among ancillary staff and also among ambulancemen. While the onus to correct deficiencies (unnecessary overtime, unsound incentive bonus schemes, working practises designed to boost earnings) lies with local management, Government cannot leave it to them entirely. The following action has been taken:

- a. The cost of pay awards recommended by Clegg was offset by £3.4 million in 1979/80 to reflect the need for health authorities to take effective action to stamp out inefficiencies;
- b. The Department has asked authorities to report on the savings possible in 1980/81

and

- c. The Department has suggested to authorities a review of the ambulance services to consider their role and long-term management structure, including the possibility of a two-tier service.

vi. Use of private contractors

The Department is considering ways in which the greater employment of private contractors might reduce the cost and increase the efficiency of

catering, domestic and laundry services for the NHS. It is examining the experience of authorities who already use their discretion to put these services out to contract. Ministers are anxious to see authorities using this discretion more freely.

C. DEVELOPMENTS IN MANAGEMENT AND CONTROL SYSTEMS TO ENCOURAGE EFFICIENCY

i. Audit

Departmental staff responsible for auditing and certifying health authority accounts have been placing greater emphasis in recent years on the more efficient use of resources - identifying wasteful practices and securing action, through improved management systems, to prevent recurrences. Savings achieved in 1978/79 as a result of recent audit recommendations totalled over £10 million. Where in future the measures taken by health authorities are inadequate, Ministers intend to write to the Chairmen concerned to ask them personally to take action.

ii. Central Management Services

The Department's Central Management Services staff undertake O&M assignments in the NHS designed to produce advice on:

- More efficient management systems.
- Better use of existing resources.

Two recent studies, for example, identified potential savings from more efficient management practices:

- a. A review of the range and purpose of the transport services (excluding ambulance services) provided in the NHS and of the ways in which they are organised, managed, controlled and maintained. An initial study has already identified, in a selected number of units, potential savings of the order of 10%.
- b. A study of the documentation used in FPC Ophthalmic Departments identified potential savings in staff and machinery costs of some £200,000 a year.

iii. Investment appraisal

Some 6% (£367 million 1978/79 out-turn) of total NHS expenditure is devoted to capital developments in the NHS. Adequate procedures for making and handling investment decisions are therefore essential if this sum is to be used cost effectively. Following a Review of Health Capital in 1979 the Department commended to health authorities an approach to investment appraisal based on:

- A systematic identification of alternative ways of meeting service objectives;
- Explicit consideration of all the major costs and benefits of alternatives
- Subsequent evaluation of the outcome of investments against the expectations and assumptions which guided the decision to invest.

The Department is now assisting health authorities in a number of pilot appraisals designed to test the feasibility of introducing the techniques more widely in the NHS.

iv. Review of health services information

A Departmental survey of systems for collecting information from the NHS revealed:-

- High costs.
- Relative inefficiency.
- Lack of co-ordination.

As a result the Department has set up a Steering Group on Health Services Information with members drawn mainly from the NHS. The overall objective is to reduce the demands made on Health Authorities while at the same time:

- Giving greater priority to the information needs of local managers;

- Improving compatibility and reducing duplication between information systems;

- Improving the timeliness and accuracy of information provided.

The Royal Commission cast doubt on the quality of the financial information currently collected. A linked study is reviewing costing and financial accounting systems.

v. Locally based budgets

At present local budgets are largely based on a system of functional budgets which are often controlled at least one remove from the main hospital or community activities on which the money is spent. It is envisaged that the changes in management structures proposed for the NHS in "Patients First" should be accompanied by the introduction of hospital based budgets - an important element in the efficient running of hospitals and associated community health care facilities.

The Department is also discussing with private medical organisations - the Nuffield Nursing Homes Trust, American Medical International and the Hyatt Corporation - the management methods, including cost control and information systems, employed in private hospitals to see whether there is scope for importing any of these into the NHS.

vi. Incentive and Review budgeting

In addition to strengthening unit management and moving towards hospital based budgets, the Department is considering further steps to stimulate a greater personal interest by NHS staff in the resource implications of their activities. For example:-

a. The Royal Commission recommended experiments with systems to allow budget holders to redeploy part of any savings they achieved.

b. Review budgeting - budget holders would be required at intervals to identify how they would cope with a given percentage reduction in their budget. To be fully effective, this approach would probably need to include positive incentives.

Both possibilities will be pursued on an experimental basis.

vii. Improved costing information for clinicians

Doctors must be at the centre of a strategy to improve efficiency in the NHS. General Practitioners treat 90% of illness presented to them, and the average cost of drugs prescribed per GP each year is £37,000. Consultants and their staff determine which patients need hospital care, decide on the investigation and treatment of individual cases, and influence the way other health workers are used. But there is considerable concern - not only in the Department and among health service administrators, but among clinicians themselves - about the extent to which doctors do not know, and therefore cannot take into account, the cost of the decisions they make.

