Interim report of the Inter-Departmental Committee on Dentistry.

MINISTRY OF HEALTH
&
DEPARTMENT OF HEALTH FOR SCOTLAND

INTERIM REPORT OF THE INTER-DEPARTMENTAL COMMITTEE ON DENTISTRY

Presented by the Minister of Health and the Secretary of State for Scotland to Parliament by Command of His Majesty
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INTER-DEPARTMENTAL COMMITTEE ON DENTISTRY

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The estimated cost of the preparation of this report (including the expenses of the Committee) is £1,400 4s. 10d., of which £61 10s. 9d. represents the estimated cost of the printing and publishing of this report.

A list of the bodies and persons presenting evidence to the Committee will be included in the final report.

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INTERIM REPORT OF THE INTER-DEPARTMENTAL COMMITTEE ON DENTISTRY

To the Rt. Hon. HENRY WILLINK, M.C., K.C., M.P., Minister of Health and the Rt. Hon. THOMAS JOHNSTON, M.P., Secretary of State for Scotland.

SIRS,

I.—INTRODUCTION

1. We were appointed on 8th April, 1943, with the following terms of reference:—

" To consider and report upon:—

(*a*) the progressive stages by which, having regard to the number of practising dentists, provision for an adequate and satisfactory dental service should be made available for the population:

(*b*) the measures to be taken to secure an adequate number of entrants to the dental profession:

(*c*) existing legislation dealing with the practice of dentistry and the government of the dental profession:

(*d*) measures for the encouragement and co-ordination of research into the causation, prevention and treatment of dental disease ".

2. We have already made a fairly wide survey of our field of investigation. We have held fourteen two-day meetings of the committee, besides sub-committee meetings, and we have received oral evidence from thirty-four bodies or persons—seven of them on two occasions. We have also examined the written evidence of these and many other bodies, given either as a result of specific invitation or in response to a more general invitation which we issued through the Press.

3. We are still engaged in our enquiry, and we are not yet ready to submit our full report upon the wide field of investigation which we have undertaken. We must therefore explain why we are submitting this interim report now, and what is its nature and purpose.

4. During our enquiry so far, we have taken note of the publication of any Government proposals and the reports of any other committees which are relevant to our own subject. In particular, we have studied the proposals in the Government's White Paper on a National Health Service, and subsequent pronouncements on those proposals, because they seem to us to be intimately related to our enquiry.

5. We note that the two Health Ministers are at present engaged in that period of discussion which the White Paper contemplated must be followed by the submission of legislative proposals for setting up the broad structure of the new health service. We understand that the Ministers feel that they would be helped, both in their discussions and in their legislative preparations, if—pending the submission of our full report—we offered to them some interim guidance as to the general principles on which we think they should be working, so far as the dental aspects of any new health service are concerned.

6. That is what we are endeavouring to do in Part III of this interim report, which attempts to set out shortly the main general considerations which we feel should be present in Ministers' minds when they discuss, and later formulate, the main structure of the proposed service.

7. But first, in Part II, we take this opportunity of presenting a brief account of the present situation as we find it—an account of the dental profession in this country, its history, government, education and numbers present and prospective; also an account of the main publicly organised dental services as they exist at present, their salient features and the public attitude to them, with our comments on the present state of dental health of the people and its relation to their general state of health.

8. We should like at once to acknowledge the great help we have received from so many sources in conducting our difficult task so far, and to assure all who have furnished us with information and suggestions that without them we could never have obtained the detailed picture on which we are able to base our recommendations.

II.—THE PRESENT SITUATION

9. In the pages which follow much is said which is already very familiar to those acquainted with the practice of dentistry and much is omitted which it would have been interesting to include: our aim, however, has been to give a succinct account of so much of the present position as will form an adequate background for our recommendations as to the future.

(i) THE DENTAL PROFESSION

10. It was the Dentists Act, 1878, which first made the profession of dentistry subject to statutory regulation, and provided for the formation of a register of " persons specially qualified to practise as dentists ". The Act prohibited unregistered practitioners from adopting the title " Dentist " or " Dental Practitioner ", but it did not effectively prevent them from practising: and the evils of such practice are vividly described in the report of the Departmental Committee set up to investigate them. This Committee, whose Chairman was the Rt. Hon. F. D. Acland, M.P., afterwards Sir Francis Acland, reported in 1919, and one part of its recommendations was given legislative effect in the Dentists Act of 1921.

11. This Act restricted the practice of dentistry to registered dentists, registered medical practitioners and, to a very limited extent, registered pharmacists; the performance by any person of minor dental work in any public dental service was permitted under certain conditions. At the same time the Act provided for the admission to the register, subject to certain conditions, of bona fide practising dentists of some years standing, and some others without qualification under the Act, if they applied within a time limit. Under this Act, too, companies carrying on the business of dentistry must confine themselves to dentistry or some ancillary business and a majority of the directors, together with all the operating staff, must be registered dentists. (There was some saving for existing companies.)

12. Dentists have formed themselves into three professional associations—the British Dental Association (incorporated in 1880), the Incorporated Dental Society (dating back under another name to 1892 and representing particularly the dentists admitted to the register by the 1921 Act), and the Public Dental Service Association (instituted in 1922 to represent particularly dentists giving service to insured persons).

Government of the Dental Profession

13. The 1878 Act placed the government of the profession in the hands of the General Medical Council. The 1921 Act provided for the establishment of the Dental Board and brought in the present arrangements which are described below. It will be seen how the functions of governing the profession have been divided between the Council and the Board.

14. When acting under the Dentists Acts, the General Medical Council includes three additional members selected by the Privy Council from those members of the Board who are registered as graduates or licentiates in dentistry. The Board itself includes a Chairman appointed by the Privy Council, three lay members appointed one each by the Minister of Health, the Secretary of State for Scotland and the Governor of Northern Ireland, three members appointed by the General Medical Council and six elected registered dentists.

15. The General Medical Council have certain duties laid on them with a view to securing a proper standard in the examinations conducted by licensing bodies and in the curriculum of dental schools. The Dental Board have no such duties but they have a duty, after paying certain prior charges, to allocate any money received by them to purposes connected with dental education and research or any public purposes connected with the profession of dentistry in such manner as they—with the approval of the Council—may decide. The Board are responsible for the registration of dentists, but the regulations made by them for this purpose require the Council's approval. It is for the Council to " recognize " the certificate produced by any dentist coming from abroad and desiring to be registered in this country.

16. In matters of discipline, it is the Board who investigate the case and report to the Council and the erasure of a name from the Register or its restoration thereto requires the Council's decision. The Council control the registration of " additional qualifications ". The accounts of the Board must be submitted to the Council.

