

Report of the Working Party on the Chairside Times Taken in Carrying Out Treatment by General Dental Practitioners in England, Wales and Scotland.

Contributors

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Report of
the Working Party
on the
CHAIRSIDE TIMES
taken in carrying out treatment by
GENERAL DENTAL PRACTITIONERS
in England, Wales and Scotland



LONDON : HIS MAJESTY'S STATIONERY OFFICE
1949

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WORKING PARTY

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(*A past President of the Institute of Actuaries*)

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L. G. HITCHING, L.D.S. U. Birm. } *Secretaries*

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To

The Rt. Hon. Aneurin BEVAN, M.P.,
Minister of Health.

and

The Rt. Hon. Arthur WOODBURN, M.P.,
Secretary of State for Scotland.

Gentlemen,

A. Preliminary

1. The Working Party was appointed by the Minister of Health and the Secretary of State for Scotland.

The three dental associations were asked to nominate four members. The British Dental Association nominated Mr. A. Macgregor, O.B.E., L.D.S. F.P.S. Glasg., and Mr. S. Donald Cox, M.B.E. The Incorporated Dental Society nominated Mr. A. H. Condry, and the Public Dental Service Association nominated Mr. J. Lauer, L.D.S. R.C.S. Eng. These nominations were accepted by the Minister and the Secretary of State.

The Minister and the Secretary of State appointed Mr. William Penman, M.B.E., F.I.A., a past President of the Institute of Actuaries, to be the independent Chairman of the Working Party.

Subsequently (see paragraph 3) Mr. J. J. Gillard Bishop, L.D.S. U. Brist., was nominated by the British Dental Association to take the place of Mr. S. Donald Cox.

The "reference" to the Working Party is contained in letters dated 19th February, 1949, from the Ministry of Health to the members of the Working Party.

Each letter stated the terms of reference to be:—

"To ascertain the average chairside time taken by general dental practitioners in England, Wales and Scotland (1) in the National Health Service and (2) in private practice to complete each of the types of dental treatment set out in Part I of the First Schedule to the National Health Service (General Dental Services) Fees Regulations, 1948, excluding any items for which it is impracticable to establish an average time, e.g., orthodontic treatment."

2. Certain preliminary discussions took place on 4th and 21st January and 7th and 14th February before the Working Party was formally constituted, and subsequently meetings were held on the 21st and 28th February, 14th March, 4th April, 23rd May, 20th June, 16th July and 3rd August. The Working Party at some of these earlier meetings had the benefit of the presence and assistance of Dr. W. G. Senior, O.B.E., Ph.D., F.D.S. R.C.S. Eng., of the Ministry of Health, and Dr. T. H. J. Douglas, F.R.F.P.S. Glasg., F.D.S. R.C.S. Eng., L.R.C.P. Edin., of the Department of Health for Scotland, and these gentlemen held themselves available when required for attendance at subsequent meetings. Their assistance and guidance were very helpful to the Working Party.

3. Mr. S. Donald Cox, Assistant Secretary of the British Dental Association, was one of the two members nominated by the British Dental Association, and he attended the earlier meetings in that capacity. Subsequently it was felt that it would be better if a dental practitioner were appointed, and on the 14th March, Mr. J. J. Gillard Bishop was nominated in place of Mr. Cox. As it was desired to retain the benefit of Mr. Cox's valuable assistance, the

Working Party on 14th March appointed him as Joint Secretary, along with Major L. G. Hitching, L.D.S. U. Birm., of the Ministry of Health, who up to that point had been sole secretary.

B. Random Sampling

4. It was decided that the inquiry could best be carried out by means of a sample investigation, and it was decided by the Chairman that probably a sample of about 500, representing about 5 per cent. of the dentists undertaking General Dental Services under the National Health Service, would be adequate. Each dentist in the sample was asked to supply a "log" of his operations for the week from 4th April to 9th April, both dates inclusive.

5. Recourse was had to the published Executive Council lists for England, Scotland and Wales and each list was dealt with separately in order to ensure that every portion of the country would be adequately represented in the sample. By this means it was also ensured that the spread of the sample would be in harmony with the general spread of the population. Each Executive Council list was examined separately. The number of dentists required to represent 5 per cent. of that list was ascertained and names to that number were selected by ballot.

6. The British Dental Association supplied the Working Party with a list of dentists who did not undertake General Dental Services under the National Health Service, and 52 dentists were chosen from amongst these in a manner, as far as possible, similar to that used in selecting the sample of dentists who were undertaking General Dental Services.

7. Although not strictly within the terms of reference, it was felt that it would be useful to obtain also some information as to the "times" taken by dentists (other than those working at Local Authority Health Centres) who were working as employees in practices of a "clinic" type. These dentists, employed in dental practices of a "clinic" type, could not be selected at random. The names of their employing bodies were selected arbitrarily by the Working Party as being likely to give a reasonable range of experience. Returns were requested, and subsequently received, from the dental services attached to or operated by the Metropolitan Police, Marks and Spencer Limited, Imperial Chemical Industries Limited, the London Transport Service, and one other service which has expressed a desire to remain anonymous (hereinafter referred to as "Clinic X"). Altogether returns from 52 dental practitioners were received, made up as follows:—

<i>"Clinic"</i>						<i>Number of Returns</i>
(1)	"Clinic X"	...	...	...	...	16
(2)	Marks and Spencer Limited	...	...	...	...	23
(3)	Metropolitan Police dental service	...	...	...	...	6
(4)	Imperial Chemical Industries Limited	...	...	...	...	4
(5)	London Transport (Central Road Services)	...	...	...	...	3
	Employees' Friendly Society	...	...	...	...	3
						—
						52
						—

8. The sample which emerged from the main inquiry, that amongst dental practitioners undertaking duties under the National Health Service, was then examined to ascertain whether it appeared to be reasonably representative of the profession. As a ready means of making such an examination the proportions of "Licentiates" and "Dentists 1921", included were extracted.

9. The proportions of "Dentists 1921" and "Licentiates" in the sample were 39 per cent. and 61 per cent. respectively. This was in close harmony with the proportions estimated for the whole body of dental practitioners engaged in General Dental Services.

10. The following documents are reproduced in Appendix I:—

- (a) The Chairman's letter sent to each member of the "sample".
- (b) The "letter of recommendation", sent with the Chairman's letter, signed on behalf of the British Dental Association, the Incorporated Dental Society and the Public Dental Service Association.
- (c) The form of schedule upon which it was requested that a "return" should be made.
- (d) A specimen completed form of schedule; and
- (e) A copy of the instructions endorsed upon each form of schedule.

Appendix I also includes a copy of the letter sent to the 52 dental practitioners who were not engaged in the General Dental Services of the National Health Service.

The number of letters sent out in connection with the main inquiry was 505.

Great care was taken, when drafting these letters, instructions, and forms, to make them both comprehensive and clear. Each letter was signed personally by the Chairman or the representative of the dental professional bodies, as the case might be, so as to remove from them all suspicion of being "circulars." The letters, forms and instructions speak for themselves and there is no need to comment or enlarge upon them here.

11. On the whole, the care thus taken reaped its due reward, for in most respects the response was satisfactory, although no fewer than 85 of the dentists in the sample sent excuses which were regarded as adequate reasons for failure to participate. In 58 of these cases—23 "Licentiates" out of 310 (7 per cent.) and 35 "Dentists 1921" out of 195 (18 per cent.)—the reason given was ill health, and in 17 cases either the surgery was closed for cleaning and repair or the dentist was on holiday. The other 10 were of a miscellaneous character.

The dentists, when returning completed time sheets, were invited to add their comments and observations, and more than half of those who responded availed themselves of the invitation. Their letters leave a general impression of rush and strain, arising from the attempt to cope with the abnormally great demand for dental services which the National Health Service Act has evoked. Apart from this general impression, 24 dentists mentioned this point specifically in connection with their own state of health. Many of the relevant observations amounted to a justification of the timings submitted, by describing ways and means calculated to reduce operational time for individual patients without lowering the standard of treatment.

More than 90 dentists considered that highly trained chairside assistance was essential. More than 40 had found that a larger number of patients could be dealt with in a given time where a second surgery was available. Other recommendations included the routine use of local anaesthesia when filling teeth, a systematic dovetailing, or overlapping, of more than one kind of treatment during one sitting of a patient whose dental requirements made this possible, and a few individual circumstantial aids.

There is clear evidence that the majority of these dentists, who took part in the survey and who have assisted the Working Party by giving their comments, are working at a pace which is punishing and which many of them realise cannot be maintained.

TABLE 1

Analysis of Sample taken and Returns received

" Licentiate "

—				Sample	Adequate excuse	Net Sample	Refusals	Returns	Percentage of	
									Gross	Net
England: Counties	...			176	21	155	50	105	60	68
Boroughs	...			71	9	62	17	45	63	73
Total	...			247	30	217	67	150	61	69
Wales	...			11	2	9	3	6	55	67
Scotland	...			52	10	42	10	32	62	76
Total	...			310	42	268	80	188	61	70

" Dentists 1921 "

—				Sample	Adequate excuse	Net Sample	Refusals	Returns	Percentage of	
									Gross	Net
England: Counties	...			92	16	76	40	36	39	47
Boroughs	...			73	16	57	28	29	40	51
Total	...			165	32	133	68	65	39	49
Wales	...			14	5	9	4	5	36	56
Scotland	...			16	6	10	7	3	19	30
Total	...			195	43	152	79	73	37	48

Total

—				Sample	Adequate excuse	Net Sample	Refusals	Returns	Percentage of	
									Gross	Net
England: Counties	...			268	37	231	90	141	53	61
Boroughs	...			144	25	119	45	74	51	62
Total	...			412	62	350	135	215	52	61
Wales	...			25	7	18	7	11	44	61
Scotland	...			68	16	52	17	35	51	67
Total	...			505	85	420	159	261	52	62

TABLE 2
Proportion per cent. of "Dentists 1921" to Total

	Original Sample	Net Sample	Returns
England: Counties	34.3	32.9	25.6
Boroughs	50.7	47.9	39.2
Total	40.0	38.0	30.2
Wales	56.0	50.0	45.5
Scotland	23.5	19.2	8.6
Grand Total	38.6	36.2	28.0

It is a moot point whether the response, when expressed as a percentage, should be related to the original sample or to the original sample reduced by the number of persons who have given adequate excuses for non-participation. In Table 1 both sets of figures are given and in the case of the "Licentiates", whether the returns be regarded as 61 per cent. of the original sample or 70 per cent. of the sample reduced by adequate excuses (i.e., the "net" sample), the response was exceedingly good. The response by "Dentists 1921" was 37 per cent. of the original sample or 48 per cent. of the "net sample". This normally might be regarded as a satisfactory response to a "sample inquiry", but it suffers by comparison with the response by the "Licentiates" and it would have required returns from a further 33 "Dentists 1921" (in addition to the 73 responses) to produce parity with the "Licentiates". As a result (see Table 2) the proportion between "Licentiates" and "Dentists 1921" included in the returns differs materially from the proportions regarded as appropriate when making the original random selection. This point is referred to later in paragraphs 16 and 35. Referring again to Table 1 it will be seen that the response from Scotland was somewhat better than those from England and Wales.

12. It is the duty of a fact-finding committee to look with a certain amount of suspicion upon any failure—whether with or without a proffered excuse—to respond to an invitation such as was issued on this occasion. It was possible that the reasons given, and accepted as adequate, might in fact be misleading. It was also possible that the other abstentions were dictated by the feeling that so much work was being done at so rapid a pace as to render it unwise to make a contribution to the facts which the Working Party was collecting. On the other hand, the number of returns received was high for a sample inquiry and these returns, almost without exception, bore every evidence of having been honestly and carefully compiled in close harmony with the instructions given. Nevertheless, it was thought advisable to investigate the two possibilities mentioned above.

13. The Ministry had in its possession certain information (inter alia) as to "payments authorised" to General Dental Services practitioners during January and February, 1949. The Chairman asked to be supplied with this information for the dentists in the sample, without giving the Ministry any indication as to which of them had responded to the invitation to send in a return. It was argued, in advance, that, if the excuses in April—mainly ill-health—for non-participation were genuine, many of those concerned would not have been displaying full earning powers in January and February and that the "payments authorised" for this group should be below the average. It was also argued in advance, that if those who had

not sent in returns—giving an inadequate excuse or no excuse—had abstained because of excessive earnings, the “payments authorised” for this group would be above the average. If the average of this group were about equal to or below the average, then it was argued that, whatever the reason for abstention, it could not be because of a large volume of work performed at an unusually rapid rate.

The information received from the Ministry related to 467 out of the 505 dentists in the sample ; it was analysed and the result is given below in Table 3.

TABLE 3

*Analysis of “payments authorised” in January and February, 1949
for 467 dentists out of the sample of 505*

*(Expressed as a percentage of the average of the “payment authorised”
for the contributing dentists)*

<i>Group</i>	<i>Number</i>	<i>Percentage</i>
Non-contributing—		
adequate excuse	79	77
Other non-contributing	154	97
Contributing	234	100
Total	467	95

It is thought that this Table 3 confirms the view that the excuses accepted were on the whole honest and adequate. It is also thought to indicate that, had the other non-contributing dentists sent in returns, it is exceedingly unlikely that those returns would have given timings differing to any material extent from those given by the actual contributors.

14. As a summary of this portion of the Report, the Working Party (and its Chairman in particular, it being mainly his responsibility) places on record that it is satisfied (1) that it has received honest and adequate returns from the contributing dentists, (2) that on the whole those who have excused themselves had good reasons for so doing, and (3) that no sinister reason (such as a desire not to reveal large earnings and rapid work) can be found for the other abstentions. The one disappointing feature is the small response from “Dentists 1921”; small when compared with the excellent response from “Licentiates” but apart from that a good response.

C. The Supplementary Inquiries

15. Returns were received from 16 of the 52 dental practitioners not engaged in the General Dental Services, and, as indicated in paragraph 7, from 52 dental practitioners employed by the companies and services mentioned therein. Precisely the same request was made and the same forms were issued in connection with the two supplementary inquiries, as were made and issued in connection with the main inquiry. The explanatory letter sent to the dental practitioners not engaged in the General Dental Services, as already mentioned, is reproduced in Appendix I.

D. Evidence of Ill-health

16. It is felt that some comment should be made here upon the relatively large number of instances in which ill-health was pleaded as a reason for non-participation in the main inquiry. The “Dentists 1921” have received

no recruitment since 1921-1926 and the average age of the numerous survivors who are still in practice must be many years in excess of the average age of the "Licentiates." That is an adequate explanation of the difference between 18 per cent. of the "Dentists 1921" having pleaded ill-health against only 7 per cent. of the "Licentiates." But the overall rate of 58 out of 505, nearly 12 per cent., seems very high, and it supports the opinion, which is generally held in the profession, that the excessive amount of work, which dental practitioners are performing in their efforts to cope with the rush of work produced by the introduction of the National Health Service, is taking its toll.

E. Coding

17. The terms of reference, set out in paragraph 1 of this Report, charge the Working Party with the duty of ascertaining the average chairside time taken by general dental practitioners to complete each of the types of dental treatment set out in Part I of the First Schedule to the National Health Service (General Dental Services) Fees Regulations, 1948, excluding certain types which do not lend themselves to averaging. The natural and obvious basis for coding was therefore to follow closely the types of treatment set out in the Fees Regulations, 1948, and this basis was adopted, with a few additional sub-divisions.

18. The actual schedule used by the dental officers who did the coding is given in Appendix II, and the portion of this Appendix which is printed in italics indicates where departure has been made from the types set out in the Fees Regulations, 1948. It was thought desirable to code every item of information included in the returns received, and that necessitated the use of certain additional code numbers or sub-numbers, (1) to embrace cases where the information would otherwise have been insufficient and (2) to cover the few cases of illegibility. The Dental Section of the Ministry of Health provided 10 dental officers who did the coding. The work done by them was scrutinised and checked by Major L. G. Hitching. Supplementary checks were made, as and when the results were analysed and tabulated, in every case where the timings or other results appeared to be in any way abnormal. Although a few mistakes were discovered as a result of such supplementary checks they were small and did not affect the average results already ascertained.

The insertion of code numbers in the schedule was not such a simple matter as might at first appear. Most of the schedules and most of the entries were clear but, nevertheless, there were cases which, for one reason or another, required careful consideration. There were others where there was room for a difference of opinion, such as whether an obviously troublesome extraction should be coded 6 (1) as an extraction or 19 (1) as an impacted tooth.

19. The dentists who made returns were asked to indicate in column 4 of the time-sheet, by insertion of the letter C, those cases where the item of treatment completed an operation for which a fee could be claimed. In a surprisingly large number of cases this was not done—sometimes no "completions" were indicated and sometimes they were not all indicated. One of the tasks of the coders, therefore, was to insert the letter C in each case where it had clearly been omitted. That was comparatively simple, but it disclosed a relatively small number of what, for lack of a better term, may be described as "post-completion treatments"—such as a minor adjustment to a completed denture or a minor treatment after an extraction. These "post-completion treatments" have been coded with the incomplete treatments.

20. Dentists were also asked, when two or more types of treatment were given at the same sitting, to divide the total time between them. This, in many cases, was not done and the coders had to make what appeared to be an appropriate division, having regard to the respective types of treatment. These items were given special attention by Major Hitching, when scrutinising and checking the coding, and broadly speaking divisions were made in such a way as to keep them in proportion to the times underlying the scale of fees in the Fees Regulations, 1948. Two operations at a single sitting were treated as two sittings.

21. It is realised that there can be no absolute finality in the coding of many thousands of items, such as those included in the time sheets received. It is thought, however, as a result of the care which has been taken, that practical accuracy has been secured and that the results may be used in this inquiry with full and complete confidence.

F. Sittings and Completed Operations

22. The task of the Working Party was to ascertain the average time taken to perform each of various types of *operation*. The information collected, however, gave the time taken for each of the *sittings* recorded on the time-sheets. It was necessary, therefore, to estimate how many sittings, on the average, were necessary to complete each of the various types of operation. The methods of recording "completions" and of checking such recordings are fully set out in paragraph 19. If, as is thought to be the case, the "completions" have all been accurately identified, it follows that the sittings which did not result in a "completion" have also been accurately identified. For each main code number and for each code sub-division, ratios were then calculated by dividing the total number of sittings recorded by the number of "completions" recorded. These ratios are given in all the principal tables in the Report and in many cases the accuracy of the ratio is axiomatic. For example, in Table A (National Health Service—Whole Country) the ratio for "Clinical Examination and Report" is 1.07, and obviously this cannot be far out because most of such examinations are completed at a single sitting. Again, a group of extractions would usually be completed at a single sitting (but see also paragraph 38) and the recorded ratio in Table A for extractions under a local anaesthetic is 1.00 and under a general anaesthetic 1.01. "Normal Scaling and Gum Treatment" (Code No. 2) has a ratio of 1.15 and "Fillings" (Code No. 3) a ratio of 1.24, and it may be said that these are very much what, on general grounds, would have been expected. Ninety per cent. of the data collected falls within Code Nos. 1, 2, 3, 6, 7, and 8, and the ratios in respect of the first five of these have now been commented upon. There remains "Dentures" (Code No. 8) which is the largest section of all and for which the ratio is 4.19. This is not self-evident in the same approximate way as the ratios for Code Nos. 1, 2, 3, 6 and 7.

23. The method adopted assumes that, as regards numbers and timings, the "incomplete" sittings recorded during the "sample week" by the contributing dentists can be fairly compared with the "completions" in that week. Actually the earlier sittings in connection with the "completions" during the "sample week" must usually have been given in the week or weeks immediately preceding it, and in fact the "completions" in respect of the "incomplete" sittings recorded during the "sample week" will emerge almost entirely during subsequent weeks. It becomes necessary therefore to test the validity and possible effects of this assumption, but before doing so reference should be made to the other ten code numbers with

which this inquiry is concerned—numbers 4, 5, 9, 10, 15, 20, 21, 22, 23 and 24. Referring again to Table A, the numbers of “completions” recorded for Code Nos. 5, 9, 20, 21, 22 and 23 are so small, being only 34, 12, 0, 43, 24 and 18 respectively, that no great weight can be given to averages deduced therefrom, and number 24 consists of heterogeneous entries, which for one reason or another cannot be classified. No. 15 (Radiographs) has a ratio of 1.11 and, as the figures apply only to the taking of the radiograph, ought not to have a ratio much greater than 1.00. The “completions” for No. 4 (“Deciduous Teeth”) and No. 10 (“Repairs to Dentures”) are not numerous and the ratios deduced of 1.25 and 1.87 respectively are in harmony with what might reasonably be expected.

24. The Chairman, therefore, on reviewing what had been done and the results which had emerged, came to the conclusion that it was only in regard to the ratios deduced for Code No. 8 (Dentures—non-metallic) that any great importance need be attached to the validity or otherwise of the assumption referred to in paragraph 23, that the “completions” and “incomplete” sittings in the one week may fairly be compared.

