REPORT OF THE COMMITTEE OF ENQUIRY INTO THE COST OF THE NATIONAL HEALTH SERVICE

Presented to Parliament by the Minister of Health and the Secretary of State for Scotland by Command of Her Majesty
January 1956

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MEMBERSHIP OF THE COMMITTEE

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Miss B. A. GODWIN, O.B.E.

Sir JOHN MAUDE, K.C.B.

Sir GEOFFREY VICKERS, V.C.

Note:—

The estimated cost of preparing and publishing this Report is £1,987 of which £1,354 represents the estimated cost of printing and publication.

TABLE OF CONTENTS

31519 A2

31519 A 3

31519 A 4

LIST OF TABLES

LIST OF APPENDICES

" Unlike other social movements of emancipation, that of personal and communal health demands and requires the assent and daily co-operation of those it would benefit. Health is not something which can be imposed by authority, it begins and flourishes only as it is practised. There is nothing under the sun more democratic, individualistic and co-operative. It calls for continuous education, for increase rather than decrease of responsibility, for the vigilant and sensible application of the discoveries and verities of science."

Sir GEORGE NEWMAN

" Health and Social Evolution "

London, 1931, pages 108–9.

To The Rt. Hon. IAIN MACLEOD, M.P.,
Minister of Health.

The Rt. Hon. JAMES STUART, M.V.O., M.C., M.P.,
Secretary of State for Scotland.

SIRS,

INTRODUCTION

1. We were appointed by the Minister of Health and the Secretary of State for Scotland in May, 1953, with the following terms of reference :—

> " To review the present and prospective cost of the National Health Service ; to suggest means, whether by modifications in organisation or otherwise, of ensuring the most effective control and efficient use of such Exchequer funds as may be made available ; to advise how, in view of the burdens on the Exchequer, a rising charge upon it can be avoided while providing for the maintenance of an adequate Service ; and to make recommendations."

2. We held our first meeting on 13th May, 1953, and two days later issued a general press notice inviting all persons and organisations interested in our enquiry to submit written memoranda of evidence to the Committee as soon as possible. Specific invitations on the same lines were addressed by letter to a number of representative bodies directly concerned with the working of the Health Service in England and Wales and Scotland. A list of the bodies who have submitted written and oral evidence to the Committee is shown in Appendix 1. In addition, we have received a great deal of helpful material from a number of individuals both inside and outside the National Health Service. We take this opportunity of expressing our deep appreciation of the assistance rendered by all those who have prepared written material for our consideration or have attended to give oral evidence at our meetings. We have not been able to mention specifically in our Report all the detailed information and suggestions brought to our notice in this way, but we wish to record how helpful these have been in enabling us to formulate our general conclusions.

3. The task of assembling and digesting the enormous volume of material submitted to the Committee has been a formidable one, and has inevitably taken up a great deal of our time. Our numbered memoranda alone have exceeded two hundred, and many of these have reached the proportion of booklets rather than papers. In addition, we have considered a large number of reports which have been relevant to our discussions—e.g. the Annual Reports of the Ministry of Health, the Department of Health for Scotland, and of the Central and Scottish Health Services Councils ; the Reports of special sub-committees of the Central Health Services Council, e.g. on General Practice within the National Health Service, and on the Internal Administration of Hospitals ; and of a joint sub-committee of the Scottish Council on the General Practitioner and the Hospital Service.(1) We shall refer to the recommendations made by these bodies from time to time in our Report.

4. We resolved not to visit formally, as a Committee, any hospitals or other establishments concerned with the working of the National Health Service. We decided that any such visits, and they have been numerous, should be made by members individually as they wished. We are grateful nevertheless for the invitations offered to the Committee by a number of bodies and organisations.

(1) All published by H.M. Stationery Office.

5. In all, we have held 51 full-day meetings and 6 half-day meetings. Of these 34 full-days and 6 half-days were taken up with hearing oral evidence. We have spent four days in Edinburgh hearing oral evidence from a number of Scottish organisations, etc.

Outline of the Report

6. We have divided our Report into eight parts. In Part I, we review the present and prospective cost of the National Health Service; in Part II, we examine the general administrative structure of the Service; in Part III, the hospital and specialist services; in Part IV, the family practitioner services; in Part V, the local health authority services; and in Part VI, the Whitley Council machinery. We deal with a number of miscellaneous points in Part VII, and summarise our conclusions and recommendations in Part VIII. For ease of reference, we have provided a comprehensive list of contents at the forefront of our Report.

PART I

THE PRESENT AND PROSPECTIVE COST OF THE NATIONAL HEALTH SERVICE IN ENGLAND AND WALES

General

7. In the first part of our terms of reference, we are asked "to review the present and prospective cost of the National Health Service". In this task we have been greatly assisted by a detailed Memorandum, prepared at our request, and submitted under the auspices of the National Institute of Economic and Social Research, which presents a statistical analysis of expenditure on the National Health Service in England and Wales during the period 1948–1954. The purpose of this analysis is "to throw light on the principal factors responsible for changes in the rate of expenditure during the period, so far as possible in a form which will help in trying to assess the probable future". The Memorandum is to be published separately under the title "The Cost of the National Health Service in England and Wales",(1) by Brian Abel-Smith and Richard M. Titmuss and we do not propose therefore to reproduce in our Report the whole of the interesting information contained in it. We should like to record, however, our deep appreciation of the work carried out by the authors in producing this information in a form which has been most helpful to us, and which has enabled us to deal so comprehensively with the first part of our remit.

8. The principal material used in the Memorandum consists of the detailed official records of expenditure by the Central Government, Hospital Boards,(2) Executive Councils and local authorities, extensively re-arranged and reclassified to provide statistics in a form more suited to our purpose. The statistics have also been supplemented with records of prices, of quantities of goods and services purchased, of manpower, and with demographic statistics, the latter including a special analysis of the hospital population (England and Wales) in 1951 carried out from census records by the General Register Office.

9. Unfortunately, in the time available, it has not been possible for the authors to extend their study to include the cost of the Health Service in Scotland. The whole of the figures quoted in Part I of our Report, therefore, relate to the cost of the National Health Service in England and Wales only. While we are satisfied that these figures are sufficient for the purpose of revealing the trends in cost of the National Health Service, we have recorded in addition, in Appendix 2 of our Report, a number of tables of figures showing the cost of the Health Service during the years 1948–54 in Scotland, and an analysis of the cost between the various branches of the Service. The Scottish figures have been drawn up for us by the Department of Health for Scotland as far as possible on a basis comparable with that used by the authors of the Memorandum for England and Wales, but there are some disparities the most important of which are listed in Appendix 2.

We now proceed to consider in detail the authors' review of the cost of the National Health Service in England and Wales.

Definition of Cost

10. It is important to make clear at the outset what the authors mean when they use the terms "cost" and "National Health Service" throughout their Memorandum.

In order to ensure that the same definition of scope and content is used for the National Health Service each year, the authors decided to define the National Health Service by its scope and content in the year 1950–51.

As regards the "cost" of the Service, the Memorandum is concerned in the main with the current consumption by the National Health Service year by year of goods and services which could be of benefit to the community in alternative uses. To quote the authors themselves:—

> "This means that the transfer of money without any use of goods and services is excluded from our definition of cost. Similarly, expenditure in settlement of liabilities inherited from the past is omitted, for we are concerned only with resources used to provide the National Health Service now and in the future. Such adjustments are essential if fair comparisons are to be made from one year to another. When existing assets, for example hospital buildings, are purchased for use in the Service this does not involve any use of current productive resources when these assets were used for the same purpose before they were taken over. The purchase of such assets does not therefore enter into our classification of cost. Where the word 'cost' is used hereafter it should be read as an abbreviation for the cost in terms of the use of current productive resources.
>
> "The cash used to finance the Service comes from a number of different public sources—central and local government, the National Insurance Fund(1)—and the Hospital Endowments Fund. There are also grants from the central government to local authorities for use on the Service. In measuring the cost to public funds, we are treating all these accounts as if they were consolidated; that is, as if they were a single spending unit."(2)

11. The definition of "cost" adopted by the authors seems to us to be the right one, in that it brings out the amount of the country's real resources which are being absorbed by the National Health Service year by year and which could be made available for other uses. Moreover, we agree with the

(1) B. Abel-Smith and R. M. Titmuss, *The Cost of the National Health Service in England and Wales* (Cambridge, 1956).
(All further references, in footnotes, to this published work will be made by the term "Op. cit.")
(2) Throughout this Report, we use the term "Hospital Boards" to denote Regional Hospital Boards and Boards of Governors.

(1) The National Insurance Fund is built up in part from employers' and employees' contributions. These contributions are compulsory and therefore analogous more to taxes than to private insurance premiums. Payments from the Fund are therefore treated as a form of national expenditure.
(2) Op. cit., pages 11–12.

authors that it gives a more faithful and realistic picture of the economy of the Health Service than that drawn by the conventional accounts presented to Parliament.(1)

12. The authors have had to carry out a great deal of research to enable them to adjust the official records, etc., to accord with their concept of cost. Many of the adjustments, however, have necessarily been based on estimates—because of the gaps in the available information. To quote the authors again :—

> "We have made as many corrections as possible to reduce the range and amount of error. Nevertheless, we have probably not eliminated altogether the tendency for the hospital service estimates to be understated for 1948/9 and overstated for 1949/50. Broadly, we believe that the maximum possible error in the figures for the National Health Service as a whole is in the neighbourhood of £5 million for 1948/9 and not more than £4 million for 1949/50. For later years we are reasonably confident in saying that the maximum possible error is not likely to be more than £1—2 million."(2)

13. In analysing the cost of the Service, the authors have adopted two concepts of cost:—

(i) *The gross cost of the National Health Service,* i.e., in terms of all current productive resources administered by the Service and paid for publicly and privately.

(ii) *The cost of the National Health Service to public funds (the net cost),* i.e., in terms of current productive resources used at public cost only. The amount by which "net cost" differs from "gross cost" represents therefore the income derived from charges imposed under the National Health Service Acts.

Other definitions, assumptions, etc.

14. We do not propose to list all the definitions, explanations and assumptions contained in the Memorandum, as we are confident that all who are interested will consult the published Memorandum itself, but the following points should perhaps be noted before we go on to reproduce the figures revealed by the study:—

(i) No adjustments are made in the cost of the Service for—

(*a*) expenditure switched from one sector of the country's health services to another—e.g., between "private" and "public"; between the National Health Service and the medical services of the Defence Forces; between the School Health Services and the National Health Service; and between parts of the National Health Service itself,

(*b*) the cost of certain training activities which would perhaps be more appropriately allocated to the Ministry of Education, the Defence Departments, the Colonial Office, to private industry, and to the "private sector" in general.

On the whole, however, it is reasonable to assume that the net effect of the movements between the total National Health Service sector and other non-National Health Service sectors has been a gradual shifting from year to year of work and functions to the National Health Service. This, of course, has the effect of increasing the cost of the Service itself to public funds, but it does not necessarily follow that there is a corresponding increase in the national expenditure on individual health.

The possible switches of expenditure between the component parts of the National Health Service are numerous, e.g., between the home health and hospital services; the general practitioner and hospital diagnostic services; the pharmaceutical services and the hospital out-patient dispensaries; the supplementary ophthalmic services and the hospital eye services; the local authority, general practitioner, and hospital maternity services, etc. "These are but a few examples of the many reasons which make it difficult to be at all precise about the differential costs of the component parts of the Service."(1)

(ii) All the costs of administering the Service are included so far as possible though some of them (e.g., Ministry of Health salaries) are not in fact charged to the National Health Service Vote.

(iii) As the study relates to the peace-time role of the National Health Service expenditures on Civil Defence are omitted.

(iv) Expenditure from non-Exchequer funds is included in the figures, and full account is taken of the remitted charges met by the National Assistance Board.

(v) The break-down between capital and current expenditure is somewhat arbitrary because of the nature of the available statistics, and the results must be treated with caution. In the case of the hospital service, it should be noted that changes in the value of stocks have been treated as capital expenditure.

(vi) It has been impracticable to adjust the current costs of hospital authorities and Executive Councils to take account of the use made of existing buildings and plant, etc., e.g., by debiting notional charges for rent and for interest and depreciation. This omission will make only a negligible difference in assessing the *trend* of the National Health Service costs over a period of years; but it does mean that the figures revealed cannot be used, without some adjustment, for such purposes as international comparisons.

This "capital charge" element of current cost is however included in the current cost figures for the local authority services, because the grant claims of the local authorities on the Ministry of Health include loan charges.

(vii) In attempting to answer the question whether the National Health Service absorbed more or less resources in the different years covered by this study, one essential step is to eliminate the effects of changing prices. The authors of the Memorandum have discussed in some detail the difficulties encountered in undertaking this task and, in particular, the "hazardous calculations" made necessary by the form in which the Government accounts are presented. To overcome these handicaps, special price indices have been devised and applied; but the authors admit that these could no doubt be improved with more study and more extensive field work.

The results(2) (reproduced in Appendix 3 of our Report) of the attempt to eliminate the effects of price changes between 1948–49

(1) In Appendix A of their Memorandum, the authors provide a classified reconciliation between the cost of the National Health Service to public funds in productive resources and the cost as shown in the Appropriation Accounts.

(2) Op. cit., page 20.

(1) Op. cit., page 15.

(2) See Appendix B of the authors' published work.

and 1953–54 must therefore be accepted with some caution. The magnitude of the error involved (allowing for other kinds of error in the material used) is probably in the region of plus or minus £5 million in estimating the amount of change in the total resources used between 1949–50 and 1953–54.

(viii) As part of the process of resetting the National Health Service accounts, an attempt has been made to eliminate the effects of certain "trading activities" (involving a turnover of more than £20 million in 1952–53) in order to define the resources used in the National Health Service in the terms described in paragraph 10 above. In the main these activities include :—

(*a*) the provision of medical services at full cost, for example, private hospital beds ;

(*b*) the provision of certain patient and staff services at full cost, for example, canteens and shops ;

(*c*) the provision of farms and gardens partly as a means of obtaining goods and partly as a form of occupational therapy ; and

(*d*) the provision at full or part cost of board and accommodation for hospital staff.

In the case of the last of the foregoing items (*d*) it is estimated that, on the average, payments made by hospital staff do not cover more than approximately 60 per cent. of the actual cost ; and adjustments in the figures have been made on this assumption. The importance of this matter may be judged from the fact that the ratio of resident staff to the "inmate" population ranges from 6 per cent. for mental deficiency institutions to over 50 per cent. in teaching hospitals. Over all, it was at least 22 per cent. in 1951.(1)

(ix) Despite the adjustments made by the authors, the figures for 1948–49 remain more unsatisfactory than those for later years. This must be borne in mind throughout when considering the figures for 1948–49. The errors are naturally increased when the actual figures for 1948–49 are converted, as is also done in the tables, into a full year from the 270 days for which the National Health Service was in operation in 1948–49. It is for these reasons that the authors have decided to treat 1949–50 as their basic year in representing the trends in cost of the National Health Service.

Trends in cost

15. We now go on to reproduce the figures revealed by the study and the main conclusions drawn from them. Readers who do not wish to follow us through all the detailed figures may turn to paragraph 92 of our Report where the authors' main conclusions are reproduced in summary form.

