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*From the Secretary of State for Social Services*

Michael Scholar Esq  
 Private Secretary  
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Prime Minister

To note \*

MLJ 24/3

(The Policy Unit are content  
 with this publication.)

14 March 1983

Dear Michael

USE OF RESOURCES IN THE NHS IN ENGLAND

I enclose for information a copy of a review of the use of resources in the NHS in England over the last ten years or so which my Secretary of State plans to publish later this month.

The Chief Secretary and the other Health Ministers have raised no objection to its publication. My Secretary of State sees the document as having three main purposes:

- to review trends in NHS spending, output and efficiency;
- to show how the development and improvement of NHS services is linked to efficiency as well as spending;
- to emphasise the range and importance of the Government's measures to improve NHS efficiency.

He sees it as important to get these issues - and the Government's good NHS spending record - fully and clearly on the public record at this stage in Parliament. Both the PAC and the Select Committee on Social Services have called for such a review, and he expects them to react favourably to it.

The main historic analysis in Chapter 1 of NHS manpower and outputs follows very closely the material which we gave you on 8 September last year during my Secretary of State's discussion with the Prime Minister about the NHS management inquiry. It shows that when NHS manpower figures are adjusted to take account of the various transfer of staff and functions that occurred in 1974, and the introduction of shorter working weeks for some staff groups later in the decade, manpower productivity showed some decline in the first half of the 1970s, but has improved encouragingly in more recent years.

I am copying this letter to John Gieve (HM Treasury), Muir Russell (Scottish Office), John Lyon (Northern Ireland Office) and Adam Peat (Welsh Office).

Yours ever,

David

D J CLARK  
 Private Secretary

Department of Health and Social Security

HEALTH CARE AND ITS COSTS

The Development of the National Health Service in England

HMSO £ . net

## Preface

For nearly two generations the National Health Service has provided health care for the very large majority of people in this country. This report gives an account of the ways in which the National Health Service in England has spent its money in recent years. It is mainly concerned with spending and with the amount of treatment and care provided. It does not pretend to be a description of the National Health Service in all its dimensions. Some important activities such as health prevention cannot come very clearly through figures like these. Nor can the human care for each individual patient and the concern for quality that must be central to any health service worthy of the name.

It is a giant organisation using huge sums of money and providing a huge range of services. Over the last decade substantial new resources have been made available to it. Nevertheless like health services overseas the National Health Service faces problems caused by growing demands. The growth in the numbers of elderly - and particularly the very elderly - and the development of new treatments will provide pressure for more health care. It is important therefore that the health service should use the resources available to it as efficiently as possible in order to get the best value out of the increased finances made available and to develop at the fastest practicable rate.

We should be clear just how much has been achieved in the last few years to get good value out of increased resources. Comparing the position in 1981 (the last year for which figures are available) with the position in 1978 we find that in 1981:

- there were over 500,000 more in-patients and day cases being treated in hospital than three years previously;
- over one and a half million extra out-patient and emergency cases were treated;
- staff-to-patient ratios in hospitals which care for mentally ill people and mentally handicapped people have continued to improve;

- some 375,000 more people were visited in their own homes by district nurses and health visitors;
- there are 1,250 more family doctors and their average list size has fallen by over 100 patients;
- 2 million more courses of dental treatment were provided on the NHS, 600,000 more sight tests, and 400,000 more pairs of glasses.

The service has had to be able to respond to dramatic changes by devoting resources to the new needs of patients. The pattern of change in acute hospitals has been that progressively more patients have been given more diagnosis and treatment in fewer beds. Changes in the methods of diagnosis and treatment and the higher proportion of elderly patients might have been expected to increase average case costs in the acute sector. Instead average case costs have tended to fall in recent years.

The Government's policy is to maintain its commitment to the National Health Service so that the patient can receive the best possible care. At the same time we believe we must improve the efficiency and effectiveness of the service even further if the NHS is to change and grow at the rate necessary to keep up with soaring demands. We have developed a regional review system to give leadership and a clearer sense of policy direction to the service. We have set up a management inquiry. We are introducing performance indicators, manpower planning and control, and policy scrutinies. We are introducing new approaches to supplies and purchasing methods and introducing information technology to the service. The aim is to be even more successful in providing the best possible service for the patient out of the vast sums that the country is prepared to provide for health care. If we achieve greater success, the patient will be the beneficiary.

NORMAN FOWLER  
Secretary of State for  
Social Services

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# HEALTH CARE AND ITS COSTS: THE DEVELOPMENT OF THE NATIONAL HEALTH SERVICE IN ENGLAND

## Introduction

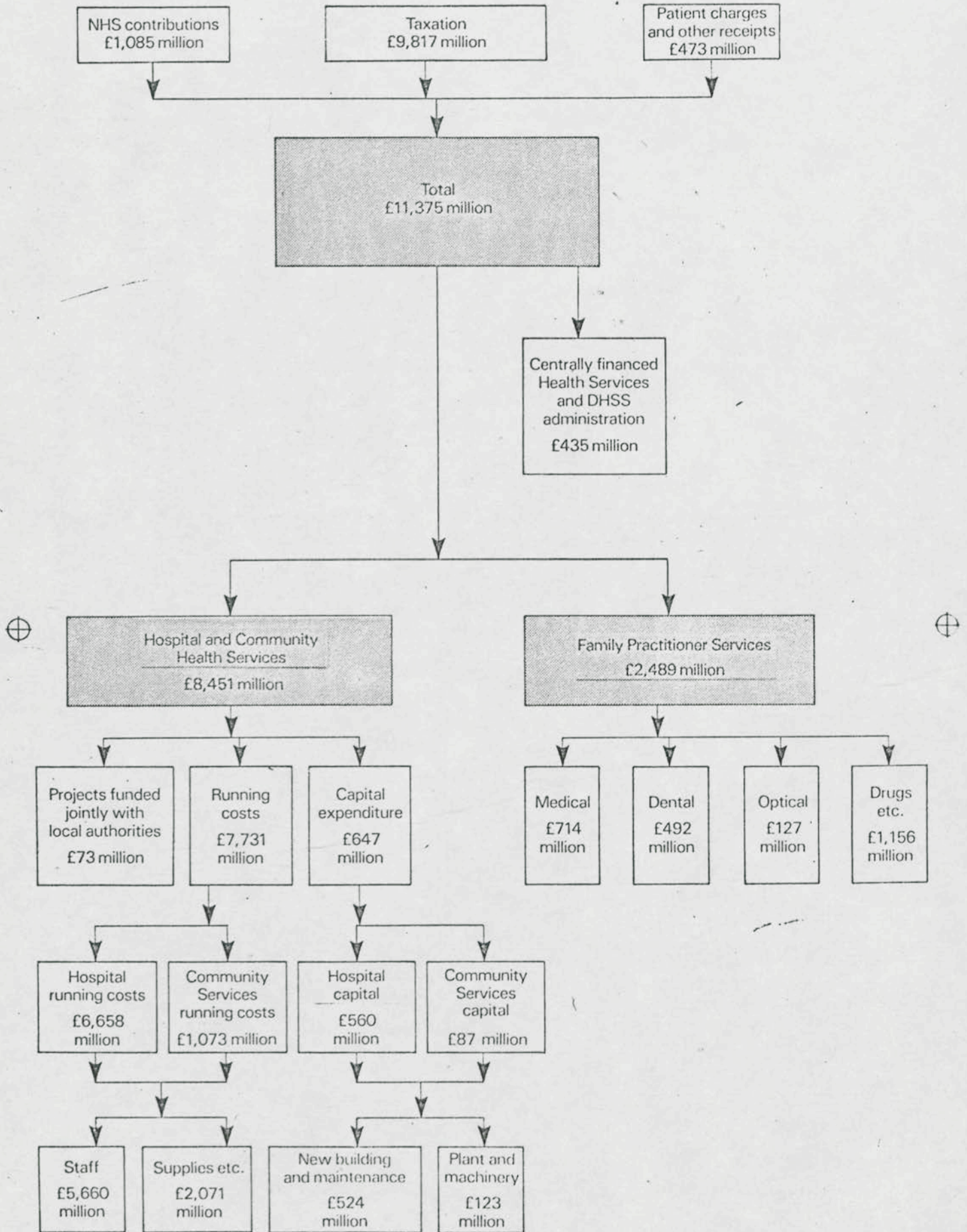
1. The National Health Service is the country's largest enterprise, using about one twentieth of our economic product and our workforce. This review explains how these resources are used in England.

2. Figure 1 shows how the NHS spent its budget of over £11 billion in 1981-82, and where that money came from. Modern health care requires a very wide range of different facilities and skills. The main focus of this review is on the hospital and community health services. They account for 70% of NHS spending, and provide surgical, medical, diagnostic and nursing facilities for all acute or serious illness needing specialist in-patient or out-patient treatment; specialist maternity and paediatric services; hospital care for long-term illness or handicap; care given to people in their homes by nurses and health visitors; and a variety of other important community and preventive services. In 1981, these services treated six and a half million in-patient and day cases, and dealt with nearly 49 million out-patient attendances. Some 7 million people were seen by health visitors and home nurses. NHS hospitals also provide the setting for much research, for the basic training of doctors, dentists, nurses and other health professionals, and for advanced specialist training.

3. Some material is also included on the family practitioner services, which through independent family doctors, general dental practitioners, opticians and pharmacists in contract with the NHS family practitioner committees provide primary medical, dental and ophthalmic care and the associated drugs and appliances. Many health services are closely linked with the local authority and voluntary sector personal social services, so the review includes some information on them as well.

4. Chapter 1 gives an overview of NHS money and manpower, and some indications of the efficiency with which they have been

Figure 1  
National Health Service funding and expenditure in England, 1981-82



used over the last decade. Chapter 2 describes more fully how services have been developed and adapted to meet changing needs. Chapter 3 summarises the main challenges now facing the services, and describes how they are being tackled. The information on expenditure, manpower and activities in Chapters 1, and 2 is mainly from published sources. The sources, and additional comment on some issues, are given in Annex A.

### Hospital and Community Health Services' Organisation and Accountability

5. The hospital and community health services are now organised and administered locally by 14 regional and 192 district health authorities. There are also nine special health authorities which administer postgraduate teaching hospitals. Health authorities decide within annual cash-limited budgets fixed in advance what patterns of services within national policies best suits their localities, and settle the mix of manpower and other resources that will deliver those services most efficiently and effectively. Within this framework doctors, nurses and other health professions provide care to individual patients according to their professional skills and ethics.

6. The role of the Department of Health and Social Security is to allocate the national budget between regional health authorities, who in turn distribute their shares to district health authorities; to control the resulting flows of money; to give guidance on national priorities in health care; and to review the performance of health authorities. The NHS is not a monolithic service, directed in detail from the centre, but the Government set overall national objectives. These are implemented through health authority plans, which also take account of local circumstances and aspirations. The Department discusses these plans with the regional health authorities; as a result, they may be changed, but central policies and priorities may also be modified. Plans are then translated into action at a local level. The Department monitors the way in which services develop and resources are used. The patterns of development in recent years are summarised in this review.



Figure 2

Expenditure on hospital and community health services 1971-72 to 1981-82

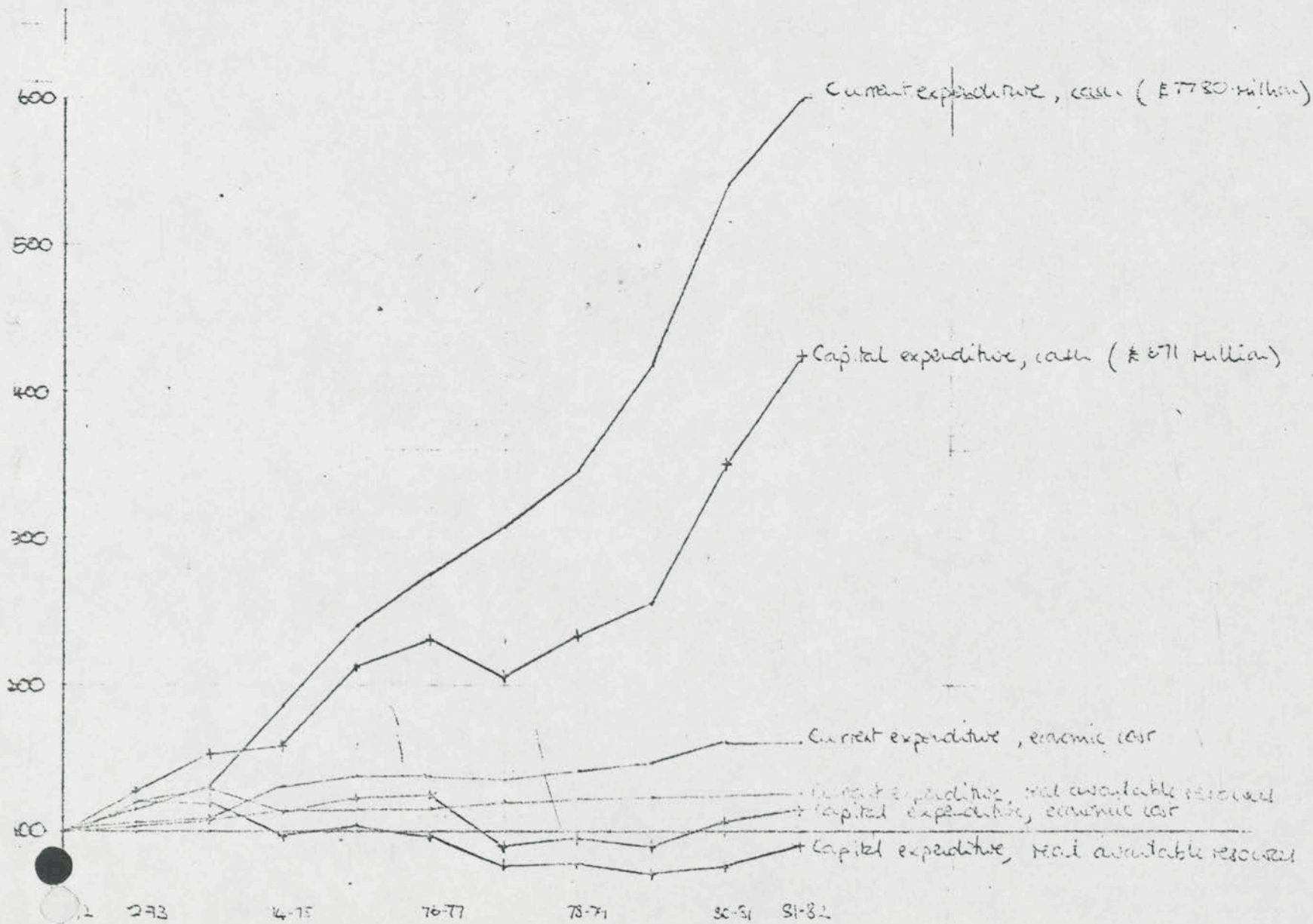
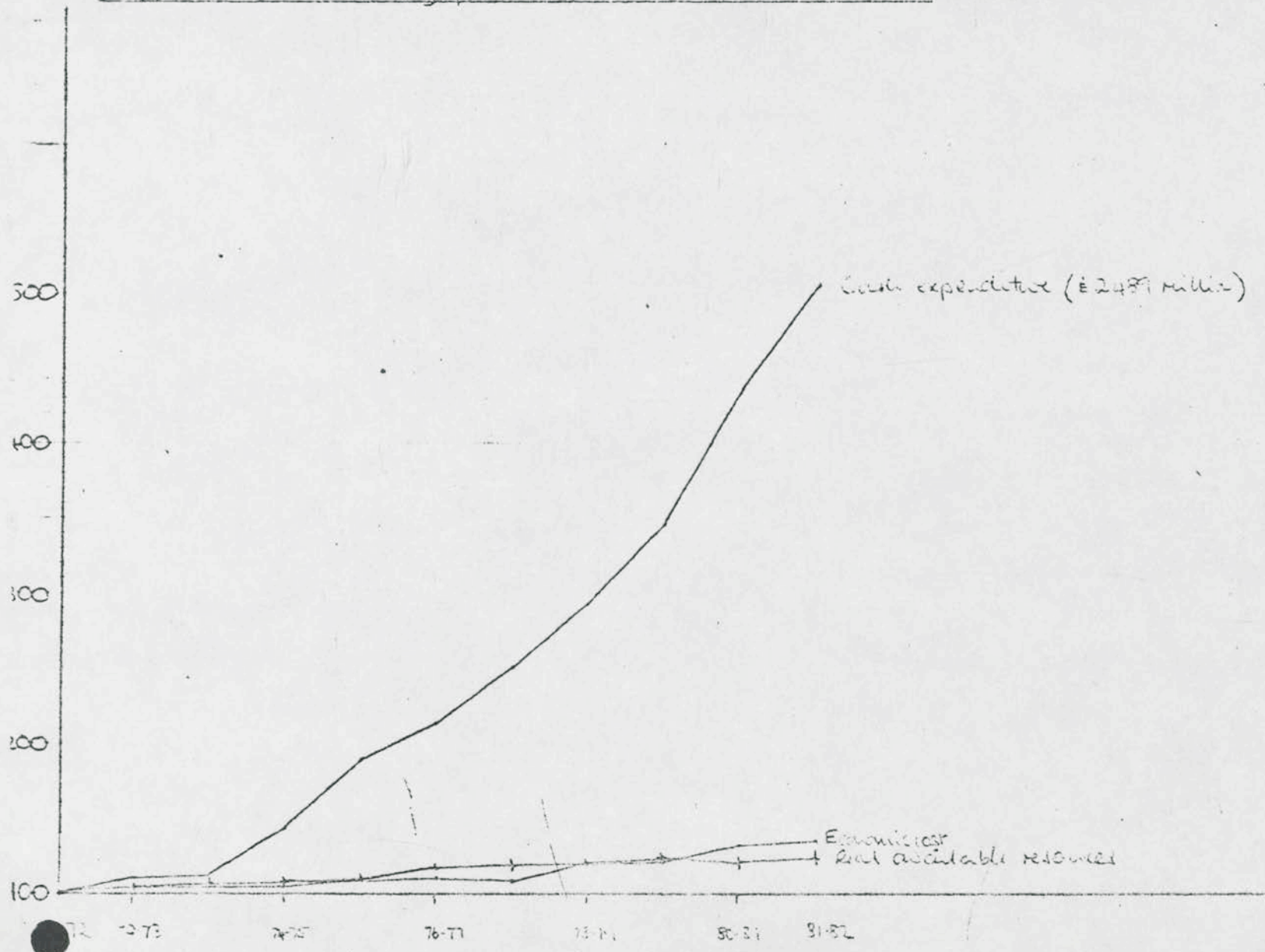


Figure 2a

Expenditure on the family practitioner service 1971-72 to 1981-82



## CHAPTER I: THE USE OF RESOURCES: AN OVERVIEW

### NHS EXPENDITURE AND ITS COST TO THE ECONOMY

1.1 Total NHS expenditure in the United Kingdom took 4% of the national gross domestic product in 1971-72. By 1981-82, this had risen to 5½%.

1.2 Spending on the NHS in England measured in cash without any adjustment for inflation was nearly six times as high in 1981-82 as in 1971-72. After allowance for increases in NHS pay and prices, the rise in the real resources available for services was 23%. However, NHS pay and price increases tended over the period to be greater than inflation in the national economy overall as measured by the Retail Price Index. As a result, the increase in the cost to the economy of financing NHS growth has been higher than the 23% NHS growth achieved. In fact, the increase in the economic cost of NHS growth over the decade was 50%.