25. The minimum routine in connection with a full upper and full lower denture (Code No. 8(3)) normally involves four sittings which may be designated:—(1) taking the “impressions”, (2) taking the “bite”, (3) “trying in” and (4) fitting completed dentures. There is evidence, however, that in a few cases the “trying in” stage is omitted, in which event the desirable minimum of four becomes the undesirable minimum of three. Not infrequently at the “bite” stage, a second impression has to be taken (such would not usually be recorded as a separate sitting but would be included in the “bite” sitting). Quite frequently, too, there are returns and visits for easements and minor adjustments after the normal completion stage. The greatest care was taken, when coding the entries, to ensure that none of these “post-completion” sittings was recorded as a “completion”, and there is no error present on that account. A ratio of “completed” to total sittings of 4.53 has emerged in the case of full upper and full lower dentures, based on a comparison of 1,028 “completed” with a total of 4,655 sittings. Of course all such ratios, to be of value, must have behind them an adequate number of “completions” and sittings. Subject to that criterion, if the 1,028 “completions” are divided into homogeneous sections the ratios which emerge from the sections should be consistent.

Separate figures for England, Scotland and Wales and for principals, partners and assistants are given below and the ratios shown are considered to indicate a satisfactory degree of consistency.

TABLE 4
Code No. 8(3)—Full Upper and Full Lower Dentures

	“ Completions ”	Total No. of Sittings	Ratio
England	813	3,648	4.49
Scotland	153	699	4.57
Wales	62	308	4.97
Total	1,028	4,655	4.53
Principal	740	3,435	4.64
Partners	216	903	4.18
Assistants	72	317	4.40
Total	1,028	4,655	4.53

26. The figures, however, do not dispose of the possibility that there may be something inherently wrong with the assumption (that the "completions" within the "sample week" may be compared with the total number of sittings in that week), and that an inherent defect, operating in all sections in a similar way, has produced consistently inaccurate results. It remains therefore to examine under what circumstances the assumption will produce consistently inaccurate results.

Let it be assumed that we have four dentists each of whom, when dealing with patients requiring a full upper and full lower denture, sees his patient exactly five times in five consecutive weeks. Each of them, therefore, during the sample week, completes the dentures started four weeks earlier. Obviously the correct ratio for each of them is 5.00. Dentist No. 1 is providing an increasing number of full upper and full lower dentures, dentist No. 2 a stationary number and dentists Nos. 3 and 4 each a decreasing number.

Number of first impressions, full upper and full lower dentures

Dentist	1st week	2nd week	3rd week	4th week	Sample week	" Completions "	Total No. of Sittings	Ratio
1 ...	5	6	7	8	9	5	35	7.00
2 ...	5	5	5	5	5	5	25	5.00
3 ...	9	8	7	6	5	9	35	3.89
4 ...	14	14	13	12	10	14	63	4.50

If the numbers tend to increase the assumption will result in a figure above the correct ratio. In the case of dentist No. 1 it has been assumed that the average number of new dentures started upon in the second to the fifth weeks both inclusive is 50 per cent. in excess of the number in the first week. Such a rate of increase, applicable on the average to all the contributing dentists, is very improbable but, if it occurred, it would produce a figure of 7.00 instead of the correct figure of 5.00. If the number be stationary, or approximately so, the assumption must give an accurate result, and it is only if the numbers tend to decrease that the method will give a result less than the true figure. The figures for dentist No. 3 indicate for the second to the fifth weeks both inclusive a number of "first impressions" which on the average represents a decrease of 28 per cent. compared with the figure for the first week. Such a decrease would produce a ratio of 3.89 compared with the correct figure of 5.00. The figures for dentist No. 4 indicate that a fall of $12\frac{1}{2}$ per cent. would produce a ratio of 4.50 instead of the true value of 5.00.

It seems improbable that, over a period of only a few weeks, there can have been any appreciable average increase or decrease applicable to the "sample" as a whole, and it is to be noted that it is only if the volume of work is decreasing that the assumption will result in a recorded figure which is less than the true value. The Chairman, therefore, is of opinion that full weight will be given to all these considerations if (e.g.) the figure of 71 for Code No. 8 (3) in Table 14 be interpreted as "something between 68 and 74". Similarly a possible variation of about 5 per cent. in either direction is admissible when interpreting the figures in Table 14 for sub-codes 1, 2, 4, 5, 6 and 7. For reasons already indicated, the Chairman does not think that any similar interpretation need be adopted when consideration is being given to other code numbers.

27. When all is said, however, it may well be asked (if the assumption under discussion involves results containing even only a small measure of

uncertainty) why steps were not taken to trace a sufficient number of transactions through their various stages to completion, and to obtain in this way the information sought as to the average number of sittings necessary to complete the various operations. This point was not overlooked, but in these days there are apt to be long intervals between successive appointments, the collection of data would have had to be extended over several months, and it would not have been possible to secure the degree of accuracy in the returns, which, happily, has been secured by limiting the inquiry to a single week. In all the circumstances it was thought that the method actually adopted was the better of the two.

No apology is necessary for this lengthy discourse on this aspect of the inquiry. The implications which the assumption involves are by no means readily evident, and it is of first importance that the reasonableness and accuracy of the assumption should be fully established.

TABLE 5

*Hours of Work for comparison with Spens Standard of 33 hours per week
(or 6 hours a day for a 5½ day week)*

(National Health Service—Service and Private Patients Combined)

Group (minutes of net time)	Central number of groups (minutes)	Equivalent hours per day for a 5½ day week	Number of dentists	Net time in minutes	Actual average number of working days cf. Spens 5½
(1)	(2)	(3)	(4)	(5)	(6)
<i>Under Standard</i>					
Under 1,238 ...	—	—	19	16,002	3
1,238 to 1,402 ...	1,320	4	7	9,247	4½
1,403 to 1,567 ...	1,485	4½	4	6,047	4½
1,568 to 1,732 ...	1,650	5	16	26,675	5
1,733 to 1,897 ...	1,815	5½	24	44,057	5
Total under standard	—	—	70	102,028	—
<i>Standard</i>					
1,898 to 2,062 ...	1,980	6	25	49,971	5½
<i>Over Standard</i>					
2,063 to 2,227 ...	2,145	6½	36	77,468	5½
2,228 to 2,392 ...	2,310	7	32	73,520	5½
2,393 to 2,557 ...	2,475	7½	36	89,140	5½
2,558 to 2,722 ...	2,640	8	27	70,996	5½
2,723 to 2,887 ...	2,805	8½	18	50,060	5½
2,888 to 3,052 ...	2,970	9	11	32,746	5½
3,053 to 3,217 ...	3,135	9½	6	19,132	5½
Total over standard	—	—	166	413,062	—
Total... ..	—	—	261	565,061	—
* Additional items included in inquiry data	—	—	—	7,140	—
				572,201	

* Two dentists sent in returns covering more than a week and one dentist included his partner's operations.

G. Hours of Chairside Time

28. Table No. 5 was prepared primarily to ascertain to what extent dentists in the sample were working below, in harmony with, or in excess of the Spens standard* of 33 hours a week.

As the Table shows, 70 dentists were working shorter hours than the standard, 25 were working to about the standard and 166 were working longer hours than the standard.

It is rather surprising to find so substantial a group as 19—the first item in the Table—working on the average only three days a week and each of them with a time for the week of less than 21 hours. Each of these 19 cases was investigated, by reference to the original time-sheets. Out of the 19, there were nine who, almost certainly, were men of over 60 years of age who were “slackening off”, three were convalescing after illness, one had a new practice and four had given time-sheets for branch surgeries. No doubt somewhat similar conditions would have been found in the two next succeeding groups had the individual investigation been carried further, and the Working Party thinks that, in most cases, where only a small amount of time is recorded, there is an adequate reason for it.

The 166 dentists who are working longer hours than the Spens standard represent 64 per cent. of the total number of dentists and amongst them they did 73 per cent. of the work. They worked on the average 2,488 minutes, being slightly more than $7\frac{1}{2}$ hours per day for a $5\frac{1}{2}$ day week, which is 25 per cent. in excess of the Spens standard.

The last two groups in the Table averaged respectively nine hours and $9\frac{1}{2}$ hours per day, in each case on the basis of a $5\frac{1}{2}$ day week. The 17 cases in these two groups have also been investigated by reference to the original time-sheets.

The scrutiny of the time-sheets sent in by these 17 dentists disclosed the interesting fact that in eight cases an average number of patients only were seen and the long hours worked were the result of timings above the average. One dentist had worked for seven days and one other case was of an exceptional character, being the result of work done as a member of a highly-organised partnership. The remaining seven were working long hours, seeing a large number of patients and working quickly.

The Spens Report says “By no means all the work a dentist has to do is at the chairside and 33 hours a week at the chairside means in general some 42 working hours a week”.

The Working Party accepts that estimate, which amounts to rather more than an additional $1\frac{1}{2}$ hours a day for a $5\frac{1}{2}$ day week.

The working hours of 64 per cent. of the dentists, on the average, are therefore rather more than nine hours a day for a $5\frac{1}{2}$ day week.

Even this is probably somewhat of an under-estimate, for in some cases returns were received in respect of branch surgeries, at which the dentist did not attend every day. Also, in some cases, there are gaps of a substantial character in the time-sheets, for which the explanation given is attendance at a hospital or clinic.

* From page 6 of the Spens Report (Cmd. 7402)—

“After exhaustive enquiry we reached the conclusion that 33 hours a week by the chairside for 46 weeks in a year, or say 1,500 chairside hours a year, together with the hours necessarily spent outside the surgery represent full but not excessive employment and that, generally speaking, employment in excess of these hours tends to impair efficiency.”

29. The conclusions drawn by the Working Party from the information in Table 5, and from the supplementary individual inquiries as to the composition of the first and the last two groups in the Table are:—

(1) That where dentists are at present working short hours there is usually an adequate reason, such as age or recent ill-health; and

(2) That of the remainder, a very large proportion are working on the average 25 per cent. longer at the chairside than the Spens standard of 33 hours per week.

In the words of the Spens Report, work beyond that standard "tends to impair efficiency" and, in that connection, it may be recalled (see paragraph 11) that the replies received from the dentists who were invited to take part in this inquiry disclosed an abnormally high percentage of sickness.

In all the circumstances it is thought that the following statement gives a fair picture of the dental profession in Great Britain at the present time.

Most dentists are working longer hours than is comfortable, or than would be good for them if continued for too long a period, and many of them are working more quickly than they would normally. These conditions have been forced upon them by the influx of work which has resulted from the expanded Health Service. As a body, they have been trying to cope with the difficult problem of keeping pace with demand without loss of efficiency and, as a body, the Working Party thinks they should have received more gratitude and less adverse criticism than has actually been the case.

Moreover, there is little hope of an early improvement, even if demand should lessen in certain directions. It cannot be doubted that the present volume of work is held down by the inability of the dentists to do any more, and, as was indicated in the Teviot Interim Report,* it will probably be many years before there is any appreciable increase in the number of dentists.

In the opinion of the Working Party, that is the background which should be remembered when the figures, given in the various tables included in this Report, are being studied and acted upon.

30. Human beings are rarely actuated by a single motive. The Working Party recognises and admits that certain dentists are working too long, too quickly and with an eye fixed too closely on the monetary reward for their labours, some of them to such an extent as to create grave doubts as to whether they can be working efficiently. Up to the point where efficiency becomes impaired, neither the State nor the patient suffers from the excessive efforts of this comparatively small minority, and it has to be recognised that, by means of organisation and careful management, output (or should it be "input"?) can be increased to a considerable extent without loss of efficiency.

In the opinion of the Working Party, the comparatively few cases of very long hours (and of very high earnings) should not be regarded as a major factor when terms of service are under consideration. Such cases should be judged from the point of view of efficiency only. Relatively they are not very numerous, and it should not be difficult to ensure efficiency by means of investigation.

*Cmd. 6565.

H. "Unidentified Time"

31. It is laid down in the Spens Report that the desirable maximum chair-side time for a dentist working single handed is 33 hours per week, say a six hour day and $5\frac{1}{2}$ days per week. Where the Spens Report speaks of 33 hours of chairside time, although it does not deal with the point specifically, there can be little doubt but that the minute or two which it takes to speed the parting patient and to install the new one is included in the chairside time. The information asked for by the Working Party, however, did not include these small intervals of time; small individually but large in the aggregate. A typical entry in a dentist's return would show for an extraction perhaps a time of 10.15 to 10.31, followed by an immediately subsequent entry in respect of, say, a filling from 10.35 to 10.57. The aggregate number of minutes recorded in the time-sheets supplied to the Working Party, omitting in every case these small items of "unidentified time", came to 477,397 minutes (455,296 see Table A, plus 22,101 see Table B), and, in order to bring the figures into harmony with the Spens standard, it is necessary to make an appropriate addition to this figure.

Recourse was had, accordingly, to the original records, and, for each dentist, his time was taken out, excluding all major intervals (such as for lunch, tea, visit to a hospital or any other cause) but not excluding these small amounts of "unidentified time." The results are given in Table 5 and as will be seen the aggregate of the total number of minutes, including the "unidentified time", is 572,201, whilst, as already mentioned, the total amount of treatment or operational time is 477,397 minutes. As there was a record of 27,927 sittings it follows that the average interval between one sitting and another necessitated by getting one patient out of the chair and out of the surgery and thereafter installing the new patient was rather more than $3\frac{1}{4}$ minutes ($(572,201 - 477,397) \div 27,927 = 3.395$). This, however, does not entirely dispose of the "unidentified time" because it takes no account of the time spent in installing the first patient and in parting with the last patient in any particular session. There are 261 dentists involved and allowing for ten sessions a week the number of such omissions is 2,610. If an adjustment be made for this the average "unidentified time", instead of being rather more than $3\frac{1}{4}$ minutes, becomes almost exactly $3\frac{3}{4}$ minutes. To preserve harmony with the Spens standard, therefore, it becomes necessary to adjust the timings for the various types of operation, as given in the tables, by adding thereto $3\frac{3}{4}$ minutes for every sitting involved in the complete operation. To take as an example Code 8 (3) (Full Upper and Full Lower Dentures) where the number of sittings per completed operation is 4.53 and where the recorded time is 71 minutes, it becomes necessary to add 17 minutes (3.75×4.53), giving an adjusted and corrected time of 88 minutes (see Table 14).

The final columns in Tables A, B, D to I, inclusive, and M and N, and in Tables Nos. 7 to 16, both inclusive, Nos. 18, 19, and 21 to 27, both inclusive, give the corrected figures, which result from the addition to the average time per completed operation of this hitherto "unidentified time" of $3\frac{3}{4}$ minutes per sitting.

It has to be admitted that this figure of $3\frac{3}{4}$ minutes is an estimate, rather than an accurate measurement, but the Working Party is satisfied that it is not an over-estimate.

Included in the total of 572,201 minutes given in Table 5 there must inevitably be some small intervals of time which were not actually spent in parting with or installing a patient. Against that it has to be remembered

(see paragraph 20) that, when two or more operations are performed at a single sitting, each operation has been treated as a separate sitting and has been given an appropriate separate time. There are 1,000 such cases in Code No. 1 (2) (Examination and Report) (see Table 7) and 229 more in Code No. 15 (Radiographs) (see Table 17) and there are a considerable numbers of others not so readily identifiable. A suitable adjustment would have raised the figure of $3\frac{3}{4}$ minutes to 4 minutes, but that has not been done. Moreover, the $3\frac{3}{4}$ minute correction has not been applied to Code No. 1 (2) nor to Code Nos. 15 and 23.

In all the circumstances it is thought that the figures of $3\frac{3}{4}$ minutes, as the average unit of "unidentified time," is a slight under-estimate.

32. The $3\frac{3}{4}$ minutes does not apply to the operations of dentists not in the National Health Service, and no correction has been made to the figures in the various tables relating to these private practices.

As a matter of interest, however, a similar calculation has been made which disclosed for private practice an average interval which is approximately the same as the National Health Service interval of $3\frac{3}{4}$ minutes.

33. It is thought appropriate to place on record here that in the opinion of the Working Party the amount of time spent, in parting with one patient and installing the next, is in no sense wasted. The average combined time of $3\frac{3}{4}$ minutes could not be appreciably reduced without such a degree of haste as might involve discourtesy. Moreover, as a result of a smooth unhurried introduction to the chair there may well be an actual saving of time, when compared with what might be the result of giving a patient the impression that he was being hustled.

I. Tabulations

34. Various tables have been prepared from the data contained in the time-sheets received from the contributing dentists. Some of them appear in Appendices III and IV and others are embodied in the Report.

Every table which covers the whole range of operations appears in Appendix III. This group includes separate tables for England, Scotland and Wales and for principals, partners and assistants. They are designated by letters A to L, both inclusive. Tables M to O in Appendix IV relate to "Clinics."

Each of the other tables deals only with a single code number, and its sub-divisions where such exist. Each brings together the information relating to all three sections of the main inquiry:—

- (1) Operations upon National Health Service patients.
- (2) Operations upon the private patients of National Health Service dentists; and
- (3) Private practice operations by dentists not in the National Health Service.

No separate tables of this latter description are given for England, Scotland and Wales or for principals, partners and assistants.

These tables are designated by numbers (7 to 21, both inclusive) in order to distinguish them from the group of tables designated by letters, in Appendix III.

It is hoped that by these means it has been made as easy as possible for a reader to keep in touch with the tabular matter when reading the text. So far as the main inquiry is concerned, any table designated by a letter covers all code numbers and will be found in Appendix III. Any table designated by one of the numbers 7 to 21, both inclusive, will deal with a single code number and will be found in the body of the Report, in close proximity to the comment thereon.

35. As noted in paragraph 34 those tables which cover the whole range of operations are analysed into England, Scotland and Wales and into principals, partners and assistants.

In the opinion of the Chairman, a further analysis should have been made into "Licentiates" and "Dentists 1921". The professional members of the Working Party, however, took the view that the profession was an entity and ought not to be so sub-divided. The Chairman, in the circumstances, deferred to their wishes and no such analysis has been made, but it has been agreed that the Chairman's views shall be recorded in this Report.

Without having any preconceived opinion as to what such an analysis would produce and certainly without any desire to be other than fair to all concerned, the Chairman thought there was a strong "prima facie" case for making the analysis, because

(1) The "Licentiates" on the average must be many years younger than the "Dentists 1921".

(2) The spread of the work might be different as a result of the higher average age of the "Dentists 1921".

(3) The response from "Dentists 1921" was not as good as from "Licentiates" and the balance of the sample, as a result, to some extent was thereby disturbed; and

(4) As a result of (3) the thickly populated areas were slightly under-represented in the sample.

The Chairman does not think any serious result can possibly ensue from the failure to make this analysis—it might even be argued that the number of "Dentists 1921" still in practice is decreasing very rapidly and that a measure of under-representation makes some provision for the change which is taking place in this direction—but, in fairness to all parties, his views as to the desirability of making the analysis and the reason why it was not made are here recorded.

36. Tables A to I in Appendix III and M and N in Appendix IV and Tables Nos. 7 to 16 both inclusive, Nos. 18, 19 and 21 to 27 both inclusive, have all been drawn up on a uniform plan. In each case Column 1 gives the code number or, in some cases, the sub-code number and Column 2 gives a brief description of the code or sub-code to which that particular number refers. Column 3 gives the number of completed operations and Column 4 gives the total number of sittings, including, therefore, both completed and incomplete operations. Column No. 6 gives the total number of minutes and the other columns are calculated from the particulars contained in Columns 3, 4 and 6. Column 5 gives the ratio between the number of sittings and the number of "completions" and is obtained by dividing the figure in Column 4 by the figure in Column 3. Column 7 gives the average time per completed operation and is obtained by dividing the figure in

Column 6 by the figure in Column 3, whilst Column 8 gives the average time per sitting and is obtained by dividing the figure in Column 6 by the figure in Column 4. Column 9 gives the corrected time per completed operation (see paragraph 31) obtained by adding to the figure in Column 7 the adjustment of $3\frac{3}{4}$ minutes of "unidentified time" for each sitting.

The figures in Column 5 are all taken to two places of decimal but the figures in Columns 7, 8 and 9 are only taken in each case to the nearer minute. It appeared that no useful purpose would be served by giving the figures in minutes and decimals of a minute. The details are all there and, if at any time greater accuracy be required, it will be a very simple matter to make the necessary computations. It may perhaps be mentioned that although the figures in Column 7 were obtained by dividing the figure in Column 6 by the figure in Column 3, they could just as easily have been obtained, and the arithmetical result would have been the same, if the figure in Column 8 had been multiplied by the ratio in Column 5.

J. Tables in Appendix III

37. The most important of the tables in Appendix III is Table A, which covers the whole country, National Health Service only.