Comparison with the Appropriation Accounts

16. The authors show first how their estimate of the net cost(2) of the National Health Service to public funds compares with the gross total of the Vote and the net total of the Vote from the Appropriation Accounts.(1) Their figures are reproduced in table 1 below.

(1) Figures obtained from a special analysis made for the inquiry by the General Register Office.

(2) The net cost of the Service to public funds is obtained by deducting from the gross cost the amount of revenue derived from charges (see table 3, para. 18).

TABLE 1

The net cost of the National Health Service to public funds (capital plus current) compared with the Appropriation Account totals

England and Wales

£m. in actual prices*

	5th July, 1948–9	Annual rate† 1948–9	1949–50 ‡	1950–1	1951–2	1952–3	1953–4
The net cost of the National Health Service to public funds (capital plus current)	251·2	(339·6)	385·3	405·8	418·6	426·7	439·1
Gross total of the Vote ...	241·4	(326·3)	387·6	398·3	410·7	450·8	432·7
Net total of the Vote ...	179·3	(242·4)	305·3	336·6	348·5	384·2	367·9

* The term "in actual prices" denotes, for each of the years to which this table refers, the prices and wages which were current in that year.

† Interpolated from the 270 days for which the National Health Service operated.

‡ 1949–50, etc., indicates the financial year (from 1st April, 1949 to 31st March, 1950).

It will be observed that the authors' measure of the cost shows a steadier and less sharply rising trend than that shown in the Appropriation Accounts. The divergence is most striking in comparing the cost in the years 1951–52 and 1952–53. The gross total of the Vote rose by £40 million between these two years compared with a rise of only £8 million in the authors' measure of the cost. The most important factor accounting for this difference is of course the Danckwerts award under which general practitioners were paid £24 million in 1952–53 for services rendered in earlier years.

The distinction between the authors' figures and those shown in the Appropriation Accounts is also illustrated by the remarkable divergence between 1952–53 and 1953–54 in the trends of the figures for the gross total of the Vote and those of the net cost to public funds. The former decreased by £18·1 million while the latter rose by £12·4 million. Two main reasons for this are firstly, the fact that the Vote figures for 1952–53 include, as has just been mentioned, £24 million paid to general practitioners under the Danckwerts award for services rendered before 1st April, 1952 ; and secondly, that the hospital service partly financed itself in 1953–54 by running down its cash balances by about £3 million. This £3 million of resources did not have to be paid for by the Parliamentary Vote for the year 1953–54. Changes in other items not involving the use of current productive resources account for the remainder of the difference in the movement of the two sets of figures.(2)

The capital and current costs of the National Health Service to public funds

17. In table 2 we reproduce the authors' figures for the capital and current(3) costs of the National Health Service to public funds.

(1) The net total of the Vote is obtained by deducting from the gross total of the Vote the amount of the estimated appropriations-in-aid; these are principally the contributions made by the National Insurance Fund towards the cost of the N.H.S.; recoveries in respect of services, etc., by hospital authorities and directly administered hospitals; and superannuation contributions, etc., in respect of employees and employers.

(2) The full details are set out in Appendix A of the authors' Memorandum.

(3) The term "current cost" denotes the cost (either gross or net) to public funds of the running maintenance and all other expenditure, apart from capital, incurred by the National Health Service.

TABLE 2

England and Wales

£m. in actual prices

	5th July, 1948–9	Annual rate* 1948–9	1949–50	1950–1	1951–2	1952–3	1953–4
Capital cost (real asset expenditure)	8·8	(11·8)	13·7	15·3	16·5	9·8	8·8
Current cost to public funds (net cost) ...	242·5	(327·8)	371·6	390·5	402·1	416·9	430·3
Total	251·2†	(339·6)	385·3	405·8	418·6	426·7	439·1

* Interpolated from the 270 days for which the National Health Service operated.
† The figures in this table and succeeding tables do not always add up owing to "rounding."

It will be observed that the capital cost of the Service has represented less than 5 per cent. of the total cost each year. It showed a rise up to 1951–52 and then fell from £16·5 million to £8·8 million in 1953–54. This fall was largely accounted for by changes in the value of stocks in the hospital service. Up to and including 1951–52 there had been a steady rise in stock values, and in that year the increase amounted to £4 million. In both 1952–53 and 1953–54, however, there were decreases in stock values of over £2 million.

The trend of current costs shows a generally even and relatively low rate of increase between 1949–50 and 1953–54; roughly £15 million per year.

As the authors have pointed out in their Memorandum, the figures in this table illustrate the importance of separating capital and current costs; for year by year fluctuations in capital expenditure can largely obscure the trend of current cost.

The current cost of the National Health Service and the revenue from charges

18. In table 3 we reproduce the authors' figures for the current cost (excluding capital) of the National Health Service including and excluding charges. These figures show how the current cost of the Service has been shared year by year between the Exchequer and the patient.

TABLE 3

England and Wales

£m. in actual prices

	5th July, 1948–9	1948–9*	1949–50	1950–1	1951–2	1952–3	1953–4
Gross current cost ...	246·4	(333·2)	376·6	395·7	411·7	436·7	453·4
Less charges	−4·0	(−5·4)	−5·0	−5·2	−9·6	−19·8	−23·1
Net current cost	242·5	(327·8)	371·6	390·5	402·1	416·9	430·3

* Annual rate—interpolated from the 270 days for which the National Health Service operated.

It will be observed that, between 1948 and 1951, the charges yielded about £5 million per year. They covered only payments for accommodation in hospital (including payments under the Road Traffic Acts) and payments for certain of the local health authority services, e.g., domestic help. Charges for dentures and spectacles were introduced on 21st May, 1951, and increased the revenue by £4 million between 1950–51 and 1951–52. More extended

charges were introduced on 1st June, 1952, bringing the total revenue up to £23 million in 1953–54 (the first full year for which these charges had operated). It should be noted that even in that year charges amounted to only about 5 per cent. of the gross cost of the Service. Between 1950–51 and 1953–54, net expenditure rose by only £40 million, as compared with an increase of £58 million in gross expenditure.

In later sections of this review, we shall show how the introduction of charges had some effect in reducing demand. A slowing down in the rate at which gross expenditure was rising was, however, already well in evidence before the charges were imposed.

19. Before going on to analyse the cost of the National Health Service into its various branches, it is instructive to note

(*a*) how the cost of the Service has varied year by year in relation to the gross national product—the generally accepted measure of total national resources;

(*b*) how the cost of the Service has varied each year since the Appointed Day in terms of 1948–49 prices;

(*c*) what has been the expenditure per head of population each year since 1948.

The cost of the National Health Service in relation to National Income

20. In table 4 we reproduce the authors' figures showing the current net cost of the National Health Service to public funds as a proportion of the gross national product.

TABLE 4

England and Wales

£m. in actual prices

	1948–9*	1949–50	1950–1	1951–2	1952–3	1953–4
Gross national† product at factor cost	(9,349)	9,907	10,539	11,560	12,487	13,273
Net cost of the National Health Service	(327·8)	371·6	390·5	402·1	416·9	430·3
Net cost as per cent. of gross national product	(3·51)	3·75	3·71	3·48	3·34	3·24

* Annual rate—interpolated from the 270 days for which the National Health Service operated.

† These figures represent 89 per cent. of the gross national product at factor cost for Great Britain (*Preliminary Estimates of National Income and Expenditure* 1948 *to* 1954, Cmd. 9423, H.M.S.O. 1955) interpolated into financial years. The deduction of 11 per cent. applies to Scotland and Northern Ireland.

It will be observed that the year in which the highest proportion (3·75 per cent.) of national resources was taken by the National Health Service was the first full year—1949–50. Since then the proportion has fallen each year, the total fall between 1949–50 and 1953–54 amounting to 14 per cent. Again it can be seen that the fall began before the new charges were introduced in May, 1951, and June, 1952. Had the proportion of resources devoted to the Service in 1953–54 been the same as in 1949–50 the net cost would have been £67 million higher, i.e. just under £500 million in 1953–54.

21. In table 5 we reproduce the authors' figures showing the gross cost of the Service (i.e. before deduction of charges) as a proportion of the gross national product.

TABLE 5

England and Wales

£m. in actual prices

	1948–9*	1949–50	1950–1	1951–2	1952–3	1953–4
Gross national product	9,349	9,907	10,539	11,560	12,487	13,273
Gross current cost of the National Health Service	(333·2)	376·6	395·7	411·7	436·7	453·4
Gross cost as per cent. of the gross national product	(3·57)	3·80	3·75	3·56	3·50	3·42

* Annual rate for N.H.S. figures—interpolated from the 270 days for which the National Health Service operated.

Here again we see that the gross cost of the Service was at its peak in 1949–50, and by 1953–54 the proportion of the gross national product used had fallen from 3·8 per cent. to 3·42 per cent. Had the gross cost of the Service been proportionately the same in 1953–54 as in 1949–50 the total would have been higher by £51 million.

It may come as a surprise to many to find that the National Health Service has absorbed a decreasing proportion of the country's resources since the year 1949–50—i.e. the first full year of the Service.

Effect of charges

22. In the section of their Memorandum dealing with the cost of the dental, ophthalmic and pharmaceutical services, the authors have attempted to estimate the extent to which the National Health Service charges introduced in May, 1951, and June, 1952, may have lowered the gross cost of the Service by the year 1953–54. For the dental service, they suggest a reduction of £5 million in the gross cost, and for the ophthalmic service a further £5 million. "If forced to make a guess for the pharmaceutical service, we would put it at £4 million", making a total of £14 million for all the three services. The authors considered these estimates to represent the maximum possible indirect effects (i.e. reduction in demand) resulting from the new charges on the gross cost of the Service.

As we have already seen, had the gross cost of the Service been proportionately the same (i.e. to the gross national product) in 1953–54 as in 1949–50, the total gross cost would have been higher by £51 million. The indirect effect, therefore, of the new charges in cutting down demand (estimated at £14 million) can account for less than one-third of the decline in the proportion of the national income devoted to the National Health Service. In the view of the authors, this conclusion would not be substantially altered by correcting for price changes.

The cost of the National Health Service in 1948–49 prices

23. In table 6 we reproduce the authors' figures showing the net cost and gross cost of the National Health Service in actual prices and in terms of 1948–49 prices.

It should be noted that, in a period of rising prices, the effect of measuring costs at constant prices in terms of a base year (in this case 1948–49, the year when the Service began to operate) is to bring out the extent to which increases in figures of cost reflect higher levels of wages and prices and the extent to which they indicate a greater use of resources in terms of man-power and materials. Thus in table 6 the current gross annual cost of the National Health Service is shown to have increased by

TABLE 6

England and Wales

£m.

	1948–9*	1949–50	1950–1	1951–2	1952–3	1953–4
Current net cost of the National Health Service in actual prices ...	(327·8)	371·6	390·5	402·1	416·9	430·3
Current net cost of the National Health Service in 1948–9 prices...	(327·8)	369·8	388·3	374·1	370·6	380·8
Current gross cost of the National Health Service in actual prices ...	(333·2)	376·6	395·7	411·7	436·7	453·4
Current gross cost of the National Health Service in 1948–9 prices...	(333·2)	374·3	393·1	383·6	391·9	406·4

* Annual rate—interpolated from the 270 days for which the National Health Service operated.

£76·8 million between 1949–50 and 1953–54. But it follows from the column setting out the gross cost at constant (1948–49) prices, that of this increase of £76·8 million as much as £44·7 million was attributable to higher wages and prices and that not more than £32·1 million represented the increase in the volume of real resources (man-power and materials) absorbed by the National Health Service in 1953–54 as compared with 1949–50.

It will be seen that, in terms of 1948–49 prices, the net cost of the National Health Service to public funds reached its peak in 1950–51. During the next two years it fell to a level approximately the same as in the first full year of the Service, 1949–50. In the last year covered by the review (1953–54) there was a relatively small rise from £370·6 million to £380·8 million.

The gross cost of the Service in constant prices rose by 5 per cent. in 1950–51, fluctuated at a lower level during the next two years, and rose again in 1953–54. In other words, the gross cost in constant prices has fluctuated between 2 per cent. and 9 per cent. above the 1949–50 level.

This table is shown graphically in Appendix 9.

The widespread popular belief that there has been an increase of vast proportions in both the money cost and the real cost of the National Health Service is not borne out by the figures given in Tables 4, 5 and 6.

Cost per head of the population

24. In table 7, we reproduce the authors' figures relating the gross and net cost of the National Health Service to the population(1) liable to call on the Service.

TABLE 7

England and Wales

	1948–9	1949–50	1950–1	1951–2	1952–3	1953–4
Current gross cost of the National Health Service per head in 1948–9 prices	(£7 16s.)	£8 14s.	£9 2s.	£8 17s.	£9	£9 7s.
Current net cost of the National Health Service per head in 1948–9 prices	(£7 13s.)	£8 12s.	£8 19s.	£8 13s.	£8 11s.	£8 15s.

(1) Total civilian population of England and Wales. Estimates supplied to the authors by the General Register Office.

This table shows that, in constant prices, expenditure per head of population was highest in the year 1950–51 for the net cost and in 1953–54 for the gross cost. To quote the authors themselves—

> "There is no consistent trend in either set of figures. The gross cost figures show a general tendency to rise; the net cost figures were, on the other hand, lower in 1952/3 than in the first full year of the Service and only 3s. per head higher in 1953/4. The main impression that this table leaves is the relative smallness of the movements in cost per head since 1949/50. This general conclusion is in accord with the results of our analysis of the important question of changes in the consumption of resources used. Contrary to public opinion, the net diversion of resources to the National Health Service since 1949/50 has been of relatively insignificant proportions."(1)

Break-down into Services

25. In tables 1 to 7 we have illustrated the trends in the cost of the National Health Service, both gross and net, as a whole. We now go on to analyse these trends between the three administrative branches of the Service, i.e. the hospital service, the Executive Council services, and the local health authority services. We do not propose at this stage to embark on a description of the services themselves nor of the way in which they are administered and financed. We deal with the basic structure of the Service generally in Part II of our Report and in detail in Part III (the hospital service), Part IV (the Executive Council services) and Part V (the local health authority services). For the moment we are concerned only with the cost of the services, the trends throughout the years 1948–49 to 1953–54, and the reasons lying behind those trends.

26. As a first step in the analysis of the expenditure on the National Health Service during this period, we reproduce in table 8 the authors' figures for the break-down of the current cost of the Service between its three administrative branches.

TABLE 8

England and Wales

£m. in actual prices

Service	1948–9*	1949–50	1950–1	1951–2	1952–3	1953–4
Central and miscellaneous(†) ...	(2·4)	2·5	2·9	3·1	3·3	3·6
Hospital	(166·3)	192·4	207·9	228·9	250·3	263·2
Executive Council	(133·4)	147·2	146·5	134·9	124·2	123·1
Local authority	(25·6)	29·4	33·2	35·1	39·2	40·4
Total	(327·8)	371·6	390·5	402·1	416·9	430·3

* Annual rate—interpolated from the 270 days for which the National Health Service operated.