17. The Board's chief source of revenue is the fee paid annually by dentists registered since 1921 for the retention of their names on the register. This fee has varied between £2 and £5 (the maximum) from time to time and the income of the Board has correspondingly varied from about £20,000 to about £50,000. In the years 1923-42 the Board has in round figures made grants to students totalling £217,000, grants to dental schools totalling £155,000 (£78,000 for buildings and £77,000 in aid of salaries) £73,000 in aid of research and £60,500 in aid of dental health education. These subsidies are worthy of special comment, coming as they do out of the pockets of dentists themselves.

Undergraduate Education

18. There are five dental schools in London (at Guy's Hospital, King's College Hospital, the London Hospital, the Royal Dental Hospital of London and University College Hospital), seven in English provincial cities (Birmingham, Bristol, Leeds, Liverpool, Manchester, Newcastle, Sheffield) three in Scotland (Dundee, Edinburgh, Glasgow), one in Northern Ireland (Belfast) and four in Eire.

19. Their total student-capacity before the war was between 2,000 and 2,500. Apart from perhaps one professor and one or two other senior whole-time teachers, most schools were staffed largely on a part-time basis, paid or honorary. Before the war close on 400 students entered the dental schools annually, of whom about 10 per cent. were women; roughly one-third of them came from beyond daily travelling distance. From certain schools women students are excluded.

20. After passing an examination in chemistry, physics and biology, students proceed to the study of other subjects common to medicine and dentistry, and dental subjects. To a varying extent, dental students receive instruction in the former alongside medical students with whom they share the available facilities. A high proportion of time is spent during the first two years on practical dental mechanics.

21. Students may study either for the degree (B.D.S.) or the licence (L.D.S.); in the former case the educational standard for entry is the same as for other degree courses; in the latter, it is in most cases somewhat lower. The length of the course leading to the licence is on average about 5 years (including the year spent on " pre-medical " subjects); the degree course is rather longer, except in London. The majority of students take the licence.

22. The dental licensing bodies are, in England, the Universities of Birmingham, Bristol, Durham, Leeds, Liverpool, London, Manchester and Sheffield and the Royal College of Surgeons of England: in Scotland, the University of St. Andrew's, the Royal College of Surgeons of Edinburgh and the Royal Faculty of Physicians and Surgeons of Glasgow: in Ireland, the Queen's University of Belfast, the University of Dublin, the National University of Ireland and the Royal College of Surgeons in Ireland.

23. The cost of the whole course leading to the licence varies between schools from about £230 to about £350; that for the degree course varies from about £270 to about £360. These figures exclude the cost of books and instruments, which may be put at about £75, and the cost of living, which at a conservative estimate could not be less than £100 per annum. Thus the total expense of training and qualification could nowhere be less than about £800, and it would usually be much higher.

24. At most schools dental students enjoy good social and athletic facilities; at some, limited hostel accommodation is available.

25. Since 1921, no fewer than 1358 students have received grants or loans from the Dental Board. Though of the greatest value, these grants, which were discontinued at the beginning of the war, did not purport to meet more than a proportion of the total expenses. Very few grants from other sources are held by students, though some are assisted by local education authorities, or from benefactions.

26. So far as the United Kingdom dental schools are concerned, the English provincial schools, and those in Dundee and Belfast are integral parts of Universities; in three of these cases the University manages or shares in the management of the associated dental hospital, in the remaining six cases the dental hospital is under separate authority, on which the educational authorities may, or may not, be represented. The London dental schools are affiliated to the University but their closest link is with the associated dental hospital which (with the exception of the Royal Dental Hospital) is itself part of a general teaching hospital. The Edinburgh and Glasgow dental schools are extra-mural and the management of the school and hospital is one. Thus, some dental schools are more closely associated with Universities, others with hospitals, while in some the management of all three is very closely integrated.

27. Most schools have certain facilities for dental research but the time of the staff is so fully occupied with teaching and administrative duties that little research is possible.

28. The dental hospitals were established to give treatment to the poor, and provide facilities for the clinical training of dental students. Under existing conditions the treatment given necessarily consists of extractions and the provision of dentures to a greater extent than is desirable from the educational standpoint. Contributions from patients account for the bulk of the hospital revenues. Neither the hospitals nor the schools are in a financial position to expand or improve their facilities in any marked degree without considerable assistance.

Post-graduate education

29. Post-graduate instruction is provided for newly qualified dentists through a limited number of " house " posts available at the dental hospitals.

30. For general dental practitioners, refresher courses dealing with various aspects of general practice have been promoted and assisted by the Dental Board since 1923. These courses have been arranged in various cities either by the dental schools and hospitals or by the local branches of the dental associations: but in general, the demand for the courses has not been large.

31. Little provision has been made for specialist post-graduate training. A number of dental practitioners have, however, received post-graduate experience in the Eastman Dental Clinic, particularly in dentistry for children.

Dental man-power

32. The Government Actuary has furnished us with valuable advice on the man-power position and we reproduce in Appendix A a Table (I) in which he shows the distribution of dentists on the Dentists Register at the end of 1942 according to age, address and nature of qualifications: it will be seen from this Table that on 31st December, 1942, the names of 15,192 dentists were included on the Register, of whom 12,812 were estimated to be engaged for some part of their time in private practice or in the service of local authorities. This Appendix also reproduces another Table (II) in which the Government Actuary shows the estimated number of dentists available in the future, on the basis of stated numbers of new entrants (resident in Great Britain) to the register immediately after the 31st December, 1942. These estimates have been based on the experience of the past as to (*a*) the proportion of those on the Register who take an active part in private or public dental practice (these have been reckoned as devoting their whole time to dentistry and this may be a slight exaggeration, though no other reliable assumption could have been adopted), (*b*) the probable wastage by death and other causes in various age groups, (*c*) the age distribution of the dentists added each year to the Register. He has also assumed that of the dentists serving with the Armed Forces the proportions appropriate to their ages will be available for a general dental service after the termination of hostilities. The number of entrants to the profession until 1947 can be estimated with accuracy, since they are already undergoing training in the dental schools; thereafter the position becomes progressively more conjectural. There is some practice of dentistry under a medical qualification and without dental registration, but the numbers concerned are small.

33. There are two salient features in this position to which special attention should be paid. The first is that the bulk of those dentists who were admitted to the Register under the special provisions of the 1921 Act (see paragraph 11 above) are now in the age-groups above 45, with the result that the total number of names on the Register is heavily weighted in these higher age-groups: and in the next few years there will be a correspondingly rapid loss of names from the Register by retirement. The second feature is on the recruitment side. The average annual entry rate to the Register (of those residing in Great Britain) in recent pre-war years was about 340. As compared with this, in the war years the annual student-entry rate has fallen to below 300, and it must be remembered that something like 10 per cent. of these who become students do not (for one reason or another) become dentists. This war-time student entry rate has thus fallen to about 100 below the corresponding pre-war average rate and to about 150 below the war-time " quota " permitted by the Ministry of Labour and National Service.