The Working Party's reference does not include Part II of the First Schedule to the National Health Service (General Dental Services) Fees Regulations, 1948. Nor does it cover Code Nos. 11, 12, 13, 14 and 16, 17, 18, 19 in Part I. Nevertheless, it was necessary to tabulate all the information collected, and each of the group of Tables A to I inclusive contains particulars in respect of every code number.

However important some of the excluded operations may be, they are not important numerically. In Table A they amount to only 142 completed operations out of a total of 17,190 completed operations and to only 498 sittings out of a total of 26,660 sittings.

Numerically, the important code numbers are 1, 2, 3, 6, 7 and 8, which in the aggregate represent 91.4 per cent. of the completed operations and 87.7 per cent. of the number of sittings. As a generalisation, therefore, it may be said that about 90 per cent. of the National Health Service work done by dentists comes under these six code numbers and that nearly one-half of the remainder comes under Code No. 24, covering operations which, for one reason or another, cannot conveniently be classified.

It might be argued, as there are no fewer than 13 code numbers in Table A, each of which has recorded against it less than 20 completed operations, that the sample selected was too small. But the numbers for the main code numbers are fully adequate and, even if the size of the sample had been doubled or trebled, it would not have helped much with these minor sections. The difficulty—if it be a difficulty—arises from the necessity of adopting a code analysis which would be in very close harmony with the schedule of remuneration in the Fees Regulations, 1948. But for that, some less detailed method of analysis might have been adopted, or it might have been decided to enlarge Code No. 24. The figures for these minor sections have been included on exactly the same lines as those for the six main code numbers, but obviously any average time based on, say, less than 40 completed operations or 40 sittings cannot be regarded as reliable and, again obviously, the smaller the number of completed operations or sittings the less the value of the average deduced.

The complete range of information is there for anyone who wishes to study it, but attention may be called to the fact that the private work done by the National Health Service dentists represents only about 4½ per cent. of their total operations. The Working Party regards that figure as disposing of the suggestion, which has sometimes been made, that any considerable section of the dental profession is using the National Health Service on a substantial scale as a cloak under which to obtain comparatively high private fees, as the price of giving priority of treatment. It is felt that a dentist who was in practice before July, 1948 may very well have a small proportion, such as 4 per cent., of his old clients who prefer, for the present even if not permanently, to retain their old relationship as private patients.

Detailed comparisons of Table A with Table B and Table C are made, code number by code number, in Tables 7 to 21, both inclusive, but the best comparison which can be made here is based on Table J, which contains figures on a percentage basis.

Attention may be called to the large proportion of fillings and the much smaller proportion of extractions and dentures included in the private practices of dentists not in the National Health Service, compared with the National Health Service work performed by dentists operating the National Health Service. Fillings are 38.1 per cent. and 30.7 per cent. respectively, extractions 9.3 per cent. and 23.3 per cent. respectively and dentures 5.7 per cent. and 10.8 per cent. respectively, the percentages in each case relating to completed operations.

The private operations of dentists engaged in the National Health Service, when compared with their National Health Service operations, show a reduction in the proportion of fillings, 13.9 per cent. compared with 30.7 per cent., and a very large increase in the proportion of extractions, 42.3 per cent. compared with 23.3 per cent. Dentures are 8.7 per cent. compared with 10.8 per cent.

These figures are more readily to be comprehended if studied in Table J, but no very obvious reason emerges as to why the private practice of the National Health Service dentists should take such an extreme form. With some diffidence the view is put forward that this private work, to a large extent, is done for people who are in a hurry.

If reference be now made to Table K, it will be seen that in regard to fillings, extractions and dentures there is no material difference between England and Scotland, but that Wales has a much higher proportion of extractions than either England or Scotland and a much lower proportion of fillings. All three countries have about the same proportion of dentures.

Table L gives similar figures for principals, partners and assistants. Not unexpectedly, the assistants do a smaller proportion of fillings and larger proportions of both extractions and dentures than either the principals or the partners.

Comparisons between the timings of National Health Service operations, the private work done by dentists in the National Health Service and the private practices of dentists not in the National Health Service are made later when comment is being made on Tables Nos. 7 to 21 inclusive.

The "corrected timings" for the main six codes for England, Scotland and Wales and for principals, partners and assistants have been abstracted from Tables A and D to I inclusive and are tabulated in Table 6.

TABLE 6

Main Code		Corrected time per operation—in minutes						
		England	Scotland	Wales	Principals	Partners	Assistants	Total
No.	Brief Description							
1	Examination ...	16	14	15	16	15	15	16
2	Scaling... ..	29	29	32	30	27	27	29
3	Fillings ...	32	35	35	33	31	32	32
6	Extractions— Local Anaes.	20	21	21	21	19	18	20
7	Extractions— General Anaes.	22	20	23	22	20	18	21
8	Dentures— Non-metallic...	80	80	92	82	76	77	81

As will be seen there is a high degree of consistency between England and Scotland. The variation between Wales on the one hand, and England and Scotland on the other, in the case of dentures is appreciable, but the Welsh figure is based on only 84 completions. As between principals, partners and assistants the differences are again small, but they are mainly in the same direction, and there is distinct evidence that, compared with a principal working single-handed, there is some economy of time when a dentist has associated with him either a partner or assistant dentist.

Attention is also called to the particulars given at the foot of Tables A to I, giving in each case the average number of completed operations, the average number of sittings and the average number of minutes for the "sample week." In particular it is to be noticed that the volume of work performed by the private practitioners not engaged in the National Health Service is very little less than the volume of work performed by the National Health Service practitioners. The volume can best be measured by comparing the average number of sittings per day (assuming a $5\frac{1}{2}$ day week in each case) which is 20 in the case of the National Health Service dentists and 19 in the case of private practitioners not engaged in the National Health Service. There are only 16 of these latter but the agreement is sufficiently close to be significant.

These footnotes to Tables A to I are referred to later in paragraph 63 and Table 28.

K. Extractions

38. The figures under Code Nos. 6 and 7 in Tables A to I inclusive and all the figures in Tables 12 and 13 call for a word or two of explanation.

There must be many cases where a dentist has put forward an estimate in connection with the extraction of a large number of teeth preparatory to the preparation of a denture. Yet, as will be seen from Tables 12 and 13, the number of extractions involving a large number of teeth is comparatively small. The explanation of this no doubt is that, having obtained the necessary authority in respect of say 14 teeth, the actual operation has been spread over two or three sittings; perhaps three sittings at which 5, 5 and 4 teeth respectively have been extracted.

Under circumstances such as these, owing to the way in which the returns were made, the record would appear as three complete operations, one for the extraction of 5 teeth, a second for the extraction of another 5 teeth and a

third for the extraction of 4 teeth. There was nothing in the returns (indeed it is difficult to see how it could have been arranged for there to be anything in the returns) to indicate when this sort of thing had occurred. The cases where a large number of teeth are recorded as having been extracted at a sitting are comparatively few in number and represent only those exceptional cases where, in fact, the large number was actually extracted at a single sitting.

So far as Code Nos. 6 and 7 are concerned, therefore (and this does not in any degree apply to any of the other codes) if it be desired to find the aggregate time taken to deal with say 20 teeth, the right method would be to take the aggregate of the time per sitting, or the time per operation (which, in the case of extractions, is practically the same thing) for say 5, 6 and 9 teeth. Reference to Code No. 6 (Table 12) indicates that the appropriate average time, allowing for "unidentified time," for the extraction of 20 teeth, if done in this way under a local anaesthetic, would be $23+26+29=78$ minutes.

As an additional illustration the extraction, under a local anaesthetic, of 11 teeth may be taken, grouped in different parts of the mouth—2, 3 and 6 teeth. The appropriate aggregate time would be $19+23+26=68$ minutes.

L. Tables for Separate Code Numbers

CLINICAL EXAMINATION AND REPORT—TABLE 7

39. As will be seen from Table 7 the National Health Service dentists took a little more time over examining their private patients than they took over their National Health Service patients. As regards Code 1(2), it will be observed that no allowance has been made for "unidentified time," because Sub-Code (2) includes only examinations conducted simultaneously with some other treatment. This point is mentioned also in paragraph 31. The times which result seem reasonable.

It is a little surprising to find that the private practitioners not in the National Health Service take less time than do the National Health Service dentists, either for their National Health Service or their private patients. In part this may be due to the fact that the National Health Service dentists have certain forms to fill up with which the private practitioners are not troubled, although they will have to keep their own records.

TABLE 7

Code No. 1—Clinical Examination and Report

Sub-code		Number of sittings		Proportion of total sittings to completed (4) ÷ (3)	Total number of minutes of chairside time	Average time in minutes		
No.	Description	Completed	Total of completed and incomplete (4)			Per operation (6) ÷ (3)	Per sitting (6) ÷ (4)	Corrected time per operation see para. 31 (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>National Health Service Patients</i>								
1	No other treatment at sitting ...	2,371	2,520	1.06	31,950	13	13	17
2	With other treatment at sitting...	986	1,072	1.09	10,888	11	10	11
	Total ...	3,357	3,592	1.07	42,838	13	12	16
<i>Private Patients of National Health Service Dentists</i>								
1	No other treatment at sitting ...	55	69	1.25	933	17	14	22
2	With other treatment at sitting...	14	18	1.29	181	13	10	13
	Total ...	69	87	1.26	1,114	16	13	20
<i>Private Practitioners (not in National Health Service)</i>								
1	No other treatment at sitting ...	97	118	1.22	1,082	11	9	Not ascertained.
2	With other treatment at sitting ...	85	92	1.08	879	10	10	
	Total ...	182	210	1.15	1,961	11	9	—

No allowance has been made for "unidentified time" in sub-code 2.

NORMAL SCALING AND GUM TREATMENT—TABLE 8

40. Here there are no sub-code numbers and Table 8 is no more than an extract from Tables A, B and C in Appendix III. The same feature as was present in connection with Code No. 1 is also present here. The National Health Service dentists spend a little more time over their private patients than they do over their National Health Service patients, but the private practitioners not in the National Health Service take about the same time as the National Health Service dentists do for their National Health Service patients. The times themselves seem to be reasonable.

TABLE 8

Code No. 2—Normal Scaling and Gum Treatment

Section (1)	Number of sittings		Proportion of total sittings to completed (3) ÷ (2)	Total number of minutes of chairside time (5)	Average time in minutes		
	Completed (2)	Total of completed and incomplete (3)			Per operation (5) ÷ (2) (6)	Per sitting (5) ÷ (3) (7)	Corrected time per operation see para. 31 (8)
National Health Service Patients	1,220	1,407	1.15	29,924	25	21	29
Private Patients of N.H.S. Dentists	37	48	1.30	1,124	30	23	35
Private Practitioners (not in N.H.S.)	105	121	1.15	2,591	25	21	Not ascertained

FILLINGS—TABLE 9

41. The same feature is present here but to a rather more marked extent, particularly in Sub-Code (2), where the filling involves more than one surface. Here again, and to a definite degree, the private practitioners not in the National Health Service take less time than the National Health Service dentists take for their National Health Service patients.

TABLE 9

Code No. 3—Fillings (Amalgam (Sub-Codes 1, 2 and 3) and Silicate)

Sub-code		Number of sittings		Proportion of total sittings to completed (4) ÷ (3)	Total number of minutes of chairside time	Average time in minutes		
No.	Description	Completed	Total of completed and incomplete (4)			Per operation (6) ÷ (3)	Per sitting (6) ÷ (4)	Corrected time per operation see para. 31 (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>National Health Service Patients</i>								
1	Single surface ...	2,327	2,703	1.16	56,357	24	21	29
2	Multi surface ...	1,049	1,323	1.26	35,841	34	27	39
3	Surface unspecified	572	950	1.66	17,742	31	19	37
4	Silicates ...	1,330	1,581	1.19	35,717	27	23	31
	Total ...	5,278	6,557	1.24	145,657	28	22	32
<i>Private Patients of National Health Service Dentists</i>								
1	Single surface ...	36	44	1.22	965	27	22	31
2	Multi surface ...	25	42	1.68	1,110	44	26	51
3	Surface unspecified	16	26	1.63	605	38	23	44
4	Silicates ...	33	41	1.24	1,049	32	25	36
	Total ...	110	153	1.39	3,729	34	24	39
<i>Private Practitioners (not in National Health Service)</i>								
1	Single surface ...	168	190	1.13	3,590	21	19	Not ascertained
2	Multi surface ...	102	116	1.14	2,951	29	25	
3	Surface unspecified	32	60	1.88	1,008	32	17	
4	Silicates ...	88	113	1.29	2,331	26	21	
	Total ...	390	479	1.23	9,880	25	21	—

CONSERVATION OF DECIDUOUS TEETH—TABLE 10

42. Here, as in the case of Code No. 2, there are no sub-codes, and Table 10 consists only of extracts from Tables A, B and C in the Appendix.

TABLE 10

Code No. 4—Conservation of Deciduous Teeth

Section	Number of sittings		Proportion of total sittings to completed (3) ÷ (2)	Total number of minutes of chairside time (5)	Average time in minutes		
	Completed (2)	Total of completed and incomplete (3)			Per operation (5) ÷ (2) (6)	Per sitting (5) ÷ (3) (7)	Corrected time per operation see para. 31 (8)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
National Health Service Patients	208	259	1.25	3,324	16	13	21
Private Patients of N.H.S. Dentists	10	12	1.20	234	23	20	28
Private Practitioners (not in N.H.S.)	16	21	1.31	339	21	16	Not ascertained

ROOT TREATMENT—TABLE 11

43. The number of cases involved is very small even when Code No. 5 is taken as a whole. When the treatments are divided into 4 sub-codes the ratios which result cease to have any very definite meaning.

The three sections, National Health Service patients, private patients of National Health Service dentists and the patients of private practitioners not in the National Health Service have all been added together to form a fourth section of Table 11. When they are amalgamated in this way something resembling a "pattern" emerges. The average time per sitting is fairly constant and the time taken to treat non-septic roots, as it should be, is only about half the time taken to treat septic roots.

TABLE 11

Code No. 5—Root Treatment

Sub-code		Number of sittings		Proportion of total sittings to completed (4) ÷ (3)	Total number of minutes of chairside time	Average time in minutes		
No.	Description	Completed	Total of completed and incomplete (4)			Per operation (6) ÷ (3)	Per sitting (6) ÷ (4)	Corrected time per operation see para. 31 (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

National Health Service Patients

1	Single root—non-septic ...	17	79	4.65	1,863	110	24	127
2	Multi root—non-septic ...	9	26	2.89	572	64	22	74
3	Single root—septic	8	119	14.88	2,041	255	17	311
4	Multi root—septic	—	17	?	389	?	23	?
	Total ...	34	241	7.09	4,865	143	20	170

Private Patients of National Health Service Dentists

1	Single root—non-septic ...	2	15	7.50	343	171	23	200
2	Multi root—non-septic ...	—	3	?	53	?	18	?
3	Single root—septic	—	3	?	57	?	19	?
4	Multi root—septic	—	2	?	39	?	20	?
	Total ...	2	23	11.50	492	246	21	289

Private Practitioners (not in National Health Service)

1	Single root—non-septic ...	2	8	4.00	243	121	30	Not ascertained
2	Multi root—non-septic ...	1	6	6.00	152	152	25	
3	Single root—septic	3	5	1.67	111	37	22	
4	Multi root—septic	3	7	2.33	141	47	20	
	Total ...	9	26	2.89	647	72	25	—

TOTAL—ALL TABLES

1	Single root—non-septic ...	21	102	4.86	2,449	117	24	*135
2	Multi root—non-septic ...	10	35	3.50	777	78	22	91
3	Single root—septic	11	127	11.55	2,209	201	17	244
4	Multi root—septic	3	26	8.67	569	190	22	222
	Total ...	45	290	6.44	6,004	133	21	158

* In arriving at the corrected time "All Tables," it has been assumed that the average "unidentified" time for private practitioners (not in National Health Service) is 3½ minutes. The error introduced (if any) is very small.

EXTRACTIONS WITH LOCAL ANAESTHETIC—TABLE 12

44. The question of how this table and Table No. 13 should be interpreted has been dealt with fully in paragraph 38, and the argument need not be repeated here. The time taken increases quite definitely as the number of teeth extracted at a single sitting increases. There is very little difference, in the times taken by the National Health Service dentists, between their National Health Service patients and their private patients respectively. The private dentists not in the National Health Service take rather longer than the National Health Service dentists to extract one or two teeth, and apparently they do not often extract a larger number of teeth than two at a single sitting.

TABLE 12

Code No. 6—Extractions with Local Anaesthetic

Sub-code		Number of sittings		Proportion of total sittings to completed (4) ÷ (3)	Total number of minutes of chairside time	Average time in minutes		
No.	Description	Completed	Total of completed and incomplete (4)			Per operation (6) ÷ (3)	Per sitting (6) ÷ (4)	Corrected time per operation see para. 31 (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>National Health Service</i>								
1	1 or 2 teeth ...	2,067	2,075	1.00	30,592	15	15	19
2	3, 4 or 5 teeth ...	493	493	1.00	9,566	19	19	23
3	6, 7 or 8 teeth ...	200	200	1.00	4,521	23	23	26
4	9, 10 or 11 teeth...	52	52	1.00	1,323	25	25	29
5	12, 13 or 14 teeth	12	12	1.00	363	30	30	34
6	15, 16 or 17 teeth	4	4	1.00	162	40	40	44
7	18, 19 or 20 teeth	—	—	—	—	—	—	—
8	Over 20 teeth ...	1	1	1.00	50	50	50	54
9	Number not specified ...	28	30	1.07	620	22	21	26
	Total ...	2,857	2,867	1.00	47,197	17	16	20
<i>Private Patients of National Health Service Dentists</i>								
1	1 or 2 teeth ...	231	232	1.00	3,786	16	16	20
2	3, 4 or 5 teeth ...	12	12	1.00	221	18	18	22
3	6, 7 or 8 teeth ...	4	4	1.00	84	21	21	25
4	9, 10 or 11 teeth...	1	1	1.00	19	19	19	23
9	Number not specified ...	6	6	1.00	74	12	12	16
	Total ...	254	255	1.00	4,184	16	16	20
<i>N.B. No data under sub-codes 5-8 both inclusive.</i>								
<i>Private Practitioners (not in National Health Service)</i>								
1	1 or 2 teeth ...	46	60	1.30	1,111	24	19	Not ascertained
2	3, 4 or 5 teeth ...	3	4	1.33	58	19	15	
3	6, 7 or 8 teeth ...	1	1	1.00	20	20	20	
	Total ...	50	65	1.30	1,189	24	18	—
<i>N.B. No data under sub-codes 4 to 9 inclusive.</i>								

EXTRACTIONS WITH GENERAL ANAESTHETIC—TABLE 13

45. As mentioned when dealing with Code No. 6, the question of how Tables 12 and 13 should be interpreted has been dealt with fully in paragraph 38 and again there is no need to repeat the argument here. As in the case of Extractions with Local Anaesthetic, there is definite evidence of a steady increase in time as the number of teeth dealt with at a single sitting increases, and there is no practical difference between the times taken by National Health Service dentists for their National Health Service patients and their private patients respectively. Nor do the figures for a private dentist, not in the National Health Service, differ materially from those of the National Health Service dentists. There are one or two freak timings where the numbers involved are small, but the Working Party does not think that these merit any particular attention. Here again the private practitioners apparently do not often extract a larger number of teeth than two at a single sitting.

TABLE 13

Code No. 7—Extractions with General Anaesthetic

Sub-code		Number of sittings		Proportion of total sittings to completed (4) ÷ (3)	Total number of minutes of chairside time	Average time in minutes		
No.	Description	Completed	Total of completed and incomplete (4)			Per operation (6) ÷ (3)	Per sitting (6) ÷ (4)	Corrected time per operation see para. 31 (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>National Health Service Patients</i>								
1	1 or 2 teeth ...	476	478	1.00	6,979	15	15	18
2	3, 4 or 5 teeth ...	258	258	1.00	4,252	16	16	20
3	6, 7 or 8 teeth ...	159	162	1.02	2,961	19	18	22
4	9, 10 or 11 teeth...	85	85	1.00	1,796	21	21	25
5	12, 13 or 14 teeth	46	46	1.00	1,083	24	24	27
6	15, 16 or 17 teeth	24	24	1.00	591	25	25	28
7	18, 19 or 20 teeth	19	19	1.00	566	30	30	34
8	Over 20 teeth ...	42	42	1.00	1,098	26	26	30
9	Number not specified ...	43	44	1.02	914	21	21	25
	Total ...	1,152	1,158	1.01	20,240	18	17	21
<i>Private Patients of National Health Service Dentists</i>								
1	1 or 2 teeth ...	48	48	1.00	685	14	14	18
2	3, 4 or 5 teeth ...	22	22	1.00	370	17	17	21
3	6, 7 or 8 teeth ...	7	7	1.00	103	15	15	18
6	15, 16 or 17 teeth	1	1	1.00	20	20	20	24
7	18, 19 or 20 teeth	1	1	1.00	5	5	5	9
8	Over 20 teeth ...	1	1	1.00	8	8	8	12
9	Number not specified ...	2	2	1.00	33	16	16	20
	Total ...	82	82	1.00	1,224	15	15	19
<i>N.B. No data received for sub-code Nos. 4 and 5.</i>								
<i>Private Practitioners (not in National Health Service)</i>								
1	1 or 2 teeth ...	35	45	1.29	661	19	15	Not ascertained
2	3, 4 or 5 teeth ...	9	11	1.22	220	24	20	
3	6, 7 or 8 teeth ...	1	1	1.00	10	10	10	
9	Number not specified ...	—	1	?	25	?	25	
	Total ...	45	58	1.29	916	20	16	—

N.B. No data received for sub-codes Nos. 4 to 8, both inclusive.