† Central and miscellaneous covers those items which cannot be conveniently allocated to any of the three main branches, such as the costs of the Ministry of Health, and of Rampton, Moss Side and Broadmoor institutions.

This table shows that, between 1949–50 and 1953–54, the current cost of the hospital service rose fairly steadily. It also absorbed an increasing proportion of the total cost of the Health Service; 52 per cent. in 1949–50 and 61 per cent. in 1953–54. The cost of the Executive Council service was

(1) Op. cit., page 67.

at its peak in 1949–50; but in subsequent years it continued to fall, particularly between 1950–51 and 1952–53. Its share of the total cost of the Health Service fell from 40 per cent. in 1949–50 to 29 per cent. in 1953–54. The cost of the local health authority services has risen steadily (though on a much smaller scale) throughout the period under review. Its share of the total has increased from 8 per cent. in 1949–50 to just over 9 per cent. in 1953–54.

It will be seen that, in absolute terms, the total rise in the current cost of the Health Service between 1949–50 and 1953–54 was £59 million. The cost of the hospital service rose by £71 million, and of the local health authority services by £11 million. These rises were offset, however, by a fall of £24 million in the cost of the Executive Council services. It follows, therefore, that it is the rise in the cost of the hospital service by 37 per cent. since 1949–50 which has been largely responsible for the rise in the cost of the National Health Service in actual prices.

We now go on to analyse in detail the cost of each of the three branches of the Service.

THE HOSPITAL SERVICE

27. In table 9, we reproduce the authors' figures for the current cost of the hospital service,(1) including and excluding charges.

TABLE 9

England and Wales

£m. in actual prices

	1948–9*	1949–50	1950–1	1951–2	1952–3	1953–4
Gross cost of the *hospital service* ...	(169·2)	195·1	210·5	231·6	253·2	266·4
Less charges						
(*a*) From patients:						
Section 4 beds	(—0·1)	—0·1	—0·2	—0·2	—0·3	—0·3
Section 5 beds	(—2·6)	—2·3	—2·2	—2·2	—2·2	—2·2
Supply and repair of appliances, drugs and medicines	—†	—†	—†	—0·1	—0·3	—0·5
(*b*) From Road Traffic Acts ...	(—0·1)	—0·1	—0·1	—0·2	—0·2	—0·2
Total charges	(—2·8)	—2·6	—2·6	—2·6	—3·0	—3·2
Net cost of the *hospital service* ...	(166·3)	192·4	207·9	228·9	250·3	263·2

* Annual rate—interpolated from the 270 days for which the National Health Service operated.

† Under £50,000.

As the authors point out, this table shows that charges have always represented a very small part of the gross cost of the hospital service; little more than 1 per cent. in fact. The revenue which the hospital service obtained from the charges introduced in 1952 amounted to only a few hundred thousand pounds. In Appendix 4 of our own Report we set out in detail the charges which may be made for services and appliances provided under the hospital service, the persons exempted from these charges, and the amounts yielded in England and Wales in 1953–54.

(1) A detailed description of the hospital services and their administrative organisation will be found in Part III of our Report.

Break-down between Types of Hospital

28. In table 10, the authors have provided a break-down of hospital expenditure under four broad categories of hospital.

TABLE 10

The current net expenditure in respect of different types of hospital (extracted from Section 55 accounts(1))

England and Wales

£m. in actual prices

	1950–1	1951–2	1952–3	1953–4
I. Teaching (general and maternity) ...	22·5	22·2	23·0	23·6
II. Non-teaching (general and maternity)...	78·5	84·8	91·6	95·5
III. Tuberculosis, convalescent, isolation and other	45·4	50·6	56·2	60·0
IV. Mental and mental deficiency	35·0	37·4	41·9	44·7

The authors emphasise that this table is on a quite different basis from all other tables in this study:—

> "The figures in it are taken direct from the Section 55 accounts. The cost of specialists is excluded here as it is not possible to allocate the total (approximately £17 million in 1952/3) between different types of hospital. Also, certain adjustments made to various items of maintenance expenditure cannot be similarly divided. Nevertheless, the figures do serve to show very roughly the proportion of expenditure devoted to different types of hospital. The classification of types of hospital is not strictly comparable between 1952/3 and earlier years.(2) We have not shown any figures before 1950/1 as changes in the classification of hospitals were too great to justify comparisons."(3)

Bearing these reservations in mind, the table shows that in 1953–54, 53 per cent. of the cost of maintaining the hospitals in England and Wales was devoted to general and maternity work (10 per cent. teaching, 43 per cent. other). The mental and mental deficiency hospitals which cared for over 40 per cent. of the in-patients absorbed only 20 per cent. of the cost of the hospitals and little more than 10 per cent. of the cost to public funds of the National Health Service.

Table 10 also shows that the cost (in actual prices) of the teaching hospitals has risen little since 1950–51 while the cost of the other hospitals has risen substantially. It is impossible to say to what extent this trend would have been changed if the authors had been able to allocate the cost of consultants and specialists (including merit awards) to the relevant hospitals.(4)

Reasons for increased cost

Rise in prices

29. A major factor accounting for the increased cost of the hospital service has been the rise in prices.(5) This is revealed in table 11 in which we reproduce the authors' figures showing the gross cost of the service in actual and constant prices.

(1) i.e., the summarised accounts of income and expenditure accounts maintained by Regional Hospital Boards, Boards of Governors, and Hospital Management Committees.
(2) For example, 30,000 beds in non-teaching general hospitals (group II) were reclassified into group III from 1952–53.
(3) Op. cit., page 28.
(4) We refer to the cost of the teaching hospitals again in Part III of our Report.
(5) The word "price" is used by the authors to include both the prices of goods and the prices at which services are purchased (salaries and wages).

TABLE 11

England and Wales

£m.

	1948–9*	1949–50	1950–1	1951–2	1952–3	1953–4
Gross cost of the hospital service in actual prices	(169·2)	195·1	210·5	231·6	253·2	266·4
in 1948–9 prices	(169·2)	186·0	196·7	201·5	209·0	215·6

* Annual rate—interpolated from the 270 days for which the National Health Service operated.

It will be observed that, between 1948–49 and 1953–54, prices in the hospital service rose by 23½ per cent. This may be compared with a rise of 29 per cent. in the retail price index over the same period. Part of the reason why hospital prices rose in this period less than other prices is the fact that medical salaries were not revised until the beginning of 1954–55. They went up substantially at the beginning of the National Health Service and again in 1954–55.

It will be noted also that, when expressed in constant prices, the rise in cost of the hospital service between 1949–50 and 1953–54 is reduced from £71 million to £29½ million, i.e., from a rise of 37 per cent. to only 16 per cent. Moreover, it is significant that this small rate of increase (16 per cent.) slowed down year by year during the period under review.

This conclusion is, we think, worthy of some emphasis. We have already pointed out that the rise in cost of the hospital service was largely responsible for the rise in cost of the National Health Service in actual prices during the years 1949–50 to 1953–54. And yet we now see that, when the costs are adjusted in terms of 1948–49 prices, the rate of increase in the cost of the hospital service is reduced to the relatively low level of 16 per cent., and that the rate has been decreasing as the years have gone by.

In seeking the reasons for the increase of £29½ million in the gross cost of the hospital service (in 1948–49 prices) between 1949–50 and 1953–54, the authors have broken down the increase in a number of different ways.

Analysis into "medical" and "other" costs

30. In table 12, for example, we reproduce the authors' break-down between "medical" and "other" costs. The "medical" costs include the cost of doctors and dentists, nurses and midwives, almoners, physiotherapists, laboratory technicians and other professional and technical workers, together with the cost of drugs and dressings and medical and surgical appliances.

TABLE 12

Break-down of the current gross cost of the hospital service (i.e., before deduction of charges) into "medical" and "other"

England and Wales

£m. in 1948–9 prices

	1949–50	1953–4	Increase 1949–50 to 1953–4
Medical	87	104½	17½
Other	99	111	12
Total	186	215½	29½

We quote the authors in full to explain the significance of these figures:—

"The major increase is attributable to 'medical' costs which account for £17½ million of the £29½ million. This is an increase of 20 per cent. compared with an increase of 12 per cent. in the cost of other resources. This increase of £17½ million of 'medical' costs is mainly the result of an additional £13 million for medical staff, of which about £7 million falls under the heading of nursing staff. The remaining £4½ million increase in 'medical' costs can be subdivided into £3 million for drugs, equipment, etc., provided by the hospitals, and £1½ million for appliances, etc., provided by the Ministry of Pensions.

"The increase of £12 million in other, 'non-medical', costs has also been primarily due to increases in staff. These account for £8½ million of the total. 'Non-medical' goods and contracts have increased by only £4 million (7 per cent.) although they account for about half of the 'non-medical' costs of the hospital service. This increase of 7 per cent. was about the same as the increase in average daily occupied beds over the same period.(1) One further point needs to be made in considering the significance of this increase of £29½ million at constant prices in the cost of the hospital service. Some part of it was attributable to the fact that the hospitals did more work—in-patient and out-patient.(2) Between the calendar years 1949 and 1953 the increase in average daily occupied beds was 26,500. Out-patient work increased much more markedly. Apart, however, from the fact that more services were provided for a larger national population it has to be borne in mind that some part of the additional resources consumed by hospital in-patients would have been consumed in other ways by these patients if they had not been in hospital. We may tentatively estimate these additional 'transferred costs' (food, clothing, accommodation and so forth) at about £2 million."(3)

31. For ease of reference we reproduce in Appendix 5 of our Report the figures for England and Wales and Scotland showing for each of the years 1949–1954:—

(*a*) The total number of available beds.

(*b*) The average number of daily occupied beds.

(*c*) Percentage occupancy of hospital beds.

(*d*) Bed turn-over.

(*e*) Numbers of in-patients treated.

(*f*) Numbers of out-patient attendances.

(*g*) Numbers of new out-patients.

(*h*) Numbers of consultants employed in the service.

It will be seen from these figures not only that the quantity of in-patient and out-patient work increased substantially during the period under review (as the authors have already pointed out) but also that the available beds may have been used more efficiently at the end of the period than at the beginning. In fact, between 1949 and 1954, the numbers of in-patients treated per year increased by more than 20 per cent.; and, if these figures

(1) The increase in average daily occupied beds between the calendar years 1949 and 1953 was 6·7 per cent.

(2) See *Report of the Ministry of Health for the year ended 31st March*, 1949, Cmd. 7910 (H.M.S.O., 1950); 1950, *Part I*, Cmd. 8342 (1951); *covering the period 1st April*, 1950 *to 31st December*, 1951, *Part I*, Cmd. 8655 (1952); *for the year ended 31st December*, 1952, *Part I*, Cmd. 8933 (1953); 1953, *Part I*, Cmd. 9321 (1954).

(3) Op. cit., pages 29–30.

(instead of the numbers of daily occupied beds) are used for purposes of comparison, it follows that the amount of in-patient work has increased during this period at a higher rate than the amount of hospital out-patient work. We need hardly add that improvements in the rate of bed turn-over may be an important factor in determining the numbers of beds required to provide an adequate hospital service in the future.

Break-down into "salaries and wages" and "goods and contracts".

32. In table 13, we reproduce the authors' break-down of the £29½ million increase in the cost of the hospital service (in 1948–49 prices) into salaries and wages on the one hand, and goods and contracts on the other.

TABLE 13

England and Wales

£m. in 1948–9 prices

	1949–50	1953–4	Increase 1949–50 to 1953–4
Salaries and wages ...	115	136	21
Goods and contracts	71	79½	8½
Total	186	215½	29½

It will be seen that salaries and wages accounted for no less than 61·8 per cent. of the cost of the hospital service in 1949–50 and 63·1 per cent. in 1953–54. They were also responsible for £21 million of the total increase of £29½ million. Over half of the increase in goods and contracts was for medical goods.

33. The authors conclude therefore that the predominant cause of the increased cost of the hospital service arises from the increased number—and increased pay—of hospital staffs. They then go on to examine changes in staff in various categories between 1949 and 1953, as shown in table 14.

TABLE 14

Hospital staff 31st December, 1949 and 31st December, 1953 in whole-time equivalents*

England and Wales

	1949	1953	Increase of 1953 over 1949	Percentage increase of 1953 over 1949
Medical and dental	12,693	15,039	2,346	19
Nurses and midwives	137,282	158,960	21,678	16
Administrative and clerical ...	25,667	29,306	3,639	14
Domestic, maintenance, and transport	140,990	153,135	12,145	9
Professional, technical, etc. ...	22,341	24,989	2,648	12
Total	338,973	381,429	42,456	13

* For medical and dental staff, 35 hours of hospital work have been taken to represent one whole-time equivalent. For other categories, a part-timer is treated as equivalent to half a whole-timer.

34. It may be observed here that a part of the increase in numbers of the administrative and clerical grades is attributable to the fact that functions which were formerly performed by staff not classified as administrative and clerical are now carried out by persons in these grades: one example of this

is medical correspondence which used largely to be done by the consultants themselves. A somewhat similar situation arises as between nursing and domestic staff. There has been a considerable transference of domestic work away from the nursing staff, particularly student nurses, who now do more training and have fewer domestic duties. There is thus a greater degree of specialisation within the hospital service than used to be the case.

To quote the authors again:—

> "Over three-quarters of the total increase of 42,500 in staff is accounted for by more nurses and midwives (21,700) and more hospital domestic and other workers (12,000). The percentage increase in both categories between 1949 and 1953 is substantially in excess of the percentage increase in the number of occupied beds.
>
> From the point of view of the national economy as a whole (and, in particular, the demand for young women in a variety of employments) it is necessary to remember that not all these additional hospital workers would have been employed elsewhere if they had not been employed in hospitals."(1)

TABLE 15

Increase in nursing and domestic staff in the hospital service (England and Wales) between 31st December, 1949 and 31st December, 1953 broken down by sex, and whole-time and part-time.

(Whole-time equivalents)

	Whole-time	Part-time	Total
Male	5,031	39	5,070
Female	17,610	8,846	26,456
Total	22,641	8,885	31,526

> "Of the total increase of 31,500, part-time workers accounted for nearly 9,000. Moreover, a large proportion of these workers were in hospitals in isolated areas (mental hospitals and tuberculosis sanatoria) where the possibilities of alternative employment are very limited. It may well be, therefore, that a majority of these part-time workers would not have found employment elsewhere. This may also be true of the employment of older, married women as whole-time domestic workers.(2) These considerations mean, in effect, a lessened burden on the national economy brought about by the employment of additional staff than, on the face of it, the figures would suggest."(3)

35. The authors also go on to make a more detailed examination of the changing expenditure on non-medical goods and services which we do not propose to follow in our Report.(4) As we have already pointed out however, we have reproduced in Appendix 3 of our Report the authors' figures showing :—

(*a*) the current cost of the National Health Service to public funds in actual prices (Table I of Appendix 3);

(*b*) the current cost of the National Health Service to public funds revalued in 1948–49 prices (Table II of Appendix 3).

(1) Op. cit., page 33.
(2) Unfortunately, no data exist which would allow an analysis by age and marital status or of the extent to which Irish and other immigrant workers have contributed to the total increase of 22,641 whole-time workers.
(3) Op. cit., pages 33–34.
(4) Op. cit., pages 30–32.