34. These figures are not nearly sufficient to maintain the Register even at its present strength. It will be seen from Table (II) in Appendix A that if the number entering the profession annually were to rise to 400 in the years 1948-52 and to 425 thereafter, it would still be about 30 years before the present effective total of the profession would be increased. This is an alarming forecast and we have no reason to think it will be substantially falsified unless vigorous measures are taken.

Ancillary dental workers

Dental dressers

35. Under the Dentists Acts, provision was made for the performance of minor dental work in any public dental service by persons not registered under the Acts, provided that such work was carried out under the personal supervision of a registered dentist in accordance with conditions approved by the Minister of Health after consultation with the Dental Board.

36. The conditions thus approved required that a registered dentist should be present when operative work was being carried out and that he must not supervise more than two persons at one time if operating himself, or more than six persons at one time if not operating himself; he must also prescribe the treatment, inspect every case after treatment and take responsibility for the efficient carrying out of treatment. Dressers were at first permitted to insert or remove dressings or temporary fillings but their work was subsequently limited to cleaning and polishing and certain clerical functions.

37. Little use of dental dressers has been made by local education authorities, and it is understood that at the present time there is none employed in the public dental services.

38. The Royal Air Force have during the present war employed selected personnel known as dental hygienists on the cleaning and polishing of teeth and the maintenance of oral hygiene. At present, 32 in all are so employed at 14 stations and 12 are under training.

Dental attendants

39. The majority of dentists have surgery assistants who include in their duties the pre-operative and subsequent care of patients, sterilisation of instruments, preparation of materials and maintenance of apparatus; they are not permitted to carry out any work in the mouth. They may also make appointments for patients, keep records of treatments and discharge other clerical duties. Very few of them are registered nurses and with the exception of occasional short courses, no training has been available to them other than that given by the dentists employing them. Recently two organisations of dental attendants have been formed.

Dental Mechanics

40. The dental mechanic is an essential part of any dental service; he constructs dentures and other appliances to the design and under the supervision of the dentist, who takes the " impressions " of the mouth and carries out all subsequent chairside procedures. At present the arrangements for the proper training of dental mechanics are inadequate. Formerly it was the practice to serve a formal apprenticeship, but for economic and other reasons this practice has been largely discontinued in recent years and systematic instruction in dental mechanics is not widely available. There are understood to be some 8,000 or so dental mechanics in the country. They have lately begun to organise themselves through the medium of two Trades Unions and a Joint Council of representatives of the dental profession and mechanics has been established.

The career of dentistry

41. It will hardly be contested that at the present time the career of dentistry is relatively unattractive to boys and girls in comparison with other professional careers, especially medicine. We have been told that not a few who take it up do so because there is no room for them in the medical schools. The work itself is apt to appear unpleasant and of restricted scope until its scientific interest begins to be appreciated; and there is, of necessity, little scope for specialisation. Practising dentists feel that their work has not an important enough place in the mind of the public, and in the local authority dental services they complain in many cases of lack of access to the responsible committee of the authority. Many local authorities have no chief dental officer responsible for the organisation and working of their dental services. The opportunities which do exist in the career are not, it is generally felt, made as widely known as they might be, either to parents or to boys and girls when choosing their future vocation. Finally, the training is long and expensive and many parents cannot afford it for their children.

42. We have given a brief account of the profession of dentistry—a profession in an early stage of its evolution, partly governed by the medical authorities, with a prospective shortage of members, and at present without great powers of attraction as a career for the majority of young people; a profession on the other hand which has, we are convinced, a great future before it if it is enabled and encouraged to progress on the right lines, and a profession whose expanded services must be fully utilised in any measures for the improvement of the national health.

(ii) THE EXISTING PUBLIC DENTAL SERVICES AND THE PUBLIC ATTITUDE TO THEM

The School Dental Service

43. In England and Wales there were, on 31st March, 1938, 5,091,975 children on the registers of public elementary schools and 470,003 pupils on the registers of grant-aided secondary schools. At that date local education authorities were, by the effect of the Education Act and the Board of Education's Grant Regulations, under an obligation to provide dental treatment for public elementary school-children: they were empowered but not obliged to provide it for pupils attending secondary schools and other institutions for higher education*. At the end of 1938 the school dental staff consisting of whole-time and part-time officers was equal to 783 whole-time dentists—an average of one dentist to each 5,780 public elementary school-children in average attendance. In 1928 the corresponding figure was 1 to 11,300 children—a fact not irrelevant to the dental ill-health of the population, as described in paragraphs 59, 62 and 63 below. Progress towards a satisfactory staffing standard has been fairly steady but very slow and it was not until after the commencement of this war that it was possible to record that every local education authority had a school dental scheme.

44. In 1938 about 3½ million elementary school-children were dentally inspected: some 2½ million were recorded as requiring treatment and about 1,600,000 received treatment, though not all the treatment given was complete. Expressed in another form, 70 per cent. of the 5 million children were inspected: 50 per cent. were recorded as requiring treatment, and 33 per cent. received treatment. The acceptance rate (i.e., the proportion of those requiring treatment who received it) was 65.5 per cent. and each dentist treated on average 2,137 children.

* The effect of the Education Act, 1944, is referred to in paragraph 85.

45. In Scotland, the total school population of all ages (i.e., from under 5 to 18 plus) in grant-aided schools at June, 1944, was 751,000. Education authorities are by the effect of the Education Acts and the Secretary of State's Grant Regulations, under an obligation to provide dental *inspection* for pupils attending school in their areas, but the provision of *treatment* becomes a legal obligation only where the child is unable, through lack of it, to take full advantage of the education provided. Prior to the war the school dental service was improving very slowly in staffing standards; since 1939 the quickened desire of local authorities to increase their staffs is shown by an increase of 63 per cent. in the number of whole-time posts. The difficulty of filling all the new posts in war-time has proved insurmountable, but a war-time increase of 35 per cent. in the posts actually filled is shown at June, 1944, the number of dentists then employed whole-time or part-time being equivalent in aggregate to 92 whole-time dental officers. There is good reason to believe that throughout Scotland local authorities generally will much improve the staffing of their school dental service when normal times return. The number of children inspected annually at present is believed to be rather over 50 per cent. of the total school population, and of those found to require treatment the proportion accepting it varies from below 50 per cent. to about 90 per cent. between localities.

46. Our evidence is conclusive that a keen local education authority, employing adequate staff and enlisting the co-operation of school-teachers and parents, can stimulate a very high acceptance rate without any recourse to compulsory methods.

47. In Cambridge Borough the staffing ratio in recent years has been approximately one dentist to each 2,000 public elementary school children: the service is exceptionally complete and it is therefore instructive to note the statistics. All the children present are inspected each year, about 75 per cent. annually require treatment and practically 100 per cent. of those requiring treatment accept it. There are other areas in England and Scotland with good records. In residential schools administered by some authorities, a satisfactory service has been developed and the children regard the treatment as part of the normal routine of their lives.