DENTURES (NON-METALLIC)—TABLES 14 AND 14 (a)

46. It must be placed on record that the times disclosed in Table No. 14 are lower than was expected.

Before dealing with that aspect, however, it may be well to comment on the table on the same lines as comment has been made on the other tables.

The National Health Service dentists on the average have spent more time on their National Health Service patients than on their private patients, and the average time spent on the former is much the same as the average spent on their patients by private practitioners not in the National Health Service. It has to be remembered, however, in the case of each of the groups relating to private patients, that the numbers are not only small but (see Table J) proportionately smaller than those for National Health Service patients. Dentures represent 10.8 per cent. of the total of completed operations for National Health Service patients but only 8.7 per cent. and 5.7 per cent. respectively of the first and second groups of private patients shown in the table.

Concentrating then on the National Health Service figures it is evident that there is a measure of reasonable consistency in the average times *per sitting* for the sub-codes and that if there be an under-estimate of the average times per operation it must arise from some error in the ratios given in column 5.

The point has been fully investigated already in Section F. The ratios in column 5 can only have been consistently under-estimated if the number of dentures started during the weeks immediately preceding the sample week had consistently decreased. That seems unlikely but, if it be the case, the decrease has applied to England, Scotland and Wales and to principals, partners and assistants, to approximately the same extent in each case, which seems even more unlikely (see Table 4).

47. With a view to ascertaining whether any further light can be thrown on the position a detailed analysis has been made of Code No. 8 (3)—full upper and full lower dentures—which covers 55 per cent. of the total number of completed operations in Code No. 8.

As a preliminary the dentists who had sent in returns were classified according to the average number of minutes per sitting. The result is given in Table 14 (a) which covers both the National Health Service operations and the private operations of the National Health Service dentists. As will be seen there were 16 dentists whose average time per sitting for provision of full upper and full lower dentures was nine minutes or less, against the average time of 16 minutes for the whole sub-code. These 16 dentists had an average number of sittings per operation of 4.00, which has to be compared with 4.52 for the whole sub-code.

The figures are summarised below.

Average time per sitting in minutes	No. of Completions	Total	Ratio	Minutes	Per Operation	Per Sitting	Corrected time per operation
6, 7 or 8 ...	45	153	3.40	1,136	25	7	38
9 ...	67	291	4.34	2,578	38	9	55
Over 9 ...	939	4,302	4.58	71,454	76	17	93
Total ...	1,051	4,746	4.52	75,168	71	16	88

TABLE 14
Code No. 8—Dentures (non-metallic)

Sub-code		Number of sittings		Proportion of total sittings to completed (4) ÷ (3)	Total number of minutes of chairside time	Average time in minutes		
No.	Description	Completed	Total of completed and incomplete (4)			Per operation (6) ÷ (3)	Per sitting (6) ÷ (4)	Corrected time per operation see para. 31 (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>National Health Service Patients</i>								
1	Full upper ...	178	806	4.53	10,526	59	13	76
2	Full lower ...	101	451	4.47	5,326	53	12	69
3	Full upper and lower ...	1,028	4,655	4.53	73,470	71	16	88
4	Partial upper ...	232	656	2.83	9,795	42	15	53
5	Partial lower ...	63	218	3.46	2,950	47	14	60
6	Partial upper and lower ...	126	510	4.05	9,437	75	19	90
7	Full upper and partial lower ...	122	453	3.72	8,168	67	18	81
8	Partial upper and full lower ...	2	22	11.00	351	175	16	217
9	Lingual bar ...	2	4	2.00	65	32	16	40
	Total ...	1,854	7,775	4.19	120,088	65	15	81
<i>Private Patients of National Health Service Dentists</i>								
1	Full upper ...	16	52	3.25	702	44	14	56
2	Full lower ...	5	26	5.20	332	66	13	86
3	Full upper and lower ...	23	91	3.96	1,698	74	19	89
4	Partial upper ...	12	44	3.67	625	52	14	66
5	Partial lower ...	7	15	2.14	216	31	14	39
6	Partial upper and lower ...	4	14	3.50	225	56	16	69
7	Full upper and partial lower ...	2	4	2.00	61	30	15	38
8	Partial upper and full lower ...	—	1	?	32	?	32	?
9	Lingual bar ...	—	—	—	—	—	—	—
	Total ...	69	247	3.58	3,891	56	16	70
<i>Private Practitioners (not in National Health Service)</i>								
1	Full upper ...	13	40	3.08	479	37	12	Figures not ascertained
2	Full lower ...	6	31	5.17	395	66	13	
3	Full upper and lower ...	17	89	5.24	1,628	96	18	
4	Partial upper ...	7	28	4.00	378	54	14	
5	Partial lower ...	6	21	3.50	330	55	16	
6	Partial upper and lower ...	7	11	1.57	236	34	21	
7	Full upper and partial lower ...	—	11	?	230	?	21	
8	Partial upper and full lower ...	1	2	2.00	23	23	12	
9	Lingual bar ...	1	1	1.00	20	20	20	
	Total ...	58	234	4.03	3,719	64	16	—

TABLE 14 (a)

*Code No. 8 (3)—Dentures—Full Upper and Lower**Distribution according to average number of minutes per sitting*

Average number of minutes			Number of Dentists				Number of Sitzings			
			England	Scotland	Wales	Total	England	Scotland	Wales	Total
6	...	...	1	—	—	1	23	—	—	23
7	...	...	2	1	—	3	22	52	—	74
8	...	...	2	—	—	2	56	—	—	56
9	...	...	9	—	1	10	238	—	53	291
10	...	...	6	—	—	6	153	—	—	153
11	...	...	9	3	—	12	134	62	—	196
12	...	...	16	1	1	18	336	2	75	413
13	...	...	11	5	2	18	210	130	56	396
14	...	...	16	3	—	19	288	104	—	392
15	...	...	16	3	—	19	274	63	—	337
16	...	...	18	2	—	20	378	58	—	436
17	...	...	18	1	2	21	325	36	37	398
18	...	...	13	1	1	15	223	28	32	283
19	...	...	14	2	—	16	197	35	—	232
20	...	...	15	4	—	19	224	26	—	250
21	...	...	15	1	—	16	257	21	—	278
22	...	...	8	3	—	11	130	22	—	152
23	...	...	6	3	2	11	38	56	41	135
24	...	...	2	—	—	2	34	—	—	34
25	...	...	5	—	—	5	76	—	—	76
26	...	...	4	—	—	4	49	—	—	49
27	...	...	1	—	—	1	11	—	—	11
28	...	...	2	—	—	2	20	—	—	20
29	...	...	2	1	—	3	9	5	—	14
30	...	...	2	—	—	2	21	—	—	21
31	...	...	—	—	—	—	—	—	—	—
32	...	...	—	—	—	—	—	—	—	—
33	...	...	—	—	—	—	—	—	—	—
34	...	...	—	1	2	3	—	8	18	26
Total ...			213	35	11	259*	3,726	708	312	4,746

* Two out of the total of 261 dentists gave no record of work performed during the "sample week" on a full upper and full lower denture.

The point has been raised as to whether any error has crept in through the occasional necessity for taking a second impression. There were a number of such cases, particularly at the "bite" stage. The greatest care was taken in the coding and it is thought to be very improbable that even a single case has been recorded twice as a completion through the taking of a new impression at a very late stage. Of course, any additional sittings due to the taking of a second impression have been given full weight.

In the opinion of the Working Party there is clear evidence that a minority of the dentists, when dealing with full upper and full lower dentures, is working at too rapid a pace. It becomes again (see paragraph 30) a question of testing the efficiency of the work done.

RELINING OF DENTURES—TABLE 15

48. Here again there is no sub-code and the Table is nothing more than an extract from Tables A, B and C. The number of cases is so small that very little value attaches to the average times which have been deduced.

TABLE 15

Code No. 9—Relining of Dentures

Section (1)	Number of sittings		Proportion of total sittings to completed (3) ÷ (2)	Total number of minutes of chairside time (5)	Average time in minutes		
	Completed (2)	Total of completed and incomplete (3)			Per operation (5) ÷ (2) (6)	Per sitting (5) ÷ (3) (7)	Corrected time per operation see para. 31 (8)
National Health Service Patients	12	42	3.50	613	51	15	64
Private Patients of National Health Service Dentists	4	6	1.50	58	14	10	20
Private Practitioners (not in National Health Service)	—	2	?	27	?	14	Not ascertained

REPAIRS TO NON-METALLIC DENTURES AND ORTHODONTIC APPLIANCES—TABLE 16

49. The number of cases involved is not very large and the particulars in regard to sub-codes 2, 3 and 5 are of little value. The average times deduced for Sub-Code 1—Cracks or Fractures—and Sub-Code 4—the Addition of teeth, bands or wires—appear to be reliable and there is little or no difference between the times taken by National Health Service dentists in dealing with their National Health Service patients on the one hand and their private patients on the other. The particulars furnished by private practitioners not in the National Health Service relate to only 14 cases and the average times deduced have no particular value.

TABLE 16

Code No. 10—Repairs to non-metal dentures and orthodontic appliances

Sub-code		Number of sittings		Proportion of total sittings to completed (4)÷(3)	Total number of minutes of chairside time	Average time in minutes		
No.	Description	Completed	Total of completed and incomplete (4)			Per operation (6)÷(3)	Per sitting (6)÷(4)	Corrected time per operation see para. 31 (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>National Health Service Patients</i>								
1	See footnote ...	130	202	1.55	1,546	12	8	18
2		12	21	1.75	143	12	7	18
3		4	18	4.50	192	48	11	65
4		40	107	2.68	1,166	29	11	39
5		—	—	—	—	—	—	—
	Total ...	186	348	1.87	3,047	16	9	23
<i>Private Patients of National Health Service Dentists</i>								
1	See footnote ...	18	32	1.78	211	12	7	18
2		1	3	3.00	45	45	15	56
3		5	9	1.80	98	20	11	26
4		9	19	2.11	249	28	13	36
5		1	2	2.00	9	9	5	16
	Total ...	34	65	1.91	612	18	9	25
<i>Private Practitioners (not in National Health Service)</i>								
1	See footnote ...	4	4	1.00	33	8	8	Not ascertained
2		—	2	?	16	?	8	
3		—	—	—	—	—	—	
4		10	19	1.90	160	16	8	
5		—	2	?	20	?	10	
	Total ...	14	27	1.93	229	16	8	—

1. Cracks or fractures.
2. Replacing or renewing teeth, bands or wires without impression.
3. Replacing or renewing teeth, bands or wires with impression.
4. Addition of teeth, bands or wires to a denture.
5. Orthodontic appliances, etc.

RADIOLOGICAL EXAMINATIONS—TABLE 17

50. As explained in paragraph 31 no addition has been made to the times taken for radiological examinations for "unidentified time" because the returns show that such examinations are usually made in conjunction with some other treatment. In one other respect Table 17 differs from most of the other tables. As radiographs are usually taken at a single sitting, no attempt has been made to discriminate between the number of complete operations and the number of sittings. The usual three divisions are given and a total. It is thought that there can be little difference in the circumstances under which a radiograph is taken and attention is directed, therefore, to the "total".

Where the number of operations is fairly numerous there is definite evidence that the time taken increases with the number of films. No doubt a tendency in that direction exists also where the number of films is larger, but in the later sub-codes the numbers are too small for the figures to run smoothly.

There is one special point which should be made in connection with this Table. It covers only the actual operational time. It does not allow any time for the skilled examination and interpretation of, and the report on the radiograph, nor does it allow any time for development. The examination and interpretation require more skill than the actual taking of the radiograph and this point should be borne in mind when the figures in Table 17 are under review.

TABLE 17

Code No. 15—Radiological Examinations

Sub-code			N.H.S.			N.H.S. Dentists (Private Patients)			Private Practitioners (not in N.H.S.)			Total		
No.	Description		Number of complete operations.	Total number of minutes	Average	Number of complete operations	Total number of minutes	Average	Number of complete operations	Total number of minutes	Average	Number of complete operations	Total number of minutes	Average
1	Intra oral	1 film ...	115	1,003	9	16	192	12	24	189	8	155	1,384	9
2	"	2 films ...	34	420	12	2	31	16	23	242	11	59	693	12
3	"	3 " ...	8	149	19	2	41	21	—	—	—	10	190	19
4	"	4 " ...	10	133	13	2	35	18	4	46	11	16	214	13
5	"	5 " ...	4	47	12	—	—	—	1	5	5	5	52	10
6	"	6 " ...	—	—	—	—	—	—	—	—	—	—	—	—
7	"	7 " ...	—	—	—	—	—	—	—	—	—	—	—	—
8	"	8 " ...	1	22	22	—	—	—	—	—	—	1	22	22
9	"	9 " ...	—	—	—	—	—	—	—	—	—	—	—	—
10	"	10 " ...	2	37	19	—	—	—	—	—	—	2	37	19
11	"	11 " ...	—	—	—	—	—	—	—	—	—	—	—	—
12	"	12 or more	—	—	—	—	—	—	1	45	45	1	45	45
13	"	unspecified number	28	333	12	4	65	16	10	142	14	42	540	13
14	Extra oral	1 film ...	—	—	—	—	—	—	—	—	—	—	—	—
15	"	2 films ...	1	11	11	—	—	—	—	—	—	1	11	11
16	"	3 " ...	—	—	—	—	—	—	—	—	—	—	—	—
17	"	4 " ...	—	—	—	—	—	—	—	—	—	—	—	—
18	"	5 " ...	—	—	—	—	—	—	—	—	—	—	—	—
	Total ...	...	203	2,155	11	26	364	14	63	669	11	292	3,188	11

N.B. No allowance has been made for "unidentified time".

TREATMENT OF SENSITIVE CEMENTUM—TABLE 18

51. There are two sub-code numbers here, but the total number of treatments is very small. The National Health Service averages which emerge appear reasonable, but no great weight can be attached to them. There are only eight treatments recorded for private patients.

TABLE 18

Code No. 21—Treatment of Sensitive Cementum, etc.

Sub-code		Number of sittings		Proportion of total sittings to completed (4)÷(3)	Total number of minutes of chairside time	Average time in minutes		
No.	Description	Completed	Total of completed and incomplete (4)			Per operation (6)÷(3)	Per sitting (6)÷(4)	Corrected time per operation see para. 31 (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>National Health Service Patients</i>								
1	Treatment of sensitive cementum ...	39	51	1·31	453	12	9	17
2	Taking of material for pathological & bacteriological examination, etc.	4	6	1·50	53	13	9	19
	Total ...	43	57	1·33	506	12	9	17
<i>Private Patients of National Health Service Dentists</i>								
1	Treatment of sensitive cementum ...	1	3	3·00	35	35	12	46
2	Taking of material for pathological & bacteriological examination, etc.	—	—	—	—	—	—	—
	Total ...	1	3	3·00	35	35	12	46
<i>Private Practitioners (not in National Health Service)</i>								
1	Treatment of sensitive cementum ...	5	8	1·60	75	15	9	Not ascertained
2	Taking of material for pathological & bacteriological examination, etc.	2	2	1·00	13	6	6	
	Total ...	7	10	1·43	88	13	9	—

ARREST OF BLEEDING—TABLE 19

52. Here again there are no sub-code numbers, and Table 19 is no more than an extract from Tables A and B. The average time for National Health Service patients appears to be reasonable. There is only one treatment recorded in respect of a private patient.

TABLE 19
Code No. 22—Arrest of Bleeding

Section (1)	Number of sittings		Proportion of total sittings to completed (3) ÷ (2)	Total number of minutes of chairside time (5)	Average time in minutes		
	Completed (2)	Total of completed and incomplete (3)			Per operation (5) ÷ (2) (6)	Per sitting (5) ÷ (3) (7)	Corrected time per operation see para. 31 (8)
National Health Service Patients	24	38	1.58	771	32	20	38
Private Patients of National Health Service Dentists	1	1	1.00	9	9	9	13
Private Practitioners (not in National Health Service)	—	—	—	—	—	—	—

DOMICILIARY VISITS—TABLE 20

53. Here again there are no sub-codes. The average time for National Health Service patients appears to be reasonable. There are only three treatments recorded of private patients. No correction has been, nor should be made, for "unidentified time".

TABLE 20
Code No. 23—Domiciliary Visits

Section (1)	Number of visits		Proportion of total visits to completed (3) ÷ (2)	Total number of minutes used up (5)	Average time in minutes	
	Completed operation (2)	Total of completed and incomplete (3)			Per completed operation (5) ÷ (2) (6)	Per visit (5) ÷ (3) (7)
National Health Service Patients ...	18	30	1.67	1,143	64	38
Private Patients of National Health Service Dentists ...	1	2	2.00	89	89	45
Private Practitioners (not in National Health Service) ...	2	5	2.50	235	117	47

Note:

A "visit" is the total time of absence from the surgery and includes the time taken to carry out treatment.

"Incomplete" refers to the treatment carried out during the visit and implies that a subsequent visit will be required.

No allowance has been made for "unidentified time."

ITEMS NOT INCLUDED UNDER OTHER CODES—TABLE 21

54. This is a fairly large section divided with rough equality between (1) treatments which cannot conveniently be codified and (2) items in the returns received which were either unintelligible or indecipherable.

Average times based on such groups can have very little meaning. The table is included mainly to complete the series.

TABLE 21

Code No. 24—Items not included under other Codes

Code Sub numbers (1) and (2)—see footnote

Sub-code		Number of sittings		Proportion of total sittings to completed (4) ÷ (3)	Total number of minutes of chairside time	Average time in minutes		
No.	Description	Completed	Total of completed and incomplete (4)			Per operation (6) ÷ (3)	Per sitting (6) ÷ (4)	Corrected time per operation see para. 31 (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

National Health Service Patients

1	See footnote ...	326	1,027	3.15	12,284	38	12	50
2	do. ...	276	539	1.95	8,439	31	16	38
	Total ...	602	1,566	2.60	20,723	34	13	44

Private Patients of National Health Service Dentists

1	See footnote ...	39	89	2.28	1,297	33	15	42
2	do. ...	17	34	2.00	606	36	18	43
	Total ...	56	123	2.20	1,903	34	15	42

Private Practitioners (not in National Health Service)

1	See footnote ...	28	136	4.77	1,638	58	12	Not ascertained
2	do. ...	6	14	2.33	273	26	10	
	Total ...	34	150	4.41	1,911	56	13	—

Footnote:

1. Any treatment not specifically mentioned in the National Health Service (General Dental Services) Fees Regulations, 1948.

2. Items in returns received which were unintelligible or indecipherable.

M. "Clinics"

55. As mentioned in paragraph 7 it was felt that it would be useful to obtain some information as to the times taken by dentists "other than those working at Local Authority Health Centres" who were working as employees in practices of a clinical type.

Returns were received, as is also mentioned in paragraph 7, from "Clinic X", Marks and Spencer Limited, the Metropolitan Police dental service, Imperial Chemical Industries Limited and the London Transport (Central Road Services) Employees' Friendly Society.

Of these the dentists employed by "Clinic X" deal only with the public. Marks and Spencer Limited have a panel system, the dentists on which give dental treatment to the staff of Marks and Spencer Limited and also, in a personal capacity, deal with the general public. The dentists employed by the Metropolitan Police and Imperial Chemical Industries Limited deal only with the staffs of those two concerns. The dentists employed by the London Transport (Central Road Services) Employees' Friendly Society deal only with its members and their families.

In all five cases remuneration depends, to a greater or less extent, on results; by salary and commission, on a time basis, by salary and a share of profits, or by salary and bonus.

Obviously the word "Clinics" is not a very happy description, but the Working Party has not been able to think of a better, and its misgivings as to suitability have been expressed by placing the word between inverted commas.

For the sake of brevity the first two are hereinafter described as Group 1 and the last three as Group 2.

Neither Group is entirely homogeneous, but each of them is approximately so, and an analysis of the data into Group 1 and Group 2 shows such distinctive differences as to justify and confirm the suitability of the analysis. The differences, indeed, are so distinctive as to indicate that no useful purpose would be served by supplying tables for Group 1 and Group 2 combined. Such combined tables, apart from being of little or no use, might easily be misleading.