These figures should be studied in conjunction with Appendix B of the authors' published Memorandum and with the references made to that Appendix throughout the Memorandum e.g. so far as the hospital service is concerned, to the cost of provisions, uniforms and clothing, fuel, light and power, laundry work, maintenance of buildings, domestic repairs, and printing and stationery. On a small point, we would draw attention to the fact that the cost of printing and stationery, in constant prices (Item 17 of Table II in Appendix 3) in 1953–54 was less than half the cost in the year 1949–50—a saving of over £1½ million in real terms, due in part no doubt to more economical buying through H.M. Stationery Office.

Summary of trends in the Hospital Service

36. The authors conclude then that the cost of the hospital service increased between 1949–50 and 1953–54 by £29½ million in 1948–49 prices. This increased cost was largely attributable to increases in the number of staff and, to a lesser extent, to increases in the supply of medical goods. From the point of view of resources which could have been consumed in alternative uses, and allowing for "transferred costs", the lack of alternative employment for certain workers and other factors, the authors estimate that the additional cost in the use of productive resources was probably about £25 million.

Against this, they point out that the hospitals did more work, both in-patient and out-patient, for a larger national population during this period; more confinements took place in hospital; more services were rendered to general practitioners; more road accidents were treated; more provision was made for industrial accidents which would otherwise have called for an expansion of industrial health services; more people were trained as doctors, nurses, almoners, physiotherapists and other categories of workers; more research was undertaken and completed as indicated by a striking rise in the flow of articles to scientific and medical journals since 1948.

THE EXECUTIVE COUNCIL SERVICES

Gross and net cost

37. We now turn to examine the authors' review of the cost of the services administered by Executive Councils(1)—i.e. the general medical services, the pharmaceutical service, the general dental service and the ophthalmic service.

38. As a first step we reproduce in table 16 the authors' figures showing the total current cost (including and excluding charges) of all the Executive Council services.

TABLE 16

England and Wales

£m. in actual prices

	1948–9*	1949–50	1950–1	1951–2	1952–3	1953–4
Gross cost of the Executive Council services	(133·4)	147·2	146·5	138·9	137·7	139·7
Less charges	—	—	—	−4·0	−13·5	−16·6
Net cost of the Executive Council services	(133·4)	147·2	146·5	134·9	124·2	123·1

* Annual rate—interpolated from the 270 days for which the National Health Service operated.

(1) A detailed description of the services provided through Executive Councils, and their administrative organisation, will be found in Part IV of our Report.

This table shows that the current net expenditure on Executive Council services fell by £24 million between 1949–50 and 1953–54. Of this amount, £17 million represented a transfer of cost to beneficiaries by means of the charges introduced in 1951–52, but there was also a decline of £7 million in the gross cost of the services.

Break-down of the net cost

39. Table 17 provides a break-down of the net cost between central administration and the four Executive Council services.

TABLE 17

England and Wales

£m. in actual prices

	1948–9*	1949–50	1950–1	1951–2	1952–3	1953–4
Central administration	(2·1)	1·9	1·9	2·5	2·3	2·3
General medical services	(44·2)	45·7	49·9	50·5	52·0	51·9
Pharmaceutical service	(27·7)	33·2	38·5	44·1	42·5	39·5
Dental service	(39·0)	46·4	37·7	29·9	21·1	22·3
Ophthalmic service	(20·4)	20·1	18·4	7·9	6·3	7·1
Total	(133·4)	147·2	146·5	134·9	124·2	123·1

* Annual rate—interpolated from the 270 days for which the National Health Service operated.

It will be noted that there are striking differences in the trend of costs as between the various services. The cost of the pharmaceutical and general medical services has increased while the cost of the dental and ophthalmic services has decreased. The biggest rise occurred in the pharmaceutical service, where the cost increased by about £11 million between 1949–50 and 1951–52—from 22½ to 33 per cent. of the cost of the Executive Council services. But between 1951–52 (the year when charges were introduced) and 1953–54, the net cost fell by about £4½ million. The increase in the cost of the general medical service between 1949–50 and 1953–54 was just over £6 million, most of this increase being due to the application of the Danckwerts award. The services which have fallen in cost (the dental and ophthalmic services) show a combined reduction since 1949–50 of £37 million. The effect of this fall has been to reduce their share of the total Executive Council costs from 45 per cent. to 24 per cent. The ophthalmic service shows the biggest proportionate decline, but in absolute terms the fall in the cost of the dental service made the largest contribution to the total decrease in the cost of the Executive Council services. It should be noted that the decline in the cost of the dental and ophthalmic services started before charges were introduced in May, 1951 and June, 1952.

As the authors go on to say:—

> "It is clear that different factors have been at work in the different services. In general, all these trends have been affected by changes in prices and the introduction of charges. Underlying them, other and more subtle factors have been operating, the importance of which it is difficult to estimate on the information available to us."(1)

Central administration

40. After making an approximate allowance for the increase in prices during the period under review, the authors conclude that the resources used by central administration (i.e. in respect of Executive Councils and Joint Pricing Committees) were slightly less in 1953–54 than in 1949–50. This conclusion is worthy of note by those who have criticised the growing costs of administering the family practitioner services.

(1) Op., cit., page 36.

General Medical Services

41. In table 18, we reproduce the authors' analysis of the cost of the general medical services which is designed to show the effect of eliminating price changes.

TABLE 18

Current cost of the general medical services (England and Wales) in actual and in 1948–9 prices

	1948–9*	1949–50	1950–1	1951–2	1952–3‡	1953–4‡
Cost in actual prices†	(44·2)	45·7	49·9	50·5	52·0	51·9
Cost in 1948–9 prices	(44·2)	46·6	46·7	46·8	47·3	47·1

* Annual rate—interpolated from the 270 days for which the National Health Service operated.

† The cost of the general medical service primarily covers the cost of general practitioners' services (including mileage payments) for which the doctors are paid from a central pool. The largest other item included is the cost of the maternity medical service which amounted to nearly £2·3 million in 1952–3.

‡ An upward adjustment to these figures may still be made retrospectively on account of the final settlement of payments to general practitioners.

These figures show that, in terms of constant prices, there was little material difference in the cost of the general medical services between 1949–50 and 1953–54. The difficulties which were met by the authors in correcting for price changes, and the methods they used for dealing with them, are explained on page 37 of their published work; and we do not propose to refer to them in our Report.

With regard to the cost of the general medical services in actual prices, however, we should perhaps mention that the application of the Danckwerts award in 1952–53, and retrospectively to earlier years, resulted in general practitioners receiving a higher capitation fee in respect of each of their patients.(1) The rise of approximately £4 million (in actual prices) in the current cost of the general medical service for 1950–51 was simply a result of the higher "betterment factor" applied in that year.

Pharmaceutical Service

42. In table 19, we reproduce the authors' figures for the current cost of the pharmaceutical service(2), including and excluding charges.

TABLE 19

England and Wales

£m.

	1948–9*	1949–50	1950–1	1951–2	1952–3	1953–4
Gross cost of the service in actual prices	(27·7)	33·2	38·5	44·1	46·8	45·5
Less charges	—	—	—	—	−4·3	−6·0
Net cost of the service	(27·7)	33·2	38·5	44·1	42·5	39·5

* Annual rate—interpolated from 270 days for which the National Health Service operated.

(1) See Cmd. 8599, 1952.

(2) A description of the pharmaceutical service, its administrative organisation and its charges will be found in Part IV of our Report.

It will be seen that the cost of the pharmaceutical service rose steadily up to 1951–52. In the following year, when charges were introduced, the net cost (i.e. the cost to public funds) showed a decrease while the gross cost continued to rise, but by a smaller amount than in the earlier years.

In seeking explanations for these trends in the gross and net costs of the pharmaceutical service, the authors have found themselves hampered by lack of information, and by the inadequacy of the available statistics, which have made it impossible to judge precisely how the service is being used. This is a service in which new and expensive drugs are constantly being introduced and prescribed year by year, and it is important to know, with more precision than is known at present, what part they are playing in the changing costs of the service. The drug which is expensive in the first year of its introduction may in succeeding years become relatively cheap; being succeeded in its turn by some other new and expensive preparation. In attempting to analyse the prescribing statistics, further complications are introduced by the weather and the seasonal incidences of epidemics, the changing composition of prescriptions dispensed, the increased use of proprietary preparations and other factors. These are the reasons which, among others, have led the authors to conclude that they can give no "complete or satisfying explanation" for the trends in the cost of the pharmaceutical service. They add that—"Having regard to the important role of the pharmaceutical service in the National Health Service it would seem desirable to call for better statistics and some study of what is taking place."(1)

43. With these reservations in mind we go on to reproduce some of the tentative conclusions drawn by the authors, particularly with reference to the effect of charges on the cost of the pharmaceutical service. To quote the authors again:—

> "It is extremely difficult to estimate how much greater the gross cost would have been if charges had not been imposed. The charge is based on prescription forms. But while the number of forms may decline it does not follow that the cost of the service will correspondingly decline. The same quantity and cost of pharmaceuticals may result from fewer forms. The average number of prescriptions on a form which had been running steadily at 1·6 in the first three months of 1952 rose to 1·74 in the last three months when the charge was operating. There are also indications of a rise in the quantity covered by each prescription irrespective of the number of prescriptions per form."(2)

TABLE 20

Prescriptions dispensed in England and Wales
(*Millions in annual rates*)

1948–9	(191·3)
1949–50	206·4
1950–1	225·1
1951–2	220·6
1952–3	219·4
1953–4	212·9

44. Table 20 shows the number of prescriptions dispensed during the years 1948–49 to 1953–54 and it indicates that there was a small decline in the numbers prescribed after 1950–51 when the 1s. prescription charge was introduced. When these figures are analysed month by month "the part played by the weather and the seasonal incidences of epidemics is very much in evidence, and these factors, when added to those already mentioned, make it even more difficult to estimate the effects of the prescription charge."(1)

(1) Op. cit., page 40.
(2) Op. cit., page 38.

45. Charges apart, however, it is clear that the gross cost of the pharmaceutical service rose continuously up to the year 1952–53 (see table 19). In Appendix E of their published work the authors have attempted a detailed study of the causes of the rise, the main results of which are summarised in table 21 below.

TABLE 21

Factors accounting for the rise in the cost of the pharmaceutical service between 1949–50 and 1953–4

England and Wales

Cause	*Percentage of increase in cost attributable to each cause* Per cent.
Changes in rates of payment to pharmacists	−11
Increased quantity of ingredients	36
Changed composition of proprietaries and non-proprietaries ...	35
Other factors	40
	100

It will be noted that there was a reduction in the rates of payment to pharmacists during the period, and an increase under the three other heads listed in the table. We would emphasise, however, that the figures under these three heads should be accepted with considerable reserve for the reasons we have already stated. The two principal causes which, in our view, emerge for the increased cost of the pharmaceutical service, are:—

(i) The increased use of new and expensive drugs (particularly the antibiotics), whether in the form of proprietaries or otherwise.

(ii) The increased quantity of drugs prescribed—caused more by an increase in the average quantity per prescription than by the larger number of prescriptions issued.

We return to the question of the drug bill, and possible methods of controlling its size, in Part IV of our Report.

The General Dental Service

46. We reproduce in table 22, the authors' figures showing the trend in the cost of the general dental service (including and excluding charges) and the gross cost in 1948–49 prices.

TABLE 22

England and Wales

£m. in actual prices

	1948–9*	1949–50	1950–1	1951–2	1952–3	1953–4
Gross cost of the dental service ...	(39·0)	46·4	37·7	31·6	26·5	28·6
Less charges	—	—	—	−1·7	−5·4	−6·3
Net cost of the dental service ...	(39·0)	46·4	37·7	29·9	21·1	22·3
Gross cost in 1948–9 prices ...	(39·0)	49·8	46·4	40·8	34·2	36·8

* Annual rate—interpolated from the 270 days for which the National Health Service operated.

(1) Op. cit., pages 38–39.

These figures reveal that the cost of the general dental service in actual prices was falling before charges were introduced; that, between 1949–50 and 1953–54, the gross cost fell by £18 million and the net cost by £24 million and that, during the same period, the gross cost in 1948–49 prices fell by £13 million.

47. The decline in cost of the general dental service has been due to three main causes:—

(i) The reduction in the rates of payment for dental work which were introduced by the Ministry when it was realised that the rates originally fixed were providing dentists with greater annual remuneration than had in fact been intended.(1)

(ii) The reduction in the number of dentures supplied under the service.

(iii) The effect of charges.

We now go on to examine in more detail the variations in the supply of dentures, and the effect of charges on the cost of the service.

Supply of dentures

48. In order to understand more clearly the developments which have been taking place in the general dental service, the authors have provided figures (reproduced in table 23) distinguishing the net cost at constant prices of "work on prior approval" and "other work".

TABLE 23

Break-down of the current net cost to public funds of the dental service (England and Wales) in 1948–9 prices into prior approval and other work

£m. in 1948–9 prices

	1948–9*	1949–50	1950–1	1951–2	1952–3	1953–4
Prior approval	(31)	37	32	21	11	11
Other work	(8)	13	14	17	16	18
Total	(39)	50	46	38	27	29

* Annual rate—interpolated from the 270 days for which the National Health Service operated.

As the authors point out, the significance of this break-down is that it serves to show as closely as the data permit the trend of the cost of providing dentures which represents the bulk of the work done on prior approval.(2) The remaining work on prior approval, for example orthodontic treatment, is believed to have been fairly constant at £3–4 million over the six years. Allowing for this, it would seem that the cost to public funds of supplying dentures has declined from a peak of about £34 million in 1949–50 to about £8 million in 1953–54—a most substantial reduction. The second category of "other work"—which includes conservative work—has been increasing steadily throughout the period, except for one slight setback in 1952–53.

(1) For further details see Part IV of our Report.

(2) The authors point out that some of the treatment included in "prior approval" estimates is not itself subject to prior approval (for example, fillings) and it is not known how much of this is included in estimates for partial dentures nor how much for extractions is included in denture estimates. Included in the category "prior approval" is a mixture of treatment (for example, extractions necessitating dentures, crowns and inlays) and other treatment which happens to be added to prior approval estimates.

Interpreting these data in terms of the gross cost of dental work (as shown in table 22), it would appear that non-denture work has been expanding throughout the period under review, but that this expansion has been offset by a greater decline in denture work. From 1949–50 onwards there has clearly been a decline in resources used on producing dentures.