1.3 Figure 2 shows the spending changes for each of two main NHS programmes - the hospital and community health services and the family practitioner services - in cash, economic cost and the real available resources with which this review is mainly concerned. It shows that the hospital and community health services grew quite fast up to 1975-76; growth since then has been steadier.

[Insert figures 2 ~~and 2a~~]

1.4 Over the same period, local authority expenditure on the personal social services also increased. By 1981-82, cash expenditure was seven times as high as in 1971-72. After allowance for pay and price changes the increase in real resources was 60%. As in the NHS, personal social services pay and prices have risen faster than costs in the economy generally. The increase in the economic cost of the 60% growth in the personal social services was 90%.

## MAINTAINING AND IMPROVING THE CAPITAL STOCK

1.5 The NHS occupies about 50,000 acres of land and uses a wide diversity of buildings. The buildings include some 2,000 hospitals of various sizes, as well as health centres, clinics, laundries, ambulance stations and residential accommodation for staff; their present replacement cost is about £21,000 million.

1.6 Capital expenditure is necessary to provide new and improved facilities; but each year the NHS spends about a third of its capital resources to maintain existing buildings, many of which are very old. Capital spending grew in the early 1970s, but was sharply reduced in the middle of the decade. Since 1978-79 it has again increased considerably.

1.7 Capital expenditure has been used to improve services by:-

- providing new equipment to replace old, inefficient or otherwise outmoded stock and so, as resources permit, making available to patients the benefits of recent developments in medical technology;

- helping to reduce the gap between comparatively under-provided and better-off localities by providing new or better hospitals where they are most needed;

- providing new and more suitable facilities for people who need long stay care: large institutional premises are being replaced by smaller units (for example hostels for mentally handicapped people and experimental projects for nursing homes for elderly people) usually situated within the community served;

- renovating or replacing old buildings and making them less costly to run, for example by reducing energy costs.

1.8 Inevitably new capital investment leads to the closure of old hospitals because:

- new hospitals may replace old buildings which are no longer economical to maintain and run;
- as the population in different areas changes, services are relocated near patients in areas of population growth; generally this means a shift from inner cities towards areas like Oxfordshire, East Anglia and the Home Counties;
- as average length of stay in hospital falls (discussed in more detail in 1.12) more patients can be treated in fewer beds; concentration of services in fewer hospitals may sometimes need additional investment but can yield valuable savings in overheads;
- old long-stay hospitals are gradually being replaced by local residential units and non-residential care.

Although the number of cases treated has increased substantially over the decade (see Table 1 and paragraph 1.12 below), the number of hospital beds has been reduced by 68,000, while 70,000 new beds have been created in new or converted buildings. The total number of beds taken out of use through closure or replacement is therefore 138,000 - about a quarter of the bedstock at the beginning of the decade. This process of change causes understandable difficulty in the localities affected. But it represents a modernisation and reshaping of the hospital stock to meet changing patterns of need and service provision, and must continue if the NHS is to respond to the challenges that lie ahead.

Table 1

Trends in manpower, expenditure and activity between 1971 and 1981 in the Hospital and Community Health Services

	1971	Numbers 1976	1981	annual percentage change	
				1971 to 1976	1976 to 1981
<u>Manpower</u>					
Medical and dental	28,200	34,100	39,000	3.9	2.7
Nursing and midwifery	319,600	364,500	391,800	2.7	1.5
Professional and technical	38,500	52,500	65,200	6.4	4.4
Ambulance	15,200	17,200	18,200	2.4	1.1
Ancillary	168,000	173,600	172,200	0.6	-0.2
Works and maintenance	21,800	25,000	27,200	2.7	1.7
Administrative and clerical	72,300	98,500	108,800	6.4	2.0
<b>Total Manpower</b>	<b>663,700</b>	<b>765,300</b>	<b>822,400</b>	<b>2.9%</b>	<b>1.4%</b>
<u>Current Expenditure (£million)</u>					
measured in real available resources					
	1971-1972	1976-1977	1981-1982	1971-1972 to 1976-77	1976-1977 to 1981-82
Staff	4650	5320	5660	2.7	1.2
Supplies etc	1590	1818	2071	2.7	2.6
<b>Total current expenditure</b>	<b>6240</b>	<b>7138</b>	<b>7731</b>	<b>2.7%</b>	<b>1.6%</b>
<u>Activity (Thousands)</u>					
	1971	1976	1981	1971 to 1976	1976 to 1981
<u>Hospital services</u>					
Inpatient and day cases	5171	5735	6474	0.7	2.5
Outpatient attendances (including accident and emergency)	46260	45473	48879	-0.3	1.5
Regular day attendance	2839	4671	5416	10.5	3.0
<u>Community Health Services</u>					
Health visiting - number of people visited	3978	3576	3760	-2.6	1.0
Home nursing - number of people treated	1841	2780	3367	10.8	3.9
<u>Ambulance Services</u>					
Total cases carried	22335	22364	20501	0.0	-1.7
<u>Blood Transfusion Service (England and Wales)</u>					
Bottles of blood issued	1358	1582	1837	3.1	3.0
<u>Cost-weighted index of change in overall Hospital and Community Health Services' activity</u>					
	100	105	117	1.0%	2.2%

\* For details of the basis on which the manpower figures have been adjusted to obtain a comparable series, and explanatory notes on the activity figures and on the derivation of the cost-weighted index of activity change, see Annex A.

## MANPOWER, RUNNING COSTS AND EFFICIENCY

### Hospital and Community Health Services Overall

1.9 About 70 per cent of health authority current expenditure - spending on running costs - is on staff salaries and wages. Services to patients depend heavily on skilled people - doctors, nurses, and paramedical staff such as radiographers, physiotherapists and scientific staff in laboratories. Treatment and care are tailored to the needs of individual patients, so much NHS activity offers only limited scope for the kind of mechanisation on which manufacturing enterprises largely depend for improvements in productivity. In addition there are back up services - "hotel" services, administration, estate management - which are more comparable to activities in the commercial sector.

1.10 Table 1 shows broadly health authorities' increases in staff, spending in terms of real available resources, and activity rates (that is the numbers of cases treated and of other services provided to patients) between 1971 and 1981, and distinguishes between the first and the second halves of the decade. More detailed material on how these relate to particular services and groups of patients is in Chapter 2. The information needed for this kind of analysis is available in full only from 1971; but annex B contains some analysis of manpower, activity and productivity trends in the 1960s as well.

1.11 Taking the decade as a whole, the annual growth rates of manpower and spending moved closely in step. But when they are considered alongside hospital activity rates, marked differences are revealed between the periods before and after 1976 both in terms of absolute numbers and in terms of output and efficiency, as measured by the changes in average costs per case shown in Figure 3.

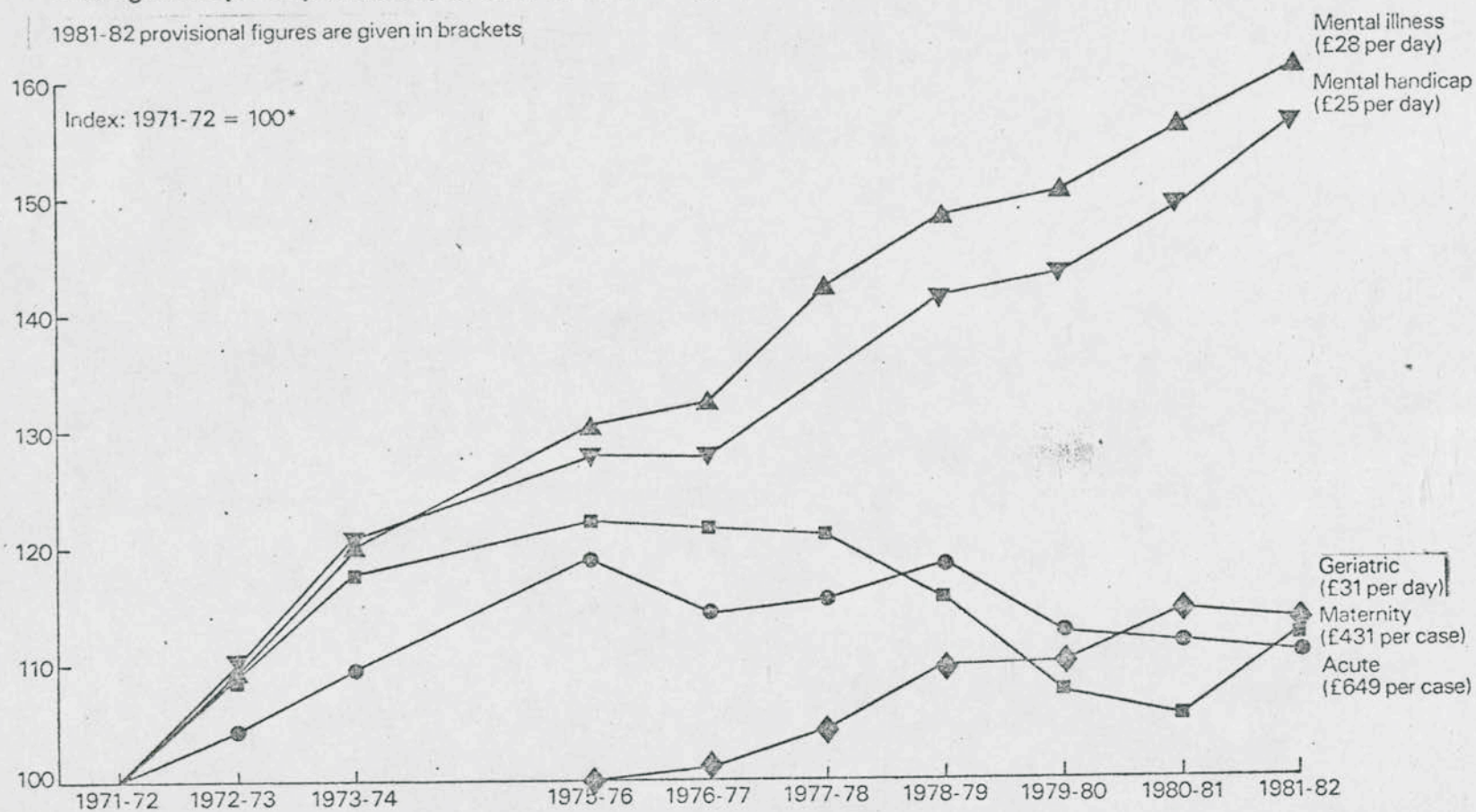
(Figure 3 opposite).

1.12 The earlier period is one of fast growth (2½% to 3% a year) in staff totals and expenditure, with the number of cases treated also rising, but - at about 1% a year - not so rapidly as resources. During the second period, growth in staff numbers and expenditure slowed down to about 1½% a year; but the number of cases rose by over 2% a year - faster than resources.

Figure 3

Trends in hospital in-patient costs 1971-72 to 1981-82  
Average cost per in-patient day or case by hospital type

1981-82 provisional figures are given in brackets



\* No information on in-patient costs in geriatric hospitals is available before 1975-76. For geriatric hospitals, index: 1975-1976 = 100.  
No information is available for 1974-75 for any hospital type.



## Acute Hospital Services

1.13 Over half of hospital expenditure occurs in general acute hospitals which cater mainly for patients needing intensive surgical or medical care. The use of resources in such hospitals is therefore of great importance in the financial management of the hospital and community health services as a whole. During the first half of the 1970s, as is shown in Figure 3, average costs per case tended to rise in acute hospitals. Two factors contributed to this. New and more expensive techniques put up costs; and the number of elderly patients, whose treatment needs are more costly than those of other age groups, increased. Although these factors continued to apply throughout the second half of the decade - as they still do - from 1976 onwards the NHS managed to contain these pressures, and even to bring average acute hospital case costs down.

1.14 Average costs in acute cases depend on how much diagnosis, treatment and nursing care is given to a patient; on the cost of "hotel" services per day; and on how long a patient stays in hospital. The falling tendency in average acute case costs since 1976 has been partly due to reduced length of stay in hospital; this cuts down the number of beds needed to treat a given number of patients, and so reduces hotel costs and overheads. Diagnosis and treatment costs do not however necessarily fall. In fact, because the more accurate and effective methods of diagnosis and treatment that medical science now offers are usually more complex, these costs have tended to rise. Nor are the costs of nursing care greatly reduced by a shorter length of stay. A patient's need for nursing care is much greater in the early days of hospital stay when he or she will be more seriously ill - for example immediately after surgery; and it is the later "convalescent" period in hospital which has been reduced. In other ways too, nursing costs have increased because of more complex treatments and because the greater number of very elderly patients in acute hospitals are more dependent on staff.

1.15 The general picture in acute hospitals is therefore that progressively more patients have been given more diagnosis and treatment in fewer beds, with the obvious consequence that the ratio per bed of staff directly involved with patients doctors, nurses and professional and technical staff has risen. Changes in methods of diagnosis and treatment, and the higher proportion of elderly patients might have been expected to increase average costs per case - perhaps by some  $\frac{1}{2}$  per cent a year - in the acute sector. Instead costs per case have tended to fall, mainly because of a reduction in average length of stay in the acute specialties (from 10.0 days in 1976 to 8.6 days in 1981) and an increase in the average number of cases treated annually in each hospital bed (from 26.6 in 1976 to 31.1 in 1981).

#### Maternity Services

1.16 Many maternity services are provided in acute hospitals. But where they are provided in single-specialty hospitals, the trends have been comparable to those in acute hospitals generally. Average costs per case have tended to fall since 1976 because mothers have stayed in hospital for shorter periods and because maternity hospitals provision which had become surplus through the falling birthrate in the early 1970s was shed. Average length of stay fell throughout the decade, but most steeply in the second half - from 6.7 days in 1976 to 5.5 days in 1981 - when for the most part the birthrate was rising and facilities had to be used with more intensity. The provisional figures for 1981-82 show a rise in average case costs for the first time since the mid-1970s. This was probably caused in the main by the unpredicted fall in the birthrate during that year which led to fewer hospital births and hence to a slightly less intensive use of facilities.

#### Long term Hospital Care

1.17 Both hospital and community services are important in the care of mentally ill, mentally handicapped and geriatric patients. Where hospital in-patient care is necessary, it can vary considerably in length but may be prolonged. Costs per day are therefore a more appropriate measure of expenditure in hospitals which specialise in such care than costs per case. In these hospitals, average costs have tended to rise as shown in Figure 3. The extra costs reflect in particular an intentional increase, often from a very poor starting point, in the ratio of nursing staff to patients.

Successive Governments have encouraged this improvement to enhance the quality of care generally and to compensate for the higher average dependency of patients remaining in such hospitals now that, as explained in Chapter 2, care for the less severely ill or handicapped is increasingly provided in the community.

#### Questions about Manpower

1.18 The numbers of hospital medical, nursing and professional and technical staff<sup>are</sup> determined by the numbers of patients treated, the nature and complexity of the treatment they receive, the extent to which age or infirmity affects patients' needs for nursing care, and - particularly in long-stay hospitals - by the standards of nursing care provided. The evidence is that since 1976, taking the country overall, the increase in these staff has generally been justified by these factors.

1.19 For other staff groups the links with the amount of patient treatment are less direct. For example, ambulance staff have increased though the number of patients carried each year has fallen. The larger proportion of elderly patients carried, and the increasing number of emergency patients, may well have been an influence, but the position needs further scrutiny. Similarly, additional premises transferred to the NHS from local government in 1974 and the increasing volume and complexity of plant and equipment used in patient care may account for the rise in works and maintenance staff. Nevertheless there is to be a review of the works function in the NHS which should throw further light on the number of works staff necessary and the ways in which they are used.

1.20 The level of "hotel" services such as catering and cleaning is determined mainly by the number of occupied beds, although the pressure on some services such as portering and laundry will also be affected

by the number of in-patients who are admitted to and discharged from hospitals. More staff have also been needed for the day hospital services which have significantly expanded. Improvements in space standards and changes in the size and shape of hospitals may also have an effect on cleaning and portering services. In practice the number of ancillary staff providing these "hotel" services has fallen, but has not fallen as much as the number of occupied beds. More detailed analysis shows that, in acute hospitals, the cost of hotel services per occupied bed has fallen slightly in real terms by 1.5 per cent between 1975-76 and 1980-81. In the longer stay hospitals it has however risen. This may be a response to the continuing priority which Governments have given to improving standards and the quality of life in these hospitals. But, again, the position would benefit from further review, and the Government have recently announced a new initiative to promote competitive tendering for hotel services generally (see Chapter 3, paragraph 22).

1.21 Some administrative and clerical staff work on management functions such as finance and personnel; others work in direct support of patient services. In general, the need for administrative and clerical support of patient services is related to the number of cases rather than the number of bed-days - for instance medical records clerks are particularly concerned with patients on admission to hospital and on discharge.

1.22 Administrative and clerical staff numbers increased rapidly between 1971 and 1976, but have risen at a much slower rate since 1976. For those staff involved in management functions, the rapid increase during the earlier years is due partly to the more complex health authority structure introduced in the 1974 reorganisation and also the need to provide back-up to community services previously provided by local authority central departments, such as for finance, personnel, maintenance, supplies and computing. Following reorganisation there was further growth in health authorities' management, control and especially planning and

personnel activities. Some increase in staff providing support for patient services could be expected because of the growth in the number of cases, and was in line with the policy pursued throughout the decade of using more clerical support staff (medical secretaries, ward clerks and medical records clerks) where this could free doctors, nurses and other clinical staff to spend more time on patient care. Recent enquiries by the <sup>DHSS</sup> Department about the reasons for administrative and clerical staff increases in six health regions have confirmed that this last factor was an important one.

1.23 Nevertheless the increase in administrative staff at and following the 1974 reorganisation was excessive. To prevent this being repeated after the reorganisation of the NHS in April 1982, the Government are requiring authorities to reduce the proportion of their total budgets that is spent on management (see Chapter 3, paragraph 9).

#### General Trends in Productivity

1.24 The general conclusion to be drawn is that productivity fell during the early 1970s but has since improved. During the five years to 1981, the number of treatments given rose faster than expenditure and staff numbers, even though acute treatment was increasingly complex and standards of care were improved in the long stay sectors. This increase in productivity took place mainly in acute hospitals. Changes in both finance and organisation probably caused this reversal of the earlier trend. In financial terms, the money available for growth fell, and cash limits were introduced. At the same time the 1974 reorganisation gave authorities responsibility for providing services to a given population within a predetermined budget. As a result there was increased management and professional concern over costs and efficiency. One important method of

increasing productivity has been to reduce length of stay in hospital. Variations between authorities suggest that there is room for further improvement at least in some parts of the country. But more effort is needed to identify new ways of reducing costs, for instance by improving the way in which work is organised and staff are deployed, and by the use of cost-saving investment.

1.25 The Government have made important innovations in the machinery for monitoring and improving NHS efficiency. These are described in Chapter 3. Amongst the most important is the newly announced inquiry into NHS management. This inquiry will be able to look in much greater depth at individual areas of work, and will greatly strengthen the NHS's capacity to make the best use of its resources.