The Department in partnership with the NHS, is determined to take advantage of the present climate to improve the information available to clinicians. Action in four areas is already being taken:

- a. An experiment to test the feasibility of using computers in prescription pricing so that comprehensive information about prescribing costs may be readily available;
- b. Further research into devising a practicable system of specialty costing - that is, the identification by individual medical specialty of costs of hospital treatment. The present hospital costing system is limited to identification by type of hospital and does not provide the information necessary to monitor high cost areas;
- c. Clinical budgets - a pilot scheme in four or five districts to make clinicians aware of the costs of their clinical decisions. A budget is agreed for each group of consultants and financial information fed back monthly to allow the clinicians to take corrective action as necessary;
- d. Action to spread awareness among clinicians of the relevance of costing and budgeting techniques to their work. For example, in the last two years over one hundred educational events have been held, involving nearly 2,000 consultants and senior registrars, aimed at helping them make a better use of their resources and a more effective impact on the organisation and

planning of the NHS. One aspect of this activity has been to promote better understanding between consultants and treasurers. A seminar for consultants and treasurers held in May 1977 resulted in a report entitled "Hospital Costing and the Clinician". It has been re-printed three times and over 4,000 copies distributed to the NHS.

APPENDIX

The appendix to this report summarises the special features of the NHS which distinguish it from other large organisations and makes some comparisons with health services of other countries. This is the background against which the initiatives described in this report are being taken.

SPECIAL FEATURES OF THE NHS AND INTERNATIONAL COMPARISONS

Size and structure of the NHS

1. Over 800,000 staff from a wide range of professions and skills work in the NHS. Its size, and the nature of the services it provides, make managing the organisation a demanding task. Its management structure is unusual; it is neither directly administered like Social Security nor as decentralised as the local authority personal social services. Differences in the need for health care over the country and in the existing levels of provision call for local variety and flexibility and the greatest possible delegation of managerial authority.
2. Although day to day responsibility for providing services and administering them is delegated to Regional and Area Health Authorities, the Secretary of State and the Permanent Secretary, as Accounting Officer, are fully and personally accountable to Parliament for the NHS. The Accounting Officer's letter of appointment makes it clear that there is an accountability to Parliament not only for probity, but also for efficiency and economy in the use of resources and generally for good management. In discharging their responsibilities the Secretary of State and Permanent Secretary have to take account of the factors summarised in paragraph 1 and the features of the service set out below.

Professional Staff

3. The NHS Acts, consolidated in 1977, provide the statutory basis of the NHS but the origins of the services provided through hospitals, general practitioners and other community health services are much older than the Acts; they rest on a professional relationship between doctor (or dentist, nurse etc) and patient. In particular, the clinical freedom enjoyed by doctors enables them to make decisions about the clinical care of individual patients without direction from health authorities.
4. In addition to doctors there is a wide range of professional staff working in the NHS whose activities influence the way resources are used - dentists, nurses, midwives, pharmacists, opticians, chiropodists, medical laboratory technicians, occupational therapists, physiotherapists, radiographers architects, engineers etc. Their different roles and responsibilities have to be taken into account in determining workable management arrangements for the NHS.

Major components of NHS resources

5. NHS manpower, finance and buildings have to be used properly if resources are not to be wasted;

- Manpower. Manpower costs represent 73% of the total revenue spending of health authorities and 63% of total NHS expenditure. Figure 2 in this appendix shows the broad disposition of NHS manpower.

- Finance. Figures 1 and 3 show the major uses of NHS finance. In recent years an objective measure of comparative health care needs, devised by the Resource Allocation Working Party, has been used to allocate resources.

- Buildings. The hospital stock reflects its 19th century origins - 35% having been built before 1900 and only 25% since 1948 (see figure 4). Many of the older buildings are ill-suited to the delivery of modern forms of treatment.

Reacting to change

6. The planning and use of resources in the NHS has to take account of constant change - eg in demography, the incidence of specific medical conditions, the socio-economic climate and trends in the provision of complementary services, particularly social services and housing. Avoiding or eliminating waste is partly a process of anticipating and adapting to these changing circumstances. There are inherent problems which limit the ability of the service to match facilities precisely to changing requirements. For example, changes in the birth rate are difficult to predict accurately and this has implications for the scale of maternity services. Moreover changes in the use, re-location or replacement of hospitals (eg large mental hospitals) can only be accomplished slowly, often in the face of industrial relations problems. The NHS planning system is designed to assist local management to accomplish such changes as economically and as smoothly as possible.