Maternity and Child Welfare Services

48. In England and Wales, 407 local authorities of various types have a power but not a duty to make arrangements, with the approval of the Ministry of Health, for the care of expectant and nursing mothers and of children under school-age. The majority of these authorities make some provision for dental attention as part of their arrangements. This provision, however, according to the incomplete evidence available to us, is in most places extremely meagre. For example, a routine inspection of either women or children by a dental officer was the exception. Few authorities arranged for "follow-up" inspections. A considerable proportion of those requiring attention did not attend for treatment and the treatment where given consisted, perhaps of necessity, largely of extractions.

49. The 55 Scottish welfare authorities have similar powers. About half of them have made arrangements for dental treatment but the actual amount of treatment given in most places is small. Even where ample facilities exist, advantage is not taken of them.

50. There are signs, we are told, that the younger mothers are beginning to appreciate the value of conservative dentistry to an increasing extent, but this trend has a very long way to go yet before the position can be called satisfactory.

51. The service for pre-school children aged 2-5 who are not at nursery schools presents some of the greatest difficulties, as the mother is usually too busy with domestic duties to bring the child for treatment. At nursery schools, however, a high rate of acceptance is often found.

Dental Benefit under National Health Insurance

52. Those approved societies which are found at their quinquennial valuation to have disposable surplus funds may, subject to Ministerial sanction, give certain statutory "additional benefits" to their members. Dental Benefit is one of these benefits and it consists of the whole or part payment of the cost of approved dental treatment given to members by dentists of their choice under prescribed conditions. A dentist is under no obligation to provide treatment for insured persons but if he does so, he must provide all the treatment that is necessary to render the patient dentally fit. When treatment has been completed in accordance with the conditions the approved society pays not less than 50 per cent. of the cost. A few societies pay more than this. Payment is made on the basis of an itemised scale of fees.

53. Roughly two-thirds of the insured population, that is between 13 and 14 million people are entitled to dental benefit, but only 800,000 (less than 7 per cent.) of these claim it on average each year. (This percentage is commonly known as the "demand rate".) The qualification for dental benefit is a prescribed period of membership of a Society which works out at about 2½ years on average and can be completed, at the earliest at the age of about 17. Thus the boy or girl who leaves school at 14 has usually no assistance in obtaining dental treatment for those three important years. Approved societies can refer to regional dental officers of the Health Departments any case of proposed or completed dental treatment on which they desire further advice, and dentists themselves have a similar right.

54. It is the common experience in insurance dentistry that people do not resort to treatment until a stage when the teeth are unsaveable and often there is gross oral sepsis.

Other Services

55. Dental teaching hospitals or hospital departments, of which there are fifteen in England and Scotland, and one in Northern Ireland, provide treatment for the poorer sections of the community, and many general hospitals arrange for some dental treatment to be given to patients. Some authorities (such as the London County Council) make full provision for the necessary dental treatment for all patients in certain of their hospitals. Dental treatment is also given as part of the Emergency Medical Scheme of the Health Departments. Dental treatment is a particular feature of the arrangements made for the care of tuberculous persons by the responsible authorities. The metropolitan boroughs of Bermondsey, Finsbury and Shoreditch provide treatment for their general population in municipal dental clinics at small charges. Extraction and the provision of dentures is often found to be the only possible form of treatment.

56. A large number of dentists are now serving with the Armed Forces; we are of course precluded from giving a detailed account of the evidence we have been given on these services, but we have been impressed by the results obtainable and the willing service given under good organisation.

57. Broadly, then, the picture is of a number of public dental services not closely correlated and each with shortcomings, and of a public ill-educated and apathetic in regard to the care of the teeth. This attitude springs we think mainly from a natural fear of pain and lack of any real understanding of the importance of dental health. Economic factors must also contribute, but we are inclined to think that they are of less effect in this connexion than lack of education.

(iii) THE STATE OF DENTAL HEALTH OF THE POPULATION AND ITS RELATION TO GENERAL HEALTH

58. The state of the dental health of our population is bad and its effect on their general health is bad.

59. This view is based upon a mass of evidence which cannot all be reduced to the form of statistics, but as a sample we give in Appendix B tables showing the dental condition of male and female recruits to the Army in the present war. This is valuable as being concerned with a large and representative sample of the younger age groups of the population, and it will be seen that on average 90 per cent. of the men and 86 per cent. of the women required dental treatment on enlistment; 13.4 per cent. of the men were in possession of essential artificial dentures and a further 10 per cent. required them. These figures are broadly corroborated by the Navy. They show both that the incidence of dental disease was high and that prior to enlistment the teeth of recruits had been much neglected. Other figures tell the same story.

60. In Cambridge, it was found in 1938 that only 9.1 per cent. of the 5-year old children examined had naturally sound teeth; on average each child had over four decayed teeth.

61. Of a group of 10,000 Scottish 5-year old children examined between 1941 and 1943, 1,000 only were found free from caries and 70,000 teeth were decayed or missing—7 out of each child's 20 teeth on average, about 5 of these 7 being molars. These figures refer to the temporary teeth. Of 8,700 6 to 13-year old Scottish children examined in the same period it was found that the percentage of sound "first permanent molars" dropped steadily from 82 per cent. at age 6 to 20 per cent. at 13, at which age 27 per cent. of these molars were carious but saveable, 20 per cent. carious and unsaveable, 25 per cent. lost and only 8 per cent. filled.

62. One approved society in its experience, during one year, of the dental treatment of young people between the ages of 16-19, found that no less than 12.2 per cent. of those who applied for treatment had needed full upper and lower dentures.

63. At three large Ordnance factories a representative sample of the workers was examined and it was found that only about 1 per cent. were dentally fit without the aid of artificial dentures.

64. It has indeed not been seriously disputed in any quarter that though there are signs of improvement among the younger sections of the community yet the generalisation with which we began is amply justified.

65. There is evidence to show that the health of the teeth and jaws are associated with systemic well-being, and that diseases of the mouth bring about morbid processes in the body. Since the onset of dental decay and inflammatory conditions of the gums, such as pyorrhoea, is insidious, serious and even irreparable consequences may occur before treatment is sought. No useful purpose would be served by giving here an account of the many conditions which have been attributed to dental causes, but it suffices to say that dental neglect is responsible directly, or indirectly by lowering body resistance, for much avoidable suffering and ill-health. Special reference may be made, however, to the fact that a diseased mouth may offer a portal of entry to infection and, by preventing response to treatment, prolong incapacity. Improvement in general health in children and industrial workers after the eradication of dental disease has been reported by several authorities. Where, as a result of neglect, extraction is the only possible treatment, masticatory efficiency may be impaired, and proper nutrition impeded, to say nothing of possible aesthetic and psychological effects.

66. Dental health is in a word an integral part of general health, and dental disease contributes in no small measure to much general disease.