## CHAPTER 2: THE DEVELOPMENT OF SERVICES

2.1 The main challenges facing the hospital and the community health services have been:

- to provide services for the increasing number of old and very old people;
- to reduce further perinatal mortality and morbidity (that is, the amount of disease and death occurring amongst new-born babies) and cater for the predicted increase in the number of births from 1978 ;
- to develop services generally to make greater use of new technology; for example haemodialysis for patients with chronic kidney failure, and surgical hip replacement in osteoarthritis;
- to improve standards of care for mentally ill, mentally handicapped, and long-stay geriatric patients and wherever possible provide care for these patients in the community rather than in hospital;
- to strengthen primary care and preventive measures and improve liaison with the personal social services;
- and to bring about a more equitable distribution of resources across the country.

Progress towards these objectives is discussed below.

## POPULATION CHANGES

2.2 Health care is usually most necessary around the time of birth, in early childhood and in old age. Average annual costs of providing care per head for the population as a whole, for births, and by age group are:-

Estimated average hospital and community health current expenditure per head of population in 1980-81, and by age group (England)

	Total Population	Births	0-4	5-15	16-64	65-74	75+
Expenditure per head	£160	£855	£155	£65	£85	£310	£765

2.3 Population changes during the decade are shown in Figure 4. The number of births fell substantially in the six years to 1977, increased somewhat between then and 1980, and again showed a fall in 1981. Between 1976 and 1981, the number of children up to the age of 15 fell slightly, while the population of working age increased a little. But most significant was the rise of 16% over the decade in the number of old people, particularly those beyond their middle 70s who increased by 25%.

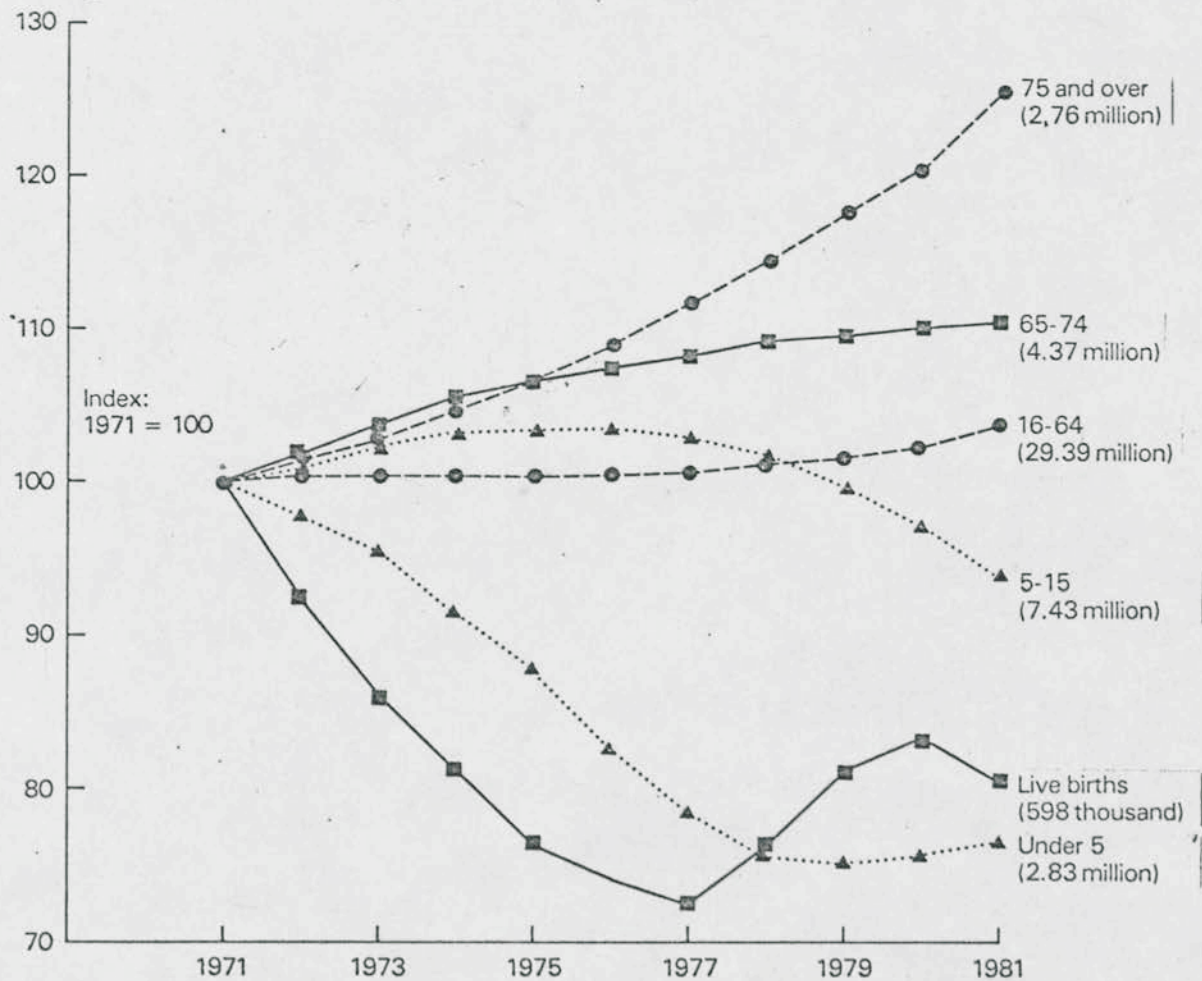
Figure 4

[Insert attached graph]



Figure 4  
Population by age 1971-1981: mid-year estimates for England

Figures for 1981 are shown in brackets



14A

2.4 By 1981, these population changes led to extra need for hospital and community health services equal to about 4% of spending in 1976-77. If the NHS nationally had failed to deliver extra services of at least that amount - an annual average of 0.7% over the country as a whole - standards would have dropped.

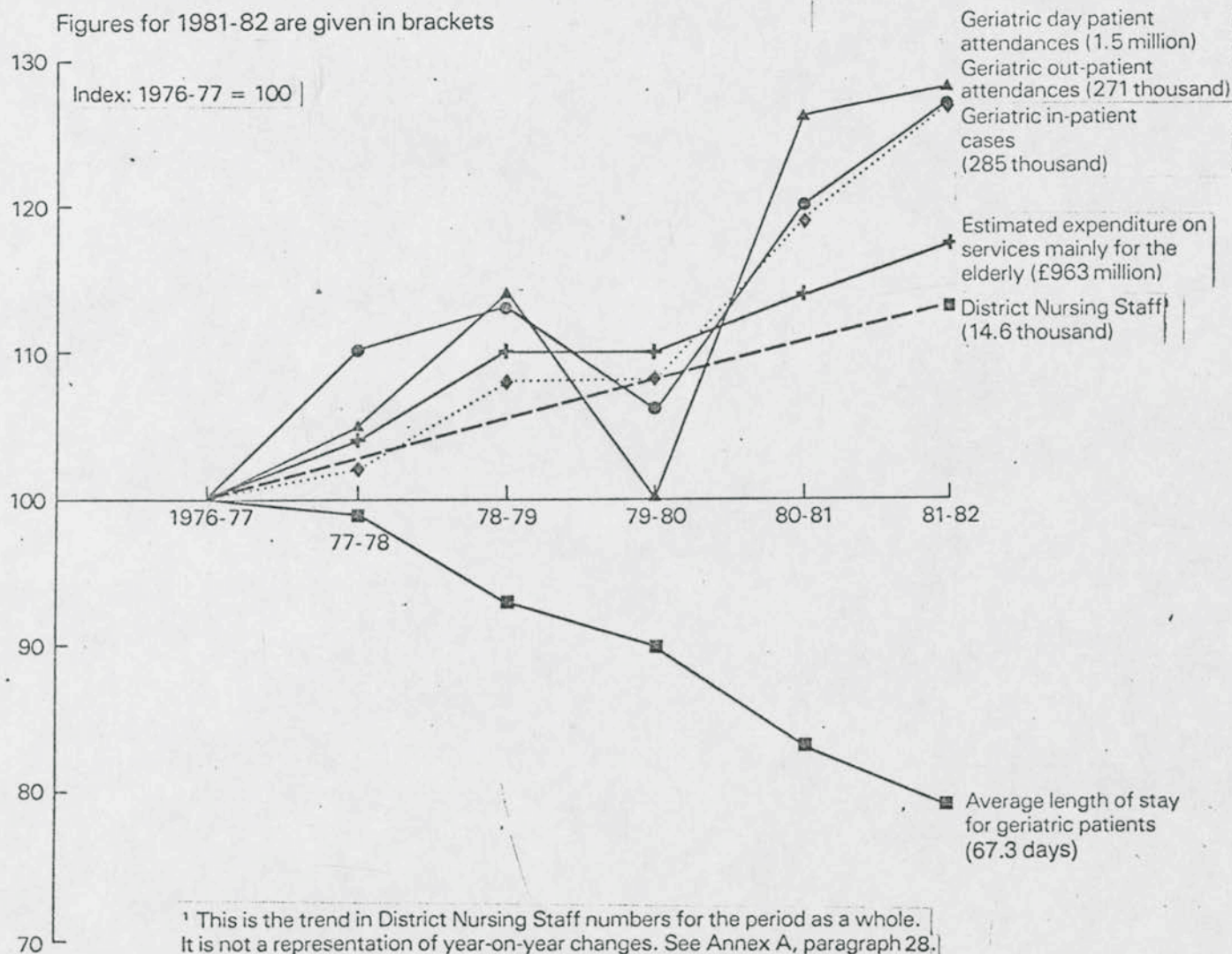
## SERVICES FOR ELDERLY PEOPLE

2.5 The rising proportion of old and very old people in the population has naturally increased pressure on the geriatric hospital and the district nursing services. The increases in these services and in spending on them is shown in Figure 5. The additional pressures the rising elderly population place on the general acute services are described later in the chapter.

Figure 5 HOSPITAL AND COMMUNITY HEALTH SERVICES FOR ELDERLY PEOPLE

**Figure 5**  
**Hospital and Community Health services for elderly people 1976-77 to 1981-82**

Figures for 1981-82 are given in brackets



16A

2.6 People <sup>are</sup> more likely to be ill as they grow older; and the treatment they then need has often to be more comprehensive and may well last for a longer time than treatment for younger patients. Consequently the costs of caring for elderly people are higher than for most of the rest of the population - on average, the hospital and community services spend nearly 9 times as much per head on people over the age of 75 as on people of working age. Expenditure on services mainly for elderly people has increased at a faster rate for most of the period since 1976 than services for other client groups - at about 3.2% a year.

2.7 The average age of people needing geriatric care has risen. This could have led <sup>to</sup> a rise in average geriatric hospital treatment costs. But it was partly offset by a fall in the average length of stay of geriatric in-patients by 21% between 1976 and 1981 - a trend which reflects in part some progress towards implementing Government policy to care for more elderly people in the community wherever possible. To help achieve this, the district nursing service has been expanded and more elderly people attend hospitals as day patients.

2.8 To meet the need for more hospital services specifically for elderly people, the numbers of staff have increased as follows:

	1976	1981	annual percentage increase
Geriatric medicine - consultants and junior doctors	1,100	1,400	5.4
Hospital nursing staff working particularly with the elderly	36,600	40,650	2.1

The ratio of nursing staff to in-patient geriatric beds increased by 13% but some of these staff work in the day hospital services.

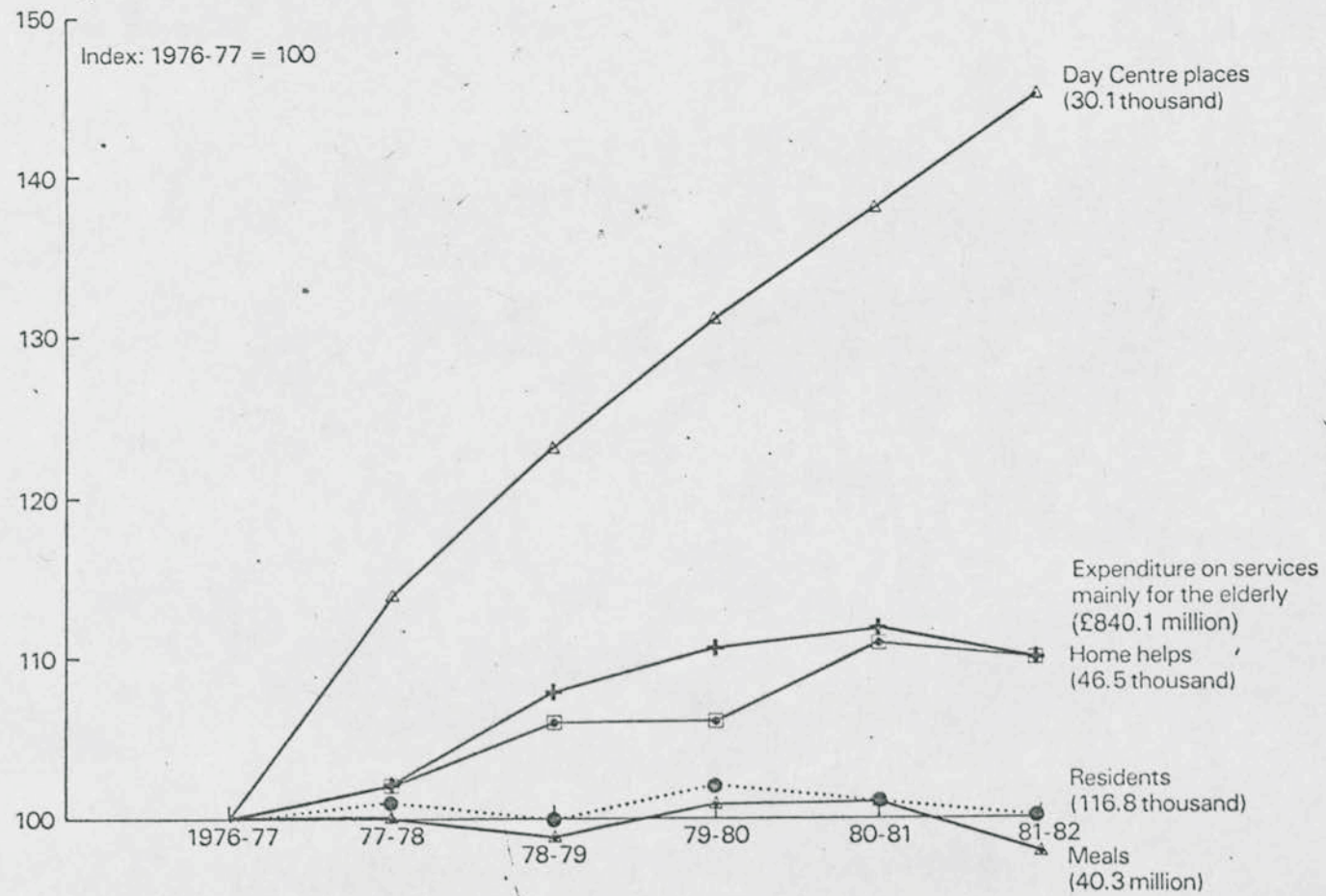
2.9 The emphasis on developing community care for elderly people has led to an increase over the period in expenditure on services provided by local authorities as well as those provided by the NHS. The changes since 1976-77 are shown in Figure 6.

Figure 6

LOCAL AUTHORITY SERVICES FOR THE ELDERLY

Figure 6  
Local Authority services for elderly people 1976-77 to 1981-82

Figures for 1981-82 are shown in brackets



## MATERNITY SERVICES

2.10 The maternity services have needed to provide for the sharp upturn in the birthrate between 1978 and 1980. There has also been much public concern about rates of perinatal mortality and morbidity here compared with some other countries.

2.11 Between 1976 and 1981 the perinatal mortality rate has continued to fall - from 17.6 per thousand births in 1976 to 11.7 in 1981. There has been a growing trend for maternity cases to be treated in general rather than single-specialty hospitals, in line with policy to rationalise all acute hospital service provision, and to ensure that maternity patients have access to the fuller range of facilities and staff skills available in a general hospital. Trends in average case costs are explained in paragraphs 14 and 15 of Chapter 1.

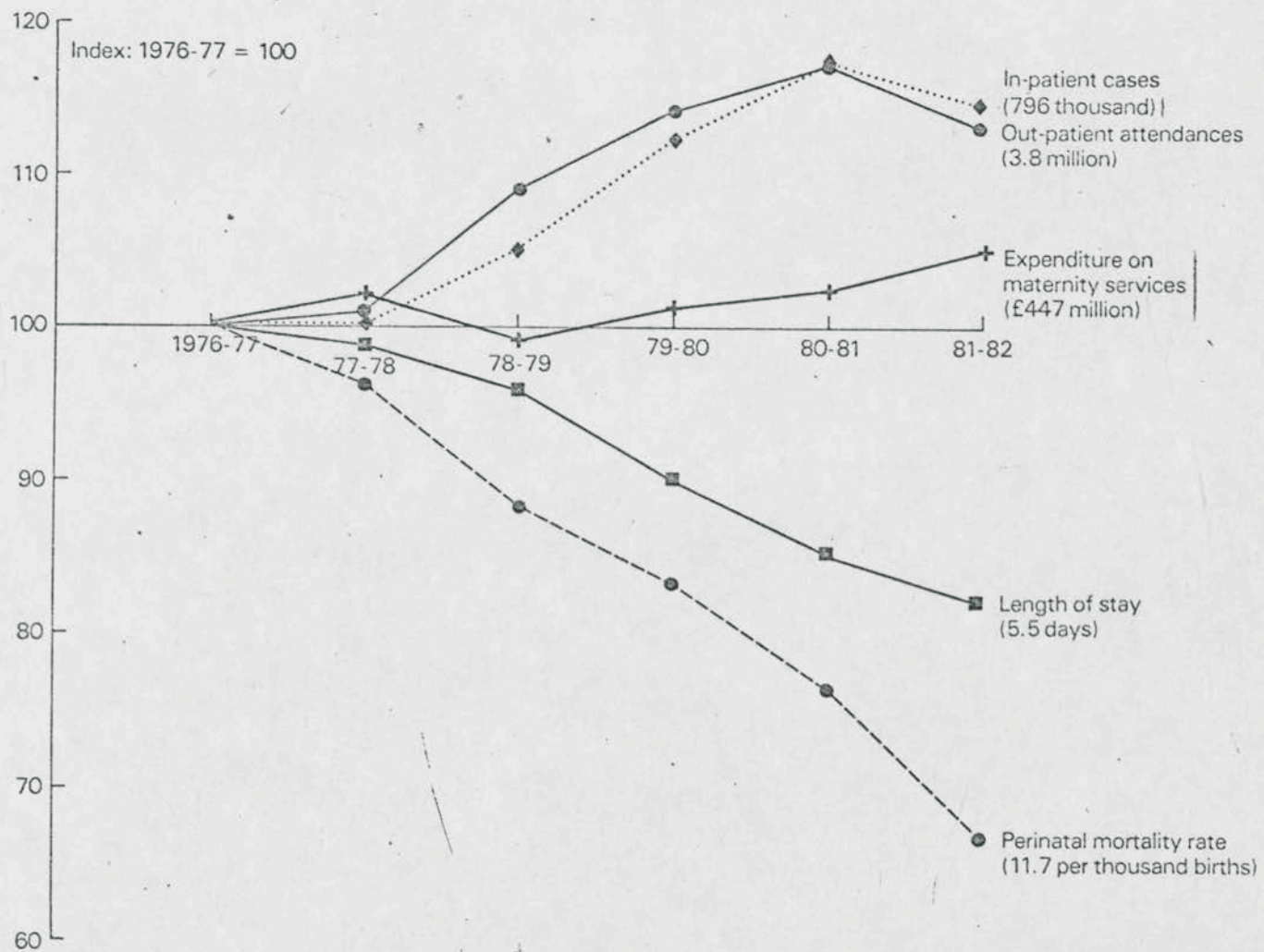
Figure 7

MATERNITY SERVICES



Figure 7  
Maternity services 1976-77 to 1981-82

Figures for 1981-82 are given in brackets



2.13 The growth in hospital-based medical and nursing manpower working in the maternity services has been as follows:

	1976	1981	annual percentage increase
Doctors: Consultants and juniors specialising in obstetrics and gynaecology	2,200	2,350	1.6
Nursing staff in hospital maternity units and midwifery staff in hospitals	26,800	28,350	1.1

## ACUTE HOSPITAL SERVICES

2.13 There has been sustained pressure for more treatment to be provided in the acute hospital sector. This is due mainly to the increase in the numbers of elderly people who use the acute services more than others. Patients aged 65 or more represent a quarter of cases in the acute specialties, but account for over two-fifths of the occupied beds because they stay in hospital longer than younger people.