The effect of charges

49. As we have already seen, the decline in resources used by the general dental service had already started before the charges(1) were introduced, and there are some reasons for believing that the downward trend would have continued even without their introduction. To quote the authors again:—

> "It is estimated that by 1953 16 per cent. of the population (nearly 7 million persons) were wearing full dentures.(2) By 31st March, 1953, nearly 6 million pairs of full dentures had been supplied under the Service.(3) Taking into account what is known about the average life of dentures, the number of sets obtained privately, mortality among those fitted with dentures after the start of the service and other factors it would seem that, by March, 1953, a high proportion of persons requiring dentures had been fitted with them. Roughly, 80 per cent. had obtained them from the National Health Service during the preceding five years.
>
> "After piecing together these and other items of information it becomes possible to make a tentative assessment of the trend in the cost of dentures. At the beginning of the Service, it looks as though the high costs were attributable to an accumulation of demand from persons with unsatisfactory dentures and persons requiring dentures. After this back-log of demand had been largely dealt with, a decline set in as a rising proportion of needs were met. The subsequent introduction of charges probably contributed to some extent, however, to a further fall in the gross cost by inducing persons either to defer obtaining dentures or to continue with unsatisfactory sets longer than they would have done had replacement been free."(4)

50. From table 22 we can see that the total decline in the gross cost of the general dental service at constant prices between 1950–51 (the last complete financial year before charges were introduced) and 1953–54 was £10 million. The authors hazard the guess that charges may have been responsible for about one-half of this reduction—i.e., £5 million.(5)

Supplementary Ophthalmic Services

51. In table 24 we reproduce the authors' figures showing the current cost of the supplementary ophthalmic services (including and excluding charges) together with the gross cost in 1948–49 prices.

These figures reveal that, as with the general dental service, the cost of the supplementary ophthalmic services was falling before charges were introduced in 1951–52; that, between 1950–51 and 1953–54, the gross cost fell by £7 million and the net cost by £11 million; and that, during the same period, the gross cost in 1948–49 prices fell by £8 million.

(1) For a description of the charges see Part IV of our Report.

(2) *Report of the Ministry of Health for the Year ending 31st December, 1953, Part I, p. 79.*

(3) This figure does not represent 6 million different persons as more than one pair were, in a proportion of cases, supplied to the same person; the extent to which this occurred is not known for the earlier years.

(4) Op. cit., pages 41–42.

(5) Further analysis of the effects of the introduction of charges and in particular of the shift in the use of resources between age groups is available in the *Ministry of Health Report for the Year ended 31st December, 1953, pages 80–2.*

TABLE 24
England and Wales

£m. in actual prices

	1948–9*	1949–50	1950–1	1951–2	1952–3	1953–4
Gross cost of the ophthalmic service	(20·4)	20·1	18·4	10·2	10·1	11·4
Less charges	—	—	—	− 2·3	− 3·8	− 4·3
Net cost of the ophthalmic service	(20·4)	20·1	18·4	7·9	6·3	7·1
Gross cost in 1948–9 prices	(20·4)	22·1	21·3	12·0	11·7	13·3

* Annual rate—interpolated from the 270 days for which the National Health Service operated.

52. The declining cost of the service has been due to three main causes:—

(i) A fall in prices.

(ii) A reduction in the number of spectacles supplied under the service.

(iii) The effect of charges.(1)

Fall in prices

53. The authors have estimated that prices fell by 14 per cent. between the inception of the service and 1950–51, after which they remained steady for the next three years. "Both a reduction in the scale of fees for sight-testing and a cheapening in the cost of spectacles contributed to this fall in prices. After eliminating the effect of price changes it appears that the gross cost fell by £10½ million between the peak year 1949/50 and 1952/3 and then rose by £1½ million in 1953/4."(2)

Supply of spectacles

54. In order to reveal the developments in the use made of the supplementary ophthalmic services, the authors have provided figures (reproduced in table 25) distinguishing the current net cost to public funds of the ophthalmic service in 1948–49 prices for—

(*a*) sight-testing, and

(*b*) supply of spectacles.

TABLE 25
England and Wales

£m. in 1948–9 prices

	1948–9*	1949–50	1950–1	1951–2	1952–3	1953–4
Sight-testing	(6·2)	5·2	4·4	3·3	3·5	3·8
Supply of spectacles ...	(14·2)	16·8	16·9	6·1	3·9	4·5
Total	(20·4)	22·1	21·3	9·4	7·3	8·3

* Annual rate—interpolated from the 270 days for which the National Health Service operated.

The table shows that the decline in the cost to public funds has come primarily from the supply of spectacles, which cost £12·3 million less in 1953–54 than in 1949–50. Sight-testing, which has not been subject to a charge at any time in the service, was at its peak in the first nine months and was almost halved in cost by 1951–52.

(1) For a description of the charges for lenses and spectacle frames see Part IV of our Report.
(2) Op. cit., page 43.

The authors point out that "one minor explanation for the decline in the supply of spectacles has been the decline in the percentage of sight tests which result in a prescription for glasses. This fell from 95 per cent. at the start of the service to 92 per cent. in 1950/1 and 86 per cent. in 1952/3. This accounts for a fall of £1 million in the cost of the supply of spectacles between 1950/1 and 1952/3. In 1953/4, however, there was a slight rise in the percentage to 87 per cent."(1)

Effect of charges

55. We quote the authors at length to show the effect of charges on the cost of the supplementary ophthalmic services:—

"The remaining fall of £12 million from 1950/1 consists of £4½ million (in 1948/9 prices) transferred to private payments and £7½ million attributable, first, to the effects of charges on the gross cost and, secondly, to a decline which there is reason to believe would have taken place even if charges had not been introduced.

"The trend of sight tests, though irregular month by month, shows a decline from a quarterly average of 1·35 million in 1949/50 to 1·15 million in the second quarter of 1951 and to a quarterly average of ·9 million in 1952/3. By 31 March, 1953, 26·1 million pairs of spectacles had been supplied to a spectacle-wearing population of 19·2 million in England and Wales.(2) From a sample taken in 1948/9 it is known that in 34 per cent. of cases one person was supplied with two pairs. Applying this rate(3) to the 26·1 million pairs, it follows that 19·5 million persons were supplied with spectacles. This figure of 19½ million persons is a minimum figure, because after 1948/9 there was a decline in the percentage of cases in which two pairs were supplied. It is however not possible to put a figure to this; also, the extent to which persons have had more than one issue from the service is not known. However, it may be reasonable to assume that, by 1953, a high proportion of the spectacle-wearing population had been supplied with at least one pair under the service.(4) The downward trend of demand could, therefore, be interpreted as an adjustment to normal annual needs after a back-log of demand had been met in the early years of the service. As with dentures, the average time during which spectacles remain satisfactory is not known. This, in part, depends on the standards applied by those operating the sight tests. Nevertheless, it seems likely that charges caused some postponement in demands on the service. We would hazard the estimate that the gross cost may have fallen by £5 million as a result of the introduction of charges.

"All the evidence we have examined suggests the following interpretation of the trend in demands on the ophthalmic service. At the start of the service there were substantial demands from persons who had not previously had their sight tested and from persons who were overdue for a re-test. By 1951 these demands had been substantially met and the service was dealing more and more with normal new needs, re-testing and replacement. The introduction of charges in 1951 and their extension in 1952 caused some postponement of sight tests and some diversion

(1) Op. cit., page 44.
(2) Calculated from information given in P. G. Gray "Who wears spectacles?", *The Lancet*, 22nd September, 1951, p. 537.
(3) Rate: 134 pairs per 100 persons.
(4) A sample of persons coming forward for sight-tests in September, 1953 showed that less than 5 per cent. had not already received one pair of spectacles since the start of the service (*See Report of the Ministry of Health* for the Year ended 31st December, 1953, pp. 251–3).

31519 B 4

of the demand for spectacles to the private sector. In 1953/4 the service expanded slightly partly in response to the demands which had been postponed when charges were introduced and partly because the abnormally large issues at the start of the service were beginning to need replacement."(1)

56. We might add that the upward trend in the cost of the supplementary ophthalmic services has apparently continued in the years 1954–55 and 1955–56 judging by the Ministry's estimates for those years (including the supplementary estimate in 1954–55). It is indeed instructive to note how the costs of the supplementary ophthalmic service and the general dental service (the two services in which substantial charges were introduced in the years 1951 and 1952) have followed a similar trend in the last five years. In both services, we find a declining cost until the lowest point is reached in 1952–53, after which a gradual upward trend begins to make itself evident.

LOCAL HEALTH AUTHORITY SERVICES

57. To complete the review of the current cost of the National Health Service, we turn finally to the services administered by the local health authorities.(2)

We reproduce first in table 26, the authors' figures showing the current cost of the local health authority services (including and excluding charges) together with the net cost in 1948–49 prices.

TABLE 26

England and Wales

£m. in actual prices

	1948–9*	1949–50	1950–1	1951–2	1952–3	1953–4
Gross cost of the local authority services ...	(28·1)	31·8	35·8	38·0	42·5	43·7
Less charges	(— 2·5)	—2·4	—2·6	—2·9	—3·3	—3·3
Net cost of the local authority services	(25·6)	29·4	33·2	35·1	39·2	40·4
Net cost in 1948–9 prices	(25·6)	28·0	30·8	30·4	31·7	32·1

* Annual rate—interpolated from the 270 days for which the National Health Service operated.

The rise in expenditure between 1949–50 and 1953–54 is seen to be £11 million, and the authors have estimated that £4 million of this increase was due to a rise in the quantity of goods and services purchased, and £7 million to rising prices. They add that the prices of the local health authority services rose 26 per cent. between 1948–49 and 1953–54 compared with a rise of 29 per cent. in the retail price index.

It will be observed also that the part played by charges in this section of the National Health Service is relatively small (less than 10 per cent. of the gross cost) and the revenue yielded by the charges has been virtually a constant percentage of the gross cost. For this reason, and because information is not available to show from which particular services the revenue was obtained, the authors continue their analysis of the local health authority services in terms of their *net* cost.

(1) Op. cit., pages 44–45.

(2) A description of these services and their administrative organisation will be found in Part V of our Report.

Break-down between Services

58. In table 27 we reproduce the authors' figures showing a break-down of the annual cost (in 1948–49 prices) into four groups of local health authority services.

TABLE 27

England and Wales

£m. in 1948–9 prices

Services	1948–9*	1949–50	1950–1	1951–2	1952–3	1953–4
Child health and maternity	(12·9)	13·0	13·7	12·6	13·4	12·5
Ambulance service ...	(5·6)	6·9	7·5	7·8	7·9	8·1
Domestic help service ...	(1·5)	2·4	2·8	3·1	3·4	3·8
Other	(5·7)	5·7	6·7	6·9	7·0	7·7
Total	(25·6)	28·0	30·7	30·4	31·7	32·1

* Annual rate—interpolated from the 270 days for which the National Health Service operated.

It will be observed that, while the costs of the services as a whole have risen by 15 per cent. over the period under review, those concerned with child health and maternity (representing nearly half the total cost) have fallen by 4 per cent. We consider further the significance of this fall in Part V of our Report. The amount which the child health and maternity services cost in 1953–54 (£12·5 million) was made up as follows(1):—

(*a*) Midwifery—£3·7 million.

(*b*) Care of mothers and children—£6·4 million.

(*c*) Health visiting—£2·4 million.

The authors have concluded that between 1949–50 and 1953–54 the cost of the care of mothers and children fell slightly while a fall of 8 per cent. in the cost of midwifery was balanced by a rise of 27 per cent. in the cost of health visiting. Then they go on to add:—

> "The fall of 8 per cent. in the cost of midwifery can be compared with a fall of 10 per cent. in the number of live births in England and Wales or, more usefully, with a decline of 18 per cent. in confinements attended by domestic midwives over the same period. The number of hospital confinements steadily increased between 1949 and 1952, and fell sightly in 1953.(2) There was accordingly some under-employment of domiciliary midwives at the end of the period under review.

(1) The authors point out that these are only very rough estimates owing to the different allocations and accounting procedures adopted by different local authorities at different periods.

(2) Cases undertaken by midwives in hospitals in England and Wales.

Year	As midwives	As maternity nurses	Total
1949	304,543	69,523	374,066
1950	312,401	72,358	384,759
1951	318,583	78,330	396,913
1952	323,903	80,806	404,709
1953	Not available		401,116

Based on information supplied to the authors by the Central Midwives Board. The number of births occurring in National Health Service hospitals without the attendance of a midwife is negligible.

"The ambulance and domestic help services have each increased by over £1 million since 1949/50 and other services by £2 million. This represents an increase of 58 per cent. for the domestic help service, 35 per cent. for the other (mainly district nursing) services, and 17 per cent. for the ambulance service. The rate of increase in the ambulance service has been slowing down while the domestic help service has continued to expand at much the same annual rate since 1949/50.

"As with the hospital service, it is important to indicate the type of resources absorbed by the local authority services. About 85 per cent. of the cost of the services is attributable to wages and salaries; nearly half the wages and salaries being paid to 'medical' personnel (nurses, midwives, health visitors, etc.). Since 1949/50 the consumption of goods has increased very little, but additional services have been absorbed in the form of £1 million more 'medical' workers and over £2 million more 'other' workers (mainly in the domestic help service)."(1)

CAPITAL EXPENDITURE ON THE NATIONAL HEALTH SERVICE

General

59. So far, we have been dealing with the authors' review of the current cost of the National Health Service. We now turn to consider their analysis of the trends in capital expenditure during the first six years of the National Health Service.

60. We reproduce in table 28 the authors' figures showing the capital cost of the National Health Service broken down into new fixed assets and changes in the value of stocks.

TABLE 28
England and Wales

£m. in actual prices

	July 5th 1948–9	Annual* rate 1948–9	1949–50	1950–1	1951–2	1952–3	1953–4
New fixed assets ...	7·7	(10·4)	11·8	11·6	12·5	11·9	11·1
Change in value of stocks	1·0	(1·4)	2·0	3·7	4·0	−2·2	−2·4
Total ...	8·8	(11·8)	13·7	15·3	16·5	9·8	8·8

* Interpolated from the 270 days for which the National Health Service operated.

These figures reveal that the expenditure on new fixed assets (at actual prices) has been fairly constant since 1949–50. After adjusting for price changes, however, the authors have estimated that the expenditure on fixed assets in 1953–54 was about three-quarters of that in 1949–50. In arriving at this estimate, they have assumed that building prices rose by at least 25 per cent. during the period under review.(2) In real terms, therefore, the expenditure on new fixed assets in the National Health Service has been steadily declining.

In judging the variations in the stock values during this period, it should be remembered that in the National Health Service, stocks are normally valued at historical cost, and that changes in their value therefore represent primarily changes in the size of stock holdings rather than changes

(1) Op. cit., pages 46–47.
(2) Op. cit., pages 48–49.

in the value of existing stocks. It follows, therefore, that additions to stocks were the cause of the rise in total capital cost between 1949–50 and 1951–52; and again that the fall of £6 million between 1951–52 and 1952–53 was due to changes in the rate of stock building. The authors give two reasons for this sharp fall. "In part it was a response by hospital authorities to the stricter financial limitations imposed upon the Service, and in part it can be attributed to letters sent by the Ministry of Health to hospital authorities in January, 1953, requesting a reduction in stock values in the next financial year."(1)

Comparison with National Investment

61. It is interesting to compare the expenditure on new fixed capital assets in the National Health Service with the gross fixed capital formation in the national economy. This comparison is brought out in table 29 which again is reproduced from the authors' figures.

TABLE 29
England and Wales

£m. in actual prices

	1948–9*	1949–50	1950–1	1951–2	1952–3	1953–4
I. Gross fixed capital formation	(1,295)	1,419	1,532	1,689	1,874	2,084
II. Expenditure on new fixed capital assets in the National Health Service	(10·4)	11·8	11·6	12·5	11·9	11·1
III. II as percentage of I ...	(0·80)	0·83	0·76	0·74	0·64	0·53

* Annual rate—interpolated from the 270 days for which the National Health Service operated.