III.—INTERIM RECOMMENDATIONS

An adequate and satisfactory service

67. So much for the present state of affairs; it is a far cry to the ideal at which we must aim and we have not deceived ourselves into thinking that a dental millennium will come any sooner than any other kind of millennium. Nevertheless we should like to put a brief statement of the ideal to be aimed at in the forefront of our recommendations. In doing so we shall make clear what we mean by an adequate and satisfactory service.

68. The ideal is that people should value the health of their mouths as of great importance in the maintenance of their general health and should seek by every means to preserve it. One of those means will be regular inspection and the treatment of any incipient defects, the treatment to include all that a constantly evolving science of dentistry finds efficacious and to be applied with all the skill that training can bestow. This treatment should be conveniently and promptly available when demanded, with the minimum of formalities and the maximum of personal freedom; and it should be paid for by the people not as patients but as members of the community.

69. This very brief sketch of the ideal is perhaps sufficient, when contrasted with the present state of affairs, to bring out the point that progress must be made concurrently on two sides: first, the stimulation of a *demand* more truly representative of the need for treatment: secondly, the *supply* of an ever more adequate service, including pre-eminently an adequate number of dentists.

70. On this last point we must be clear at the outset. We use such words as " shortage " and " supply " here, not in a theoretical sense as measured against the *need* for treatment, but in a practical sense as measured against the *demand* for treatment, present or prospective. There was before the war (according to the evidence given to us by responsible and well-informed witnesses) no lack of dentists, over the country as a whole, to meet the actual demand for treatment. If the demand for treatment rose, in the future, to somewhere near equality with the real need for treatment, then there would be a shortage of dentists unless the numbers of the profession had increased *pari passu*. It must be an object of policy to increase demand in this way: but the whole question of a shortage of dentists turns upon the probable pace of increase in demand and supply respectively. If, for example, a total annual demand rate of the order of 10 per cent. to 20 per cent. were the experience in the next few years, and if vigorous measures were taken to make the career of dentistry attractive, we foresee no substantial shortage. If, on the other hand, the annual demand rate rose rapidly to 40 per cent. or 50 per cent. and the numbers of the profession showed no rapid increase, the shortage would be very serious.

71. It may seem ironical that the too great success of one object of policy should be a matter of anxiety with regard to the other; but it is not really so, if viewed realistically. A man who drives two horses in a race must drive them approximately at the same rate if he is not to be upset; but subject to this, he must drive them both as fast as he can. That is our object—to keep demand and supply in a rough equality, but still to make the quickest possible progress in both. And the analogy will go a little further still; for just as one horse helps the other forward, so, we hope, will a greater demand for dental treatment encourage recruitment to the profession, and conversely a well staffed service will undoubtedly stimulate the demand.

A comprehensive service

72. The greatest single step forward which in our view could be made at the present juncture is the acceptance of the principle of a comprehensive service; that is to say a service which, while perhaps not yet wholly adequate, will be equally available to all who demand it, and which will be paid for by the community as a whole. Let us consider some of the advantages of taking such a step *now*.

73. First of all, as we have said before, there are two factors depressing the public demand for regular dental care, and of these the greater is, in our view, lack of appreciation of the importance of dental health and the lesser is lack of means. It is idle to seek to remove the first until the second has been removed; therefore, as a beginning we want to " divorce dental health care from questions of means " and thus begin to build up the demand; then can come the steadier and longer process of increasing public enlightenment about dental health.

74. Secondly, the Government is proposing, as we are glad to note, to introduce a comprehensive health service. We have shown that dentistry is not an adjunct but an organic part of health; therefore, it is important to the success of the health service as a whole that dentistry should, if possible, form an integral part of it on a comprehensive basis.

75. Thirdly, the National Health Service proposals have now been followed by general proposals for social insurance, which contemplate a comprehensive system of contributions. These proposals, between them, will supersede the present frame-work of National Health Insurance in which dental benefit has its place. If anything less than a comprehensive scheme of dentistry is introduced it will be very hard, administratively, to secure that those now entitled to dental benefit are not left with a justifiable sense of grievance.

76. Lastly, we believe that a comprehensive scheme, if it is framed and administered in a satisfactory way, will offer to the dental profession itself the best opportunity of attaining its rightful place in the public estimation. This is not the justification of the proposal; but it is an important consideration because it involves the reasonable expectation, if true, that young men and women will adopt the career of dentistry in sufficient numbers to make the scheme a success. Plenty of work, adequate remuneration, good conditions of service and the knowledge that dentistry is making an essential contribution to national health, will be, in our view, the best ways of encouraging recruitment to the profession, and securing that ready co-operation which must be the foundation of any satisfactory dental service.

77. So much for the reasons in favour. On the other side of the medal there is, of course, the question, can it be done? Will there be at any time such a demand for treatment that the service available at that time will be hopelessly inadequate, and the scheme be thus discredited?

78. On a careful review of the probabilities we recommend the institution of a comprehensive dental service from the outset. We confess that we cannot regard some temporary excess of demand over supply with any undue anxiety—for what would it mean? It would mean that demand was coming closer to an equality with the true need; it would mean that much more was being done for the dental health of the people than ever before; and it would, we believe, soon bring an expansion in supply.

79. Finally, we have already quoted the Government's words that health care should be divorced from questions of personal means; to this we subscribe, and we cannot see that if there were a certain shortage of dentists those words would become untrue. If there should be a shortage, let it be shared by all.

80. We therefore recommend that when the National Health Service is inaugurated, a comprehensive dental service should form an essential part of it. The possibility of temporary and local shortages should be frankly accepted and stated; the position would, we think, be willingly accepted by the public for the sake of a scheme of comprehensive scope.

81. We are not in a position at this juncture to give our recommendations on a question which we have already considered deeply as bearing on the possibility of a shortage of dentists and on the future of the whole dental profession, namely the question whether any dental work should be delegated to ancillary workers. We shall give our recommendations on this point as well as on the other topics remitted to us as early as possible.

Special Classes

82. There are certain classes of the community who stand particularly in need of dental care and who can benefit in a special way from it. Steps must be taken to see that that care is made available to them and also that, so far as education and persuasion can go, they accept it.

83. We have received a great deal of evidence in favour of a concentration of effort on the dental care of (*a*) expectant and nursing mothers, (*b*) children, and (*c*) adolescents. There are already, as we have shown, public services organised by local authorities which go some way towards meeting the needs of these classes, namely the school dental service and the dental arrangements made by maternity and child welfare authorities. Our concern is not to dispense with these services, nor to regard a general service as a substitute for them, but rather to strengthen and improve them by all practicable means; they must form as it were the sharpest point of attack of the dental force of the country upon dental disease.

84. The claims of these classes need hardly be argued. In the case of the expectant and nursing mother, the harm that oral disease can cause both to mother and child is well known. As regards the young it is not only that their health and development benefit in a special degree from dental care: a point ultimately of even greater significance is that if they come to a true valuation of dental health, our major problem is solved not only for them in their adult lives, but also for future generations.