2.14 In addition, if the NHS is to remain a modern and effective health care system, it must make accepted modern methods of investigation and treatment more widely available.

2.15 In some instances improved treatment methods can lead to net savings, because they reduce the need for prolonged hospital treatment; but more often medical progress calls for increased expenditure. Innovations often extend demand by bringing more patients within the range of active treatment. Many new treatments require more highly trained staff to handle the increasingly complex techniques, instruments and drug regimes involved, and this means that, in turn, manpower costs per case will often rise. New techniques and treatments may also mean the purchase and maintenance of expensive equipment. Additional costs will also arise because new treatments need careful monitoring; and some may entail a financial commitment lasting throughout a patient's life.

2.16 Examples of some specific advances in available treatments which have affected demand on the acute services include:

- hip joint replacement by surgery (arthoplasty). For patients with arthritis of the hip, this operation can relieve pain dramatically and improve mobility and the ability to undertake normal work. It costs about £2,000 per case; the number of operations performed each year increased nearly three-fold between 1969 and 1979 to reach about 31,000.

- haemodialysis and kidney transplantation. These are life saving treatments for patients with chronic renal failure. The total number of patients on dialysis or with a functioning transplant in the United Kingdom rose from 1,270 in 1971 to some 7,900 in 1981. Average hospital dialysis costs about £13,000 a year, and home dialysis around £9,000. A successful transplant costs about £5,000 at the time it is performed, and a further £1,500 annually for the rest of the patient's life. Of those patients on dialysis about 1,000 are now being treated by the recently introduced technique of continuous ambulatory peritoneal dialysis at a cost each year of up to £9,000 per patient.

- coronary artery by-pass grafting. This operation relieves the pain of intractable angina and prolongs the life of patients with some kinds of coronary heart disease. About 5,000 such operations were performed in the United Kingdom in 1980, at an average cost of £2,500 each, compared with some 250 operations in 1971.

- neonatal intensive care. Major technical developments in neonatal care over the past 15 years mean that many babies who would previously have died can now be kept alive often to grow up as normally healthy children. The techniques involved are very expensive, mainly in staff. The number of neonatal intensive care cots has expanded considerably.

- treatment of haemophilia. The use of blood clotting factors (factors 8 and 9) has been developed to treat haemophilia patients, enabling them to live relatively normal lives, survive minor injuries and undergo surgery. The use of these factors has risen from 10 million units in 1970 to 65 million units in 1980; demand is expected to reach 100 million units by 1985. The cost of each unit is about 10p.

- bone marrow transplants. These cost about £12,000 per case and are life saving for some patients with certain forms of blood disease.

2.17 The rapid development in recent years of diagnostic techniques has significantly increased hospital activity,

New techniques do not necessarily replace existing procedures but supplement them. They are frequently labour-intensive and require staff to learn new skills. The equipment needed is usually expensive. Examples of diagnostic developments are:

- brain and general purpose computer tomography (CT) scanners. Introduced in the 1970s, these scanners have made a significant impact on the diagnosis of lesions of the brain, and in defining the extent of cancer in the body. Over 90 brain and general purpose CT scanners are now available in England and Wales. They represent a capacity to examine up to 220,000 patients a year.
- diagnostic ultrasound. This is valuable in the detection of fetal abnormalities, in the diagnosis of congenital heart disease in children and the investigation of abdominal disease.
- equipment for continual monitoring of the electrocardiograms of ambulatory patients. This enables disturbances of heart rhythm to be detected and treated more effectively.
- fibre-optic endoscopy for internal examination of the gut. The technique was introduced in the late 1960s and over 100,000 examinations are now carried out each year.
- gynaecological cytology. This was introduced in the 1960s for the early detection of cancer of the cervix. Over three million tests are now done each year.

- cytogenetic tests have become available to diagnose congenital disorders during pregnancy. As these become more widely used in support of genetic counselling, a progressive reduction in the number of babies born with handicapping disorders can be expected.

- immunological techniques and clinical chemistry to measure blood hormone levels are now within the capacity of district hospitals. They are used to investigate thyroid disease and infertility; in the early detection of malignant disorders, and in the matching of donors and recipients for transplants.

2.18 Improvements in anaesthesia have made available new techniques for treating intractable pain and the management of post-operative and emergency patients. Intensive therapy units have been established in most major acute hospitals and many districts have pain clinics.

More advanced and safer anaesthetic procedures, together with more refined surgical techniques have enabled surgical treatment to be given to patients who would previously have been considered too frail for major surgery. Between 1971 and 1979 the number of operations performed on older age groups rose as follows:

Operations on People 65 and over and percentage increase between 1971 and 1979 in England and Wales

	1971	1979	percentage increase
<u>Operations on people aged 65-74</u>			
Total number of operations	218,170	279,240	28%
Operations per 100,000 elderly population (aged 65-74)	5,040	6,080	21%
<u>Operations on people aged 75 and over</u>			
Total number of operations	124,860	186,650	49%
Operations per 100,000 elderly population (aged 75 and over)	5,306	6,819	29%

2.19 In its forward costings the Department of Health has assumed that additional expenditure on the hospital and community health services nationally of  $\frac{1}{2}$ % a year is necessary as a contribution to the costs of this constant process of medical innovation.

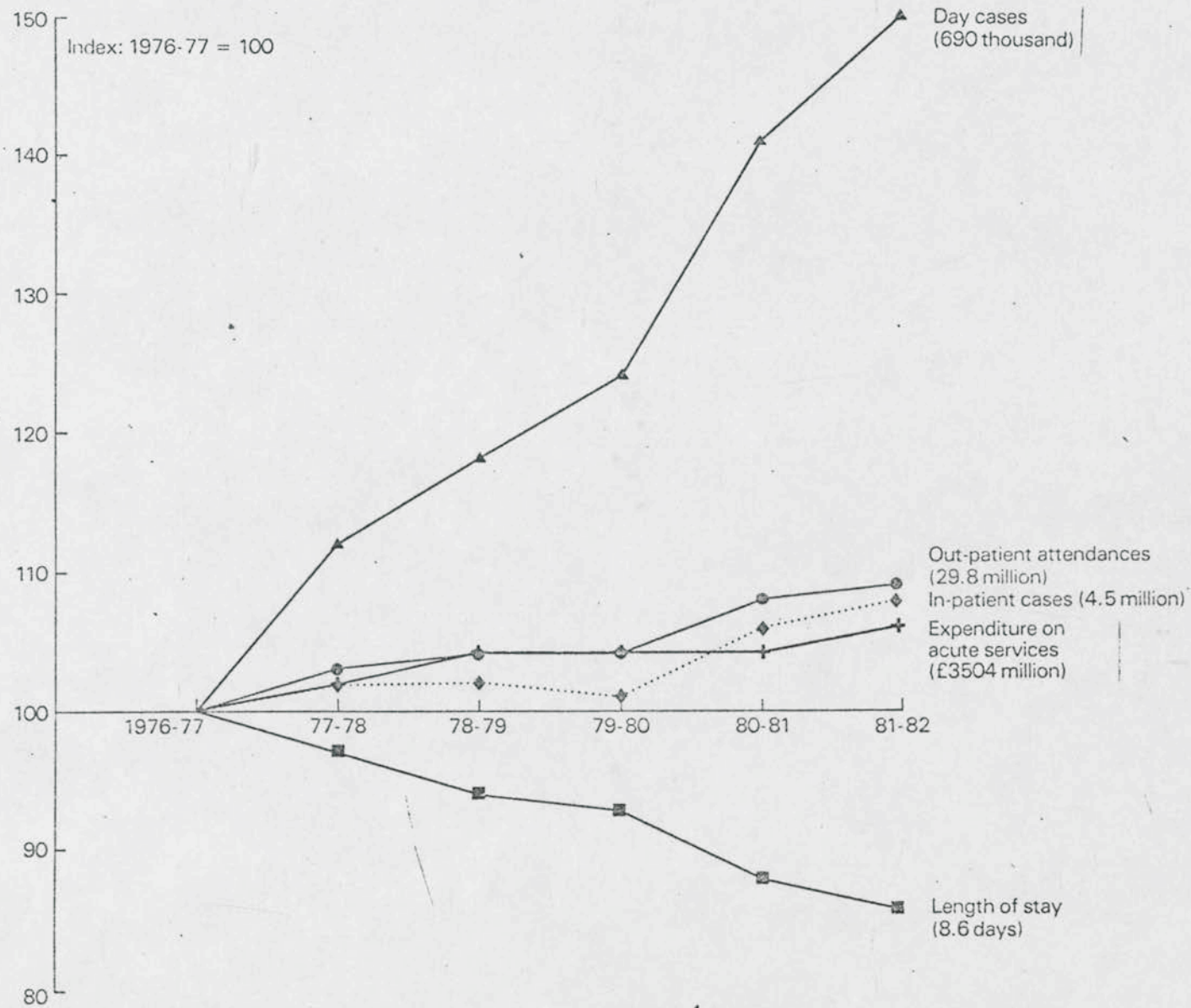
2.20 The response to the increasing number of elderly patients and the introduction of new forms of diagnosis and treatment has been a rise in hospital activity in the acute sector. As shown in Table 1 (page 5A) and explained in paragraphs 11 and 14 of Chapter 1 acute in-patient and day cases grew between 1976 and 1981 at an annual rate of 2.3% while out-patient attendances rose by 1.8% a year. During this period expenditure grew less fast and average case costs tended to fall which suggests a gain in efficiency.

Figure 8

ACUTE HOSPITAL SERVICES

Figure 8  
Acute hospital services 1976-77 to 1981-82

Figures for 1981-82 are given in brackets





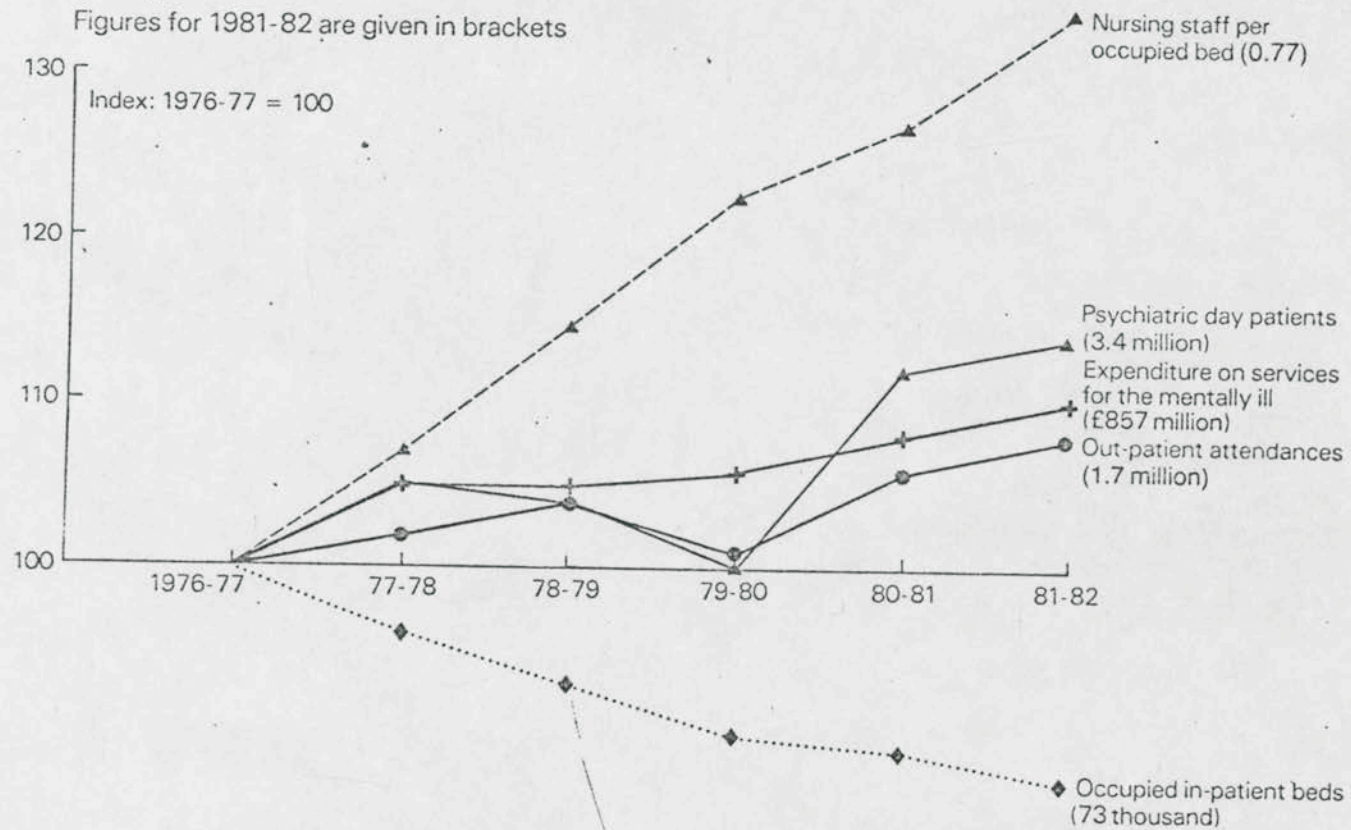
2.21 The expansion of acute services has required increases in medical manpower. Over the period, the number of doctors (consultant and juniors) has increased as follows:

	1976	1981	annual percentage increase
Medical specialties	6,950	8,000	2.9
Surgical specialties	8,550	9,800	2.9
Pathology	1,850	2,150	3.1
Radiology	1,000	1,200	3.9
Anaesthetics	3,050	3,600	3.0
<u>Total</u>	<u>21,500</u>	<u>24,850</u>	<u>2.9%</u>

Nursing staff working in the acute services have also increased, though less than in the geriatric, mental illness, mental handicap and primary health care services. But precise figures cannot be given because these nurses are not separately identified in the manpower statistics.

Figure 9  
Hospital services for mentally ill people 1976-77 to 1981-82

Figures for 1981-82 are given in brackets



## SERVICES FOR SPECIAL GROUPS

2.22 A major priority is to improve services for mentally ill and mentally handicapped people, disabled people and long-stay patients - often elderly people. During the last 25 years or so there has been a growing recognition that community care would be far better for many such patients than prolonged periods in hospital. There has also been concern about standards in some of the long-stay hospitals specialising in their care. There have therefore been pressures for change of two kinds - improvement of standards in hospital care mainly through better staff/patient ratios, and the development of community services (such as day facilities and community psychiatric nursing in the NHS, and domiciliary and other social services provided by local authorities). Encouraging progress has been made, in both the health and personal social services, towards meeting these goals, but there is still a long way to go.

## SERVICES FOR MENTALLY ILL PEOPLE

2.23 The main model for the present pattern of care for mentally ill people is the 1975 White Paper "Better Services for the Mentally Ill, which envisaged that a satisfactory network of services would take a period of 25 years or so to build up.

2.24 The increasing number of elderly people has had and will have a growing impact on the demand for psychiatric services. For example, it has been estimated that prevalence of dementia in those aged 65 to 74 is 3%, but rises to 13% in those aged 75 and over and to 22% in those over 80. Since the numbers of people aged 75 and over increased by about 25% in the decade to 1981 and is forecast to rise by 13% over the next ten years, there will be significant pressure to expand as well as improve present services

### Figure 9

#### HOSPITAL SERVICES FOR MENTALLY ILL PATIENTS

[Take in graph]

2.25 Figure 9 shows that expenditure on in-patient services has increased slightly despite falling numbers, in line with policies to improve hospital standards. For those who need to remain in hospital, in-patient care is now more often available within the patient's own health district: the number of psychiatric Departments in general hospitals increased from 137 in 1976 to 157 in 1980, while the ratio of nursing staff to patients has improved by about 22% between 1976 and 1981. At the same time, more people who would earlier have been admitted as in-patients now remain in the community. They have the support of the psychiatric nursing service, and day hospitals; and of the local authority day centres and other community-based services shown in Figure 10.

2.26 Better health care for the mentally ill is also reflected by the growth of medical and nursing staff working in the mental illness services:

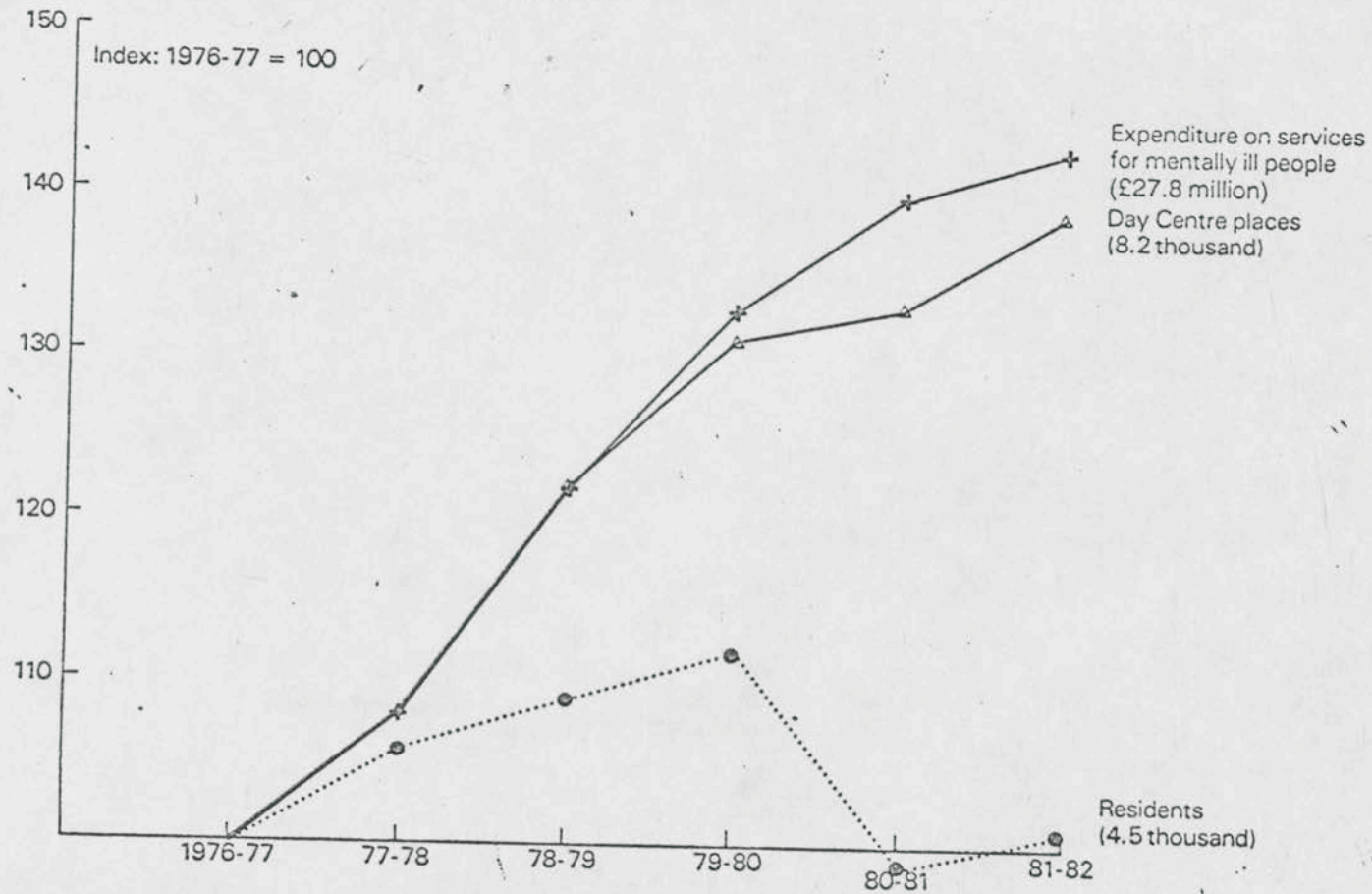
	1976	1981	annual percentage increase
Doctors: Consultants and Juniors	2,700	3,250	3.7
Nursing staff	48,500	56,500	3.1

Some of these staff provide services for patients in the community, as well as for patients in mental illness hospitals.