Following the lines of the main investigation, Tables M and N have been prepared, covering Groups 1 and 2 respectively, in the same standard form as Tables A to I, and these tables will be found in Appendix IV which contains only tables relating to "Clinics". Table O, which also appears in Appendix IV, gives the distribution of the operations in Group 1 and Group 2 on a percentage basis, in much the same form as Tables J to L in Appendix III. Additional columns have been extracted from the tables relating to the main enquiry and have been added to Table O to facilitate comparisons (a) between Group 1 and the main National Health Service data and (b) between Group 2 and the data collected in respect of the private patients of dentists not in the National Health Service.

In addition detailed tables have been prepared for the six main code numbers 1, 2, 3, 6, 7 and 8, giving the information in regard to sub-codes, where such exist, and setting out, in a separate table for each of the six codes, information in regard to both Group 1 and Group 2.

Referring to Table O (the percentage distributions) it will be seen that Group 1 has a larger percentage of fillings than the corresponding National

Health Service percentage, 33.6 compared with 30.7, a smaller percentage of extractions, 18.0 compared with 23.3, and about the same percentage of dentures, 10.5 compared with 10.8. Group 2, on the other hand, shews about the same number of fillings as the private patients of dentists not in the National Health Service, 37.5 compared with 38.1, but a much higher proportion of extractions, 16.1 compared with 9.3, and a somewhat higher proportion of dentures, 7.9 compared with 5.7. These comparisons, which are all based on completed operations, are not very conclusive, but there seems to be a measure of harmony between the distribution of the work being done by dentists in Group 1 with that being done by National Health Service dentists, and a corresponding measure of harmony between the distribution of the work done by the dentists in Group 2 and the distribution of the work done by the dentists not in the National Health Service.

Passing now from Table O to Tables M and N and again concentrating on the main six codes it will be seen that the timings for Group 2 are consistently and appreciably greater than the timings for Group 1, with the exception of Code No. 7, where, however, the number of completed operations in the case of Group 2 is only 26.

CLINICAL EXAMINATION AND REPORT

TABLE 22 ("CLINICS")

56. As appears in Table 22, the times taken by the dentists in Group 1 are about a minute longer than those taken by the dentists in Group 2. Comparison with Table 7 shows that both groups of the "Clinics", so far as Code 1 is concerned, have worked a little more quickly than the National Health Service dentists when the latter are dealing with their National Health Service patients. "Corrected" times per operation for the whole code are "Clinics" Group 1—14 minutes, "Clinics" Group 2—15 minutes, and National Health Service dentists (National Health Service patients)—16 minutes.

TABLE 22

Code No. 1.—Clinical Examination and Report ("Clinics")

Sub-code		Number of sittings		Proportion of total sittings to completed (4) ÷ (3)	Total number of minutes of chairside time	Average time in minutes		
No.	Description	Completed	Total of completed and incomplete (4)			Per operation (6) ÷ (3)	Per sitting (6) ÷ (4)	Corrected time per operation see para. 31 (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

*Group 1.—"Clinic X"
and Marks and Spencer Limited*

1	No other treatment at sitting ...	331	340	1.03	3,817	12	11	15
2	With other treatment at sitting ...	161	164	1.02	1,740	11	11	11
	Total ...	492	504	1.02	5,557	11	11	14

*Group 2.—Metropolitan Police
Imperial Chemical Industries Limited and
London Transport (Central Road Services) Employees' Friendly Society*

1	No other treatment at sitting ...	101	102	1.01	1,180	12	12	15
2	With other treatment at sitting ...	38	39	1.03	478	13	12	13
	Total ...	139	141	1.02	1,658	12	12	15

NORMAL SCALING AND GUM TREATMENT

TABLE 23 ("CLINICS")

57. Code 2 is not divided into sub-codes and Table 23 is no more than extracts from Tables M and N in Appendix IV. As will be seen, the "corrected" time per operation is 28 minutes in Group 1 and 37 minutes in Group 2. The corresponding time (see Table 8) for National Health Service dentists (National Health Service patients) is 29 minutes, which is quite close to the Group 1 figure of 28 minutes. Dentists not in the National Health Service took the same (uncorrected) time as the National Health Service dentists for their National Health Service patients.

TABLE 23

Code No. 2.—Normal Scaling and Gum Treatment ("Clinics")

Number of sittings		Proportion of total sittings to completed (2)÷(1)	Total number of minutes of chairside time	Average time in minutes		
Completed	Total of completed and incomplete			Per operation (4)÷(1)	Per sitting (4)÷(2)	Corrected time per operation see para 31
(1)	(2)	(3)	(4)	(5)	(6)	(7)

*Group 1.—"Clinic X"
and Marks and Spencer Limited*

237	274	1.16	5,634	24	21	28
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*Group 2.—Metropolitan Police
Imperial Chemical Industries Limited and
London Transport (Central Road Services) Employees' Friendly Society*

90	113	1.26	2,933	33	26	37
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FILLINGS (AMALGAM AND SILICATES)

TABLE 24 ("CLINICS")

58. The figures for sub-code 3 (surface unspecified) in the portion of Table 24 relating to Group 2, are based on only 12 completed operations and should be disregarded. Apart from that the times taken by the Group 1 dentists are below those taken by the dentists in Group 2, in most cases by about 10 per cent. The times of the National Health Service dentists (National Health Service patients) (see Table 9) are in excess of those for Group 1 and are fairly close to those for Group 2. For the whole code the "corrected" times per operation are:—Group 1—29 minutes, National Health Service patients—32 minutes, and Group 2—36 minutes.

TABLE 24

Code No. 3.—Fillings (amalgam and silicates) ("Clinics")

Sub-code		Number of sittings		Proportion of total sittings to completed (4) ÷ (3)	Total number of minutes of chairside time	Average time in minutes		
No.	Brief description	Completed	Total of completed and incomplete (4)			Per operation (6) ÷ (3)	Per sitting (6) ÷ (4)	Corrected time per operation see para. 31 (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

*Group 1.—"Clinic X"
and Marks and Spencer Limited*

1	Single surface ...	454	549	1.21	10,306	23	19	27
2	Multi surface ...	196	225	1.15	5,772	29	26	34
3	Surface unspecified	123	216	1.76	3,009	24	14	31
4	Silicates ...	262	289	1.10	6,373	24	22	28
	Total ...	1,035	1,279	1.24	25,460	25	20	29

*Group 2.—Metropolitan Police
Imperial Chemical Industries Limited and
London Transport (Central Road Services) Employees' Friendly Society*

1	Single surface ...	126	150	1.19	3,339	26	22	31
2	Multi surface ...	115	135	1.18	3,903	34	29	38
3	Surface unspecified	12	42	3.50	789	66	19	79
4	Silicates ...	50	59	1.18	1,310	26	22	31
	Total ...	303	386	1.28	9,341	31	24	36

EXTRACTIONS WITH LOCAL ANAESTHETIC

TABLE 25 ("CLINICS")

59. The figures for sub-codes 4 and upwards are too small to have any real significance. For sub-codes 1 to 3 the times taken by the dentists in Group 1 are consistently below those taken by the dentists in Group 2 and are in close harmony with those taken by National Health Service dentists when dealing with their National Health Service patients. The note as to interpretation contained in paragraph 33 applies with equal force here, as it applied to Table 12, and there is no need to repeat the argument. For the whole code the "corrected" times per operation are:—Group 1—20 minutes, National Health Service patients—20 minutes, and Group 2—23 minutes.

TABLE 25

Code No. 6.—Extractions with Local Anaesthetic ("Clinics")

Sub-code		Number of sittings		Proportion of total sittings to completed (4) ÷ (3)	Total number of minutes of chairside time	Average time in minutes		
No.	Brief description	Completed	Total of completed and incomplete (4)			Per operation (6) ÷ (3)	Per sitting (6) ÷ (4)	Corrected time per operation see para. 31 (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

*Group 1.—"Clinic X"
and Marks and Spencer Limited*

1	1 or 2 teeth ...	277	286	1.03	4,320	16	15	19
2	3, 4 or 5 teeth ...	57	57	1.00	1,082	19	19	23
3	6, 7 or 8 teeth ...	29	30	1.03	576	20	19	24
4	9, 10 or 11 teeth ...	2	3	1.50	70	35	23	41
5	12, 13 or 14 teeth	2	2	1.00	37	18	18	22
6	15, 16 or 17 teeth	1	1	1.00	20	20	20	24
7	18, 19 or 20 teeth	—	—	—	—	—	—	—
8	Over 20 teeth ...	—	—	—	—	—	—	—
9	Number not specified ...	2	2	1.00	41	21	21	24
	Total ...	370	381	1.03	6,146	17	16	20

*Group 2.—Metropolitan Police
Imperial Chemical Industries Limited and
London Transport (Central Road Services) Employees' Friendly Society*

1	1 or 2 teeth ...	80	85	1.06	1,339	17	16	21
2	3, 4 or 5 teeth ...	16	18	1.13	433	27	24	31
3	6, 7 or 8 teeth ...	7	7	1.00	171	24	24	28
4	9, 10 or 11 teeth ...	1	1	1.00	25	25	25	29
5	12, 13 or 14 teeth	—	—	—	—	—	—	—
6	15, 16 or 17 teeth	—	—	—	—	—	—	—
7	18, 19 or 20 teeth	—	—	—	—	—	—	—
8	Over 20 teeth ...	—	—	—	—	—	—	—
9	Number not specified ...	—	1	?	7	?	7	?
	Total ...	104	112	1.08	1,975	19	18	23

EXTRACTIONS WITH GENERAL ANAESTHETIC

TABLE 26 ("CLINICS")

60. The remarks in the previous paragraph as to interpretation apply to Table No. 26 equally with Table 25, and again reference is made to paragraph 33. The numbers in Group 2 are very small, but there is a consistency running through them which gives them a value they would not otherwise possess. They are not only smaller than the times for Group 1—reversing the usual order of things—but they are also smaller in each case than the times shown in the three sections of Table 13. In every case they are much smaller. The result can be traced to a single "Clinic", where it appears that extractions are rarely made under a local anaesthetic and are usually made, very expeditiously, under a general anaesthetic. The "corrected" figures per operation for the whole code are Group 2—14 minutes, National Health Service patients—21 minutes, and Group 1—23 minutes.

TABLE 26

Code No. 7.—Extractions with General Anaesthetic ("Clinics")

No.	Sub-code Brief description	Number of sittings		Proportion of total sittings to completed (4) ÷ (3)	Total number of minutes of chairside time	Average time in minutes		
		Completed	Total of completed and incomplete (4)			Per operation (6) ÷ (3)	Per sitting (6) ÷ (4)	Corrected time per operation see para. 31 (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

Group 1.—"Clinic X"
and Marks and Spencer Limited

1	1 or 2 teeth ...	81	83	1.02	1,376	17	17	21
2	3, 4 or 5 teeth ...	28	28	1.00	513	18	18	22
3	6, 7 or 8 teeth ...	16	17	1.06	358	22	21	26
4	9, 10 or 11 teeth ...	17	17	1.00	389	23	23	27
5	12, 13 or 14 teeth	12	12	1.00	226	19	19	23
6	15, 16 or 17 teeth	12	12	1.00	305	25	25	29
7	18, 19 or 20 teeth	7	7	1.00	135	19	19	23
8	Over 20 teeth ...	4	4	1.00	113	28	28	32
9	Number not specified ...	10	10	1.00	152	15	15	19
	Total ...	187	190	1.02	3,567	19	19	23

Group 2.—Metropolitan Police
Imperial Chemical Industries Limited and
London Transport (Central Road Services) Employees' Friendly Society

1	1 or 2 teeth ...	6	6	1.00	64	11	11	14
2	3, 4 or 5 teeth ...	4	4	1.00	34	9	9	12
3	6, 7 or 8 teeth ...	7	7	1.00	64	9	9	13
4	9, 10 or 11 teeth ...	1	1	1.00	5	5	5	9
5	12, 13 or 14 teeth	3	3	1.00	43	14	14	18
6	15, 16 or 17 teeth	2	2	1.00	24	12	12	16
7	18, 19 or 20 teeth	—	—	—	—	—	—	—
8	Over 20 teeth ...	1	1	1.00	7	7	7	11
9	Number not specified ...	2	2	1.00	19	9	9	13
	Total ...	26	26	1.00	260	10	10	14

DENTURES (NON-METALLIC)

TABLE 27 ("CLINICS")

61. It is by no means easy to place a satisfactory interpretation upon the figures in Table 27. With the exception of sub-codes 3 and 4 in Group 1, the numbers involved are too small to produce reliable results. In Group 2 there are only 64 completed operations for the whole code and the figures in the sub-divisions, with the possible exception of sub-code 3, are virtually meaningless. The arguments set out in paragraph 26 as to the validity of the ratio in Column 5 do not apply, and certainly ought not to be stretched to make them apply, to such small numbers. It is thought, therefore, that valid comparisons can only be made in respect of sub-code 3 (full upper and full lower dentures) and in respect of the whole code. For the whole code the "corrected" time per operation is 81 minutes in the case of Group 1, 81 minutes for National Health Service patients, and 112 minutes for Group 2. In the case of sub-code 3 the "corrected" times per operation are 82 minutes for Group 1, 88 minutes for National Health Service patients (see Table 14), and 123 minutes for Group 2.

The ratio—the proportion of total sittings to completed sittings—for sub-code 3 is 4.46 for Group 1, 4.53 for National Health Service patients (see Table 14), and 5.78 for Group 2. The figure of 5.78 is based on only 37 completed operations.

Here again the general picture is of National Health Service timings being intermediate between Group 1 and Group 2; in all three cases the number of full upper and lower dentures (sub-code 3) is more than 50 per cent. of the total number of dentures of all descriptions, even when, as is the case, a "full upper and lower" is counted as one and not as two dentures.

TABLE 27

Code No. 8—Dentures (non-metallic) ("Clinics")

Sub-code		Number of sittings		Proportion of total sittings to completed (4) ÷ (3)	Total number of minutes of chairside time	Average time in minutes		
No.	Brief description	Completed	Total of completed and incomplete (4)			Per operation (6) ÷ (3)	Per sitting (6) ÷ (4)	Corrected time per operation see para. 31 (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

*Group 1—"Clinic X"
and Marks and Spencer Limited*

1	Full upper ...	20	114	5.70	1,618	81	14	102
2	Full lower ...	12	86	7.17	976	81	11	108
3	Full upper and lower ...	191	851	4.46	12,383	65	15	82
4	Partial upper ...	55	146	2.65	2,057	37	14	47
5	Partial lower ...	7	43	6.14	565	81	13	104
6	Partial upper and lower ...	29	105	3.62	2,271	78	22	92
7	Full upper and partial lower ...	10	65	6.50	1,169	117	18	141
8	Partial upper and full lower ...	—	2	?	39	?	20	?
9	Lingual bar ...	—	—	—	—	—	—	—
	Total ...	324	1,412	4.36	21,078	65	15	81

*Group 2—Metropolitan Police
Imperial Chemical Industries Limited
London Transport (Central Road Services) Employees' Friendly Society*

1	Full upper ...	7	26	3.71	430	61	17	75
2	Full lower ...	5	27	5.40	400	80	15	100
3	Full upper and lower ...	37	214	5.78	3,729	101	17	123
4	Partial upper ...	11	46	4.18	671	61	15	77
5	Partial lower ...	1	5	5.00	46	46	9	65
6	Partial upper and lower ...	3	19	6.33	323	108	17	131
7	Full upper and partial lower ...	—	13	?	248	?	19	?
8	Partial upper and full lower ...	—	—	—	—	—	—	—
9	Lingual bar ...	—	—	—	—	—	—	—
	Total ...	64	350	5.47	5,847	91	17	112

62. It has to be admitted that the figures obtained from the returns received from the dentists employed by these five "clinics" are less conclusive than it was hoped they would be. Yet to a considerable extent the varying results are in harmony with the varying conditions.

The dentists employed by "Clinic X" and the dentists on the panel of Marks and Spencer Limited ought not to differ greatly, as regards volume and quality of work, from the majority of National Health Service dental practitioners. A high level of organisation and efficiency is to be expected and to some extent there may be relief from non-professional routine work. Not unexpectedly, the tables, embodied later in this report in Appendix IV, indicate for Group 1 dentists a somewhat larger average volume of work and somewhat lower average times than in the case of individual practitioners engaged in National Health Service work.

The "Clinics" in Group 2 deal only with the staffs and members of the concerns to which they are attached. The result is:—more conservative work, fewer extractions and fewer dentures than in Group 1. The same tendency, but more pronounced, is evident when National Health Service work is compared with private practice. The "Clinics" in Group 2 and the dentists not in the National Health Service, in the main, are dealing with people who are used to having regular attention to their teeth, and that no doubt is the explanation.

N. Summary

63. It is thought that it will be a convenience if the conclusions reached by the Working Party be summarised.

The conclusions are:—

(1) that, as a preliminary to the consideration of the figures given in the various tables in the Report and its Appendices, it is necessary to establish, as a background, the conditions under which the dental profession is working;

(2) that the abnormally high percentage (12 per cent.) of the dentists forming the original sample, who excused themselves on the ground of ill-health, is evidence that the effort which is being made to cope with the present rush of work is taking its toll (see para. 16). The validity of this excuse is substantiated by the numerous references to health in the letters received from the contributing dentists (see para. 11) and by the inquiry into relative earnings (see Table 3 and para. 13);

(3) that there is clear evidence that the majority of the dentists are working more than the Spens standard of 33 hours of chairside time per week (see Table 5 and para. 28 and Table 21). The excess over the Spens standard time is about 9 per cent. There are, however, a good many dentists who, owing to age or ill-health, are doing only a comparatively small amount of work and, at the other end of the scale, about 64 per cent. of the dentists in the sample are doing 73 per cent. of the total work and, in doing so, are working chairside hours 25 per cent. in excess of the Spens standard;

(4) that on the average the dentists engaged in the National Health Service (prior to the introduction of the now abandoned "ceiling" of £400 per month (plus half the fees in excess of this sum) and the subsequent reductions in many items of the scale of fees) were earning about 19 per cent. in excess of the Spens standard. (The remuneration for National Health Service work was about 14 per cent. in excess of the

Spens standard and the other 5 per cent. is an estimate of the amount attributable to private work). The Working Party had available information regarding earnings from two sources:—

(a) from the remuneration of the 467 dentists referred to in para. 13 and Table 3 ;

(b) from a public statement issued by the Ministry of Health in May, 1949, relating to the remuneration of 5,078 dentists.

Each of these indicated earnings of about 14 per cent. in excess of the Spens standard. As regards the addition to cover private work, the totals in Table B are about 5 per cent. of those in Table A.

(5) That this 19 per cent. is covered, as to about 11 per cent. by hours in excess of the Spens standard, and as to about 8 per cent. by speed of work in excess of what was assumed in 1948. To quote from para. 29 "Most dentists are working longer hours than is comfortable, or than would be good for them if continued for too long a period, and many of them are working more quickly than they would normally";

(6) that there are ways and means, which may legitimately be employed, calculated to reduce chairside time without lowering the standard of treatment—such as highly trained chairside assistance, a second surgery and the following of a systematic routine ;

(7) that there is evidence of some economy of chairside time when two or more dentists are associated (either as partners or as principals and assistants) in the same practice ;

(8) that the private work which is being done by National Health Service dentists represents less than 5 per cent. of their total work and that, although the times taken for private work are usually somewhat longer than the corresponding times for National Health Service work, they are not unduly longer. For all operations (see Tables A and B) the average corrected time per operation is 32.3 for National Health Service patients and 33.9 for private patients ;

(9) that the small intervals of time, called "unidentified time", between getting one patient out of the chair and installing the next, are properly to be included in the chairside time and that such time is not "wasted time" (paras. 31 and 33) ;

(10) that the average interval between one National Health Service patient and the next may be conservatively estimated at $3\frac{3}{4}$ minutes. (The corresponding interval in the practices of dentists not in the National Health Service is about the same) ;

(11) that there is clear evidence that in a comparatively small minority of cases dentists are working too long and too quickly (paras. 28 and 47) ;

(12) that neither the Service nor the patient suffers from such excessive efforts until efficiency becomes impaired ;

(13) that these cases of very long hours, very rapid work and very high earnings are comparatively few in number ;

(14) that they should be the subject of investigation to establish efficiency or expose inefficiency, and should not be regarded as a major factor when terms of remuneration are under consideration ;

(15) that the whole investigation (which may be regarded as covering four sections

(a) National Health Service dentists

(b) Dentists in private practice

(c) "Clinics"—Group 1 and

(d) "Clinics"—Group 2)

whilst it discloses many differences in detail, discloses similarities rather than differences in broad outline. Attention is called to Table 28 and particularly to the close resemblance between the figures for National Health Service dentists and dentists in private practice. "Clinics"—Group 1 shows more sittings, longer hours and shorter timings than either National Health Service or private dentists. "Clinics"—Group 2 shows fewer sittings and longer timings than any of the other sections displayed in Table 21.