Gross fixed capital formation has been taken as 89 per cent. of that for Great Britain interpolated into financial years. (Central Statistical Office, *National Income and Expenditure*, H.M.S.O., 1955.)

These figures reveal that the proportion of national investment devoted to the National Health Service has been very small throughout the period, and has never reached even 1 per cent. It has steadily declined since 1949–50, and by 1953–54 was nearly 40 per cent. lower than during the first full year of the Service.

Break-down by Services

62. In table 30, we reproduce the authors' analysis of the expenditure on new fixed assets by services.

TABLE 30
England and Wales

£000's in actual prices

Service	5th July, 1948–9	Annual* rate 1948–9	1949–50	1950–1	1951–2	1952–3	1953–4
Hospital	5,775	(7,807)	9,779	9,802	10,603	9,915	9,395
Local authority	1,922	(2,598)	1,960	1,751	1,805	1,885	1,696
Executive Council ...	31	(42)	36	25	84	139	42
Total	7,728	(10,447)	11,775	11,578	12,492	11,939	11,133

* Interpolated from the 270 days for which the National Health Service operated.

(1) Op. cit., pages 49–50.

It will be seen that the great bulk of new asset expenditure has been devoted to the hospital service, and that between July, 1948 and March, 1954, a total of £55 million was expended on hospital fixed assets. Ninety-one per cent. of this total was expended by the hospital authorities themselves and the remaining 9 per cent. related to conversions of hospital buildings carried out by the Ministry of Works, the purchase of X-ray machines and other similar capital equipment for replacement, and capital expenditure on the bacteriological service.

The expenditure on new capital assets in the Executive Council services—totalling £399,000 during the period under review—related to the provision of office premises only.

The expenditure on new capital assets in the local health authority services totalled approximately £13·6 million during this period. About one-half of this expenditure related to the provision of vehicles (ambulances) and the other half to the provision of buildings.

Break-down of Hospital capital expenditure

63. In table 31, we reproduce the authors' break-down of hospital capital expenditure(1) from 5th July, 1948 to 31st March, 1954.

TABLE 31
England and Wales

	Per cent. of total
New Hospitals(2) and Major Extensions	10·2
Ward Accommodation	20·7
Special Medical Departments (including Operating Theatres and Diagnostic Departments)	19·1
Out-Patient and Casualty Departments	6·7
Accommodation for Staff including Nurse Training	16·2
Laundries	2·1
Main Kitchens	2·6
Engineering Services	13·4
Fees for future general development	0·5
Administration (Hospitals)	1·5
Miscellaneous	7·0
	100·0

It will be observed that only a little more than 10 per cent. of the expenditure over the six years has been devoted to new hospitals(2) and major extensions, and almost 21 per cent. to ward accommodation. Accommodation for staff (including nurse training) has absorbed over 16 per cent. of the expenditure—part of which might perhaps be allocated more appropriately to "housing" than to "health". Laundries, kitchens, and engineering services have attracted approximately 18 per cent. of the capital expenditure, some part of which would have the effect of reducing current costs. The authors have examined in detail this question of "cost-saving" in Appendix F of their published work, and we return to this point ourselves in Part III of our Report. For the moment we are concerned only to analyse the cost of the Service and to consider its implications for the future.

(1) Including X-ray equipment, centrally supplied, and all unfixed equipment on capital account.

(2) No new hospital was built during this period; but there was some expenditure on plans and on site preparation.

Comparison with pre-war capital expenditure

64. In Appendix G of their published work, the authors have attempted to draw a comparison between hospital capital expenditure under the National Health Service and similar expenditure before the second World War. As they point out, "there are many difficulties involved in this particular exercise and some of them cannot be resolved because the appropriate data do not exist".(1) We do not propose to follow them in detail through this exercise as we can refer those who are interested to the document itself. As the conclusions are significant, however, we reproduce in table 32 the authors' comparison of hospital capital expenditure (in 1952–53 prices) between the years 1938–39 and 1952–53.

TABLE 32
England and Wales

£m. in 1952–3 prices

	1938–9	1952–3	1952–3 as per cent. of 1938–9
			Per cent.
Hospital capital expenditure	32·0	10·2	32

We see from this table that capital expenditure in 1938–39, based on partial data only, was more than three times as high as it was in 1952–53; and the authors believe that this proportion would not be materially altered by choosing different years either towards the end of the 1930's or during the operation of the National Health Service.

65. The authors have also attempted to compare the ratio of capital to current expenditure on hospitals in England and Wales before the War and during the National Health Service. They have shown that in 1938–39, hospital capital expenditure represented about 19·6 per cent. of hospital current expenditure, while in 1952–53 the proportion had fallen to 4·1 per cent. It is true, of course, that the current expenditures in 1938–39 and 1952–53 are not comparable for a variety of reasons, e.g., because—

(i) The nursing and medical salaries in some voluntary hospitals before the War were low or even non-existent.

(ii) Student nurses did a great deal of domestic work in hospitals before the War.

(iii) The cost of maintaining and renewing equipment was less in 1938–39 than in 1952–53.

(iv) Expenditure on provisions in 1938–39 was reduced because patients and relatives often took food into the hospital.

Even after these differences have been taken into account, however, the fall in the proportion of hospital capital expenditure to current expenditure between 1938–39 and 1952–53 remains very significant. To emphasise this point still further, the authors have drawn attention to the ratio of capital to current expenditure on hospitals in the United States, which in the year 1951 stood at about 23·4 per cent. Here again, it must be remembered that the figures for expenditure in the United States and in Britain are not strictly comparable because of the different definitions applied in each country.

The condition of hospital buildings

66. The question might be asked whether the low rate of hospital capital expenditure since the Appointed Day has been due to the fact that hospital buildings were in good structural condition at that date and have therefore

(1) Op., cit., page 51.

needed little in the way of additional expenditure to maintain an adequate replacement level in the first six years of the National Health Service. From the information, however, which the authors have gathered from the Ministry of Health and from the results of the last National Hospital Survey (which was carried out during the second World War), there can be little doubt that the state of the hospital buildings in July, 1948 was far from satisfactory. The authors have estimated, for example, that 45 per cent. of the hospitals were originally erected before 1891 and 21 per cent. before 1861. As the authors point out, these figures are by no means conclusive because we do not know either the dates or the extent of the new building construction which has taken place on each hospital site since the original erection. When the figures are judged in the light of the hospital survey mentioned above, however, there can be no doubt about the inadequacy of many of the hospital buildings at the inception of the National Health Service. We repeat below some of the quotations selected by the authors from the hospital survey to illustrate their point.(1)

> "The surveyors of the North Western area wrote: 'Generally speaking, it must be recognized that the existing hospitals, considered as buildings, fall far short of a satisfactory standard. Indeed, considering the high place which England takes in the medical world, perhaps the most striking thing about them is how bad they are'.(2) The authors of the South Wales survey were even more explicit: 'A number of hospitals visited are so old or badly designed that they cannot be regarded as worth retaining, whilst others can be improved or adapted or extended so as to satisfy modern standards without unduly heavy expenditure. In our opinion roughly one half of the hospital accommodation, expressed in terms of hospital beds, is structurally ill-adapted for the purpose for which it is used, but with expert advice, extensions and adaptations could be undertaken which would render a fair proportion of it reasonably satisfactory. In a few instances complete demolition of the hospitals must be regarded as advisable since no tinkering with the existing structures can ever result in anything worth using for hospital purposes.'(3) Criticism was not restricted to the old hospitals. 'We have observed that many hospitals erected in comparatively recent years are poorly designed, and do not conform to modern principles of hospital construction.'(3) The Yorkshire survey tells much the same story. 'A large number of hospitals in the region are structurally unsuited for the adequate practice of medicine and surgery on modern lines' . . . (4)
>
> "The London surveyors summed up by saying: 'The general conclusion to be drawn from all this evidence can only be that either in quantity or quality deficiencies in all types of accommodation were widespread in 1938.' "(5)

Conclusion

67. In the light of all this evidence, the authors conclude that "hospital building cannot continue much longer at a figure well below replacement level if it is desired to maintain the service at a reasonable standard." They go on to add that "About £30 million a year would represent a replacement level of building with a sixty-year depreciation period, and at least £20 million a year with a ninety-year depreciation period."(1)

68. We return to this question in Part III of our Report where we recommend that £30 million annually would be a desirable rate of capital expenditure for the National Health Service at which to aim over the seven years succeeding the year 1957–58.

69. As the authors have rightly pointed out, capital expenditure can always be postponed without greatly affecting the running of the Service for a limited period of time. In the long run, however, capital needs must be met if the Service is to be maintained at an adequate level and a proper balance struck between capital and current expenditure.

The effects of population changes on capital expenditure

70. In Appendix I of their published work, the authors examine in some detail the effect of population changes on the future cost of the National Health Service, and we shall refer to their main conclusions in our review (see paras. 79–83 below). For the moment we wish to consider what effect the changes in the size and structure of the population will have on the need for hospital beds in the National Health Service and on the amount of capital investment required to provide those beds. We leave aside for the present the assumptions adopted and the methods employed by the authors in making the estimates involved.

71. The authors' figures for the future civilian population in England and Wales are estimates specially prepared by the Government Actuary's Department and are on the same basis as the population projection published by the General Register Office(2) at the end of 1953. The figures are reproduced in table 33 below.

TABLE 33
England and Wales

	Numbers (millions)	Per cent. of 1951–2
1951–2	43·31	100·0
1956–7	43·98	101·5
1961–2	44·46	102·7
1971–2	45·26	104·5

It will be seen that the population in England and Wales is expected to increase by 2 million (4½ per cent.) over twenty years. Applying this rate of increase to the 462,000 available hospital beds in 1951, the authors conclude that, in round figures, an additional 21,000 more beds will be required by 1972.

Changing structure of the population

72. The changing size of the population, however, is not the only factor to be taken into account; the changing structure of the population (both by age and sex) is also relevant.

In table 34 we reproduce the authors' figures showing the effects of changes in population size, age and sex structure on the demand for hospital beds.(3)

(1) Op. cit., pages 54–55.
(2) Ministry of Health, *Hospital Survey, The Hospital Services of the North-Western Area* (H.M.S.O., 1945), p. 9.
(3) Ministry of Health, Welsh Board of Health, *Hospital Survey, The Hospital Services of South Wales and Monmouthshire* (H.M.S.O., 1945) p. 11.
(4) Ministry of Health, *Hospital Survey, The Hospital Services of the Yorkshire Area* (H.M.S.O., 1945), p. 22.
(5) Ministry of Health, *Hospital Survey, The Hospital Services of London and the Surrounding Area* (H.M.S.O.), p. 11.

(1) Op. cit., pages 55–56.
(2) General Register Office, *The Registrar General's Quarterly Return for England and Wales*, 4th qtr. 1953, No. 420, p. 29.
(3) Based on table 39 and table 40 which give the 1951 hospital population by age and sex.

TABLE 34

England and Wales

	Occupied hospital beds	Increase over 1951–2	Per cent. of 1951–2
1951–2	462,000	—	100
1956–7	476,000	14,000	103
1961–2	485,000	23,000	105
1971–2	513,000	51,000	111

To quote the authors themselves:—

"This table shows that, after age and sex adjustments have been made to the estimated population changes on the basis of *who was in hospital at the time of the 1951 Census,* about 51,000 additional occupied hospital beds will be needed by 1971/2—an increase of 11 per cent. or about one-half per cent. per year. It is an estimate which makes the fundamental assumption that all other factors are unchanged; standards and methods of medical care, the incidence of diseases and injuries, the geographical distribution of the population, and many other imponderable elements. . . .

"For what it is worth, however, this exercise suggests that population changes over this period are, in themselves, a relatively unimportant factor in relation to the future rate of capital expenditure. The number of hospital beds at the end of 1952 closed 'due to lack of staff' (23,000) and 'temporarily closed for other reasons' (16,000) represents a high proportion of the figure of 51,000. Moreover, 'improved bed turnover' between 1949 and 1953 was, according to the Ministry of Health, equivalent to providing 40,000 extra beds. On the other hand, present waiting lists are large and some hospitals are overcrowded. While bearing all these considerations in mind it would, nevertheless, seem that the age of the hospitals themselves now and over the next twenty years is likely to constitute a more important factor in determining capital expenditure than any foreseeable change in the age composition of the population needing hospital care."(1)

73. We agree generally with the conclusion reached by the authors, subject to the many "imponderable elements" which go to make up their fundamental assumptions. We would mention in particular the question of hospital siting and the geographical distribution of the population. Many hospital buildings are now known to be wrongly sited, with the result that they neither serve the needs of patients, nor are able to attract the staff they require. It is impossible to estimate the number of beds which will need to be provided in the next 20 years to meet the changes which have already taken place—and are likely to take place in the future—in the distribution of the population.

SUMMARY OF THE CHANGES IN RESOURCES USED BY THE NATIONAL HEALTH SERVICE

74. We can now sum up the changes in resources used by the National Health Service during the first six years of its operation.

In table 6, we saw that the gross cost of the National Health Service in 1948–49 prices rose by £32 million between 1949–50 and 1953–54. This represents the total of additional resources consumed by the National Health Service during the period under review. In table 35 we reproduce the

(1) Op., cit., pages 56–57.

authors' figures which show how this £32 million is made up, distinguishing the three main heads of wages and salaries, goods and services, and contracted services. In effect, therefore, this table brings together the main features brought out by the earlier analyses relating to the consumption of resources by each branch of the Service.

TABLE 35

Analysis of the Increase in the gross cost of the National Health Service at constant prices between 1949–50 and 1953–4

England and Wales

£m. in 1948–9 prices

	Medical	Other	Total
Wages and salaries	14(A)	11(B)	25
Goods and contracts			
Pharmaceutical service	19	—	19
Spectacles	−7	—	−7
Other	5(C)	4	9
Contracted services			
Dental	−13	—	−13
General medical services and sight testing	−1(D)	—	−1
Totals	17	15	32

The figures marked (A)—(D) are in round figures, chiefly made up as follows:—

(A) Nurses and midwives (£7 million), doctors (£4 million), medical auxiliaries (£2 million—all in the hospital services) and health visitors, nurses, etc., in the local authority services (£1 million).

(B) Other workers (mainly domestic staff) in the hospital services (£8½ million) and other workers—mainly domestic helps—in the local authority services (£2 million).

(C) Drugs, dressings, equipment, etc., in the hospital services (£3 million), appliances, and other goods provided by the Ministry of Pensions (£1½ million) and goods and contracts in the local authority services (£½ million).

(D) An increase of £½ million in the general medical services and a decrease of £1½ million in sight-testing.