Figure 10

LOCAL AUTHORITY SERVICES FOR MENTALLY ILL PEOPLE

Figure 10  
 Local Authority services for mentally ill people  
 Figures for 1981-82 are given in brackets



Q&A

## SERVICES FOR MENTALLY HANDICAPPED PEOPLE

2.27 The objectives for the pattern of care for mentally handicapped people were set out in the 1971 Government White Paper "Better Services for the Mentally Handicapped". Although the shift in the balance of care between hospital and social services provision has been slower than was originally hoped, Figures 11 and 12 show that steady progress is being made in hospital and local authority services.

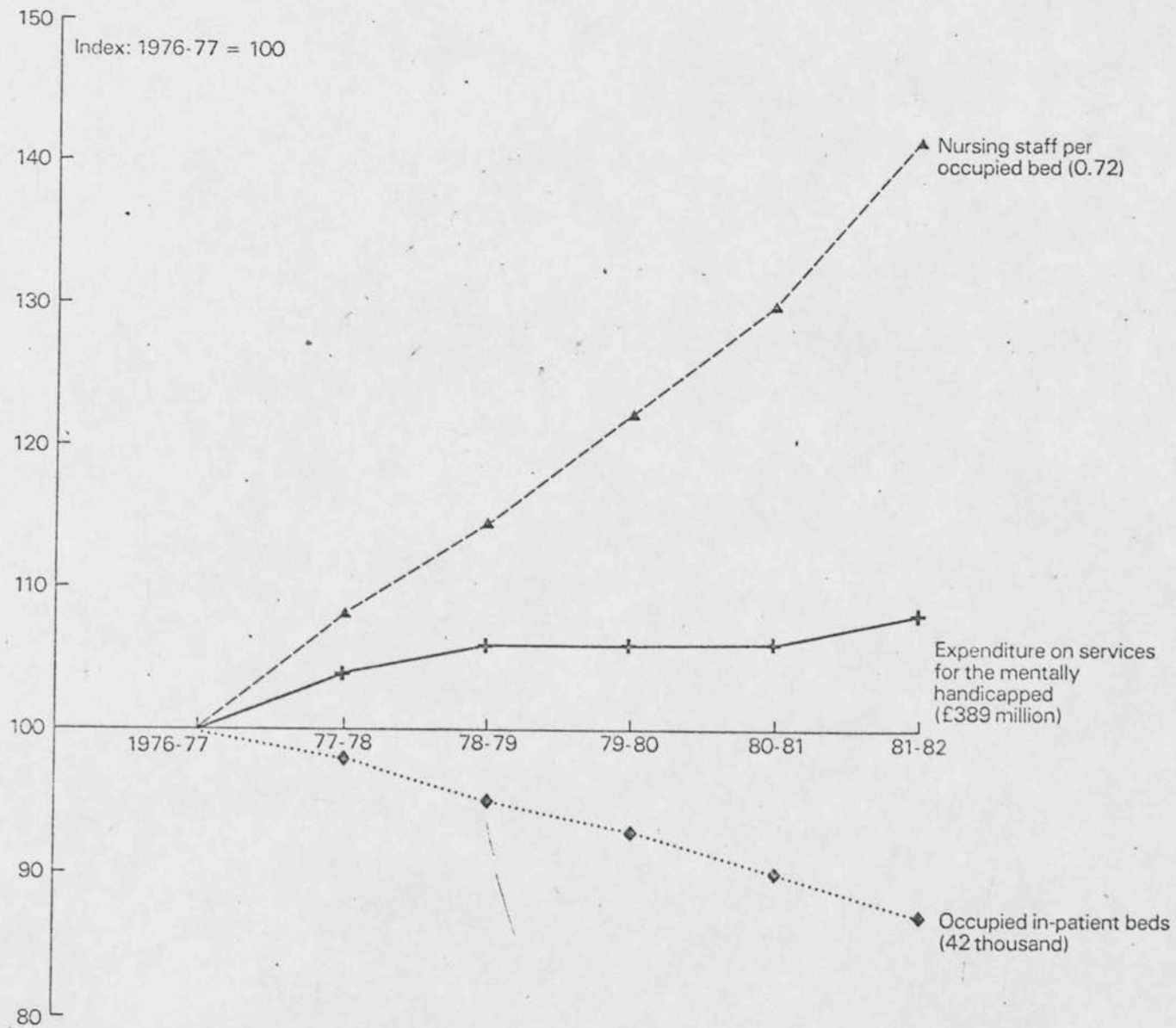
### Figure 11

HOSPITAL AND COMMUNITY HEALTH SERVICES FOR MENTALLY HANDICAPPED PEOPLE

Figure 11

Hospital services for mentally handicapped people 1976-77 to 1981-82

Figures for 1981-82 are given in brackets



2.23 Between the beginning of 1976 and the end of 1981, the numbers of mental handicap in-patients fell by over 6½ thousand; the decrease was particularly dramatic so far as children were concerned. Since 1976, the number of mentally handicapped children in hospital has fallen from well over 4,000 to below 2,000 now, as a result of discharges, fewer admissions, and children growing up. Expenditure on hospitals has risen despite these falling numbers, to secure some essential and overdue improvements. The ratio of nursing staff to residents has risen by ~~about~~ 46% between 1976 and 1981. Similarly, there has been an improvement in the ratio of physiotherapists, psychologists and other professional staff to patients.

2.29 The growth in medical and nursing staff numbers working in the mental handicap services is shown below:

	1976	1981	annual percentage increase
Doctors: Consultants and Juniors	200	250	4.7%
Nursing staff	24,800	30,400	4.2

Some of these staff provide services for day patients and patients in the community, as well as for people resident in mental handicap hospitals.

2.30 Expenditure on local authority services for mentally handicapped people has risen markedly over the period, reflecting progress in building up community-based services for mentally handicapped people and their families.

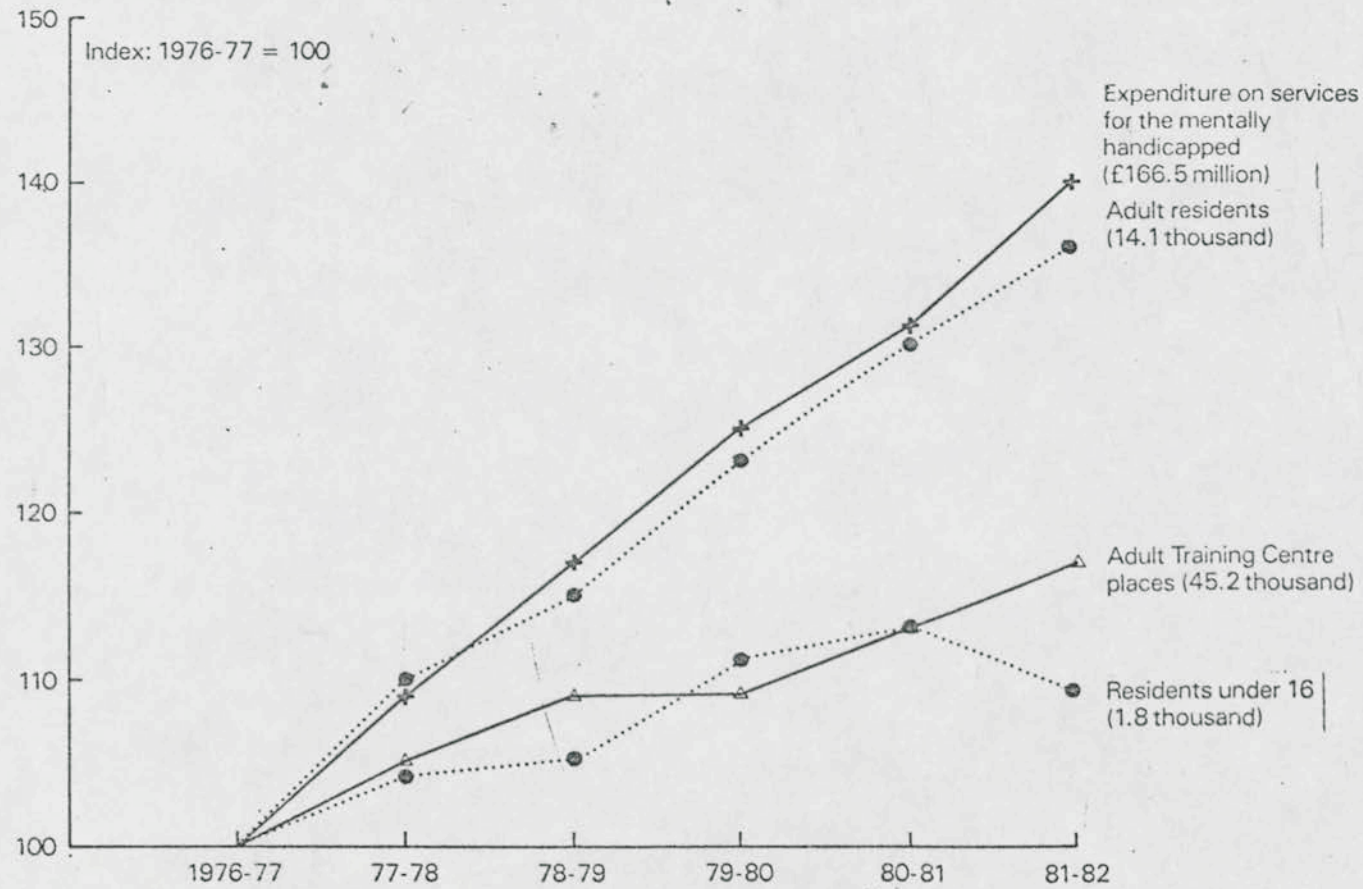
Figure 12

LOCAL AUTHORITY SERVICES FOR MENTALLY HANDICAPPED PEOPLE



Figure 12  
 Local Authority services for mentally handicapped people 1976-77 to 1981-82

Figures for 1981-82 are given in brackets



## SERVICES FOR DISABLED PEOPLE

2.31 Continued progress in maternity and paediatric care should help to reduce the incidence of congenital abnormality. Where disability cannot be prevented, the services aim to reduce its effects and to enable people to lead purposeful lives, if possible in the community.

2.32 People who do become disabled have access to a wide range of hospital, community and primary care for treatment and rehabilitation. In addition, the NHS provides seven specially designed and staffed units for treatment and rehabilitation of people with severe spinal injuries. These cost some £7 million to run in 1981-82. Since 1971, 77 Younger Disabled Units (costing £20m in 1981-82) have been established. These provide a mixture of long-term and short-term care and relief residential care for disabled people under retirement age and enable patients to maintain as independent a life as possible. Before the 1970s many severely disabled people in younger age groups were placed in geriatric wards.

2.33 There has been increased expenditure and emphasis on local authority services specifically for disabled people, such as improved domiciliary services including day centres. Schemes pioneered by local authorities have included the use of foster families for physically disabled adults, night-sitting services, specialist home help services and short term care in residential homes to assist families looking after disabled relatives. Many of these schemes are funded in part by health authority joint finance.

2.34 In addition, the Department of Health provides artificial limbs, wheelchairs, hearing aids, and other appliances to people with permanent disability. The Department also supports voluntary organisations in the disability field, many of whom are developing a variety of schemes to help disabled people live more independent lives, whether in residential care or in the community; for example, increased provision of respite care and care attendant schemes to relieve pressure on caring

relatives. The Family Fund, which helps to meet special financial needs of families with severely handicapped children, disbursed £4.6m in 1982. Expenditure on all the Department's central services helping disabled people totalled £75m in 1981-82.

## PRIMARY AND COMMUNITY CARE.

2.35 Primary care is provided partly by independent contractors - family doctors, general dental practitioners, opticians and pharmacists - through the family practitioner services; and partly through health authorities' community health services. The community health services include health visitors, district nurses, midwives and psychiatric nurses; school health services; chiropodists; and immunisation and cervical cytology services. The expansion of community nursing services to help the growing number of old people, and to improve community psychiatric services, has already been referred to. The trend described in Chapter 1 towards the earlier discharge of patients after acute hospital treatment and of mothers after the birth of their babies has also increased the role of the community nursing services.

2.36 Expenditure on the community health services overall rose from £584 million in 1976-77 to £665 million in 1981-82 - an average yearly increase in real terms of 2.6%. Over the same period the comparable real increase in spending on hospital services was 1.7%.

## Family Practitioner Services

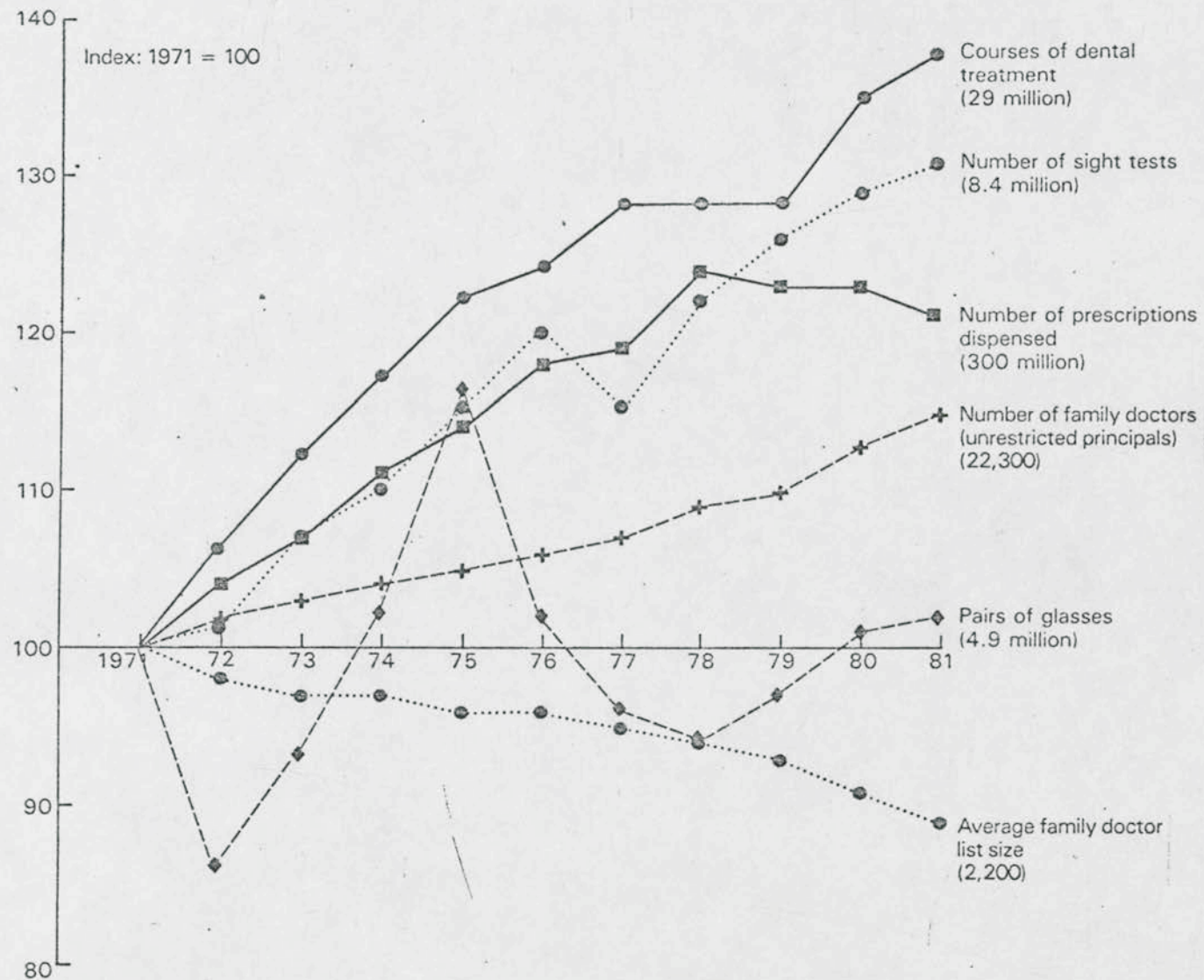
2.37 Figure 13 shows some key trends in Family Practitioner Services provision from 1971.

### Figure 13 FAMILY PRACTITIONER SERVICES 1971-1981

2.38 Between 1971 and 1981 the number of family doctors in England increased by 15% from 19,374 to 22,304 and their distribution has improved. Over this period there was little growth overall in the population and, as a result, the average list size fell by 10½%. The number of patients for which a family doctor is responsible influences the amount of time he can give to each, so this reduction of about 1% a year represents a potential improvement in general practice care. However, this may be offset by the increasing demands placed on family doctors by the growing proportion of elderly people on their lists.

Figure 13  
Family Practitioner Services 1971-1981

Figures for 1981 are given in brackets



2.39 Over the same period the proportion of family doctors in group practice rose from 58% to 75%, and over 80% of district nurses, midwives and health visitors are now attached to general practice. There were over 1,000 health centres in 1981, compared with 270 in 1971, and the proportion of family doctors working in health centres rose from 8% to 25% in 1981.

2.40 The amount of treatment provided under the General Dental Services has increased at the rate of some 3% per year, in spite of some short-term fluctuations. Within this overall increase, there has been a greater emphasis on the conservation of teeth, often involving complex restorative treatment (for example crowns, inlay and bridges) and advanced periodontal treatment.

2.41 The number of prescriptions for drugs rose for most of the decade, but fell away slightly between 1977 and 1981. The number of sight-tests provided through the general ophthalmic service rose fairly steadily, though - probably as a result of changes in charges to patients - there were large fluctuations in the demand for NHS lenses.

#### Links with Personal Social Services

2.42 To encourage joint planning between health and local authorities and to stimulate developments in community care, some health authority funds have been specially designated since 1976-77 for use on projects planned and funded jointly with local authorities. From a modest beginning of £8 million (cash) in 1976-77, the money made available in this way for 'joint finance' projects has risen each year to nearly £85 million in 1982-83.