It is not thought that too much importance should be attached to the comparatively long chairside times for the two groups of "Clinics".

It seems probable that in most cases, the dentists employed in these "Clinics" do not have to do so much non-chairside work as falls upon an ordinary practitioner. Also, it seems unlikely that the dentists employed by the "Clinics" include any considerable number of men who are only capable, owing to age or illness, of doing a comparatively small amount of work.

TABLE 28

	"Clinics" Group 1	National Health Service Dentists (N.H.S. and private work combined)	Dentists not in the National Health Service	"Clinics" Group 2
Number of Dentists	(39)	(261)	(16)	(13)
Average number of completed operations per week, per dentist	79	69	64	62
Average number of sittings per week, per dentist	119	107	106	100
Ratio of sittings to operations ...	1.51	1.55	1.65	1.60
Average number of minutes worked	1,946	1,829	1,814	1,862
Approximate addition for "unidentified time"	375	375	375	375
"Corrected" average number of minutes worked	2,321	2,204	2,189	2,237
Average time per operation ...	24.6	26.6	28.3	29.9
Average time per sitting	16.3	17.1	17.2	18.7
"Corrected" average time per operation	30.3	32.4	*34.5	35.9
Corrected average number of minutes worked, expressed as a percentage of the Spens standard of 33 hours per week	117.2	111.3	110.6	113.0
"Clinics" Group 1	"Clinic X" and Marks and Spencer Limited. Metropolitan Police, Imperial Chemical Industries and London Transport (Central Road Services) Employees' Friendly Society.			
"Clinics" Group 2				

* In arriving at this corrected time, it has been assumed that the average unidentified time (which was not ascertained for private practitioners not in the National Health Service) was 3½ minutes.

O. Conclusion

64. Appreciative reference has already been made in the body of the Report to the help given to the Working Party by Dr. W. G. Senior of the Ministry of Health and Dr. T. H. J. Douglas of the Department of Health for Scotland. Mr. S. Donald Cox, Assistant Secretary of the British Dental Association, attended the earlier meetings as a member of the Working Party. His place on the Working Party, as indicated in paragraph 3, was taken by Mr. J. J. Gillard Bishop, and at that point, on the 14th March, Mr. Cox was appointed as Secretary jointly with Major L. G. Hitching. Unfortunately, because his assistance would have been very valuable, pressure of his other duties prevented Mr. Cox from performing any Secretarial duties until the final draft of the Report was under consideration. He was, however, then able to give assistance which was much appreciated by the Working Party. The Working Party expresses its gratitude in full measure to Dr. Senior, Dr. Douglas and Mr. Cox for their assistance and unfailing support.

It is impossible to praise too highly the work done by Major Hitching. Its volume was impressive and its quality excellent. The Working Party expresses its gratitude to him and its appreciation of his never-failing courtesy and helpfulness. The Chairman, who was more closely associated with Major Hitching than the other members of the Working Party, adds a special word or two of thanks on his own account, particularly for the charming yet firm way in which he has been guided and guarded by Major Hitching from committing many errors into which he would otherwise have fallen as a result of his lack of knowledge of dental matters.

Thanks are also given to the British Dental Association, the Incorporated Dental Society and the Public Dental Service Association for their co-operation, without which the investigation could not have been made.

Last, but by no means least, the Working Party is grateful to the five "Clinics", and to all the dentists who complied with its request and who sent in returns, not only for the returns themselves but also for the excellent way in which those returns were prepared.

WM. PENMAN (*Chairman*).

J. J. GILLARD BISHOP.

ARTHUR H. CONDRY.

J. LAUER.

ALEC MACGREGOR.

S. DONALD COX. } *Secretaries.*
L. G. HITCHING. }

3rd August, 1949.

APPENDIX I

"FARLEIGH VIEW,"
WARLINGHAM,
SURREY.

March, 1949

Dear Sir,

You have no doubt seen recent references in the Press to the appointment by the Minister of Health and the Secretary of State for Scotland of a Working Party, the duty of which is:—

"To ascertain the average chairside time taken by general dental practitioners in England, Wales and Scotland (1) in the National Health Service and (2) in private practice to complete each of the type of dental treatment set out in Part I of the First Schedule to the National Health Service (General Dental Services) Fees Regulations, 1948, excluding any items for which it is impracticable to establish an average time, e.g., orthodontic treatment."

The British Dental Association, the Incorporated Dental Society and the Public Dental Service Association have all signified their willingness to co-operate. They have nominated for membership of the Working Party, Messrs. A. MACGREGOR, O.B.E., L.D.S.F.P.S. Glas.; J. J. GILLARD BISHOP, L.D.S.U. Bristol; A. H. CONDRY; J. LAUER, L.D.S.R.C.S. Eng., and these nominations have been accepted by the Minister.

I have accepted the invitation of the Minister to be Chairman of the Working Party which therefore consists of four members nominated by the Dental Organisations, under an independent Chairman.

In connection with the formation of this Working Party the Minister has given the following assurance to the Dental Profession:—

- "1. That action will be taken on the Report of the Working Party only after consultation with representatives of the Dental Organisations, and
2. That any interim action which the situation may seem to require, prior to the issue and consideration of the Report of the Working Party, will also only be taken after consultation with representatives of the Dental Organisations.

In giving this assurance the Minister is confident that the Working Party will make its investigation and prepare its Report as speedily as may be consistent with thoroughness and accuracy."

I have gone into these matters in some detail because I am anxious to convince you that some such fact-finding inquiry is in the interest of all parties—the public, the dental profession and the Ministry—and because I am anxious to persuade you that a small Committee chosen by your own Organisations, under an independent Chairman, is a suitable body to conduct such a fact-finding inquiry.

The Working Party has arrived at the conclusion that the inquiry must take the form of investigating a "sample" of those members of the profession engaged in National Health work and a sample of 500 has been chosen as being an adequate number for this purpose.

You are one of the 500 and your co-operation in making this inquiry a success is earnestly solicited.

The 500 have been selected at random, making use of the Executive Council Lists, in such a way that every part of the country is proportionately represented.

The members of the Working Party realise that compliance with this request will make a considerable call upon your time and energy, both of which are more than fully employed at the present time, but they hope you will help them in their effort to do a piece of useful work for the whole profession and they venture to point out that any considerable number of refusals would disturb the balance of the sample and might detract seriously from the value of the results.

I have every confidence, therefore, in asking you to be good enough to keep a record of your operations, for the week 4th April, 1949 to 9th April, 1949, both inclusive, on the enclosed forms.

I am sorry to have to trouble you with so long a letter; even now there are one or two points to which I should like to draw your attention before concluding.

1. Any information which you may be good enough to supply will be confidential to the Working Party in the preparation of its Report.
2. You will be identified by a number for the purpose of this inquiry, the information which you supply will be merged for the purpose of statistical inquiry with similar information obtained from other dentists and there will be no disclosure of identifiable individual results.

3. The Working Party fully realise that it is conducting an inquiry, at a time when circumstances are abnormal but it invites you and other dentists concerned to disregard any abnormality which exists and to give the "facts" on the enclosed sheets as those "facts" arise.
4. Nevertheless you may desire to give the Working Party the benefit of any comments you wish to make, which comments need not be limited to abnormality, and the Working Party hope that you will do so. For example the Working Party would be interested to know whether by means of chairside assistance, the use of additional surgeries or otherwise, you have been able to ease your personal burden.

I sincerely hope that the situation will not arise but should you be unable, owing to exceptional circumstances, to assist in this very important inquiry I shall be obliged if you will notify me, by return, on the slip attached to this letter.

I am,

Yours faithfully,

(sgd.) WM. PENMAN.

To: THE CHAIRMAN,
WORKING PARTY.

No.

I regret that I am unable to take part in the timing inquiry owing to

Date.....

Signature.....

THE BRITISH DENTAL ASSOCIATION
THE INCORPORATED DENTAL SOCIETY
THE PUBLIC DENTAL SERVICE ASSOCIATION

LONDON,

March, 1949

Dear Sir,

When the present scale of fees was adopted the Ministry of Health specifically reserved the right to have the timing of dental operations reviewed. The Ministry is anxious that this enquiry should be carried out in a fair and unbiased manner and has invited an eminent actuary, Mr. WILLIAM PENMAN, M.B.E., F.I.A., a past President of the Institute of Actuaries, to undertake responsibility for this as Chairman with the assistance of professional men nominated by the dental organisations.

The enquiry is entirely factual, designed solely to ascertain the chairside times actually being taken at the present time. It is fully appreciated that there are many other factors that must be taken into account in any revision of remuneration. These are beyond the terms of reference of Mr. Penman's committee and it will be the duty of a subsequent negotiating committee to take them into account.

You will understand quite clearly that this enquiry is undertaken by Mr. Penman entirely at the request of the Ministry and that the Dental Organisations, acting only from a sense of public duty and professional responsibility, are asking their members to assist in the matter.

The matter is one of great importance to the whole profession. You are, therefore, earnestly requested to co-operate by completing the enclosed questionnaire accurately and truly, since without this information it will be impossible to arrive at the facts upon which the future remuneration of the dental profession can be based.

Yours faithfully,

(sgd.) H. PARKER BUCHANAN,

Dental Secretary

on behalf of
The British Dental Association.

(sgd.) ARTHUR H. CONDRY,

General Secretary

on behalf of
The Incorporated Dental Society.

(sgd.) L. C. ATKINS,

Executive Dental Officer

on behalf of
The Public Dental Service Association.

Information supplied on this time sheet will be treated as strictly CONFIDENTIAL.

Please send completed sheets to the Chairman in the accompanying addressed envelope.

The sheets will be destroyed when the investigation is complete.

DENTIST'S No.

EXECUTIVE COUNCIL.

TIME SHEET

[illegible]

INSTRUCTIONS

1. This application is personal to the dentist to whom it is addressed but he is asked to indicate, in the space provided on the face hereof, whether he is a Principal, Partner or Assistant.
2. It is important that the completed forms contain a full record of the ordinary routine. To that end, every detail should be included in its proper order as it actually occurred. No detail, however small, should be omitted. (What is desired is a complete record of what has happened during the week, under current conditions and current routine without any modification whatever).
3. Attention is called to the specimen sheet which has been prepared for the guidance of those participating in the inquiry and, particularly, as an indication of the amount of detail required.
4. A separate entry should be made for each operation or item of treatment, whether completed at the time or not.
5. Where a patient is given more than one item of treatment at one visit a separate entry should be made for each operation or item of treatment, whether completed at the time or not.—See the entries for patient No. 2 on the specimen form. In such a case the dentist should indicate in Columns 5 and 6 the actual times when the patient "sat in" and "left the chair" but should also enter in Column 7 the actual time in minutes taken for each item of treatment.
6. In the second column of the Time Sheet under the heading "Patient" please indicate by means of the letter "p" those cases where the patient is treated as a private patient. The absence of any letter in this column will be taken to indicate that the patient is being treated as a National Health Service patient.
7. In column 4 of the Time Sheet you are requested to indicate by the letter "C" those cases where the item of treatment completes an operation for which a fee can be claimed—
e.g. In the third entry of the specimen time sheet no letter "C" appears in column 4 because in that case there were other extractions to follow. Had there been no other extractions to follow then the letter "C" would properly have been inserted. Similarly entry No. 5 is merely an early step towards the completion of a filling and should not be marked "C". (In the case of a private patient the letter "C" should be inserted if and when a "C" would have been applicable had the patient been receiving treatment under the National Health Service).

Please indicate whether:—

PRINCIPAL.....

PARTNER.....

ASSISTANT.....

Information supplied on this time sheet will be treated as strictly CONFIDENTIAL.

Please send completed sheets to the Chairman in the accompanying addressed envelope.

The sheets will be destroyed when the investigation is complete.

DENTIST'S No.....

EXECUTIVE COUNCIL

TIME SHEET

1	2	3	4	5	6	7	8	9
Date	Patients Please mark Private Patients "P"	Details of Operations carried out	Completed Treatment	Time that Patient		See Instruction 5	FOR OFFICIAL USE	
				Sat in Chair	Left Chair			
27/11/48	1	/4_ m.o. filling with L.A. amal. lined. copper cement.	C	9-0	9-42			
	2	Examination and report	C	9-46		15		
		/6_ xn. L.A. (pain)			10-15	14		
	3	F/P imps. Zelex		10-18	11-10			
	4	F/F Try in and correct bite		11-15	11-45			
	5	Cavity prep. and temp. fill 6/		11-50	12-15			
	6	4/ prep. m.o.d. inlay cavity and imps.		2-0	3-27			
	7	875/ xns. N20		3-35	3-50			
	8 P	Try in gold P/- for plate and bands		4-0	4-20			
	9 P	Casual xn. for pain	C	4-23	4-38			
	10	Sc. and polish	C	4-40	5-3			
	11 P	Casual xn. for pain	C	5-5	5-20			
	12	F/F fitted	C	5-23	5-53			
	13	Fix m.o. inlay 3/	C	5-55	6-35			
	14	Obtundent dressing 1/		6-40	6-55			
	15	Amal. fill. coronal 7/	C	7-0	7-30			

The times set out above in this specimen are not to be taken as necessarily appropriate—they have been inserted merely as illustrations.

" FARLEIGH VIEW,"
WARLINGHAM,
SURREY.

March, 1949

Dear Sir,

An inquiry is being made to ascertain the average chairside time taken to complete various types of dental treatment.

The main inquiry is directed to dentists engaged in the operation of the National Health Service but it is desired also to collect information from dentists whose practices are restricted to the treatment of private patients and I am writing to express the hope that you will co-operate by supplying a record of your own operations for the week 4th April, 1949, to 9th April, 1949, both inclusive.

I do not think I can do better than to send you copies of the letters which have been sent to National Health Service practitioners, by myself as Chairman of the Working Party and by the three dental organisations, together with the enclosures referred to therein.

What is desired is that you fill up the time sheets and make comments on exactly the same lines as the National Health Service practitioners.

I hope you will give us your valuable assistance in our efforts to establish a satisfactory factual basis so far as these time factors are concerned.

I am,

Yours faithfully,

(sgd.) WM. PENMAN.

APPENDIX II

Operation	Code
CLINICAL EXAMINATION AND REPORT:	
<i>No other treatment at time</i>	1·1
<i>Simultaneously with other treatment</i>	1·2
NORMAL SCALING AND GUM TREATMENT	2·1
FILLINGS:	
Amalgam involving one surface	3·1
Amalgam involving more than one surface	3·2
Amalgam involving <i>unspecified number of surfaces</i>	3·3
Silicates	3·4
CONSERVATION OF DECIDUOUS TEETH	4·1
ROOT TREATMENT:	
Single root, non-septic	5·1
Multi root, non-septic	5·2
Single root, septic	5·3
Multi root, septic	5·4
EXTRACTIONS— <i>with Local Anaesthetic</i> —See footnote:	
1 or 2 teeth	6·1
3, 4 or 5 teeth	6·2
6, 7 or 8 teeth	6·3
9, 10 or 11 teeth	6·4
12, 13 or 14 teeth	6·5
15, 16 or 17 teeth	6·6
18, 19 or 20 teeth	6·7
Over 20 teeth	6·8
<i>Number not specified</i>	6·9
EXTRACTIONS— <i>with General Anaesthetic</i> —See footnote:	
1 or 2 teeth	7·1
3, 4 or 5 teeth	7·2
6, 7 or 8 teeth	7·3
9, 10 or 11 teeth	7·4
12, 13 or 14 teeth	7·5
15, 16 or 17 teeth	7·6
18, 19 or 20 teeth	7·7
Over 20 teeth	7·8
<i>Number not specified</i>	7·9
DENTURES:	
<i>Full Upper</i>	8·1
<i>Full Lower</i>	8·2
Full upper and lower	8·3
<i>Partial upper</i>	8·4
<i>Partial lower</i>	8·5
<i>Partial upper and lower</i>	8·6
<i>Full upper, partial lower</i>	8·7
<i>Partial upper, full lower</i>	8·8
Lingual bar	8·9
(The Fees Regulations, 1948, classify dentures other than full upper and lower according to the number of teeth.)	
RELINING OF DENTURES	9·1
REPAIRS:	
Cracks or fractures of a denture	10·1

Operation										Code
REPAIRS— <i>contd.</i>										
Replacing or renewing of a loosened or broken tooth, or loosened band or wire on a denture <i>without impression</i>	...	...	...	...	...	...	...	...	...	10·2
Replacing or renewing of a loosened or broken tooth, or loosened band or wire on a denture <i>with impression</i>	...	...	...	...	...	...	...	...	...	10·3
Addition of teeth or bands or wires to a denture	...	...	...	...	...	...	...	...	...	10·4
Orthodontic appliances, obturators, splints, radium applicators	...	...	...	...	...	...	...	...	...	10·5
APICECTOMY	...	...	...	...	...	...	...	...	...	11·1
GINGIVECTOMY	...	...	...	...	...	...	...	...	...	12·1
PROLONGED GUM TREATMENT	...	...	...	...	...	...	...	...	...	13·1
ALVEOLECTOMY:										
Upper or lower jaw	...	...	...	...	...	...	...	...	...	14·1
Upper and lower jaw	...	...	...	...	...	...	...	...	...	14·2
RADIOLOGICAL EXAMINATIONS:										
Intra-oral films — 1 film	...	...	...	...	...	...	...	...	...	15·1
" " " — 2 films	...	...	...	...	...	...	...	...	...	15·2
" " " — 3 "	...	...	...	...	...	...	...	...	...	15·3
" " " — 4 "	...	...	...	...	...	...	...	...	...	15·4
" " " — 5 "	...	...	...	...	...	...	...	...	...	15·5
" " " — 6 "	...	...	...	...	...	...	...	...	...	15·6
" " " — 7 "	...	...	...	...	...	...	...	...	...	15·7
" " " — 8 "	...	...	...	...	...	...	...	...	...	15·8
" " " — 9 "	...	...	...	...	...	...	...	...	...	15·9
" " " — 10 "	...	...	...	...	...	...	...	...	...	15·10
" " " — 11 "	...	...	...	...	...	...	...	...	...	15·11
" " " — 12 " or more	...	...	...	...	...	...	...	...	...	15·12
" " " — <i>Unspecified number</i>	...	...	...	...	...	...	...	...	...	15·13
Extra-oral films — 1 film	...	...	...	...	...	...	...	...	...	15·14
" " " — 2 films	...	...	...	...	...	...	...	...	...	15·15
" " " — 3 "	...	...	...	...	...	...	...	...	...	15·16
" " " — 4 "	...	...	...	...	...	...	...	...	...	15·17
" " " — 5 "	...	...	...	...	...	...	...	...	...	15·18
(The Fees Regulations, 1948, are on a basis of a fee for first film and so much for each additional film.)										
OBTURATORS	...	...	...	...	...	...	...	...	...	16·1
ORTHODONTIC TREATMENT	...	...	...	...	...	...	...	...	...	17·1
SPECIAL APPLIANCES, RADIUM APPLICATORS, SPLINTS	...	...	...	...	...	...	...	...	...	18·1
REMOVAL OF CYSTS, BURIED ROOTS, IMPACTED TEETH	...	...	...	...	...	...	...	...	...	19·1
BACKING AND TAGGING—(The Fees Regulations, 1948, give three sub-divisions)	...	...	...	...	...	...	...	...	...	20·1
TREATMENT OF SENSITIVE CEMENTUM:	...	...	...	...	...	...	...	...	...	21·1
Taking of material for pathological and bacteriological examination, etc.	...	...	...	...	...	...	...	...	...	21·2
ARREST OF BLEEDING	...	...	...	...	...	...	...	...	...	22·1
DOMICILIARY VISITS	...	...	...	...	...	...	...	...	...	23·1
ANY OTHER TREATMENT NOT INCLUDED IN THIS SCALE	...	...	...	...	...	...	...	...	...	24·1
<i>Unintelligible/Indecipherable</i>	...	...	...	...	...	...	...	...	...	24·2
METAL DENTURES:										
Gold	...	...	...	...	...	...	...	...	...	25·1
White Gold	...	...	...	...	...	...	...	...	...	25·2
Stainless Steel	...	...	...	...	...	...	...	...	...	25·3
REPAIRS OF METAL DENTURES	...	...	...	...	...	...	...	...	...	26·1
GOLD FILLING	...	...	...	...	...	...	...	...	...	27·1

		Operation							Code
INLAYS:*									
Gold—involving one surface	28·1	
involving two surfaces	28·2	
involving three surfaces	28·3	
Porcelain—involving one surface	28·4	
involving two surfaces	28·5	
involving three surfaces	28·6	
Acrylic—involving one surface	28·7	
involving two surfaces	28·8	
involving three surfaces	28·9	
Unspecified material—one surface	28·10	
two surfaces	28·11	
three surfaces	28·12	
Insufficient information for classification	28·13	
CROWNING:*									
Gold—Shell Crown	29·1	
Post Crown	29·2	
Jacket Crown	29·3	
Porcelain—Shell Crown	29·4	
Post Crown	29·5	
Jacket Crown	29·6	
Acrylic—Shell Crown	29·7	
Post Crown	29·8	
Jacket Crown	29·9	
Unspecified	29·10	

*The Fees Regulations, 1948, do not distinguish between the various materials.