75. To quote the authors themselves:—

"It will be seen that the dominating changes have been: an increase of £25 million on wages and salaries; an increase of £24 million on drugs and medical goods; and a decrease of £20 million on dentures and spectacles. Allowing for the fact that some part of the total increase was accounted for by the use of additional labour who were unlikely to have found employment elsewhere (married women, part-time workers, Irish and other overseas workers specially recruited) it would seem that the net diversion of resources to the National Health Service between 1949/50 and 1953/4 was relatively negligible. It is also relevant that this small diversion of resources took place during a period when the population of England and Wales increased by about 800,000."(1)

FUTURE TRENDS IN THE COST OF THE NATIONAL HEALTH SERVICE

General

76. We are asked in our terms of reference to review the prospective as well as the present cost of the National Health Service. So far, we have been concerned almost entirely with the cost of the Service up to 31st March, 1954, with the one exception of hospital capital expenditure where

(1) Op. cit., page 66.

some reference has been made to the future level of annual expenditure as well as to the past. We must now turn, therefore, to the hazardous exercise of considering the future cost of the Service in terms of current expenditure.

77. We need hardly add that it would be folly to attempt to forecast in concrete terms how the current cost of the National Health Service is likely to vary in, say, the next 20 years. It is quite impossible to estimate, for example, the fluctuations which may take place in the level of wages and prices during this period, nor can we foresee the changes in medical techniques nor in the incidence of disease and accidents,(1) any of which might have a marked effect on the cost of the National Health Service. Again, any variations in the rates of charges paid by patients will have a material effect on the cost of the Service as we have already seen in previous sections of this review. There is the added complication too that our terms of reference relate to the cost of providing an "adequate" service. As we shall show in later sections of our Report, there are parts of the National Health Service which are demonstrably inadequate now and to which a good deal more of the country's resources would have to be devoted to raise them to what to-day might be regarded as a fully "adequate" level. The future cost of the Service will, therefore, depend in some measure on the rate at which the country may be able to make good these inadequacies as the years go by. It is the Government of the day which will have to decide what share of the country's resources can be made available for this purpose each year, bearing in mind other competing demands on the national economy. We cannot ourselves foretell what these decisions are likely to be.

78. To a large extent, therefore, any survey of the prospective cost of the National Health Service is bound to be something in the nature of an academic exercise. It can do no more than point the way to some of the factors—in addition to those already mentioned—which will have an effect on the future cost of the Service.

Effect of population changes

79. One factor which does appear to lend itself to a more objective examination is perhaps the factor of changing population which has been mentioned at a number of points in earlier sections of our review. It is for this reason that we invited the authors of "The Cost of the National Health Service in England and Wales" to examine the effects of certain projected changes in the size and age structure of the population of England and Wales on the current cost of the National Health Service—a task which they described as "an extremely risky enterprise undertaken with many misgivings." There has been a great deal of speculation in recent years about the possible effects of an ageing population on the cost of the country's health services (and other welfare services), and the authors agreed, therefore, that it might be worth while to "hazard even some preliminary estimates" of these effects which others might then be able to criticise. The results of the authors' study are set out in Appendix I of their published work and we do not propose to review them in detail in our Report. We would draw particular attention, however, to the basic assumptions on which the study is based, and the many qualifications and reservations made by the authors in arriving at their tentative conclusions, which are set out fully in their published work.

80. Throughout the exercise, the authors assume that "certain estimated population changes are the only changes which will affect the current cost of the National Health Service. Everything else remains unchanged: the incidence and character of sickness and injury; standards of diagnosis; quantity and quality of treatment; the provision of resources in goods and services; the present level of unsatisfied demand, and the present proportionate distribution of consumer use of the Service by age, sex and many other factors."(1) They go on to add:—

> "There should be no need for us to emphasise the unreality of these assumptions nor the frailty of the statistical material on which we have based our calculations. We are not attempting to estimate what the future cost of the National Health Service is likely to be. With the limited facts at our disposal we are simply trying to gain some idea of the order of magnitude of additional cost which might result from these particular changes in population if nothing else changed.
>
> "The population projection which we use is the one made by the Government Actuary's Department in 1953.(2) The main assumptions adopted in this projection are:—
>
> *Mortality.* At ages under 45 death rates decline steadily at such a rate that by 1978 they will be about one-half the rates experienced in 1953. At ages over 45 the assumed ratio of decline becomes progressively smaller as the age advances.
>
> *Natality.* Annual births averaging 640,000.
>
> *Migration.* Nil.
>
> "This is not the place to comment on the validity of these assumptions. There are reasons for believing that the assumption of declining mortality may be too optimistic.(3) We employ this projection not because we consider that it is more or less likely to be borne out in the future but because it is the most appropriate official calculation for our purposes."

The figures are given in table 36 below.

TABLE 36

Projected civilian population of England and Wales

(Million persons)

Age group	1951–2	1956–7	1961–2	1971–2	1971–2 less 1951–2
Males					
0–14	4·98	5·14	5·11	4·75	−0·23
15–44	8·64	8·39	8·40	8·65	0·01
45–64	4·95	5·34	5·57	5·71	0·76
65–74	1·37	1·40	1·46	1·85	0·48
75 and over	0·61	0·66	0·68	0·77	0·16
Females					
0–14	4·77	4·91	4·87	4·51	−0·26
15–44	9·44	9·09	9·00	9·08	−0·36
45–64	5·69	5·95	6·07	6·10	0·41
65–74	1·89	1·97	2·07	2·40	0·51
75 and over	0·97	1·13	1·23	1·43	0·46
Totals	43·31	43·98	44·46	45·25	1·94

> "This projection shows for the period of twenty years an increase of a million women and two-thirds of a million men aged 65 and over, and a decrease of half a million children aged under 15. The age group 15–64 increases by about 800,000—nearly all of them being men in the group

(1) See Appendix H of the authors' published work.

(1) Op. cit., page 154.
(2) General Register Office, *The Registrar General's Quarterly Return for England and Wales*, 4th qtr. 1953, no. 420, p. 29.
(3) R. M. Titmuss, "Pension systems and population change", *Political Quarterly*, vol. 26, 1955, no. 2, p. 154.

45–64. The total population increases by nearly two million or 4½ per cent."(1)

81. By studying the effects of these population changes on the current cost of the National Health Service over the next twenty years as an independent isolated factor, the authors reach the following conclusion :—

"On the basis of what is known at present about age and sex differences in demand (which, incidentally, is lamentably little), there is no justification for the alarm that has been expressed about the impact of 'an ageing population' on the cost of the National Health Service. Changes in age structure by themselves are calculated to increase the present cost of the Service to public funds by 3½ per cent. by 1971/2. A further increase of 4½ per cent. [making a total of 8 per cent. in all] is attributable to the projected rise in the total population of England and Wales (using the official projection figures).

"One reason why the additional costs of more old people (a projected increase of some 1½ million persons aged 65 and over) are insignificant is because only about one-fifth of expenditure is currently devoted to this age group. No doubt the figure would have been higher had it been possible to allow for the generally accepted fact that this age group makes heavier demands on the general practitioner than younger people. But this we were not able to do in the absence of any representative studies of the work of general practitioners.

"A second explanation of the relatively low costs of medical care for the elderly has to be sought in the field of quality and standard of service. These are matters of fundamental importance which quite obviously we could not pursue in this documentary study. But in so far as, by-and-large, the older age group are currently receiving a lower standard of service than the main body of consumers and that there are also substantial areas of unmet need among the elderly then it would follow that the estimates we present are even less indicative of future trends in cost."(2)

82. The following table 37 brings together the authors' estimates of the effect of population changes on each of the branches of the Service, and shows how the total estimated increase of 8 per cent. (i.e., between the years 1951–52 and 1971–72) in the current cost of the Service is arrived at.

TABLE 37

The effect of changes in population on the current net cost to public funds of the National Health Service

England and Wales

(£m. in 1951–2 prices)

	1951–2	1956–7	1961–2	1971–2
Central and miscellaneous	3·1	3·2	3·2	3·4
Hospital services	228·9	235·4	240·4	251·9
Executive Council services				
(*a*) Administration	2·5	2·5	2·6	2·6
(*b*) General medical services	50·5	51·2	51·8	52·7
(*c*) Pharmaceutical service	44·1	45·1	45·8	47·2
(*d*) Dental service	29·9	29·8	29·9	30·7
(*e*) Supplementary ophthalmic service ...	7·9	8·2	8·4	8·8
Total Executive Council services ...	134·9	136·8	138·5	142·0
Local authority services	35·1	35·7	36·2	37·3
Grand Total	402·1	411·3	418·3	434·6
Per cent. of 1951–2	100·0	102·3	104·0	108·1

(1) Op. cit., page 155.

83. We also reproduce in table 38 the authors' figures showing their analysis of the current net cost of the National Health Service to public funds in age and sex groups.

TABLE 38

England and Wales

(£m. in 1951–2 prices)

Age group	Males		Females		Total	
	Cost	Per cent.	Cost	Per cent.	Cost	Per cent.
0–14	43·6	23	40·2	19	83·8	21
15–44	64·7	35	74·2	34	138·9	35
45–64	46·2	25	54·3	25	100·6	25
65–74	18·9	10	25·5	12	44·4	11
75 and over ...	12·7	7	21·7	10	34·4	9
Total ...	186·2	100	215·9	100	402·1	100

To quote the authors themselves:—

"This table makes clear why, on the basis of all these estimates, the effects of the projected age changes in the population on the cost of the National Health Service are relatively insignificant. In 1951/2 the estimated cost of persons aged 65 and over was about £80 million. On a projected increase of some 1½ million persons in this age group by 1971/2 the additional cost works out at only another £30 million. Set against a total annual expenditure of some £400 million this represents a small proportionate increase."(1)

Other Social Factors

84. As the authors have pointed out, however, it is unprofitable in a study of this kind to consider the factor of age in isolation from other related factors when attempting to analyse the use made of the Health Service or any other social service. "Age—or old age in this context—is only one of many important social and demographic factors determining the level of demand for health and other social services." The authors were fortified in this view by the results of their analysis of the hospital population on census night 1951 which was made in collaboration with the General Register Office.(2) The main purpose of this analysis was to reveal the age and sex structure of the patient population in various categories of hospital so that some light might be thrown on the demands made on the hospital service and of the probable demands in the future. The provisional results of the analysis are contained in Appendix H of the authors' published work. The following are some of the more striking points which emerge from the study.

"(1) Compared with the demands made by single men and women (and, to a lesser extent, the widowed) the proportion of married men and women in hospital even at age 65 and over is extremely small.

(2) Among married men and women, the rise in the proportion in hospital with advancing age is not at all dramatic and, contrary to the assumptions often made, does not reach very high levels even after age 75. It is also noteworthy—again, contrary to expectation—that, age by age, there is little difference between married men and women.

(1) Op. cit., page 165.

(2) The G.R.O. kindly undertook to provide for the authors a special tabulation of the 1951 census schedules for all hospitals and certain other specified institutions in England and Wales.

(2) Op. cit., page 69.

(3) After age 45 the proportions in hospital of single people (particularly men) and, to a lesser extent of the widowed and divorced, diverge more and more sharply with advancing age from those of married people.

(4) For all types of hospital and in relation to their numbers in the total adult population, the single, widowed and divorced make about double the demand on hospital accommodation compared with married people.

(5) About two-thirds of all the hospital beds in the country occupied by those aged over 65 are taken by the single, widowed and divorced.

(6) The bulk of the population of mental and 'chronic' hospitals are single people. Of the single and widowed aged over 65 needing hospital care most of them are to be found in these two types of hospital. Marriage and its survival into old age appears to be a powerful safeguard against admission to hospitals in general and to mental and 'chronic' hospitals in particular."(1)

85. In interpreting these results, the authors have pointed out that it should be borne in mind that they do not accurately depict the total demand for in-patient care during the year in question—i.e., 1951; they relate only to the number of people in hospital on the census night 8th April, 1951. Length of stay, the incidence of readmission, transfers of patients from one to another hospital or institution and other factors are not, therefore, considered in the analysis. This is one of several qualifications ("not least being the factor of selection of patients for hospital care") to which the authors draw attention in Appendices H and I of their published work.

86. The results of this study are, we think, quite striking. They suggest that:—

"The existence or otherwise of surviving husbands, wives and children is perhaps the most important single social factor governing the amount and distribution by age and sex of demand for hospital care—particularly from the older age groups in the population. This being so, it would follow that the past social structure of the population determines in some measure current demands for hospital care. The low marriage rates of forty and fifty years ago represent one important factor.(2) A second is the relatively high mortality rates which operated in the past among married couples in the working classes which, in addition to the losses caused by the First World War, led to a higher incidence of broken marriages. One long run effect of the First World War which has an obvious bearing on hospital demand to-day is the present 'abnormally' high proportion of elderly widows.(3) A third factor is the decline in family size and the survival into old age of a larger proportion of childless married men and women.

"It would be an exceedingly hazardous task to attempt to estimate the influence of these important social factors in shaping the future course of hospital demand. Clearly, they will continue to be important, but the substantially higher rate of marriage which has now prevailed for several decades and the equally substantial fall in the proportion of marriages broken by death are two encouraging features. Indeed, if the Government Actuary's estimates of the population of Great Britain in 1979 are accepted there will be no significant change in the actual number of single people of pensionable ages. There will in fact be 22,000 *fewer* single women, and only 47,000 more single men. The number of widowed and divorced women rises by 597,000; the corresponding figure for men is only 85,000. According to the assumptions adopted by the Government Actuary, the great bulk of the increase in the population of pensionable ages by 1979 (a total of 2,510,000) is attributed to married men and women (1,902,000). These estimates, it should be noted, are based on the somewhat optimistic assumption of a decline in mortality at advanced ages at the average rate experienced during the first half of this century. If the alternative assumption is adopted of a continuance of mortality rates at their 1954 level the estimated additional pensionable population would be lower by nearly 700,000.(1)

"So far as hospital demand is concerned, it can thus be seen that among the group of old people who make the largest demands for in-patient care (single men and women) there is not likely to be any material increase in the population at risk during the next twenty-five years. The number of widowed and divorced, who make fewer demands than the single but more than the married, rises by about 27 per cent. while the increase among married persons is about 56 per cent. To look at the facts of population change from this particular aspect of 'dependency' and the need for institutional care obviously puts a different complexion on the pattern of future demands."(2)

87. Before leaving this part of the authors' study, we reproduce in table 39 below the authors' summary of the census population (1951) in England and Wales in all National Health Service hospitals by age, sex, and civil state; and in table 40 the summary is repeated for all hospitals *excluding* mental and mental deficiency hospitals.

TABLE 39

The percentage of the Census Population (1951) in England and Wales in all National Health Service Hospitals(3) by age, sex and civil state(4)

MALES

Age Group	Single		Married		Widowed and Divorced	
	No.	Per cent.	No.	Per cent.	No.	Per cent.
0–14	27,465	0·6	—	—	—	—
15–44	50,483	1·4	17,104	0·3	601	0·7
45–64	25,266	5·9	25,680	0·6	2,959	1·3
65–74	7,639	6·6	10,131	1·0	4,616	1·8
75+	4,093	8·5	4,631	1·5	7,792	3·2
Total	114,946		57,546		15,968	

(1) Op. cit., pages 70–71.

(2) In 1911 13 per cent. of women aged 65 or over in Great Britain were single and 31 per cent. were widowed. By 1951 these proportions had risen to 17 per cent. and 49 per cent. respectively. Divorce accounted for 1 per cent. in 1951.

(3) *National Insurance Act*, 1946. *Report by the Government Actuary on the First Quinquennial Review*. (H.M.S.O., 1954), p. 39.