85. The way of advance in these services is already showing itself. The recent Education Act provides in Section 48 that local education authorities shall have the duty of securing the provision of medical (including dental) care for those who come within their province, and of encouraging and facilitating acceptance of treatment. We regard a big expansion of the dental services available to school children as one of the essential foundations of a comprehensive service.

86. The Government is proposing further to create a new responsibility for providing all necessary health care for the people and we hope that the Health Ministers will regard the provision of dental care for expectant and nursing mothers and young children as an important feature of any local health plans submitted to them for approval, and that they will make the progressive implementation of these plans a matter of continuing interest to their Departments.

87. Further, and more generally, it will be in the special and immediate interest of the health service to secure the eradication of dental disease in those cases where it is seen to be contributing to general disease; whether this is to be done by referring the patient to the " general " service, or by making special arrangements, e.g., for the treatment of hospital patients, will depend on the circumstances.

88. There are difficulties too, however, in regard to the special classes—the adolescent at work, for instance. We express as strongly as we can the hope that employers will give their workers, and particularly the adolescents, time off without loss of pay for dental treatment. An increasing number of employers have found it possible to do this, and it makes all the difference at a crucial period of life. The provisions of the Education Act will result we trust in more and more adolescents coming within part-time contact with education authorities. We would stress that in their case too, the authorities should take their responsibilities in respect of dental care very seriously, otherwise much previous expenditure of time and money may be thrown to the winds. The adolescent must not be left (to quote the Public Dental Service Association) in a " dental no man's land ".

89. We have already referred to the difficult problem of the pre-school child whose mother is too busy with household duties to bring him to a clinic or centre for dental treatment. Nursery schools have proved a great asset from this point of view; and possibly something might be done by the health visitor collecting children for visits to the dentist. It is a matter for the consideration and ingenuity of the local authority.

90. Before we leave this part of our topic, we would record with satisfaction the attitude of responsible local government associations to the future of the public dental services which are the concern of the authorities whom they represent. The Association of Municipal Corporations recognise that " the present provision of dental treatment in the local authority health services is inadequate in all its branches ". The Metropolitan Boroughs' Standing Joint Committee informed us that " the wide extension of local authority dental services is in our view desirable ". The County Councils Association recommended a statutory duty on local authorities " to provide for at least an annual or preferably bi-annual inspection and treatment for each child ". The Scottish local authorities, the teachers and the medical officers of health took up a similar attitude. One local authority told us it had recently decided to quadruple the number of dentists in its services.

The position of the dentist in the public dental service

91. It is of very great importance that dentists working in the public dental services should have cause for satisfaction and pride in their work. The detailed conditions of service are a matter for negotiation between the Government and the profession; there are certain principles, however, which we think are fundamental. In the first place, there should be no compulsion on any dentist to enter the public service; if he does so it must be of his own free will and he must be at liberty to leave it at any time should he so desire. Secondly, any dentist should be free to engage either whole-time or part-time in the public dental service, and in any branch of the service in which there is opportunity to serve. Thirdly, the patient must have free choice of dentist and the liberty to alter his choice if he so desires. In particular, we would emphasize that our proposals are not designed or intended to interfere with the free right of everybody to seek his dental advice and care through private arrangements and by private fee, if he for any reason wishes to do so, or with the free right—which is necessarily complementary to this—of any dentist to elect to practise privately for the whole or part of his time, if he so prefers. Our object is a service equally available to all, but not compulsorily imposed upon any.

General Dental Practitioner Service

92. We envisage the idea of a general dental practitioner service as being broadly analogous in principle and structure to that of a general medical practitioner service although the special features and problems of dental practice

will also need to be borne in mind. This " general service," as we have called it, should be available to all who wish to use it. The detailed administrative arrangements will, of course, be matters for discussion between the Government and the dental profession, but there is a point of principle which we wish to emphasize here. We are in full agreement with the British Dental Association's view, as given in their memorandum of evidence to us, that " any scheme for a comprehensive dental service must have as its foundation the family ". We recognize of course that a great part of the population to-day have no such relation with a dental practitioner as is conveyed by the term " family dentist "; but it must be an object of policy to encourage the development and growth of such a conception by all possible means.

Health Centres

93. The use of Health Centres as a medium for the provision of dental treatment is a matter to which we have given careful consideration. Dental Health Centres will undoubtedly provide facilities for team work, and it may well be that in certain localities they will effect economies in dental man-power and equipment.

94. We note in connexion with the Government's proposals for a National Health Service that the future development of the " Health Centre " idea will depend upon the results of a full trial of this method of organising practice. We recommend that during the experimental stage dental Health Centres should be established in suitable areas. We are of opinion that there should be local consultation with the profession not only as to the development, siting and size of these Centres, but also as to their internal arrangement, design and equipment. They may be either separate or (preferably) a part of the general Health Centre where other kinds of care are received. We share the desire of the Incorporated Dental Society to see the services of dentists included wherever possible in Health Centres set up for the purpose of providing medical and surgical treatment. We see no reason why the dentists employed by local authorities should not operate in these Centres; on the other hand we contemplate that they will mainly be staffed by those who elect to come into the " general " service. Many dentists may wish to work for only a part of their time in such a Centre, whether or not their whole time is devoted to public dental service; such a wish should in our view be respected wherever it is practicable to do so. It is our considered view that there should be no kind of compulsion either upon dental practitioners to work in these Centres, or upon patients to receive their dental treatment in them. It will in many cases no doubt be found convenient for a dental laboratory to be associated with the dental Health Centre.

Specialist Services

95. Although, up to the present, there has been relatively little specialisation in dentistry, such subjects as oral surgery, orthodontics (the regulation of children's teeth) and, to a lesser extent, radiology have come to be regarded as special branches of practice. It should be the aim of a comprehensive dental service to make available to those who need them, all necessary facilities for special diagnosis and treatment.

Co-operation and Co-ordination of the Services

96. The comprehensive dental service as we see it will be made up of several elements—the general service and the service for special classes, the separate practice and the group practice in dental Health Centres—and it is important that these several elements should be a source of strength and not of weakness to one another. Moreover it is in our view essential that full use should be made of the expert guidance of dentists in the planning and

administration of the service, both centrally and locally. Further, the body with whom practitioners in any general dental practitioner service are in contract should be a dental body.

97. We cannot in present circumstances usefully comment on all the administrative details which will have to be settled; but we would urge in view of the limited dental man-power available that every possible step be taken to secure co-ordination and co-operation between the various parts of the service at all levels. To give but a single instance: in many planes—those for instance in which dental Health Centres are established—it may be desirable that the general service should assist the local education authority in regard to the school dental service, that is, that the local education authority might ask some of the dentists practising in the Centre, without actually coming into their employment, to treat school children under the " general service " during certain sessions, the school authorities making all the arrangements for attendance, etc. In other places it may be that certain dentists will undertake part-time employment with education authorities devoting another part of their time to public general practice or private practice. Elsewhere, again, there will be whole-time dental officers of the local education authority, though we hope that any such whole-time employment will not prevent a dentist from enjoying a variety of work or hinder those, for example, who leave school from continuing to visit a dentist whom they know. Our main point here, however, is that all such variant arrangements, suited to local circumstances, require close, friendly and continuing consultations between the various authorities concerned and the representatives of the dentists themselves.