Footnote:

In the Fees Regulations, 1948, Part I, First Schedule, Extractions are not sub-divided into "with local anaesthetic" and "with general anaesthetic" and item No. 7 deals with the fees for administration of general anaesthetics with which subject the Working Party is not concerned.

The Working Party has divided its data into "with local anaesthetic" and "with general anaesthetic" and has allocated No. 6 to the former and No. 7 to the latter.

As a result the code numbers for the other operations remain in harmony with the numbers in Part I of the First Schedule.

For an explanation of the use of italics in Appendix II, see para. 18.

APPENDIX III

NATIONAL HEALTH SERVICE—WHOLE COUNTRY
(Sample—261 Dentists)

TABLE A

No.	Main Code Brief Description	Number of Sittings		Proportion of total sittings to com- pleted (4) ÷ (3)	Total number of minutes of chair- side time	Average time in minutes		
		Com- pleted	Total of com- pleted and in- complete			Per opera- tion (6) ÷ (3)	Per sitting (6) ÷ (4)	Corrected time per operation, see para. 31 (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	PART I							
1	Examination ...	3,357	3,592	1.07	42,838	13	12	16
2	Scaling ...	1,220	1,407	1.15	29,924	25	21	29
3	Fillings ...	5,278	6,557	1.24	145,657	28	22	32
4	Conservations— deciduous teeth	208	259	1.25	3,324	16	13	21
5	Root treatments Extractions—	34	241	7.09	4,865	143	20	170
6	Local anaes.	2,857	2,867	1.00	47,197	17	16	20
7	General anaes.	1,152	1,158	1.01	20,240	18	18	21
8	Dentures—							
	Non-metallic	1,854	7,775	4.19	120,088	65	15	81
9	Relining ...	12	42	3.50	613	51	15	64
10	Repairs ...	186	348	1.87	3,047	16	9	23
11	Apicectomy ...	2	3	1.50	104	52	35	58
12	Gingivectomy	2	15	7.50	357	178	24	207
13	Gum treatment	4	49	12.25	744	186	15	232
14	Alveolectomy	—	1	?	10	?	10	?
15	Radiographs ...	203	225	1.11	2,155	11	10	11
16	Obturators ...	—	1	?	20	?	20	?
17	Orthodontics	8	148	18.50	2,122	265	14	335
18	Special appli- ances ...	—	2	?	9	?	5	?
19	Impacted teeth, etc. ...	32	41	1.28	1,316	41	32	46
20	Backing and tag- ging ...	—	—	—	—	—	—	—
21	Sensitive cemen- tum ...	43	57	1.33	506	12	9	17
22	Haemorrhage ...	24	38	1.58	771	32	20	38
23	Domiciliary visits	18	30	1.67	1,143	64	38	64
24	Treatments not otherwise coded	602	1,566	2.60	20,723	34	13	44
	PART II							
25	Metal dentures	7	15	2.14	261	37	17	45
26	Metal dentures, repairs of ...	—	1	?	9	?	9	?
27	Gold fillings ...	—	1	?	39	?	39	?
28	Inlays ...	46	127	2.76	4,168	91	33	101
29	Crowning ...	41	94	2.29	3,046	74	32	83
	Total ...	17,190	26,660	1.55	455,296	26.5	17.1	32.3
	Average numbers (261 dentists)	66	102		1,744			
	From Table B, private patients	3	5		85			
	Total ...	69	107		1,829			

For a 5½ day week (say) 13 completed operations per day, and 19 sittings (including the completed operations) per day.

TABLE B

PRIVATE PATIENTS OF NATIONAL HEALTH SERVICE DENTISTS—WHOLE COUNTRY
(Sample—261 Dentists)

Main Code		Number of Sittings		Proportion of total sittings to completed (4) ÷ (3)	Total number of minutes of chair- side time	Average time in minutes		
No.	Brief Description	Completed	Total of completed and in- complete			Per operation (6) ÷ (3)	Per sitting (6) ÷ (4)	Corrected time per operation, see para. 31 (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	PART I							
1	Examination ...	69	87	1·26	1,114	16	13	20
2	Scaling ...	37	48	1·30	1,124	30	23	35
3	Fillings ...	110	153	1·39	3,729	34	24	39
4	Conservations— deciduous teeth	10	12	1·20	234	23	19	28
5	Root treatments	2	23	11·50	492	246	21	289
	Extractions—							
6	Local anaes....	254	255	1·00	4,184	16	16	20
7	General anaes.	82	82	1·00	1,224	15	15	19
8	Dentures—							
	Non-metallic	69	247	3·58	3,891	56	16	70
9	Relining ...	4	6	1·50	58	14	10	20
10	Repairs ...	34	65	1·91	612	18	9	25
11	Apicectomy ...	1	1	1·00	45	45	45	49
12	Gingivectomy ...	—	—	—	—	—	—	—
13	Gum treatment	—	2	?	55	?	28	?
14	Alveolectomy ...	—	—	—	—	—	—	—
15	Radiographs ...	26	29	1·12	364	14	13	14
16	Obturators ...	—	—	—	—	—	—	—
17	Orthodontics ...	5	43	8·60	591	118	14	150
18	Special appli- ances	—	—	—	—	—	—	—
19	Impacted teeth, etc. ...	2	4	2·00	133	67	33	74
20	Backing and tagging	—	—	—	—	—	—	—
21	Sensitive cementum	1	3	3·00	35	35	12	46
22	Haemorrhage ...	1	1	1·00	9	9	9	13
23	Domiciliary visits	1	2	2·00	89	89	45	89
24	Treatment not otherwise coded	56	123	2·20	1,903	34	15	42
	PART II							
25	Metal dentures	6	12	2·00	182	30	15	38
26	Metal dentures, repairs of ...	—	—	—	—	—	—	—
27	Gold fillings ...	—	—	—	—	—	—	—
28	Inlays ...	14	32	2·29	1,054	75	33	84
29	Crowning ...	7	37	5·29	979	140	26	160
	Total ...	791	1,267	1·60	22,101	27·9	17·4	33·9
	Average number (261 dentists)	3	5		85			

PRIVATE DENTISTS (NOT IN NATIONAL HEALTH SERVICE)
(Sample—16 dentists)

TABLE C

Main Code		Number of Sittings		Proportion of total sittings to completed (4) ÷ (3)	Total number of minutes of chair- side time	Average time in minutes		
No.	Brief Description	Completed	Total of completed and in- complete			Per operation (6) ÷ (3)	Per sitting (6) ÷ (4)	Corrected time per operation, see para. 31 (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
PART I								
1	Examination ...	182	210	1.15	1,961	11	9	Not ascertained
2	Scaling ...	105	121	1.15	2,591	25	21	
3	Fillings ...	390	479	1.23	9,880	25	21	
4	Conservations— deciduous teeth	16	21	1.31	339	21	16	
5	Root treatments	9	26	2.89	647	72	25	
6	Extractions— Local anaes. ...	50	65	1.30	1,189	24	18	
7	General anaes.	45	58	1.29	916	20	16	
8	Dentures— Non-metallic	58	234	4.03	3,719	64	16	
9	Relining ...	—	2	?	27	?	14	
10	Repairs ...	14	27	1.93	229	16	8	
11	Apicectomy ...	1	1	1.00	61	61	61	
12	Gingivectomy ...	1	7	7.00	160	160	23	
13	Gum treatment	2	8	4.00	137	68	17	
14	Alveolectomy	—	—	—	—	—	—	
15	Radiographs ...	63	68	1.08	669	11	10	
16	Obturator ...	—	—	—	—	—	—	
17	Orthodontics ...	9	113	12.56	1,730	192	15	
18	Special appli- ances	—	2	?	45	?	23	
19	Impacted teeth, etc. ...	4	7	1.75	262	65	37	
20	Backing and tagging	—	—	—	—	—	—	
21	Sensitive cementum	7	10	1.43	88	13	9	
22	Haemorrhage ...	—	—	—	—	—	—	
23	Domiciliary visits	2	5	2.50	235	117	47	
24	Treatments not otherwise coded	34	150	4.41	1,911	56	13	
PART II								
25	Metal dentures	5	18	3.60	378	76	21	
26	Metal dentures, repairs of ...	1	2	2.00	10	10	5	
27	Gold fillings ...	—	—	—	—	—	—	
28	Inlays ...	21	48	2.29	1,444	69	30	
29	Crowning ...	6	10	1.67	398	66	40	
	Total ...	1,025	1,692	1.65	29,026	28.3	17.2	
	Average numbers (16 dentists) ...	64	106		1,814			

TABLE D

NATIONAL HEALTH SERVICE—ENGLAND
(Sample—215 Dentists)

Main Code		Number of Sittings		Proportion of total sittings to com- pleted (4)÷(3)	Total number of minutes of chair- side time	Average time in minutes		
No.	Brief Description	Com- pleted	Total of com- pleted and in- complete			Per opera- tion (6)÷(3)	Per sitting (6)÷(4)	Corrected time per operation, see para. 31 (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
PART I								
1	Examination ...	2,752	2,957	1.07	35,814	13	12	16
2	Scaling ...	1,009	1,170	1.16	24,565	24	21	29
3	Fillings ...	4,393	5,442	1.24	119,081	27	22	32
4	Conservations— deciduous							
	teeth	189	231	1.22	3,000	16	13	20
5	Root treatments	25	156	6.24	3,076	123	20	146
	Extractions—							
6	Local anaes....	2,219	2,229	1.00	36,376	16	16	20
7	General anaes.	944	949	1.01	16,791	18	18	22
8	Dentures—							
	Non-metallic	1,503	6,236	4.15	96,888	64	16	80
9	Relining ...	12	31	2.58	465	39	15	48
10	Repairs ...	152	290	1.91	2,544	17	9	24
11	Apicectomy ...	2	3	1.50	104	52	35	58
12	Gingivectomy...	2	13	6.50	339	169	26	194
13	Gum treatment	2	32	16.00	450	225	14	285
14	Alveolectomy ...	—	1	?	10	?	10	?
15	Radiographs ...	165	184	1.12	1,779	11	10	11
16	Obturator ...	—	—	—	—	—	—	—
17	Orthodontics ...	8	123	15.38	1,770	221	14	279
18	Special							
	appliances	—	2	?	9	?	5	?
19	Impacted teeth, etc. ...	24	31	1.29	963	40	31	45
20	Backing and tagging	—	—	—	—	—	—	—
21	Sensitive cemen- tum ...	35	44	1.26	393	11	9	16
22	Haemorrhage ...	19	32	1.68	653	34	20	41
23	Domiciliary visits	17	25	1.47	998	59	40	59
24	Treatments not otherwise coded	507	1,327	2.62	17,144	34	13	44
PART II								
25	Metal dentures	6	13	2.17	246	41	19	49
26	Metal dentures, repairs of ...	—	1	?	9	?	9	?
27	Gold fillings ...	—	1	?	39	?	39	?
28	Inlays ...	35	83	2.37	2,601	74	31	83
29	Crowning ...	25	60	2.40	1,848	74	31	83
	Total ...	14,045	21,666	1.54	367,955	26.2	17.0	32.0
	Average numbers (215 dentists)	65	101		1,711			

TABLE E

NATIONAL HEALTH SERVICE—SCOTLAND
(Sample—35 Dentists)

Main Code		Number of Sittings		Proportion of total sittings to com- pleted (4) ÷ (3)	Total number of minutes of chair- side time	Average time in minutes		
No.	Brief Description	Com- pleted	Total of com- pleted and in- complete (4)			Per opera- tion (6) ÷ (3)	Per sitting (6) ÷ (4)	Corrected time per operation, see para. 31 (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
PART I								
1	Examination ...	405	429	1.06	4,660	12	11	14
2	Scaling ...	165	187	1.13	4,086	25	22	29
3	Fillings ...	738	936	1.27	22,158	30	24	35
4	Conservations— deciduous teeth	14	20	1.43	234	17	12	22
5	Root treatments Extractions—	7	74	10.57	1,507	215	20	255
6	Local anaes....	409	409	1.00	6,885	17	17	21
7	General anaes.	164	165	1.01	2,609	16	16	20
8	Dentures— Non-metallic	267	1,140	4.27	17,003	64	15	80
9	Relining ...	—	10	?	103	?	10	?
10	Repairs ...	24	41	1.71	366	15	9	22
11	Apicectomy ...	—	—	—	—	—	—	—
12	Gingivectomy ...	—	2	?	18	?	9	?
13	Gum treatment	2	8	4.00	108	54	13	69
14	Alveolectomy ...	—	—	—	—	—	—	—
15	Radiographs ...	33	36	1.09	318	10	9	10
16	Obturator ...	—	1	?	20	?	20	?
17	Orthodontics ...	—	18	?	233	?	13	?
18	Special appliances	—	—	—	—	—	—	—
19	Impacted teeth, etc. ...	4	6	1.50	203	51	34	56
20	Backing and tagging	—	—	—	—	—	—	—
21	Sensitive cemen- tum ...	7	10	1.43	82	12	8	17
22	Haemorrhage ...	5	6	1.20	118	24	20	28
23	Domiciliary visits	1	3	3.00	80	80	27	80
24	Treatment not otherwise coded	67	178	2.66	2,599	39	15	49
PART II								
25	Metal dentures	1	2	2.00	15	15	8	23
26	Metal dentures, repairs of ...	—	—	—	—	—	—	—
27	Gold fillings ...	—	—	—	—	—	—	—
28	Inlays ...	9	41	4.56	1,430	159	35	176
29	Crowning ...	16	32	2.00	1,123	70	35	78
Total ...		2,338	3,754	1.61	65,958	28.2	17.6	34.2
Average numbers (35 dentists) ...		67	107		1,885			

TABLE F

NATIONAL HEALTH SERVICE—WALES
(Sample—11 Dentists)

No.	Main Code Brief Description	Number of Sittings		Proportion of total sittings to completed (4) ÷ (3)	Total number of minutes of chair- side time	Average time in minutes		
		Completed (3)	Total of completed and in- complete (4)			Per operation (6) ÷ (3)	Per sitting (6) ÷ (4)	Corrected time per operation, see para. 31 (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	PART I							
1	Examination ...	200	206	1.03	2,364	12	11	15
2	Scaling ...	46	50	1.09	1,273	28	25	32
3	Fillings ...	147	179	1.22	4,418	30	25	35
4	Conservations— deciduous teeth	5	8	1.60	90	18	11	24
5	Root treatments	2	11	5.50	282	141	26	162
	Extractions—							
6	Local anaes.	229	229	1.00	3,936	17	17	21
7	General anaes.	44	44	1.00	840	19	19	23
8	Dentures—							
	Non-metallic	84	399	4.75	6,197	74	16	92
9	Relining ...	—	1	?	45	?	45	?
10	Repairs ...	10	17	1.70	137	14	8	20
11	Apicectomy ...	—	—	—	—	—	—	—
12	Gingivectomy	—	—	—	—	—	—	—
13	Gum treatment	—	9	?	186	?	21	?
14	Alveolectomy ...	—	—	—	—	—	—	—
15	Radiographs ...	5	5	1.00	58	12	12	12
16	Obturator ...	—	—	—	—	—	—	—
17	Orthodontics	—	7	?	119	?	17	?
18	Special appli- ances ...	—	—	—	—	—	—	—
19	Impacted teeth, etc. ...	4	4	1.00	150	38	38	41
20	Backing and tag- ging ...	—	—	—	—	—	—	—
21	Sensitive cemen- tum ...	1	3	3.00	31	31	10	42
22	Haemorrhage ...	—	—	—	—	—	—	—
23	Domiciliary visits	—	2	?	65	?	33	?
24	Treatment not otherwise coded	28	61	2.18	980	35	16	43
	PART II							
25	Metal dentures	—	—	—	—	—	—	—
26	Metal dentures, repairs of ...	—	—	—	—	—	—	—
27	Gold fillings	—	—	—	—	—	—	—
28	Inlays ...	2	3	1.50	137	69	46	74
29	Crowning ...	—	2	?	75	?	38	?
	Total ...	807	1,240	1.54	21,383	26.5	17.2	32.3
	Average numbers (11 dentists) ...	73	113		1,944			

TABLE G

NATIONAL HEALTH SERVICE—PRINCIPALS
(195 Dentists)
National Health Service Patients only

Main Code		Number of Sittings		Proportion of total sittings to com- pleted (4) ÷ (3)	Total number of minutes of chair- side time	Average time in minutes		
No.	Brief Description	Com- pleted	Total of com- pleted and in- complete			Per opera- tion (6) ÷ (3)	Per sitting (6) ÷ (4)	Corrected time per operation, see para. 31 (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
PART I								
1	Examination ...	2,570	2,741	1.07	33,142	13	12	16
2	Scaling ...	823	959	1.17	20,856	25	22	30
3	Fillings ...	3,710	4,658	1.26	104,615	28	22	33
4	Conservations— deciduous teeth	160	196	1.23	2,544	16	13	21
5	Root treatments Extractions—	27	189	7.00	3,954	146	21	173
6	Local anaes....	2,157	2,165	1.00	36,458	17	17	21
7	General anaes.	766	771	1.01	14,180	19	18	22
8	Dentures— Non-metallic	1,328	5,621	4.24	88,031	66	16	82
9	Relining ...	9	27	3.00	373	41	14	53
10	Repairs ...	126	250	1.99	2,254	18	9	25
11	Apicectomy ...	1	2	2.00	71	71	36	79
12	Gingivectomy...	2	11	5.50	260	130	24	151
13	Gum treatment	2	23	11.50	443	221	19	265
14	Alveolectomy ...	—	1	?	10	?	10	?
15	Radiographs ...	122	140	1.15	1,330	11	10	11
16	Obturator ...	—	1	?	20	?	20	?
17	Orthodontics ...	5	93	18.60	1,336	267	14	337
18	Special appli- ances	—	1	?	3	?	3	?
19	Impacted teeth, etc. ...	25	31	1.24	974	39	31	44
20	Backing and tagging	—	—	—	—	—	—	—
21	Sensitive cemen- tum ...	26	37	1.42	380	15	10	20
22	Haemorrhage	19	31	1.63	691	36	22	43
23	Domiciliary visits	16	27	1.69	1,063	66	39	73
24	Treatment not otherwise coded	423	1,142	2.70	15,673	37	14	47
PART II								
25	Metal dentures	5	11	2.20	178	36	16	44
26	Metal dentures, repairs of ...	—	—	—	—	—	—	—
27	Gold fillings ...	—	—	—	—	—	—	—
28	Inlays ...	33	87	2.64	2,981	90	34	100
29	Crowning ...	28	69	2.47	2,127	76	31	85
Total ...		12,383	19,284	1.56	333,947	27.0	17.3	32.8
Average numbers (195 dentists)		64	99		1,713			

TABLE H

NATIONAL HEALTH SERVICE—PARTNERS
(50 Dentists)
National Health Service Patients only

Main Code		Number of Sittings		Proportion of total sittings to completed (4) ÷ (3)	Total number of minutes of chair- side time	Average time in minutes		
No.	Brief Description	Completed	Total of completed and in- complete			Per operation (6) ÷ (3)	Per sitting (6) ÷ (4)	Corrected time per operation, see para. 31 (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	PART I							
1	Examination ...	624	666	1.07	7,686	12	12	15
2	Scaling ...	321	364	1.13	7,370	23	20	27
3	Fillings ...	1,290	1,543	1.20	33,609	26	22	31
4	Conservations— deciduous teeth	42	56	1.33	662	16	12	21
5	Root treatments	6	43	7.17	739	123	17	150
	Extractions—							
6	Local anaes.	517	518	1.00	8,059	16	16	19
7	General anaes.	312	313	1.00	4,972	16	16	20
8	Dentures—							
	Non-metallic	380	1,566	4.12	23,023	61	15	76
9	Relining ...	—	2	?	33	?	17	?
10	Repairs ...	58	89	1.53	749	13	8	19
11	Apicectomy ...	1	1	1.00	33	33	33	37
12	Gingivectomy	—	1	?	8	?	8	?
13	Gum treatment	2	25	12.50	296	148	12	195
14	Alveolectomy ...	—	—	—	—	—	—	—
15	Radiographs ...	75	78	1.04	770	10	10	10
16	Obturator ...	—	—	—	—	—	—	—
17	Orthodontics	2	46	23.00	646	323	14	409
18	Special appli- ances ...	—	1	?	6	?	6	?
19	Impacted teeth, etc. ...	4	7	1.75	211	53	30	59
20	Backing and tag- ging ...	—	—	—	—	—	—	—
21	Sensitive cemen- tum ...	15	17	1.13	104	7	6	11
22	Haemorrhage ...	2	4	2.00	44	22	11	30
23	Domiciliary visits	2	3	1.50	80	40	27	46
24	Treatment not otherwise coded	119	320	2.69	3,825	32	12	42
	PART II							
25	Metal dentures	2	4	2.00	83	41	21	49
26	Metal dentures, repairs of ...	—	—	—	—	—	—	—
27	Gold fillings ...	—	1	?	39	?	39	?
28	Inlays ...	12	35	2.92	1,045	87	30	98
29	Crowning ...	11	21	1.91	774	70	37	78
	Total ...	3,797	5,724	1.51	94,866	25.0	16.6	30.6
	Average numbers (50 dentists) ...	76	114		1,897			