## New policies for Community Care

2.43 The Government last year announced important initiatives to accelerate the transfer of patients and resources from hospital to the community. These initiatives were taken following full consultation with the NHS, local authorities, voluntary organisations, and others involved, on proposals published in "Care in the Community" (1981).

2.44 The new arrangements have now been introduced. They enable district health authorities to make continuing annual payments to local authorities and voluntary organisations for people moving into community care. They also extend existing joint funding arrangements for projects designed to help people move out of hospital.

2.45 It is also intended that district health authorities should be able to make payments to support local authorities and other bodies such as housing associations in providing education for handicapped people, and housing. This needs a change in legislation. Suitable powers are being sought in the Health and Social Services and Social Security Adjudications Bill at present before Parliament.

2.46 In addition the Government have made available some £20 million from 1983-84 for the central support of special initiatives designed to improve services for elderly people suffering from psychiatric disorder and for mentally handicapped people; to develop intermediate treatment for young offenders or potential offenders; to develop day care for the under-fives; and to improve primary health care in the inner cities. In 1983-84 there will also be a further substantial increase to £96 million in joint finance.



## IMPROVEMENTS IN GEOGRAPHICAL DISTRIBUTION OF HOSPITAL AND COMMUNITY HEALTH RESOURCES

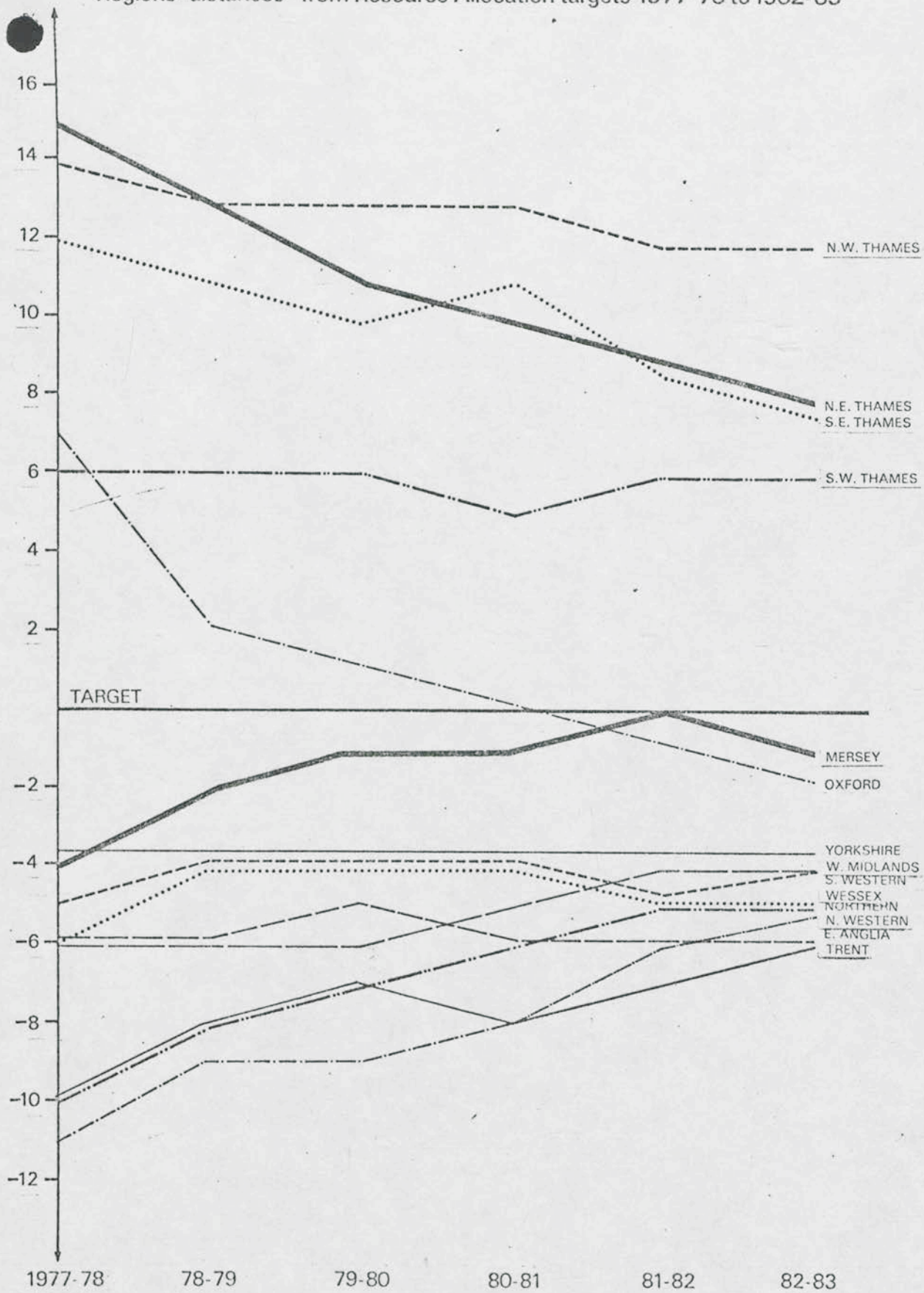
2.47 For historical reasons and because of population shifts, there are major imbalances in the level of health resources available in different Regions in the country. The south-east corner - the four Thames Regions - is well-provided relative to other parts of the country.

2.48 In the first twenty years of the NHS, resources were allocated primarily on the basis of existing provision, with additions when new hospital buildings were commissioned. This meant, in effect, that regions which had the most hospital provision received the most resources, while those with less developed services received less. In 1970, population-weighted to reflect the age-sex structure of each region - was introduced as a criterion in the distribution of resources. In 1977-78, following a major review by the Resource Allocation Working Party (RAWP) designed to improve equity in the distribution of resources, new and fuller criteria based on relative need as assessed through local population make-up and mortality patterns, were introduced. The results so far are summarised in Figure 14. This shows the changes in each region's distance from its target share of resources for current expenditure. The main achievement has been to reduce the degree of variation in the level of individual regions' resources. In 1977-78, the individual regional health authorities ranged from 15% above to 11% below their target shares of expenditure. By 1982-83, the range had been narrowed so that the best-off regions is now 12% above and the least well-provided region 6. below their targets.

2.49 There are also imbalances in the distribution of resources within regions. Regional health authorities are responsible for remedying these on the same principles as are used for re-distribution between regions.

2.50 Redistribution of capital resources is similarly being achieved by directing available resources to the relatively under-provided regions

Regions' distances<sup>1</sup> from Resource Allocation targets 1977-78 to 1982-83



<sup>1</sup>Distance from current expenditure targets expressed as percentages of regions' allocations.



## CHAPTER 3 - ACHIEVEMENTS, PROBLEMS AND NEW DEVELOPMENTS

### ACHIEVEMENTS

3.1 In many respects, the NHS has significantly improved services to patients over the last decade, and - particularly in recent years - has shown some encouraging trends in productivity:-

- the acute hospital services have both kept pace with the increasing demands of an ageing population and made modern medical techniques more widely available ;

- perinatal mortality has fallen faster than in any previous period;

- hospital services for elderly, mentally ill and mentally handicapped people have been improved, and community services for these groups expanded;

- hospital and community services have been more closely integrated since they were brought together in 1974, and better links have been created between health and personal social services;

- primary care has also improved and expanded: there are more general practitioners with fewer patients on their lists; and more district nurses and health visitors many of whom are now attached to general medical practices;

- resources are more evenly distributed geographically;

- since 1975-76 the average costs of providing acute and maternity care have tended to fall, and by international standards this care costs less here than elsewhere;

- strict cash limits have been successfully introduced for health authority services.

## PROBLEMS

3.2 Despite this there remain serious problems, for example:

- services for elderly, mentally ill and mentally handicapped people are sometimes inadequate or unsuitable;
- provision of such acute treatments as surgical hip replacement and haemodialysis in chronic kidney failure still falls short of need; and waiting lists and times are too long in some specialties and some localities, even after allowance is made for the effects of the industrial action in 1982;
- considerable variation in the costs of treatment in different geographical areas, particularly in the acute services, suggests scope for further improvements in efficiency;
- geographical imbalances in standards remain; in primary health care provision, the standard of general medical services in some inner city areas causes particular concern
- more effort needs to be put into persuading people to adopt healthier life styles.

3.3 More resources will be needed to remedy these and other deficiencies, and to provide for the continuing growth in the number of elderly people. But the money available to the NHS depends on the performance of, and the weight of other demands on, the national economy. The NHS should therefore look first to improvements in the use of existing resources to provide better services.

3.4 The systems for the planning and management of health authority resources, for budgetary control and audit of both capital and current expenditure, and for the identification and costing of future developments are basically sound. Some weaknesses have, however, become apparent in recent years:

- the chain of command has been excessively long, leading to duplication of effort and diffusion of responsibility;

- health service planning has not put enough emphasis on identifying immediate problems and

- manpower planning has lagged behind service development and financial planning, and it is not clear that <sup>all</sup> the growth in staff not directly concerned with patient care has been justified;

- there has been difficulty in meeting the running costs of some new hospitals planned in the early 1970s when the growth in current spending was higher than it has been since 1975;

- information for planning, and for assessment and improvement of performance has been inadequate, particularly because of difficulty in linking activity, financial and manpower information and because some information has become available too late.

More generally, there has been a lack of sustained and systematic pressure to increase efficiency. There has been a good deal of work on efficiency but it has been ad hoc, and improvements in productivity have tended to depend on reductions in length of stay in hospital. It is now necessary to search rigorously for new ways of improving efficiency, looking nationally at all areas of work, and comparing the performance of individual health authorities.

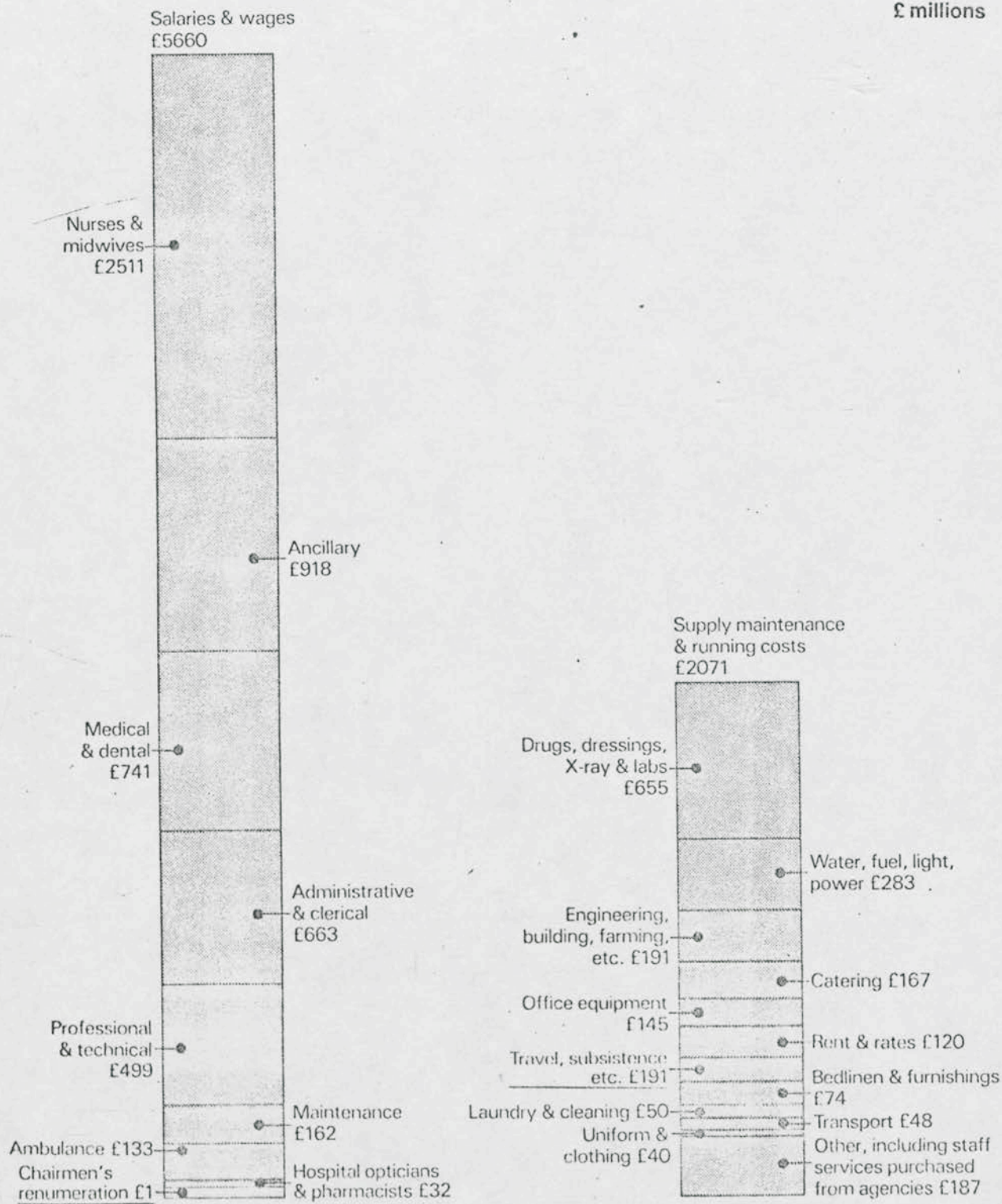
#### NEW DEVELOPMENTS

3.5 The Government have recently taken or set in hand a number of initiatives to tackle these weaknesses. They include changes to the structure of the NHS; a new machinery for reviewing health authority performance, new arrangements to plan, control and monitor manpower, improvements in audit and information for both central and local monitoring, a new scrutiny procedure for administrative and managerial functions; measures to improve efficiency in specific areas such as purchasing goods and

Figure 15

Health Authority expenditure on staff, goods, and services in 1981-82

£ millions



services. Health authorities spend some £2 billion a year on a wide range of goods and services, as Figure 15 shows broadly and Annex C in more detail. But the large bulk of their expenditure is on manpower. The measures for improving efficiency and monitoring performance that are described here will in due course influence all types of health authority expenditure, but the changes in structure, the new measures for performance and planning review, and the innovations concerned specifically with manpower can be expected to make a particular impact on manpower control and efficiency.

[Insert Figure 15 here]

### Health Authority Structure

3.6 In April 1982 the Government established a simpler and tighter health authority structure, which itself should provide a greater degree of control. Under the 14 regional health authorities

- the 90 Area health authorities comprising 199 Districts are replaced with a single structure of 192 District health authorities. The number of chief officer teams has fallen from 251 to 193, reducing duplication and referral "up the line". Authority members are now better placed to plan for the needs of their localities and to answer for the local working of the NHS;
- the "chain of command" is shortened by removing the sector management level within the district and increasing management responsibility at unit - that is hospital or community service - level. Management skills are now focussed where they are needed;
- the arrangements for obtaining advice on management issues from health professionals are simplified.

In effect, one major layer of management has been removed and the rest has been simplified. These changes are expected to yield savings in management costs of some £30 million a year from 1984-85. These savings will be available to improve services to patients. Legislation has also been introduced to remove the present administrative dependence of family practitioner committees on district health authorities and make them directly accountable to the Secretary of State for all their functions.

## Regional Reviews and the Planning System

3.7 The maximum delegation of responsibility to local health authorities must be accompanied by systematic monitoring to ensure that district health authorities are properly accountable through regional health authorities to the Secretary of State and to Parliament. The planning system remains essential for monitoring the performance of health authorities in meeting the Government's broad policy objectives and strategies, but it has now been simplified. The Government have also introduced annual reviews to hold health authorities to account for their management of resources; these will include monitoring of strategic planning as well as progress in achieving agreed objectives. Starting last year, DHSS Ministers hold these reviews with the chairman and chief officers of each region. Parallel reviews of districts are being held by regions. In each review the aims are:-

- to ensure that the authority is using the resources allocated to it in accordance with the Government's policies, to agree with the chairman on the progress and development to be achieved in the ensuing year, and to review progress against previously agreed plans and objectives;

- to assess the performance of regions and their districts in using resources, including manpower. Through these reviews Ministers will hold regions to account; and regions will in turn hold their constituent districts to account.

hold their constituent areas to account.

## Performance Indicators

3.8 A set of indicators of performance for use in regional and district reviews was developed and tested jointly by the Department and the Northern Regional Health Authority during the first half of 1982. The indicators enable comparisons to be made between health authorities in four major areas: clinical activity, manpower, finance, and estate management. They have been used on an experimental



basis in the last seven of the 1982 regional reviews. The various indicators are looked at together in these reviews to gain an overall impression of activity and resource use within the region, because the aspects of activity they cover are inter-dependent. Questions about apparently atypical patterns of activity and resources use are then raised, as the starting point for further investigation. Regions are expected to follow these up with their districts and report back. The first such accounts of follow up will be made during the 1983 reviews. The indicators have already been revised to reflect experience of their use in 1982; those for use in 1983 are summarised in Annex E. Later in the year, the values for all the indicators for every health district in the country will be published. This will enable any authority to compare its indicator values with those of any other district or districts it chooses.

3.9 Performance indicators require further development in order to achieve their maximum potential. This will mean both working out indicators for types of activity not yet covered, and the assessment of existing indicators in the light of further experience. A joint NHS/DHSS group is to oversee this development. Performance indicators are also being developed for family practitioner committees, as an aid to local management and to help the Department compare their administrative performance.

#### Manpower Planning and Control

3.10 Efficiency in the use of manpower is of key significance if further improvements in the service are to be achieved. The Department is therefore taking steps specifically aimed at strengthening manpower planning and control.

3.11 Manpower indicators are included in the performance indicators already described. In addition, health authorities were last autumn required to review their staffing plans in line with current expenditure allocations for the remainder of the present financial year and to notify the DHSS of their manpower estimates for March 1983. These have been discussed and agreed between the DHSS and regions. In future, manpower levels and plans will be reviewed regularly to ensure that they remain in line with plans for improving efficiency and developing services within available finance.

District annual programmes for 1983-84 are to include manpower targets for each main staff group. Regions must satisfy themselves that these targets properly reflect resource assumptions and service and efficiency plans and bring them together to form regional targets. These will be agreed with the Department and monitored through regional reviews and new quarterly returns on staffing levels which were introduced last year.

3.12 Because of the key importance of manpower efficiency, the complex and widely differing circumstances in which NHS staff are used, and the concern expressed in Parliament and elsewhere about manpower levels in the NHS, the Government have recently announced the creation of a special inquiry into NHS management.

3.13 The inquiry is headed by Mr Roy Griffiths, deputy chairman and managing director of Sainsburys. It will be able to investigate NHS resource use as fully as its members think necessary, and will advise the Secretary of State for Social Services on what further management action if any is needed either centrally or by health authorities.

#### Information

3.14 A Steering Group chaired by Mrs Korner (formerly Vice-Chairman of South Western RHA) is reviewing the NHS's collection and use of information. The main aim is to get better and earlier information for local management, including where possible data which links activity and outputs with statistics on financial and manpower resources, so that the resource cost of activities is known better. There will be a common core of information so that different health districts can be compared more easily and information can be more effectively aggregated at regional and national level.