98. We would make one further point. Although the general service will be—and clearly must be—available to members of the special classes as well as others, this will not exonerate the appropriate authorities from their special duties in respect of these classes. In the case of local education authorities, for instance, we envisage that at the beginning of school life they will seek from the parent a general consent to the treatment of his children under arrangements made by them. If this is given it will be for the school authorities to provide the treatment or—if they make use of the general service for the purpose—to make all the arrangements for attendance, and so forth. It will be for them, too, to encourage acceptance, and if they find on inspection that a child, whose parent did not consent to his " school " treatment, has a neglected mouth, it will be for them to press again for this consent. The authorities for the special services are to take the initiative. The existence of the general service abrogates nothing from their responsibility, and their keenness will be vital to success. The same is true of the welfare service. Every expectant mother coming to a clinic should be dentally examined by a dental officer who should then (after consultation with the medical officer in regard to the patient's general condition) decide on the treatment which is necessary. Every authority on whom a duty for the provision of a dental scheme is placed should appoint a chief dental officer responsible to them for the organisation and operation of the service, and this officer should have direct access to the appropriate committees of the authority. Such an arrangement does occur to-day but it should be the general rule.

Dental Health Education

99. We have shown already how far the general public is from appreciating the need for regular inspection and treatment of the teeth, let alone any more positive or preventive attitude to oral health. The undoubtedly great efforts that have been made by the Dental Board, by individuals and by

individual authorities, have not yet produced the general state of mind we wish to see. Nor do we believe that any short-term publicity methods would do so. Our view is that the following elements should all be combined in a steady policy rather than a " campaign ".

100. First, and by far the most important, will be the quality of treatment given to the public.

101. Secondly, the Health Centre offers (e.g., by means of lectures, films) great opportunities for dental health education.

102. Local education authorities will have the duty of encouraging children to accept treatment and this duty can more easily be fulfilled if lessons include a rational teaching of the need for regular dental care. This is not to suggest that the encouragement should be delayed until the age when the explanation can be fully understood. We consider that dental hygiene should form part of school routine.

103. Dental health education should be one of the essential parts of the advice given at maternity and child welfare clinics.

104. Material for publicity (e.g., films, posters) should be supplied from central sources, but they can never achieve success without the support of local and personal effort. We agree with the Central Council for Health Education that valuable assistance can be given in dental health education by a central organisation, and also that " dental health education and general health education must be the concern of the authorities responsible for the dental and general health of the various sections of the public ". Dental health education should deal with questions of diet and dental hygiene as well as stressing the need for regular inspection and treatment.

105. We do not wish to separate dental from general health education; the one is a sentence on the page of the other. But we are anxious that that sentence should not be crowded out; rather than that, we would have it given a page to itself.

106. We recommend therefore that whatever central consultative body of dental experts may be set up should have a standing duty to keep under review the state of public enlightenment in dental matters and the measures to be taken from time to time to increase it. We have spoken before of " the two horses ", demand and supply. It is for dental health education to keep demand well up to supply, and even a little ahead.

Additional recommendations

107. There are certain further matters to which we take the opportunity of drawing attention now in the hope that the war may shortly be coming to an end, and in anticipation of the situation which will then arise.

108. Every possible step should be taken to encourage suitable ex-service men and women to take up the profession of dentistry. We have had brought to our notice the Further Education and Training Scheme for helping ex-service men and women, and others in a similar position, and the Ministry of Labour and National Service is, we believe, aware of the need for dentists. We would urge, however, that this Scheme should be interpreted liberally in the case of intending dentists, so that, for instance, an ex-service man or woman who had not begun a dental training or who had even pursued some other vocation before the war should, if he or she is a willing and suitable candidate for the profession, receive the maximum assistance in seeking entrance to it.

109. It is imperative that dental teachers should be recalled from service with the Armed Forces to their peace-time callings at the earliest possible moment compatible with general national policy. The public dental services will demand a greatly increased entry to the profession, and our final report will contain our recommendations on this and kindred topics. The immediate point, however, is that the first need in order of time is for the adequate staffing of dental schools so as to cope with the anticipated post-war student-entry. The schools are understaffed at the present moment to a serious degree: if they remain so after the war, the situation as regards dental man-power will deteriorate progressively.

110. Much valuable dental equipment will, we expect, be disposable from the Dental Services of the Armed Forces after the war. We consider that steps should be taken by the Government at the proper time to make the best use of this equipment in the interests of the public dental services.

Conclusion.

111. These are our interim recommendations; we know that their brevity will not be taken as implying on our part either a superficial scrutiny of the facts or a hastily formed judgment of the requirements. We have given to these problems the most earnest and careful consideration. Our conclusions deal with broad outlines rather than with administrative details. They are put forward with unanimity and with a whole-hearted conviction of their importance to national health.

We have the honour to be, Sirs,

Your obedient Servants,

(Signed)

TEVIOT (*Chairman*).
L. C. ATTKINS.
FREDK. J. BALLARD
E. G. BEARN.
ROBERT BRADLAW.
R. J. BROCKLEHURST.
THOS. H. J. DOUGLAS.
W. KELSEY FRY.
J. P. HELLIWELL.
JAMES F. HENDERSON.
A. C. W. HUTCHINSON.
H. T. A. MCKEAG.
THOMAS RANKIN.
W. L. RAYNES.
ANDREW SHEARER.
JOHN STEWART.
GWENDOLINE TRUBSHAW.
ROBERT WEAVER.
BRYAN J. WOOD.
CHAD WOODWARD.

H. F. SUMMERS (*Secretary*).
S. G. GAME (*Assistant Secretary*).

19th October, 1944.

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IV. SUMMARY OF RECOMMENDATIONS.

1. A comprehensive dental service should be instituted as an integral part of the National Health Service at its inception. (Paragraphs 72 to 80.)

2. There should be a general dental practitioner service broadly analogous in structure to the proposed general medical practitioner service. (Paragraph 92.)

3. Dental Health Centres should be developed in conjunction with general Health Centres where suitable. (Paragraph 94.)

4. There should be freedom for both dentist and patient to participate in the service, or not, at their own wish. (Paragraph 91.)

5. Full use should be made of dental expert opinion in the planning and administration of the service, both centrally and locally. (Paragraph 96.)

6. The body with whom practitioners in any general dental practitioner service are in contract should be a dental body. (Paragraph 96.)