TABLE I

NATIONAL HEALTH SERVICE—ASSISTANTS
(16 Dentists)
National Health Service Patients only

Main Code		Number of Sittings		Proportion of total sittings to completed (4) ÷ (3)	Total number of minutes of chair- side time	Average time in minutes		
No.	Brief Description	Completed	Total of completed and in- complete (4)			Per operation (6) ÷ (3)	Per sitting (6) ÷ (4)	Corrected time per operation, see para. 31 (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
PART I								
1	Examination ...	163	185	1.14	2,010	12	11	15
2	Scaling ...	76	84	1.11	1,698	22	20	27
3	Fillings ...	278	356	1.28	7,433	27	21	32
4	Conservations— deciduous teeth	6	7	1.17	118	20	17	24
5	Root treatments Extractions—	1	9	9.00	172	172	19	206
6	Local anaes....	183	184	1.01	2,680	15	15	18
7	General anaes.	74	74	1.00	1,088	15	15	18
8	Dentures— Non-metallic	146	588	4.03	9,034	62	15	77
9	Relining ...	3	13	4.33	207	69	16	85
10	Repairs ...	2	9	4.50	44	22	5	39
11	Apicectomy ...	—	—	—	—	—	—	—
12	Gingivectomy...	—	3	?	89	?	30	?
13	Gum treatment	—	1	?	5	?	5	?
14	Alveolectomy ...	—	—	—	—	—	—	—
15	Radiographs ...	6	7	1.17	55	9	8	9
16	Obturators ...	—	—	—	—	—	—	—
17	Orthodontics ...	1	9	9.00	140	140	16	174
18	Special appliances	—	—	—	—	—	—	—
19	Impacted teeth, etc. ...	3	3	1.00	131	44	44	47
20	Backing and tagging	—	—	—	—	—	—	—
21	Sensitive cemen- tum ...	2	3	1.50	22	11	7	17
22	Haemorrhage ...	3	3	1.00	36	12	12	16
23	Domiciliary visits	—	—	—	—	—	—	—
24	Treatment not otherwise coded	60	104	1.73	1,225	20	12	27
PART II								
25	Metal dentures	—	—	—	—	—	—	—
26	Metal dentures, repairs of ...	—	1	?	9	?	9	?
27	Gold fillings ...	—	—	—	—	—	—	—
28	Inlays ...	1	5	5.00	142	142	28	161
29	Crowning ...	2	4	2.00	145	72	36	80
Total ...		1,010	1,652	1.64	26,483	26.2	16.0	32.4
Average numbers (16 dentists) ...		63	103		1,655			

TABLE J

PERCENTAGE DISTRIBUTION OF DATA

Main Code		Completed Operations			Number of Sitzings		
No.	Brief Description	N.H.S. only	N.H.S. (Private)	Private	N.H.S. only	N.H.S. (Private)	Private
		Whole Country	Whole Country	Whole Country	Whole Country	Whole Country	Whole Country
		17,190 (3)	791 (4)	1,025 (5)	26,660 (6)	1,267 (7)	1,692 (8)
(1)	(2)						
1	Examination...	19.5	8.7	17.8	13.5	6.9	12.4
2	Scaling ...	7.1	4.7	10.2	5.3	3.8	7.2
3	Fillings ...	30.7	13.9	38.1	24.6	12.1	28.3
4	Conservations— deciduous teeth ...	1.2	1.3	1.6	1.0	.9	1.3
5	Root treatment Extractions—	.2	.3	.9	.9	1.8	1.5
6	Local anaes.	16.6	32.0	4.9	10.8	20.1	3.8
7	General anaes.	6.7	10.3	4.4	4.3	6.5	3.4
8	Dentures— Non-metallic	10.8	8.7	5.7	29.2	19.5	13.8
9	Relining ...	.1	.5	—	.2	.5	.1
10	Repairs ...	1.1	4.3	1.3	1.3	5.1	1.6
15	Radiographs...	1.2	3.3	6.1	.8	2.3	4.0
20	Backing and tagging ...	—	—	—	—	—	—
21	Sensitive cementum	.3	.1	.7	.2	.2	.6
22	Haemorrhage	.1	.2	—	.1	.1	—
23	Domiciliary visits ...	.1	.1	.2	.1	.2	.3
24	Treatment not otherwise coded ...	3.5	7.1	3.3	5.9	9.7	8.9
	Total ...	99.2	95.5	95.2	98.2	89.7	87.2
	Other Codes...	.8	4.5	4.8	1.8	10.3	12.8
		100.0	100.0	100.0	100.0	100.0	100.0

TABLE K

PERCENTAGE DISTRIBUTION OF DATA
(National Health Service Only)

Main Code		Number of Operations				Number of Sitzings			
No.	Brief Description	England	Scotland	Wales	Whole Country	England	Scotland	Wales	Whole Country
		14,045	2,338	807	17,190	21,666	3,754	1,240	26,660
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Examination ...	19.6	17.3	24.8	19.5	13.6	11.4	16.6	13.5
2	Scaling ...	7.2	7.1	5.7	7.1	5.4	5.0	4.0	5.3
3	Fillings ...	31.3	31.5	18.2	30.7	25.1	24.9	14.4	24.6
4	Conservations— deciduous teeth ...	1.3	.6	.6	1.2	1.1	.5	.6	1.0
5	Root treatments ...	.2	.3	.2	.2	.7	2.0	.9	.9
	Extractions—								
6	Local anaes. ...	15.8	17.5	28.4	16.6	10.3	10.9	18.5	10.8
7	Extractions— General anaes. ...	6.7	7.0	5.5	6.7	4.4	4.4	3.5	4.3
8	Dentures— non-metallic ...	10.7	11.4	10.4	10.8	28.8	30.3	32.2	29.2
9	Dentures— relining ...	.1	—	—	.1	.2	.3	.1	.2
10	Dentures—repairs ...	1.1	1.0	1.2	1.1	1.3	1.1	1.4	1.3
15	Radiographs ...	1.2	1.4	.6	1.2	.8	1.0	.4	.8
20	Backing & tagging	—	—	—	—	—	—	—	—
21	Sensitive cementum	.3	.3	.1	.3	.2	.3	.3	.2
22	Haemorrhage ...	.1	.2	—	.1	.2	.2	—	.1
23	Domiciliary visits	.1	.0	—	.1	.1	.1	.2	.1
24	Treatments not otherwise coded...	3.6	2.9	3.5	3.5	6.1	4.7	4.9	5.9
	Total ...	99.3	98.5	99.2	99.2	98.3	97.1	98.0	98.2
	Other Codes ...	.7	1.5	.8	.8	1.7	2.9	2.0	1.8
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE L

PERCENTAGE DISTRIBUTION OF DATA
National Health Service Patients Only

Main Code Number		Completed Operations				Sittings			
No.	Brief Description	Principal	Partner	Assistant	Total	Principal	Partner	Assistant	Total
(1)	(2)	12,383 (3)	3,797 (4)	1,010 (5)	17,190 (6)	19,284 (7)	5,724 (8)	1,652 (9)	26,660 (10)
1	Examination ...	20.8	16.4	16.1	19.5	14.2	11.7	11.2	13.5
2	Scaling ...	6.6	8.5	7.5	7.1	5.0	6.4	5.1	5.3
3	Fillings ...	30.0	34.0	27.5	30.7	24.1	27.0	21.5	24.6
4	Conservations— deciduous teeth	1.3	1.1	.6	1.2	1.0	1.0	.4	1.0
5	Root treatment ...	.2	.2	.1	.2	1.0	.7	.6	.9
6	Extractions— Local anaes. ...	17.4	13.6	18.1	16.6	11.2	9.1	11.1	10.8
7	Extractions— General anaes. ...	6.2	8.2	7.3	6.7	4.0	5.5	4.5	4.3
8	Dentures— non-metallic ...	10.7	10.0	14.5	10.8	29.1	27.4	35.6	29.2
9	Dentures— relining ...	.1	—	.3	.1	.1	.0	.8	.2
10	Dentures—repairs	1.0	1.5	.2	1.1	1.3	1.5	.6	1.3
15	Radiographs ...	1.0	2.0	.6	1.2	.7	1.3	.4	.8
20	Backing & tagging	—	—	—	—	—	—	—	—
21	Sensitive cementum	.2	.4	.2	.3	.2	.3	.2	.2
22	Haemorrhage ...	.2	.1	.3	.1	.2	.1	.2	.1
23	Domiciliary visits	.1	.0	.0	.1	.1	.0	.0	.1
24	Treatment not otherwise coded...	3.4	3.1	6.0	3.5	5.9	5.6	6.3	5.9
	Total ...	99.2	99.1	99.3	99.2	98.1	97.6	98.5	98.2
	Other Codes ...	.8	.9	.7	.8	1.9	2.4	1.5	1.8
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

APPENDIX IV

GROUP I

("Clinic X" and Marks and Spencer, Limited)

(39 Dentists)

Main Code		Number of Sittings		Proportion of total sittings to com- pleted (4) ÷ (3)	Total number of minutes of chair- side time	Average time in minutes		
No.	Brief Description	Com- pleted	Total of com- pleted and in- complete			Per opera- tion (6) ÷ (3)	Per sitting (6) ÷ (4)	Corrected time per operation, see para. 31 (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
PART I								
1	Examination ...	492	504	1.02	5,557	11	11	14
2	Scaling ...	237	274	1.16	5,634	24	21	28
3	Fillings ...	1,035	1,279	1.24	25,460	25	20	29
4	Conservations— deciduous teeth	48	53	1.10	701	15	13	19
5	Root treatments Extractions—	6	25	4.17	478	80	19	95
6	Local anaes....	370	381	1.03	6,146	17	16	20
7	General anaes.	187	190	1.02	3,567	19	19	23
8	Dentures— Non-metallic	324	1,412	4.36	21,078	65	15	81
9	Relining ...	2	9	4.50	122	61	14	78
10	Repairs ...	40	63	1.57	521	13	8	19
11	Apicectomy ...	—	—	—	—	—	—	—
12	Gingivectomy	1	2	2.00	80	80	40	87
13	Gum treatment	2	12	6.00	144	72	12	94
14	Alveolectomy ...	—	—	—	—	—	—	—
15	Radiographs ...	54	58	1.07	604	11	10	11
16	Obturator ...	—	—	—	—	—	—	—
17	Orthodontics ...	7	28	4.00	491	70	17	85
18	Special appli- ances	—	—	—	—	—	—	—
19	Impacted teeth, etc. ...	6	11	1.83	283	47	26	54
20	Backing and tagging	—	—	—	—	—	—	—
21	Sensitive cementum	18	22	1.22	206	11	9	16
22	Haemorrhage ...	5	8	1.60	121	24	15	30
23	Domiciliary visits	2	2	1.00	50	25	25	25
24	Treatments not otherwise coded	217	262	1.21	2,902	13	11	18
PART II								
25	Metal dentures	1	4	4.00	58	58	15	73
26	Metal dentures, repairs of ...	—	—	—	—	—	—	—
27	Gold fillings ...	—	—	—	—	—	—	—
28	Inlays ...	12	27	2.25	730	61	27	69
29	Crowning ...	15	33	2.20	952	64	29	72
Total ...		3,081	4,659	1.51	75,885	24.6	16.3	30.3
Average number (39 dentists) ...		79	119		1,946			

TABLE N ("CLINICS")

GROUP 2

(Metropolitan Police, Imperial Chemical Industries Limited, London Transport (Central Road Services) Employees' Friendly Society)

(13 Dentists)

Main Code		Number of Sittings		Proportion of total sittings to completed (4) ÷ (3)	Total number of minutes of chair- side time	Average time in minutes		
No.	Brief Description	Completed	Total of completed and in- complete (4)			Per operation (6) ÷ (3)	Per sitting (6) ÷ (4)	Corrected time per operation, see para. 31 (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	PART I							
1	Examination ...	139	141	1.02	1,658	12	12	15
2	Scaling ...	90	113	1.26	2,933	33	26	37
3	Fillings ...	303	386	1.28	9,341	31	24	36
4	Conservations— deciduous teeth	—	—	—	—	—	—	—
5	Root treatments Extractions—	2	6	3.00	138	69	23	80
6	Local anaes....	104	112	1.08	1,975	19	18	23
7	General anaes.	26	26	1.00	260	10	10	14
8	Dentures— Non-metallic	64	350	5.47	5,847	91	17	112
9	Relining ...	—	1	?	14	?	14	?
10	Repairs ...	19	31	1.63	299	16	10	22
11	Apicectomy ...	—	—	—	—	—	—	—
12	Gingivectomy...	—	—	—	—	—	—	—
13	Gum treatment	1	11	11.00	135	135	12	176
14	Alveolectomy ...	—	—	—	—	—	—	—
15	Radiographs ...	13	13	1.00	96	7	7	7
16	Obturator ...	—	—	—	—	—	—	—
17	Orthodontics ...	—	—	—	—	—	—	—
18	Special appliances	—	—	—	—	—	—	—
19	Impacted teeth, etc. ...	1	1	1.00	30	30	30	34
20	Backing and tagging	—	—	—	—	—	—	—
21	Sensitive cemen- tum ...	1	4	4.00	26	26	7	41
22	Haemorrhage ...	3	5	1.67	87	29	17	35
23	Domiciliary visits	—	—	—	—	—	—	—
24	Treatments not otherwise coded	40	86	2.15	897	22	10	30
	PART II							
25	Metal dentures	—	—	—	—	—	—	—
26	Metal dentures, repairs of ...	—	—	—	—	—	—	—
27	Gold fillings ...	—	—	—	—	—	—	—
28	Inlays ...	2	7	3.50	362	181	52	194
29	Crowning ...	1	3	3.00	108	108	36	119
	Totals ...	809	1,296	1.60	24,206	29.9	18.7	35.9
	Average numbers (13 dentists) ...	62	100		1,862			

TABLE O ("CLINICS")

PERCENTAGE DISTRIBUTION OF DATA

* Group 1 compared with National Health Service (Table J)

* Group 2 compared with Private Dentists (not in National Health Service) (Table J)

Group 1

Group 2

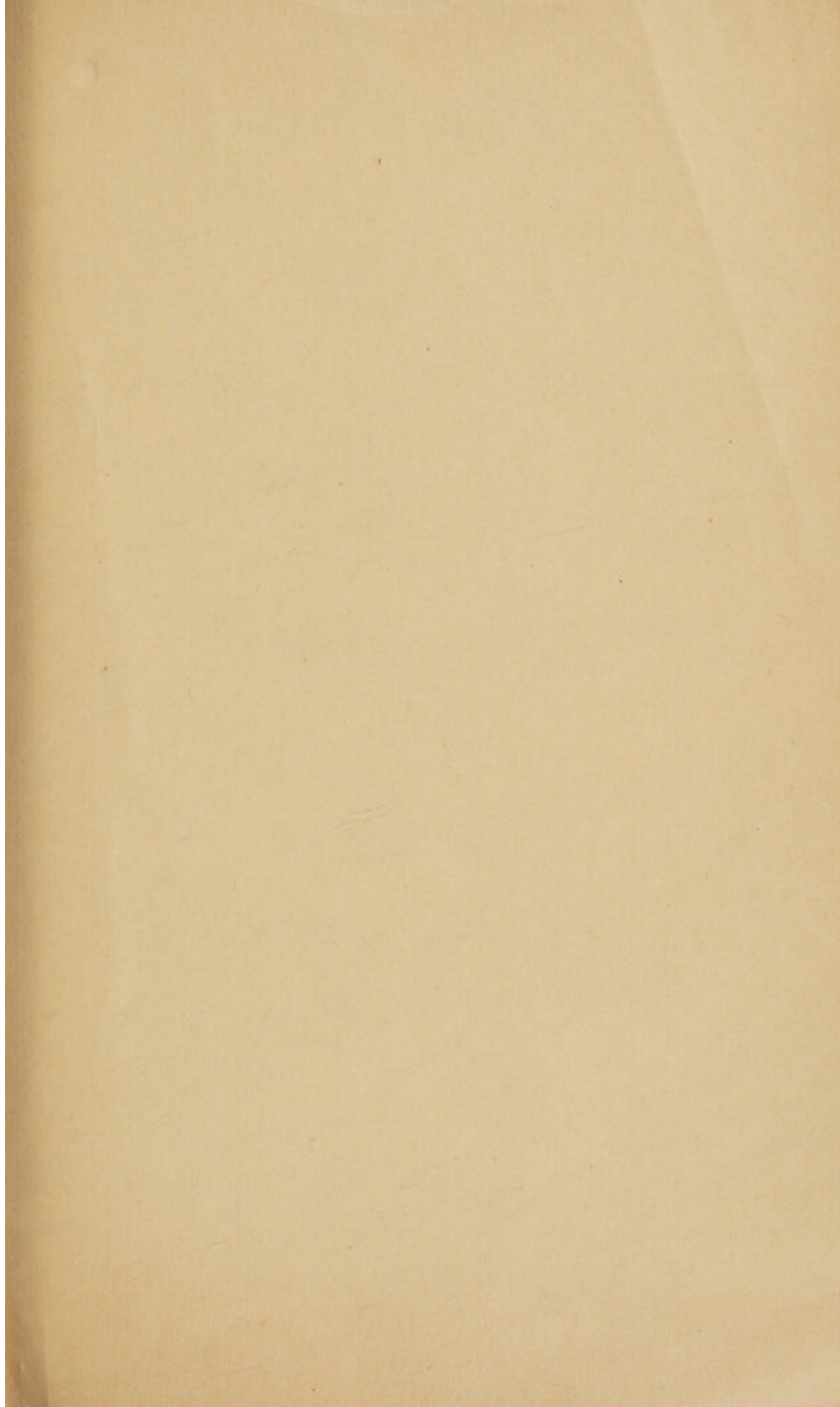
Main Code		Completed operations		Number of sittings		Completed operations		Number of sittings	
No.	Brief Description	Group 1	N.H.S.	Group 1	N.H.S.	Group 2	Private	Group 2	Private
(1)	(2)	(3,081)	(17,190)	(4,659)	(26,660)	(809)	(1,025)	(1,296)	(1,692)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Examination ...	16.0	19.5	10.8	13.5	17.4	17.8	10.8	12.4
2	Scaling ...	7.7	7.1	5.9	5.3	11.1	10.2	8.7	7.2
3	Fillings ...	33.6	30.7	27.4	24.6	37.5	38.1	29.8	28.3
4	Conservations— deciduous teeth ...	1.6	1.2	1.1	1.0	—	1.6	—	1.3
5	Root treatments ...	.2	.2	.5	.9	.3	.9	.5	1.5
6	Extractions— local anaes. ...	12.0	16.6	8.2	10.8	12.8	4.9	8.6	3.8
7	Extractions— general anaes. ...	6.0	6.7	4.1	4.3	3.2	4.4	2.0	3.4
8	Dentures— non-metallic ...	10.5	10.8	30.3	29.2	7.9	5.7	27.0	13.8
9	Dentures— relining ...	.0	.1	.2	.2	—	—	.1	.1
10	Dentures—repairs ...	1.3	1.1	1.4	1.3	2.3	1.3	2.5	1.6
15	Radiographs ...	1.8	1.2	1.3	.8	1.6	6.1	1.0	4.0
20	Backing & tagging	—	—	—	—	—	—	—	—
21	Sensitive cementum	.6	.3	.5	.2	.1	.7	.3	.6
22	Haemorrhage ...	.2	.1	.2	.1	.4	—	.4	—
23	Domiciliary visits	... .1	.1	.0	.1	—	.2	—	.3
24	Treatment not otherwise coded...	7.0	3.5	5.6	5.9	4.9	3.3	6.6	8.9
	Total ...	98.6	99.2	97.5	98.2	99.5	95.2	98.3	87.2
	Others ...	1.4	.8	2.5	1.8	.5	4.8	1.7	12.8
	TOTAL ...	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* Group 1—"Clinic X" and Marks and Spencer Limited.

* Group 2—Metropolitan Police.

Imperial Chemical Industries Limited.

London Transport (Central Road Services) Employees' Friendly Society.



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