## Audit of NHS Performance

3.15 Changes are taking place in the internal and external audit of the NHS. A Working Party under the chairmanship of Mr Patrick Salmon has recently concluded a review of the standard of internal and external audit in the NHS. Additionally the accounts of eight district health authorities will be audited by private firms for an experimental period of three to five years, starting with the accounts for the year ending 31 March 1983. This experiment, to discover the cost-effectiveness of using private firms to audit the NHS, will be extended to a further 6 health authorities for the year ending 31 March 1984. About 10% of the total external audit capacity is devoted to looking at "value for money". Discussions are also taking place with the Exchequer and Audit Department to see if there is scope for greater co-operation in mounting special reviews in areas thought likely to result in savings. Matters of significance arising out of external audit may be pursued through the new regional review system, as well as through the normal reporting procedures. In December 1982 the DHSS called on all Health Authorities to review their security arrangements in relation to supplies, stores and articles in use, and to report on progress towards new strategies by December 1983. The DHSS has also commissioned a firm of accountants to review existing procedure in this area.

## Rayner scrutinies

3.16 Since 1979, many of the activities of central Government Departments have been the subject of special scrutinies carried out under the auspices of Lord Rayner. These scrutinies begin by considering whether a given activity needs to be done at all; and then look

in detail at efficiency of performance. These studies have been very successful in central government and a similar approach is being introduced in the NHS. Scrutinies are being done regionally by senior NHS officials reporting to the regional chairman, who will in turn report to the Secretary of State for Social Services. The 11 studies in the initial programme are listed in Annex D. The topics include for example aspects of new hospital planning, staff recruitment, the ambulance service, collection of revenue, catering and storage of supplies.

## Management Advisory Service

3.17 A trial is being conducted in the Oxford and South Western Regions to assess the benefits of establishing a Management Advisory Service to provide

regional and district health authorities with an independent assessment of their services. Ministers will consider establishing similar arrangements on a wider basis in the light of an independent evaluation of the trial.

#### Promoting more cost-effective practice in the NHS

3.18 The DHSS's health services research programme, which is complementary to the mainly biomedical research programme of the Medical Research Council, includes two developments of particular potential importance.

3.19 Although there are a large number of clinical trials in this country, research into the economic consequences of other aspects of clinical practice has been hampered by the comparative crudeness of available costing data. To help remedy this, the Department has recently promoted the development of a method of specialty costing. This has been tested successfully in seven Districts. In addition an attempt is being made to develop a practicable method of patient, or disease, costing through a Financial Information Project based in the West Midlands.

3.20 Efficiency may be better promoted if clinicians themselves are given more incentive to economise in the use of the various resources at their disposal. The Department is therefore sponsoring research to see whether clinical budgeting for consultants and their clinical teams would improve "value for money" and so enhance clinical practice.

#### Drugs

3.21 Drug costs represent about 10% of NHS spending. To encourage more cost-effective use of drugs, family doctors are provided with information on the comparative costs of different drugs. Those who themselves wish to audit their prescribing are given a regular analysis of their prescribing patterns and their costs. This service is to be improved by the computerisation of prescribing data. These measures are supported in the recently published report of an Informal Working Group on Effective Prescribing and, with other recommendations, are the subject of consultation with interested organisations. The main central influence on the purchase cost of drugs is the Pharmaceutical Price

Regulation Scheme. The Government have announced that the working of this scheme is to be reviewed.

Hotel Services, Supplies, Capital and Land

3.22 The initiatives described above are general in their application. They are potentially relevant to all aspects of health authority performance and expenditure. There have also been initiatives to improve efficiency and cost-effectiveness in the acquisition or use of specific services and assets.

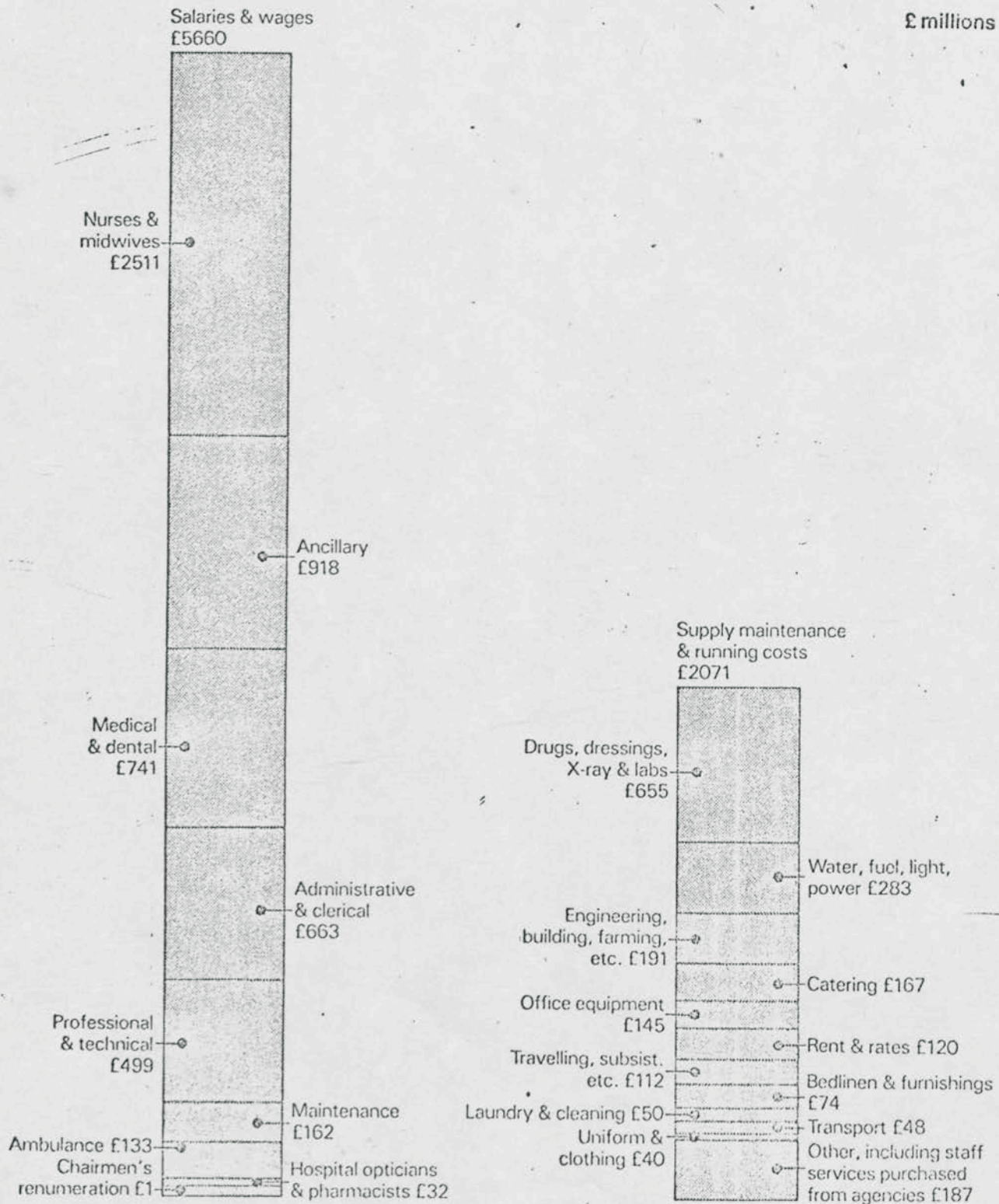
3.23 Figure 15 shows that health authorities spend over £1000 million a year on "hotel" functions such as domestic, laundry and catering services. In 1981-82, only £17 million of this was contracted out; the rest was provided by direct labour (though authorities do contract out some £160 million of spending on services overall). Through an initiative announced to Parliament in February 1983, the Government are promoting competitive tendering for the supply of domestic, laundry and catering services between health authorities' in-house direct labour services and private external contractors. Consultation is in progress on the detail. The new arrangements should ensure that the discipline of market tendering and pricing is brought fully to bear on this major area of NHS spending. Savings will be kept by the health authorities who make them, and will contribute to the development of patient services. To ensure that private contractors can tender on a fair and equal basis, the Chancellor of the Exchequer has announced his intention to seek powers to remove the anomaly under which health authorities pay Value-Added Tax on most contracted-out services.

3.24 Given authorities' large expenditure on general supplies, efficient purchasing is vitally important. The Government have therefore set up a Health Services Supply Council to help health authorities improve their purchasing arrangements. The Council

has already put proposals to regional health authorities on how the NHS supplies services should be organised in future; advised health authorities to introduce computer-based information systems to improve their procurement decisions; and on the application to the NHS of the Government's policy for using public purchasing to improve the competitiveness of UK suppliers; and supported the introduction of a quality assurance scheme designed to help the NHS to purchase goods manufactured to an acceptable standard. Each of these initiatives is subject to continuing surveillance by the Council. The Council is now focussing more on specific areas where improved value for money can be achieved. These include the identification of new purchasing arrangements which will result in savings; the development of a means of monitoring the effectiveness of the Council's policies; a review of training for supplies staff and a review of storage and distribution arrangements.

3.25 Cost effective capital investment is one of the avenues to future efficiency. The DHSS already issues advice on building standards and design to increase efficiency and reduce capital and running costs, for example through energy conservation.

Figure 15  
Health Authority Expenditure on staff, goods, and services in 1981-82



In 1982, the DHSS advised health authorities on investment and option appraisal techniques to improve the quality of decisions on the use of capital.

3.26 Last year, the DHSS encouraged health authorities to make better use of their estate by selling surplus land and property. The extra resources available to health authorities from such sales have grown: in 1981-82, 1199 acres of land were sold bringing in about £19 million, compared with 386 acres in 1976. This initiative was followed by an enquiry, by a team including two members with relevant private sector experience. The team was asked to recommend ways of making the best possible use of the NHS estate and of identifying and disposing of surplus land and property. Its report was published in January 1983, and is being energetically followed up.

#### FUTURE PROSPECTS

3.27 The Government are committed to an efficient National Health Service; and appreciate the pressures to cater for the growing numbers of very old people, to improve standards and to make modern medical techniques more widely available. However, service expansion cannot be provided just by shifting more resources, especially manpower, into health care. There are limits to what the economy can afford, and growth must, as in any other enterprise, depend partly on increasing productivity.

3.28 The analysis in Chapters 1 and 2 shows that in recent years the NHS has in some important respects an encouraging record of improving efficiency and redeploying resources to meet national priorities and local needs. There is no doubt that the service responded to the discipline of cash limits by releasing more resources through lower average acute case costs and by meeting new needs through redeployment as well as growth.

The Government are accelerating progress by a series of initiatives which tighten further the disciplines of planning and accountability and give much higher priority to improving efficiency. Regional authorities have agreed that they will seek to improve efficiency by at least  $\frac{1}{2}$ % a year. At the same time districts and managers at a local level have been given



more responsibility and central policies have been made more flexible. The Government hope that the NHS will respond by speeding up the improvements in efficiency to provide further development of services to patients within the inevitably limited resources that the economy can afford for health care.

NOTES ON EXPENDITURE, COST, MANPOWER AND ACTIVITY DATA

A: GENERAL

1. All figures relate to England only unless otherwise stated.
2. Unless otherwise stated, all figures for health and personal social services expenditure, manpower, and activity derive from regular returns made by health and local social services authorities to central government. Aggregates of these returns are published annually. The latest publications are:

Health and Personal Social Services Statistics 1982; HMSO.

Health Services Costing Returns Year Ended 31 March 1981;  
DHSS and Welsh Office.

Hospital In-Patient Enquiry; Main Tables for 1978 (HMSO)  
Summary Tables for 1979 (HMSO)

In-Patient Statistics from the Mental Health Enquiry for  
England, 1978; HMSO.

3. The first two publications mentioned are the main sources, and contain figures up to the financial year 1980-81, or the calendar year 1980 as appropriate. Figures for the financial year 1981-82 and the calendar year 1981 used in this review will be published in the appropriate series in due course. The unit costs for 1981-82 shown in Figure 3 (Chapter 1), and the 1981-82 expenditure figures for the different patient groups and personal social services activity figures given in Chapter 2, are all provisional and liable to alteration once the returns on which they are based have been fully verified and analysed.
4. Figures are in most cases rounded; but all percentage changes and annual rates of growth are calculated on unrounded figures.
5. The programme budget method used to bring together activity and expenditure figures was described in "Priorities for Health and Personal Social Services in England" (HMSO, 1976). A

fuller account is in "Programme Budgeting in the DHSS" by Mrs G T Banks in Chapter 8 of "Planning for Welfare; Social Policy and the Expenditure Process" (ed. Booth) (Blackwell and Robertson 1979).

6. The DHSS has provided the House of Commons Select Committee on Social Services with retrospective programme budget analyses each year since 1980. This material, including notes of caution on the limits of its accuracy, has been published by the Committee in Minutes of Evidence associated with its reports on Public Expenditure on the Social Services in the Parliamentary sessions for 1979-80, 1980-81 and 1981-82.

#### EXPENDITURE AND COST FIGURES

7. All expenditure and cost figures relate to the financial year ending on 31 March, and are gross (that is they include revenue from charges to patients.) They are presented on a common 1981-82 price base unless otherwise stated, and therefore illustrate trends in real resources.

8. The 1981-82 price base for expenditure and cost figures has been obtained by adjusting for known overall movements in the price of staff and non-staff resources used in the NHS and the personal social services respectively.

9. In Table 1 of Chapter 1, in Figure 15 of Chapter 3, and in Annex C, expenditure on agency staff is included in expenditure on

goods and services purchased by health authorities rather than in expenditure on staff.

## MANPOWER

### Sources

10. The manpower figures are based on health and local authority census returns at 30 September each year, and on returns from other agencies as appropriate.

### Definitions and Coverage

11. NHS manpower numbers are shown as whole-time equivalents based on contractual hours, with part-time staff being counted on the basis of the relationship between their hours and the full-time contractual hours.

12. Except where noted otherwise, the manpower groups are defined as follows:-

a. Medical and dental staff: excludes hospital practitioners, part-time medical officers (clinical assistants), general medical practitioners participating in Hospital Staff Funds, and occasional sessional staff in the Community Health Services; but includes locums.

b. Nursing and midwifery staff: includes agency nurses and midwives, and health visitor students; but excludes student nurses (community).

c. Professional and technical staff: excludes Works staff.

d. Administrative and clerical staff: includes staff of the Dental Estimates Board, and the Prescription Pricing Authority.

e. Ambulance Officers and Control Assistants are included with Ambulance Staff and not with Administrative and Clerical Staff.

Adjustments of Manpower Figures to obtain a comparable series

13. The manpower figures for 1971 and 1976 have been adjusted to allow for changes in NHS functions in 1974 and reductions in the contractual hours of some staff groups during the period 1971-1981 as follows.

14. The actual numbers of whole-time equivalent staff employed in the hospital and community health services are given in Table A below, unadjusted and as previously published.

Table A - Unadjusted Figures

	1971	1976	1981
Medical and dental	24,600	34,100	39,000
Nursing and midwifery	256,900	341,700	391,800
Professional and technical	38,500	52,500	65,200
Works and maintenance	21,800	25,000	27,200
Administrative and clerical	62,500	98,500	108,800
Ambulance	-	17,200	18,200
Ancillary	164,900	173,600	172,200
TOTAL	569,200	742,500	822,400

15. Following the NHS re-organisation in 1974, staff providing community health services who were previously employed in Local Authority Health Departments were transferred to Area Health Authorities, while some other staff were transferred from health to local authorities. Table B shows the estimated numbers of staff that the NHS would have needed to employ had these changes been in effect in 1971.

Table B - Figures for 1971 adjusted to show estimated numbers needed had health authorities' functions then been as they were after 1974

	1971	1976	1981
Medical and dental	28,200	34,100	39,000
Nursing and midwifery	285,400	341,700	391,800
Professional and technical	38,500	52,500	65,200
Works and maintenance	21,800	25,000	27,200
Administrative and clerical	70,400	98,500	108,800
Ambulance	15,200	17,200	18,200
Ancillary	168,000	173,600	172,200
TOTAL	627,500	742,500	822,400

16. Over the period 1971-1981 a number of significant changes were made in the basic working week of most staff groups. The basic hours of nurses and midwives fell from 42 to 37½, and of administrative and clerical staff from 38 to 37. Table C below shows (together with the adjustments at Table B above) the numbers of staff in these two groups that would have been needed in 1971 and 1976 had their contractual hours been as in 1981 (ie the whole-time equivalents in terms of the 1981 standard working hours of the actual man-hours in the earlier years). There were also reductions in the contractual hours of other groups (notably Ancillary and Professional and Technical staff). The position for these groups was however more complex and it has not been possible to calculate any reliable adjustments for them. The adjustments made therefore tend to understate the overall reduction in manpower resources caused by shorter contractual hours; and the figures still therefore tend to overstate the services' actual increase in manpower resources.

Table C - Further Adjustment of 1971 figures and adjustment of 1976 figures to show estimated numbers of staff needed in those years had contractual hours been reduced to the levels of 1981

	1971	1976	1981
Medical and dental	28,200	34,100	39,000
Nursing and midwifery	319,600	364,500	391,800
Professional and technical	38,500	52,500	65,200
Works and maintenance	21,800	25,000	27,200
Administrative and clerical	72,300	98,500	108,800
Ambulance	15,200	17,200	18,200
Ancillary	168,000	173,600	172,200
TOTAL	663,700	765,300	822,400

17. The adjusted figures for 1971 in Tables B and C include staff then working in the health departments of local authorities, whose work was transferred to the NHS in 1974. They do not, however, include those staff engaged in Treasurers', Works Personnel, Supplies and Computer Departments who provided the back-up to the Community Health Services because they were not transferred although the relevant funds were. As a consequence, the NHS had to appoint more staff to cover these central support functions when they were transferred in 1974. No adjustment has been made on this account, because the number of such extra staff cannot reliably be estimated; they are therefore included in the 6.4% increase in health authority administrative and clerical staff shown as occurring between 1971 and 1976.

18. The figures in Table C above are those used in Table 1 of Chapter 1; and comparable adjustments have been made to all the hospital and community health service manpower figures for 1976 given in Chapter 2. These adjustments are estimated; but, subject to the provisos in paragraphs 17 and 18 above, they indicate the broad changes that occurred in the real levels of health authorities' manpower resources between 1971 and 1981.

## ACTIVITY FIGURES

19. Figures for hospital activity (ie numbers of cases treated and other patient services) are based on the annual hospital SH3 returns made to the Department and relate to calendar years. The number of in-patient cases is derived by counting all in-patient discharges and deaths. Figures for day cases are not available prior to 1972; estimates for the number of day cases in 1971 have therefore been made in Table 1 and for 1961 in Annex B. These estimates reflect an assumption that trends on day cases were the same as for in-patients. The number of out-patient attendances is composed of total out-patient and accident and emergency attendances by new and old patients; similarly the number of day attendances comprises total attendances by both new and regular day patients.

20. Activity figures for the Family Practitioner Services are based on information collected regularly from Family Practitioner Committees, the Dental Estimates Board and Prescription Pricing Authority and relate to calendar years. The number of general medical practitioners and their average list sizes are based on census data as at 1 October each year.

21. Personal social services activity statistics are derived from local social services authorities' annual returns to the Department. They are mostly census-based and relate to 31 March of each year.

### B. SPECIFIC VARIANTS AND EXPLANATIONS

#### CHAPTER 1

22. The cost-weighted index of overall hospital and community health services activity in Table 1 on page ("Trends in manpower, expenditure and activity between 1971 and 1981 in the Hospital and Community Health Services") has been derived by weighting the rates of change in the various activities for 1971, 1976 and 1981 by their estimated shares of total hospital and community health service expenditure in 1980-81. No allowance has been made for any changes in the mix of cases within each



category of activity, but the result shows broadly the overall increases in output in these services between 1971 and 1981 (1971 = 100). The comparable index in Annex B has been similarly derived.