International comparisons

7. It is difficult to reach firm conclusions from international comparisons of health care costs because of differences in statistical definitions and health care systems. The tables below draw on the latest information available:

Table 1 - Expenditure/Doctors/Nurses

1974 or near date

Country	Per Capita total expenditure on health US \$	% Trend GDP(1)	Doctors (per 10,000 1974)	Nurses (per 10,000 1974)
Australia	308	6.5	13.9	54.1
Canada	408	6.8	16.6	57.8
Finland	265	5.8	13.3	46.0
France	352	6.9	13.9	23.7
Italy	191	6.0	19.9	7.8
Japan	166	4.0	11.6	16.1
Netherlands	312	7.3	14.9	22.5
Norway	270	5.6	16.5	46.4
Sweden	416	7.3	16.2	58.6
USA	491	7.4	16.5	40.4
W. Germany	336	6.7	19.4	27.6
England and))		
Wales))	13.1	33.7
Scotland)	212) 5.2		
N. Ireland))	16.1	45.6
)	15.3	36.6

Source: Report of the Royal Commission on the NHS, 1979

(1) Trend GDP is used to avoid the influence of cyclical business fluctuations on the level of output, which could distort the measured share of health expenditure in that output.

Table 2 - Prescriptions

1975 or near date

<u>Country</u>	<u>Prescription items per head per year</u>
Netherlands	4.5)
UK	6.3) GPs not paid fee for service
Denmark	6.9)
Belgium	9.0)
France	10.5) GPs paid fee for service
Germany	11.0)
Italy	21.0) Source: EEC Paper, October 1978 "Pharmaceutical Consumption"

Table 3 - General Administrative Costs as a Percentage of

Total Benefits

1974 or near date

<u>Country</u>	<u>Per Cent</u>
Austria	4.0
Belgium	10.6
Canada	2.5
Denmark	6.4
France	10.8
Germany	5.0
Italy	6.5
Japan	2.6
Netherlands	2.8
Sweden	7.6
UK	2.6
US	5.3

Source: OECD Report
"Public Expenditure on
Health"

These are the general administrative costs related to co-ordination of the system, collecting contributions, making reimbursements, paying service providers etc. They do not include hospital administrative costs.