7. The appropriate authorities should provide dental treatment for expectant and nursing mothers, children and adolescents, and should encourage acceptance of treatment. (Paragraph 98.)

8. An authority on whom a duty for the provision of a dental scheme rests should appoint a chief dental officer to be responsible for the organisation and operation of the service, and to have access to appropriate committees of the authority. (Paragraph 98.)

9. There should be the maximum amount of co-operation at all levels between the general service and the service for special classes. (Paragraph 97.)

10. The hope is expressed that employers of labour will give their employees, especially adolescents, time off without loss of pay for dental treatment. (Paragraph 88.)

11. Some of the means by which dental health education may be furthered are suggested. (Paragraphs 99 to 104.)

12. Certain action to be taken when hostilities cease is indicated. (Paragraphs 107 to 110.)

APPENDIX A

TABLE (I)

Distribution of 15,192 Dentists on the Register 31st December, 1942, by latest address

Age last birthday	Great Britain			Elsewhere			Total on Register			Great Britain	
	Dentists Acts 1921–3	Others	Total	Dentists Acts 1921–3	Others	Total	Dentists Acts 1921–3	Others	Total	Dentists engaged at least part-time in private practice or service of Local Authorities	
										Estimated Proportion	Estimated Number
										per cent.	
20–24	—	417	417	—	23	23	—	440	440	100	417
25–29	—	1,387	1,387	—	50	50	—	1,437	1,437	100	1,387
30–34	—	1,234	1,234	—	61	61	—	1,295	1,295	95	1,172
35–39	—	1,162	1,162	—	43	43	—	1,205	1,205	95	1,104
40–44	228	1,190	1,418	7	52	59	235	1,242	1,477	95	1,347
45–49	1,265	1,053	2,318	29	73	102	1,294	1,126	2,420	90	2,086
50–54	1,358	922	2,280	28	95	123	1,386	1,017	2,403	90	2,052
55–59	902	583	1,485	33	73	106	935	656	1,591	85	1,262
60–64	711	548	1,259	24	60	84	735	608	1,343	80	1,007
Under 65	4,464	8,496	12,960	121	530	651	4,585	9,026	13,611	[91·3]	11,834
65–69	445	467	912	10	33	43	455	500	955	75	684
70–74	205	187	392	6	17	23	211	204	415	65	255
75–79	61	68	129	—	6	6	61	74	135	30	39
80 and over ...	15	51	66	—	10	10	15	61	76	—	—
TOTAL ...	5,190	9,269	14,459	137	596	733	5,327	9,865	15,192	[88·6]	12,812

TABLE (II)

Estimated number of Dentists in future years resident in Great Britain

31st December	On Dentists' Register					Dentists available for a general dental service					
		Survivors from					Survivors from				
	Survivors from 31.12.42	275 Annual Entrants 1943–47	400 Annual Entrants 1948–52	425 Annual Entrants thereafter	Total on Dentists' Register	Survivors from 31.12.42	275 Annual Entrants 1943–47	400 Annual Entrants 1948–52	425 Annual Entrants thereafter	Total available for general dental service	Survivors from 100 further annual entrants in 1948 and thereafter
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1942	14,459	—	—	—	14,459	12,812	—	—	—	12,812	—
1947	12,843	1,352	—	—	14,195	11,013	1,343	—	—	12,356	—
1952	11,089	1,301	1,967	—	14,357	9,140	1,254	1,953	—	12,347	488
1957	9,259	1,246	1,893	2,090	14,488	7,306	1,181	1,824	2,075	12,386	944
1962	7,434	1,185	1,812	4,101	14,532	5,578	1,117	1,717	4,013	12,425	1,374
1967	5,710	1,115	1,724	6,027	14,576	4,011	1,017	1,624	5,837	12,489	1,780
1972	4,174	1,030	1,621	7,858	14,683	2,699	918	1,480	7,563	12,660	2,150
1977	2,891	928	1,499	9,581	14,899	1,745	795	1,336	9,135	13,011	2,484
1982	1,889	802	1,350	11,173	15,214	1,063	647	1,156	10,555	13,421	2,773
1987	1,146	653	1,167	12,607	15,573	542	492	941	11,784	13,759	3,008

APPENDIX B.

TABLE SHOWING THE DENTAL CONDITION OF MALE RECRUITS TO THE ARMY

Age Group	Percentage requiring treatment	Average Conservations required per man	Average Extractions required per man	Percentage in possession of essential dentures	Percentage requiring essential dentures	Average missing teeth per man	Oral Hygiene Percentage		
							Good	Fair	Neglected
	%			%	%		%	%	%
18	98·5	2·9	1·1	3·5	3·4	3·2	44	45	11
19	95·4	3·1	1·5	3·6	3·4	3·5	32	60	8
20	92·5	3·4	1·6	8·2	4·9	3·9	33	52	15
21	91·8	3·9	·8	10·3	8·0	3·4	28	62	10
22	89·4	2·7	1·5	12·5	8·1	4·8	25	65	10
23	88·6	3·3	1·5	13·4	8·2	4·8	30	60	10
24	85·4	2·6	1·1	15·1	8·3	5·2	33	52	15
25	82·3	2·0	1·1	17·6	8·1	5·3	24	64	12
26	80·0	2·0	1·0	20·0	7·2	5·4	29	57	14
27	92·0	1·9	1·8	18·1	10·0	6·0	17	53	30
28	90·0	2·0	2·0	17·2	14·4	7·1	17	75	8
29	88·0	1·8	2·6	17·1	14·0	7·4	21	60	19
30	87·0	1·6	2·1	18·0	14·0	7·8	27	59	14
				SUMMARY					
18–30	90·0	2·5	1·5	13·4	10·0	5·1	27·7	58·7	13·5

TABLE SHOWING THE DENTAL CONDITION OF FEMALE RECRUITS TO THE AUXILIARY TERRITORIAL SERVICE

Age Group	Percentage requiring treatment	Average Conservations required per auxiliary	Average Extractions required per auxiliary	Percentage in possession of essential dentures	Percentage requiring essential dentures	Average missing teeth per auxiliary	Oral Hygiene Percentage		
							Good	Fair	Neglected
	%			%	%		%	%	%
17	94	2·5	·8	Nil	Nil	2·2	50	42	8
18	90	2·4	1·0	1·8	2·2	2·7	38	55	7
19	87	2·4	1·0	2·0	2·5	3·0	60	30	10
20	82	2·7	1·3	3·0	5·0	5·1	40	45	15
21	87	2·6	1·2	2·0	5·5	5·0	35	59	6
22	82	2·3	·95	3·0	5·3	4·9	50	40	10
23	82	2·0	1·5	4·0	7·3	5·0	66	26	8
24	83	2·1	1·1	6·1	6·2	6·0	33	58	9
25	81	2·0	1·3	8·5	7·9	7·0	46	47	7
				SUMMARY					
17–25	86	2·3	1·06	3·4	4·6	4·5	46	45	9

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