23. Due to a change of definition in 1972, activity figures for health visiting (number of persons visited) and district nursing (number of persons treated) are not available for 1971 on a basis comparable with later years. 1972 figures have therefore been used in Table 1, and the increase shown here for the first half of the decade is based on the period 1972-76. In this respect, the Table understates the increase in these activities over the ten years from 1971.

24. In Figure 3 ("Trends in Hospital In-Patient Costs"), the material relates to types of hospital. Maternity, mental illness, mental handicap and geriatric hospitals provide care mainly for patients within these specialties. However, acute hospitals also provide a significant amount of maternity and geriatric care as well as some psychiatric care in addition to the acute care which is received by the majority of their cases. The figures in Figure 3 for average case costs in acute hospitals include all cases in hospitals classified as acute, mainly acute or partly acute. However, the figures for average length of stay in the acute sector given in paragraph 1.14 are for acute cases only; they exclude maternity, psychiatric, and geriatric cases. They also exclude long-stay younger disabled cases.

25. The percentage changes in average case costs from 1971- 72 to 1981-82 represented in Figure 3 are as follows:

CHANGES IN AVERAGE UNIT COSTS (Percentage change over previous year)

	Acute, Mainly Acute and Partly Acute hospitals	Maternity hospitals	Mental Illness hospitals	Mental Handicap hospitals	Geriatric hospitals*
	(Cost per In-patient case)	(Cost per In- patient case)	(Cost per In- patient day)	(Cost per In- patient day)	(Cost per In- patient day)
1971/72	-	-	-	-	-
1972/73	4.3	9.0	9.1	10.0	-
1973/74	5.0	8.1	10.2	9.6	-
1975/76+	4.2	1.8	4.2	2.9	-
1976/77	-3.9	-0.5	1.5	-0.1	1.0
1977/78	0.9	-0.5	7.2	5.4	3.0
1978/79	2.7	-4.6	4.3	5.2	5.4
1979/80	-5.1	-7.0	1.4	1.3	0.1
1980/81	-0.7	-2.0	3.6	4.0	4.0
1981/82	-0.9	6.8	3.3	4.8	-0.7

\* No information on in-patient costs in Geriatric hospitals is available before 1975-76

+ No information is available for 1974-75 and the 1973/74 to 1975/76 growth rate is given

## CHAPTER 2

### 26. Manpower

Figures exclude locum medical/dental staff and agency nursing staff, as accurate data are not readily available which categorise these staff by area of work or specialty; this is in contrast to Table 1 where such staff are included.

### 27. Figure 5

The year on year movements for District Nursing staff are not available on a consistent basis for the whole period because of intervening changes in the method of collecting district nursing staff statistics. A DHSS estimate of the trend is therefore shown.

### 28. Figures 6 and 10

Day Centre places in Local Authority mixed centres have been allocated pro rata between the elderly, younger physically handicapped and mentally ill.

### 29. Paragraph 2.8

Hospital nursing staff working particularly with the elderly are defined here as those receiving the geriatric lead: this covers qualified nursing staff and nursing auxiliaries working in geriatric wards and units but excludes all student and pupil nurses working in geriatric wards and units.

### 30. Paragraph 2.12

The figures for nursing staff in hospital maternity units and midwifery staff in hospitals shown here understate the total number of staff working in hospital maternity services as some district midwives in hospital deliveries.

31. Figure 8 and Paragraphs 2.13 to 2.21

This material on hospital acute services covers all hospital services except maternity, mental illness, mental handicap, geriatrics and facilities for the younger disabled.

32. Figures 9 and 11

When calculating the ratio of nursing staff to in-patient beds, it is not possible to disaggregate from the nursing figures those psychiatric nurses who are providing care in the community for all or part of the time. The figures therefore slightly overstate the number of psychiatric nurses providing in-patient care.

34. Paragraphs 2.27 and 2.31

33. Figure 10

The figures for nurses working with mentally ill and mentally handicapped patients in 1981 are based on returns from local authorities. In 1981 the basis for counting residents was changed to exclude those who do not receive financial support from local authorities. The 1981 figure is therefore not fully comparable with earlier years.

34. Paragraphs 2.26 and 2.29

The figures for nurses working with mentally ill and mentally handicapped patients are based on authorities' returns of nurses working in mental illness or mental handicap hospitals and units. The figures for nurses working with mentally ill and mentally handicapped patients in "Hospital and Personal Social Services Statistics" are based on returns of nurses working in mental illness or mental handicap hospitals and units. They are more accurate than those used here for 1981; but they were not available for 1980.

## NOTES ON MANPOWER, ACTIVITY AND PRODUCTIVITY 1961-1971

Introductory

1. These notes record trends in health service manpower and activity over the period 1961-1971, and, by relating these two trends, give an indication of trends in productivity. The manpower figures are not directly comparable with those given in Figure 2 of the main text (the figures used here exclude locum medical and dental staff, agency nursing and midwifery staff, nursing cadet and staff at the Dental Estimates Board and the Prescription Pricing Authority), because similarly detailed figures are not available before 1971. But the trends shown by the 2 sets of data do enable some rough conclusions to be drawn over the period 1961-1981.

Manpower

2. The estimated numbers of whole time equivalent staff employed in the NHS in the period 1961-1971 are shown in Table I below. To provide a realistic assessment of manpower trends, adjustments have been made over the period to reflect changes in the structure of the NHS and in the basic working week of nurses and midwives and of administrative and clerical staff, along the lines set out in paragraphs 14-17 of Annex A.

Table I

	<u>1961</u>	<u>1971</u>	<u>annual percentage increase 1961-1971</u>
Medical and dental	19,000	27,000	3.4
Nursing and midwifery	239,000	309,000	2.6
Professional and technical	25,000	39,000	4.6
Administrative and clerical	47,000	69,000	3.9
Ancillary	142,000	168,000	1.7
Others	31,000	37,000	1.9
Total	<u>503,000</u>	<u>648,000</u>	<u>2.6</u>

Activity

3. Details of the main hospital and community health services provided over the period 1961 to 1971 are given below:-

Table II

	<u>Thousands</u>		<u>annual % rate</u>
	<u>1961</u>	<u>1971</u>	<u>of change 1961-</u>
			<u>1971</u>
<u>Hospital Services</u>			
In-patient cases	4035	5171	2.5
Out-patient and accident and emergency attendances	40133	46260	1.4
Regular day patient attendances	445	2839	20.4
<u>Community Health Services</u>			
Health visiting - number of people attended	na	na	na
Home nursing - number of people nursed	na	na	na
<u>Ambulance Services</u>			
Total cases carried	16403	22335	3.1
<u>Blood Transfusion Service (England and Wales)</u>			
Bottles of blood issued	948	1358	3.7
Cost-weighted Index of change in overall Hospital and Community Health Services activity*	79	100	2.5

\* This index is derived by the same method as the comparable index in Table 1 in Chapter 1 - see paragraph 23 of Annex A.

Productivity

4. Over the period 1961-1971, on the basis of the figures used in this Annex, activity grew by 2.5% per annum or 28% over the 10 years, while total staff numbers grew by 2.6% per annum or 29% over the 10 years.

HEALTH AUTHORITY EXPENDITURE ON STAFF, GOODS AND SERVICES  
IN 1981-82<sup>1</sup>

[as illustrated in Figure 15]

A. <u>EXPENDITURE ON STAFF SALARIES AND WAGES</u>	(£ million)
1. <u>Nurses and Midwives</u>	
Team nurses, specialists and divisional nursing officers, and others of nursing officer grade or above	133.2
All other trained nursing staff	1,529.2
Nursing assistants and auxiliaries	480.8
Unregistered/unenrolled staff in training	365.1
Nursing cadets and pre-nursing students	2.6
	<hr/> 2,510.9
2. <u>Ancillary Staff</u>	£918.4

<sup>1</sup> Figures extracted from the 1981-82 National Summary of Health Authority Accounts (England)



3. Medical and Dental Staffa. Medical

Consultants	305.6
Hospital doctors other than consultants	344.6
Health authority medical officers, and doctors (including trainees) working in Community medicine	52.3
	<u>702.5</u>

b. Dental

Consultants	7.4
Hospital dentists other than consultants	8.5
Health authority dental officers, and dentists (including trainees) working in community dentistry	20.4
Other dental practitioners	2.0
	<u>38.3</u>
	<u>740.8</u>

4. Administrative and Clerical Staff

Administrative and clerical staff	624.2
Ambulance staff on Administrative and Clerical salary scales	34.6
NHS staff on Local Authority salary scales	3.9
	<u>662.7</u>

5. Professional and Technical Staff

Professions supplementary to medicine	214.5
Medical Laboratory scientific officers	109.3
Dental, pharmaceutical and all other technicians	89.7
Works staff	47.3
Scientists	33.6
Chaplains	5.0
	<hr/> 499.4

6. Maintenance Staff

Engineering trade grades	94.0
Building trade operatives	58.5
Planning estimators	9.1
	<hr/> 161.6

7. Ambulance Staff

Officers and control assistants (excluding those included with Administrative and Clerical)	9.8
Others	123.6
	<hr/> 133.4

8. Hospital pharmacists and opticians

Pharmacists	30.8
Opticians	1.1
	<hr/>
	31.9
9. <u>Chairmen's remuneration</u>	0.8

TOTAL

£5,659.9m

[Note: payments to agency and other non-NHS staff included in Section B of this Annex (ie with expenditure on supplies, maintenance, running costs etc)].

B. EXPENDITURE ON SUPPLIES, MAINTENANCE, RUNNING COSTS ETC 1981-82

ITEM OF EXPENDITURE	£m
1. <u>Drugs etc</u>	
Drugs, medical gases and dressings	266.8
Medical and surgical equipment	225.5
Laboratory equipment, servicing and non-NHS work	61.0
Patients' appliances and therapy equipment	55.9
X-ray equipment, materials and servicing	45.4
Fluoridation payments to water authorities	0.5
	<u>655.1</u>
2. <u>Water, Fuel, Light, Power</u>	
Oil	108.2
Electricity	73.4
Gas	58.9
Coal	21.0
Water	20.5
Other	0.6
	<u>282.6</u>
3. <u>NHS Building stock and land</u>	
Engineering maintenance and equipment	99.3
Building maintenance and equipment	85.3
Gardening and Farming	6.3
	<u>190.9</u>
4. <u>Catering</u>	
Provisions	165.9
Contract catering	0.7
	<u>166.6</u>
5. <u>Office Equipment etc</u>	
Telephones	56.7
Printing and Stationery	39.5
Office equipment	25.8
Postage	15.4
Advertising	8.1
	<u>145.5</u>

6.	<u>Rent and Rates</u>	
	Rates	101.5
	Rent	<u>18.9</u>
		120.4
7.	<u>Travelling and Subsistence etc</u>	
	Travelling and subsistence	100.2
	Removal expenses	<u>11.7</u>
		111.9
8.	<u>Bed linen and furnishings</u>	
	Bedding and linen	42.4
	Furniture	21.7
	Crockery etc	<u>9.5</u>
		73.6
9.	<u>Laundry and cleaning</u>	
	Cleaning	35.5
	Laundry	<u>14.3</u>
		49.8
10.	<u>Transport</u>	
	Fuel	19.1
	Hire (including Hospital Car Service)	13.7
	Maintenance and equipment	13.4
	Vehicles purchased	0.4
	Other	<u>1.3</u>
		47.9
11.	<u>Uniform and clothing</u>	
	Staff uniform and clothing	24.7
	Patients' clothing	<u>15.6</u>
		40.3
12.	<u>Agency and other non-NHS staff</u>	
	Nursing	43.3
	Administrative and clerical	7.3
	Professional and technical	5.4
	Medical and dental	3.8
	Ancillary	2.3
	Others	<u>2.5</u>
		64.6

13. Other

Contractual arrangements for patient care	31.8
Patients' allowances	8.3
Student bursaries	8.0
Payments for shared premises with local authorities (under National Assistance Act 1948)	4.9
All other expenses	<u>68.9</u>
	121.9

TOTAL

£2071.1

## RAYNER SCRUTINIES IN THE NHS

<u>STUDY</u>	<u>SPONSORING REGION</u>
<u>Completed study</u>	
1. Collection of payments due to health authorities under the provisions of the Road Traffic Act.	South West Thames
<u>Studies currently identified to start in 1983</u>	
2. The administrative arrangements for preparing the briefs for major hospital building schemes.	Northern
3. Arrangements for advertising for staff.	East Anglia
4. Documentation and procedures in the ambulance service.	West Midlands
5. Collection of income due to health authorities.	North Western
6. Policies and management for health authorities' residential property.	{Oxford {North West Thames
7. The storage of supplies.	North East Thames
8. Catering costs.	South East Thames
9. The cost and effectiveness of meetings of health authority officers.	Wessex
10. Procedures for acquisition, distribution and recovery of aids.	Oxford
11. Health Authorities' use of transport other than ambulance services.	Mersey

## HEALTH AUTHORITY PERFORMANCE INDICATORS BY DISTRICT FOR USE IN 1983

## ACUTE HOSPITAL SERVICES

Activity Indicators (for General Medical, General Surgery, Trauma and Orthopaedic and Gynaecology Specialties)

1. Urgent, immediate or emergency in-patient admissions in relation to the population served.
2. All in-patient admissions in relation to the population served.
3. Average length of stay.
4. Average number of patients per bed per year.
5. Turnover Interval; average length of time a bed lies empty between admissions.
6. Day Cases as a percentage of deaths and discharges and day cases.
7. New outpatients ~~admitted~~ in relation to the population served.
8. Ratio of returning out-patients to new outpatients.
9. Admission waiting lists in relation to the population served.
10. Estimated days taken to clear waiting lists at present level of activity.

Financial Indicators (by hospital category)

11. Cost per day and per case by hospital and district. (Actual and "expected").
12. Actual and percentage component costs by hospital.
13. In-patient catering costs per in-patient day by hospital.



14. Domestic and cleaning cost per cubic metre by district.

Manpower (by district)

15. Percentage breakdown of registered, enrolled, learners, auxiliary nursing and midwifery staff for all acute, and mainly or partly acute hospitals.

16. Ratios of acute sector nursing staff to (i) number of day cases and in-patient cases and (ii) number of day cases and in-patient days.

17. Ratio of nursing auxiliaries/assistants to domestic staff in acute and mainly or partly acute hospitals.

ACCIDENT AND EMERGENCY SERVICES

Activity Indicators

18. New Accident and Emergency patient referral rate in relation to population served.

19. Ratio of returning Accident and Emergency patients to new patients.

Financial Indicators

20. Cost per new Accident and Emergency case by hospital and by district.

MATERNITY SERVICES

Activity Indicators (by District)

1. Percentage admissions resulting in a still or live birth.

2. All in-patient admissions in relation to the population served.

3. Average length of stay.
4. Average number of patients per bed per year.
5. Turnover Interval: ie average length of time a bed lies empty.
6. New out-patients in relation to the population served.
7. Ratio of returning out-patients to new out-patients.

Financial Indicators (for single specialty maternity hospitals)

8. Cost per day and per case by hospital and district.
9. Component costs by hospital (actual and percentage).
10. In-patient catering costs per in-patient day by hospital.
11. Domestic and cleaning costs per cubic metre by district.

Manpower Indicator (by district)

12. Ratio of midwifery and nursing staff in hospital maternity departments and community midwifery staff to numbers of all births in District (except for births in private hospitals).

SERVICES FOR THE ELDERLY

Financial Indicators

1. Cost per in-patient day by district and by hospital.
2. Component costs by hospital (actual and percentage).
3. In-patient catering costs per in-patient day by hospital.
4. Domestic and cleaning costs per cubic metre by district.

### Manpower Indicators

5. Percentage breakdown of registered, enrolled, learners and auxiliary nursing staff in geriatric, long stay and mainly long stay hospitals by district.
6. Ratio of WTE geriatric nursing staff to occupied bed days in geriatric long stay and mainly long stay hospitals by hospital and by district.
7. Ratio of nursing auxiliaries/assistants to domestic staff in long stay and mainly long stay hospitals by district.

NOTE These indicators relate only to single specialty geriatric hospitals.

### SERVICES FOR THE MENTALLY ILL

### Financial Indicators

1. Cost per in-patient day by district and by hospital.
2. Component costs by hospital (actual and percentage).
3. In-patient catering costs per in-patient day by hospital.
4. Domestic and cleaning costs per cubic metre by district.

### Manpower Indicators

5. Percentage breakdown of registered, enrolled, learners and auxiliary nursing staff for mental illness hospitals by district.
6. Ratio of whole time equivalent of mental illness nursing staff to occupied bed days in mental illness hospitals by hospital and by district.
7. Ratio of nursing auxiliaries/assistants to domestic staff in mental illness hospitals by district.

NOTE These indicators relate only to single specialty hospitals for the mentally ill.

## SERVICES FOR THE MENTALLY HANDICAPPED

### Financial Indicators

1. Cost per in-patient day by district and by hospital.
2. Component costs by hospital (actual and percentage).
3. In-patient catering costs per in-patient day by hospital.
4. Domestic and cleaning cost per cubic metre by district.

### Manpower Indicators

5. Percentage breakdown of registered enrolled, learners and auxiliary nursing staff for mental handicap hospitals.
6. Ratio of whole-time equivalent mental handicap nursing staff to occupied bed days in mental handicap hospitals by hospital and by district.
7. Ratio of nursing auxiliaries/assistants to domestic staff in mental handicap hospitals by district.

NOTE These indicators relate only to single specialty mental handicap hospitals.

### AMBULANCE SERVICES

#### Financial

1. Cost in relation to population served.
2. Average cost in relation to patients carried.
3. Cost of management and supervision as a percentage of total cost.

Manpower

4. Overtime costs as a percentage of total staff wages and salary costs per ambulance staff.

LAUNDRY SERVICES

1. Laundry Cost per 100 articles by laundry.

ESTATE MANAGEMENT INDICATORS

1. Ratio of managed population to land owned or occupied.
2. Ratio of building area to beds and of expected building area to beds.
3. Maintenance and operation expenditure per annum and as 5 year moving average per 100 cubic metre per annum.
4. Ratio of energy usage of giga joules to 100 cubic metres and energy expenditure (£s) to giga joules.
5. Disposable land as percentage of all land.
6. Cost per 100 cubic metre to bring the condition of the hospital estate up to a serviceable standard (condition B).

WHOLE DISCIPLINE MANPOWER INDICATORS (by district)

1. Comprehensive staff cost (including overtime) per whole-time equivalent by major staff groups (administrative and clerical, nursing and midwifery, professional and technical, works, maintenance, medical and dental, ambulance, ancillary).
2. Percentage breakdown of staff (including agency staff) by major staff group by whole time equivalent.
3. Overtime costs as percentage of total staff wages and salary costs for each of the following staff groups:

i. nurses

ii. ancillary staff

4. Contribution of part-time staff to total whole-time equivalents for

i. qualified nurses

ii. unqualified nurses excluding learners

iii. ancillary staff.

OTHER MANPOWER INDICATORS (by district)

5. Ratio of Medical Laboratory Scientific Officers to number of unweighted laboratory requests.

6. Ratio of diagnostic radiographers to radiological units.