MAJOR COMPONENTS AND USES OF NATIONAL HEALTH RESOURCES

HEALTH AUTHORITY EXPENDITURE 1978-79
SOURCE - HA ACCOUNTS 1978-79

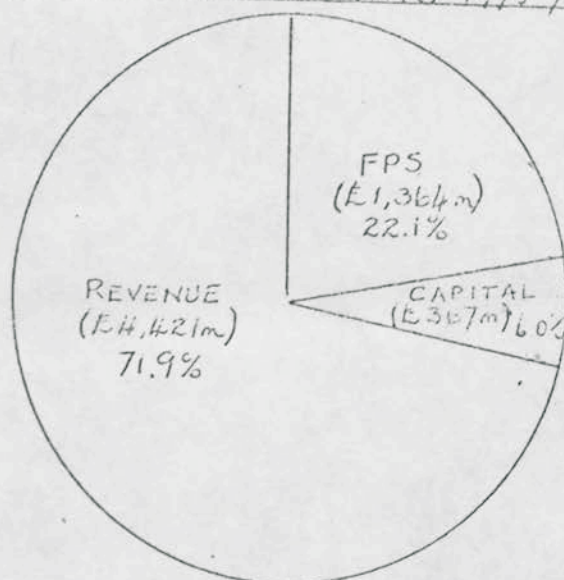


FIGURE 1

HEALTH AUTHORITY REVENUE EXPENDITURE
By PAY GROUP AND NON-PAY TOTAL

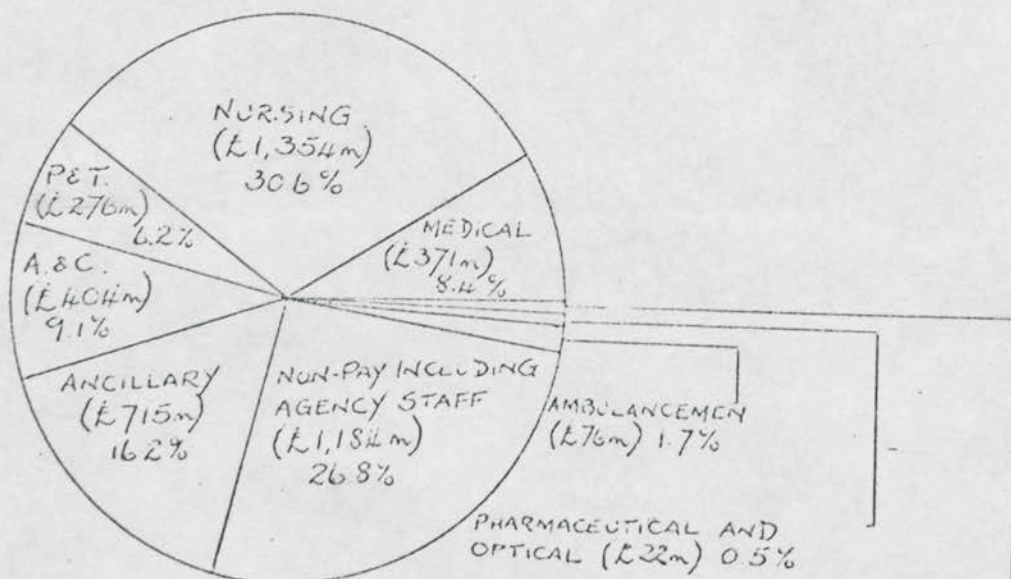


FIGURE 2

SOURCE - SUBJECTIVE
ANALYSIS OF REVENUE
EXPENDITURE

HEALTH AUTHORITY REVENUE EXPENDITURE
BY FUNCTION/SERVICE

SOURCE - H.A.
ACCOUNTS 1978-79

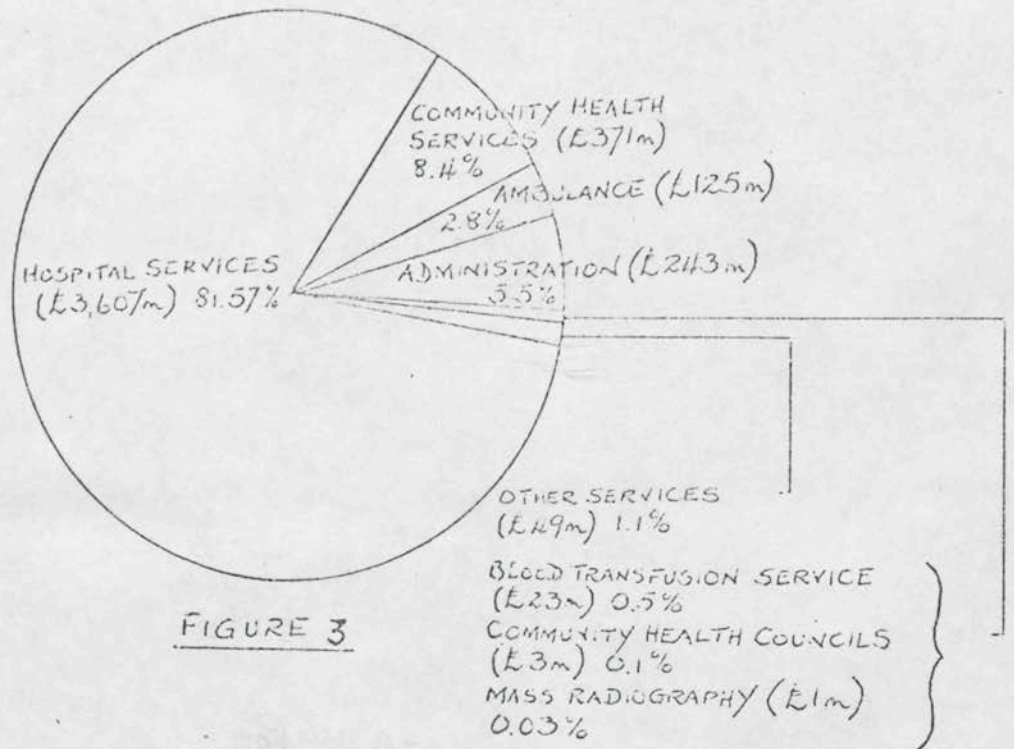


FIGURE 3

THE NATIONAL HOSPITAL STOCK

SOURCE - REVIEW OF HEALTH CAPITAL

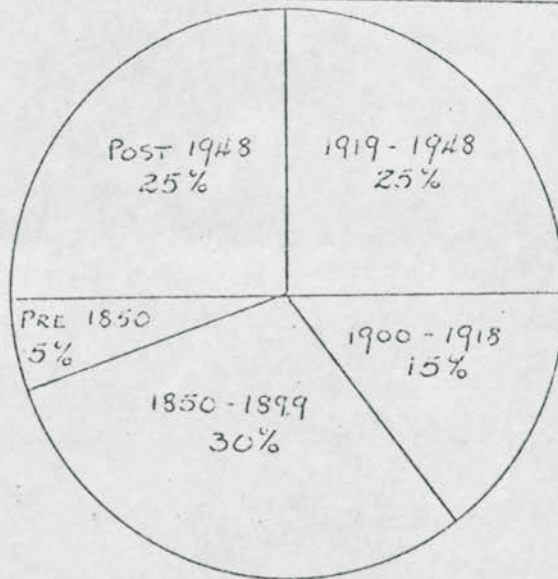


FIGURE 4

- 6 MAR 1980