(1) Even this assumes, for men, a reversal of the recent tendency for mortality rates to increase at ages 65 and over.

(2) Op. cit., pages 146–147.

(3) Including contracted institutions.

(4) Based on General Register Office, *Census 1951 Great Britain One per cent. Sample Tables, part I* (H.M.S.O., 1952).

FEMALES

Age Group	Single		Married		Widowed and Divorced	
	No.	Per cent.	No.	Per cent.	No.	Per cent.
0–14	22,904	0·5	—	—	—	—
15–44	42,457	1·4	37,672	0·6	1,525	0·7
45–64	30,204	3·5	26,602	0·7	7,919	0·9
65–74	11,472	3·8	9,878	1·2	11,011	1·4
75+	9,117	5·9	4,510	2·4	17,365	2·9
Total	116,154		78,662		37,820	

On the basis of the figures set out in table 39 it appears that out of the total of 421,096 patients in all National Health Service hospitals on the census day (5th April, 1951) roughly one quarter (24 per cent.) were aged 65 years or over, the remaining three-quarters being spread over the earlier age groups.

TABLE 40

The percentage of the census population (1951) in England and Wales in all National Health Service Hospitals[1] (*excluding* mental and mental deficiency) by age, sex and civil state

MALES

Age Group	Single		Married		Widowed and Divorced	
	No.	Per cent.	No.	Per cent.	No.	Per cent.
0–14	23,502	0·5	—	—	—	—
15–44	14,815	0·4	13,909	0·3	351	0·4
45–64	4,939	1·2	17,124	0·4	1,803	0·8
65–74	2,894	2·5	6,478	0·7	3,387	1·3
75+	2,528	5·2	3,245	1·1	6,603	2·7
Total	48,678		40,756		12,144	

FEMALES

Age Group	Single		Married		Widowed and Divorced	
	No.	Per cent.	No.	Per cent.	No.	Per cent.
0–14	20,459	0·4	—	—	—	—
15–44	14,641	0·5	32,431	0·5	928	0·4
45–64	6,551	0·8	13,871	0·3	4,066	0·5
65–74	3,971	1·3	4,372	0·5	6,711	0·9
75+	5,118	3·3	2,161	1·1	13,018	2·2
Total	50,740		52,835		24,723	

(1) Including contracted institutions.

Table 40, taken in conjunction with table 39 shows that on the census day 229,876 patients were in National Health Service hospitals *other* than mental and mental deficiency hospitals; there being 191,220 patients (45 per cent. of the total) in hospitals of these two latter types. Of those covered in table 40 roughly one quarter (26 per cent.) were aged 65 years or over, the remaining three-quarters being spread over the earlier age-groups.

88. The authors then go on to consider in Appendix H of their published work, other factors affecting the demands on the hospital service including the pattern of demand by different occupational and social groups in the population. We cannot reproduce the whole of the material in our Report but we should like to quote the authors' final observations on their study of the 1951 hospital population.

> "Irrespective of the changing incidence of disease, concepts of ill-health, standards of diagnosis and treatment and attitudes to medical care, all these 'social' factors of age, sex, family relationships, class and income play a variety of roles in determining the pattern of demand. They do not all work in the same direction; more old people may mean more demands on some services but not on others; more children and a higher birth rate affect the different branches of the Service in different ways; less hospitalized sickness may mean more expenditure on welfare services; a larger proportion of the population with middle class standards and aspirations may mean more *expressed* demand for some forms of medical care; a lower marriage rate and smaller families may mean increased demands for hospital care; changes in the proportions of men and women who are single, widowed, divorced and childless may represent in the future more important factors in influencing demand for medical care than any foreseeable changes in the age structure of the population as a whole. These are some of the suggestions which are thrown up by our studies of the 1951 hospital population."(1)

89. It is, of course, impossible to calculate precisely what effect these "social" factors will have on the future cost of the National Health Service. The studies which have been carried out by the authors throw some light on the problem but they also reveal the inadequacy, in many respects, of the existing material and data, and the need for further research into the working of the National Health Service. We return to this question in Part VII of our Report in which we discuss the need for a Research and Statistics Department in the Ministry of Health and the Department of Health for Scotland.

Superannuation contributions and benefits

90. Before leaving the question of the future cost of the National Health Service, we should perhaps draw attention to a factor which will have a bearing on the cost of the Service to the Exchequer in the coming years. It is the practice at present to appropriate in aid of the National Health Service Vote the excess of superannuation contributions over the sums paid out in benefits, and the Exchequer is, for the time being, enjoying a hidden subsidy from this source. As time goes on, the difference between the super-annuation contributions and benefits will presumably steadily diminish and eventually disappear. This is a calculable factor, of which the Health Departments are fully aware, and for which they will have to make allowance when estimating the cost *to the Exchequer* of the National Health Service in years to come.

Conclusion

91. On the hazardous subject of the prospective cost of the National Health Service therefore, we are bound to finish up as we began, by admitting that we can only point the way to some of the factors that will have a bearing on the cost of the Service in the future, without attempting to estimate what that cost will be.

(1) Op. cit., page 70.

SUMMARY

92. We summarise below the main features which have emerged from this study of the trends in the cost of the National Health Service in England and Wales from 6th July, 1948 to 31st March, 1954; and some of the possible trends in the future. We do not propose to repeat in the summary all the definitions, assumptions, and qualifications on which the conclusions are based. These will be found by referring back to the body of the text of Part I of our Report and, where necessary, by reference to "The Cost of the National Health Service in England and Wales" by B. Abel-Smith and R. M. Titmuss. We would emphasise, however, that all who wish to use these conclusions should read them in conjunction with the assumptions, etc., to which we have just referred.

THE CURRENT COST OF THE NATIONAL HEALTH SERVICE IN ENGLAND AND WALES DURING THE PERIOD 1948 TO 1954

General

(1) In England and Wales, the current net cost of the National Health Service in productive resources was £371½ million in 1949–50. In subsequent years it rose by roughly £15 million each year, reaching £430½ million in 1953–54 (para. 17).

(2) The rise of £59 million in the current net cost of the Service over the four years was the combined result of a larger rise (£77 million) in gross costs, offset by a saving of £18 million arising from new or increased charges to beneficiaries (para. 18).

(3) Expressed as a proportion of total national resources (the "gross national product") the current net cost of the Service fell from 3¾ per cent. in 1949–50 to 3¼ per cent. in 1953–54 (para. 20).

(4) During the period under review there was a considerable general rise in prices. An attempt has been made to estimate the effect of price increases on the cost of the Service, recalculating expenditures at constant (1948–49) prices and wages. The current net cost of the Service, expressed in "real" terms in this way, was only £11 million greater in 1953–54 than in 1949–50. Thus, the net diversion of resources to the National Health Service as a whole since 1949–50 has been of relatively insignificant proportions (para. 23).

(5) There was a rise of nearly 2 per cent. in population during the period under review. Allowing for this and for changes in the age structure of the population, the cost *per head* at constant prices was almost exactly the same in 1953–54 as in 1949–50 (para. 24).

(6) Trends of expenditure have been very different in different parts of the Service. Between 1949–50 and 1953–54 net current expenditure on the hospital services rose by £71 million, and that on local authority services by £11 million, while expenditure on Executive Council services fell by £24 million. The movement of total Health Service expenditure thus represented the combined result of these divergent trends, a fact which needs to be taken into account in considering possible future trends (paras. 25–26).

The cost of the Hospital Service

(7) A major part of the rise in hospital expenditure was attributable to rising prices (£41½ million of the £71 million increase from 1949–50 to 1953–54) but the rise in the real volume of goods and services purchased (£29½ million at 1948–49 prices) was also substantial (para. 29).

(8) Throughout the period under review, revenue from charges has contributed in only a very small degree towards the gross cost of the hospital service; little more than 1 per cent. in fact (para. 27).

(9) Approximately 60 per cent. of the increase in resources purchased for the hospitals (£17½ million of the £29½ million) consisted of medical goods and services (para. 30).

(10) In the hospital service, the cost of medical staff increased by £4 million between 1949–50 and 1953–54. This rise is attributable in the main to a substantial increase in the number of staff employed, both part-time and whole-time. The increase in labour services as a whole accounts for three-quarters of the increase in resources used in the hospital service at constant prices. The categories of staff which increased most were nurses and domestic staff (paras. 32–34).

The Cost of the Executive Council Services

(11) Current net expenditure on Executive Council services fell by £24 million between 1949–50 and 1953–54. Of this, £17 million represented a transfer of cost to beneficiaries by means of the charges introduced in 1951–52, but there was also a decline of £7 million in the *gross* cost of the services (para. 38).

(12) The different Executive Council services show different trends in expenditure. While the pharmaceutical service and the general medical service each increased between 1949–50 and 1953–4 by £6 million, expenditure on the dental service fell by £24 million and that on the ophthalmic service by £13 million (para. 39).

(13) The rise of £6 million in the cost of the general medical service was entirely due to a rise in "price", i.e., to the increased cost per patient-year resulting from the Danckwerts award to general practitioners (para. 41).

(14) The rise of £6 million in the net cost of the pharmaceutical service resulted from a rise of £12 million in gross expenditure, partly offset by £6 million in revenue from charges. Owing to lack of information, it is impossible to give a complete explanation of the rise in gross expenditure. It has been estimated, however, that the rise may have been attributable broadly to the following factors: 36 per cent. to an increase in the amount prescribed; 35 per cent. to the changed composition of proprietary and non-proprietary articles; a *decline* of 11 per cent. to lower rates of payment to pharmacists; and an increase of 40 per cent. to other factors (including the increased use of new and expensive drugs) (paras. 42–45).

(15) The decline of £24 million in the cost of the dental service over the four years was partly accounted for by £6 million revenue from the charges introduced in 1951 and 1952, but the major part (£18 million) resulted from a fall in gross expenditure. Of this figure, £13 million was the effect of the reductions in rates of payment to the dentists. The principal area of saving was in the cost of dentures which declined substantially. There is evidence that the decline in work done by the service was not simply due to the introduction of charges; demand was already falling before charges were introduced, after the accumulated arrears of needs had been largely dealt with (paras. 46–50).

(16) The fall of £13 million in the net cost of the ophthalmic service was partly accounted for by £4 million revenue from charges, but mainly by a decline in gross expenditure of £9 million. This decline was due almost entirely to a reduction in the amount of work done, chiefly in the supply of spectacles. From the evidence examined it would seem that some decline would have taken place even if charges had not been introduced (paras. 51–56).

Local Health Authority Services

(17) A major part of the rise in expenditure by local health authorities (£7 million of the £11 million increase from 1949–50 to 1953–54) was the result of rising prices. The rise of £4 million in the real volume of goods and services purchased occurred principally in the ambulance, domestic help and home nursing services (paras. 57–58).

THE CAPITAL COST OF THE NATIONAL HEALTH SERVICE IN ENGLAND AND WALES—1948 TO 1954

General

(18) The amount of capital expenditure by the National Health Service has been relatively small throughout the five years. This expenditure has two components, expenditure on building up stocks which has fluctuated between £4 million and minus £2 million in different years, and a fairly steady rate of about £12 million a year of capital expenditure on fixed assets (paras. 59–60).

(19) As prices of building work and other capital assets have risen substantially over the period, the rate of capital expenditure in real terms has progressively declined. As a proportion of national fixed capital formation, the fixed asset expenditure of the Health Service has been small and declining (from 0·8 per cent. to 0·5 per cent. in the five year period) (paras. 60–61).

Hospital capital investment

(20) Fixed capital expenditure is almost wholly attributable to hospital work. About 10 per cent. of expenditure has been for major extensions to hospitals and a further 21 per cent. of expenditure has been for ward accommodation. Expenditure on accommodation for staff has accounted for 19 per cent. of the total.

(21) The rate of fixed capital expenditure on hospitals has averaged about one third of the pre-war rate in real terms. Approximately 45 per cent. of all hospitals were originally erected before 1891; and many are regarded by expert opinion as seriously in need of replacement or radical reconstruction (paras. 62–69).

FUTURE TRENDS IN THE COST OF THE NATIONAL HEALTH SERVICE

(22) We cannot attempt to forecast how the cost of the National Health Service is likely to vary in, say, the next twenty years; we can only point the way to some of the factors which will have a bearing on the future cost—e.g., the rate at which the country may be able to make good the existing deficiencies in the Service; the rate at which the hospital capital investment programme can be expanded; fluctuations in the level of wages and prices; changes in medical techniques and in the incidence of disease and accidents; possible variations in the rates of charges paid by patients; the effect of population changes and other social factors on the use made of the Service, etc. (paras. 76–78).

(23) From an analysis of the hospital population on the census night, 1951, the authors of "The Cost of the National Health Service in England and Wales" have considered in particular the effect of demographic and other social factors on the demand for hospital care, and the effect of projected population changes on the future cost of the Service (paras. 79–89). Their main conclusions are summarised below:—

(*a*) Compared with the demands made by single men and women (and, to a lesser extent, the widowed) the proportion of married men and women in hospital even at age 65 and over is extremely small.

(*b*) Among married men and women, the rise in the proportion in hospital with advancing age is not at all dramatic; it does not reach very high levels even after age 75—only 1·5 per cent. of married males aged 75 years and over were in National Health Service hospitals, while the corresponding figure for married females was not more than 2·4 per cent.

(*c*) For all types of hospital and in relation to their numbers in the total adult population, the single, widowed and divorced make about double the demand on hospital accommodation compared with married people.

(*d*) About two-thirds of all the hospital beds in the country occupied by those aged over 65 are taken by the single, widowed and divorced.

(*e*) The bulk of the population of mental and "chronic" hospitals are single people. Of the single and widowed men and women aged over 65 needing hospital care, most are to be found in these two types of hospital. The married state and its continuance thus appear to be a powerful safeguard against admission to hospitals in general and to mental and "chronic" hospitals in particular.

(*f*) An analysis of the Government Actuary's estimates of the population of Great Britain in 1979 shows that among those who make much the heaviest claims on hospital accommodation, the number of single women of pensionable ages will actually decline, while the number of single men of such ages will increase by only a negligible figure.

(*g*) An attempt is made to estimate the order of magnitude of additional future costs to the Service arising *solely* as a result of projected population change taken as an independent, isolated factor. Changes in age structure *by themselves* are calculated, on a number of drastically simplified assumptions, to increase the present current cost of the National Health Service by 3½ per cent. between 1951–52 and 1971–72. A further increase of 4½ per cent. is attributable to the projected rise in the total population of England and Wales (using the official projection figures). In total, therefore, population changes *by themselves* are not likely to exert a very appreciable effect on the future cost of the National Health Service.

PART II

THE GENERAL STRUCTURE OF THE NATIONAL HEALTH SERVICE

93. Our remaining terms of reference are "to suggest means, whether by modifications in organisation or otherwise, of ensuring the most effective control and efficient use of such Exchequer funds as may be made available; to advise how, in view of the burdens on the Exchequer, a rising charge upon it can be avoided while providing for the maintenance of an adequate Service; and to make recommendations."

An "Adequate Service"

94. Before we can deal with the many questions implied in these terms of reference, we must consider at the outset what is meant by the provision of an "adequate service".

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