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P R E F A C E .

To the Chairman and Members of the Essex County Council.

I have the honour to present my twenty-seventh Annual Report for the year 1945 (the fifty-sixth to be issued) on the health services of the Administrative County of Essex. The very late publication of this Report is much regretted, but it has been unavoidable and is due to the many changes of staff and to the inception of annual necessary preparation for the many post-war schemes.

In the appropriate sections of the report are given the usual statistical tables from which the following summarised version is taken :—

Birth-rate decreased from 19.4 to 17.3.

Death-rate decreased from 11.8 to 11.5.

Infant Mortality increased slightly from 38 to 39, the rate for England and Wales remaining at 46.0.

Maternal Mortality in the County Council's Welfare Area decreased again from 2.11 to 1.69.

Smallpox has been absent from the Administrative County since 1934.

Notifiable Diseases Notifications increased from the exceptionally low figure of 13,137 in 1944 to 22,431 in 1945. Measles showed a marked increase from 3,044 to 15,591; whilst there were fewer cases of Scarlet Fever, Whooping Cough and Pneumonia.

Part I—General.

Grouped in this Section of the report are the usual vital statistics and details of those services which may broadly be termed as preventive. The latter include such subjects as rivers pollution, water supplies, milk supplies, laboratory service, rural housing, food and drugs. In this Section this year a special feature has been made of the valuable work carried out by the Essex Epidemiological Committee, which holds monthly meetings at the County Hall, Chelmsford. It was felt that the reports and memoranda which have been included needed a permanent record in the County and were so valuable as to demand wider publicity by means of this Annual Report.

The comprehensive pathological laboratory service started in March, 1942, in association with the Ministry of Health, is now definitely established and the County is much indebted to the Sector Pathologist (Prof. S. P. Bedson) for his valuable help in many directions. He has since the end of the war been succeeded by Dr. C. Barwell and at the invitation of the County Council has kindly consented to assist in an honorary capacity as and when required. I take this opportunity of recording my grateful thanks for his invaluable help during the difficult war period.

Sewage works and the prevention of rivers pollution are matters which have been overshadowed by more urgent problems. Little has been done during the war to carry out necessary repairs and extensions, as the Ministry of Health ruled that such

work could not be regarded as of national importance. Hence Local Sanitary Authorities are faced with an accumulation of work, and the position is aggravated by the programmes for the provision of new houses. The difficulties of these times are appreciated, but it is suggested that the time has arrived for every Authority to bring up to date its sewage disposal works and to prepare schemes where necessary for extensions to those works. Attention is drawn to the brief reference in the report to the work done in connection with sewage works at Aerodromes and Military Camps.

The £15,000,000 set aside by the Minister of Health for grants under the Rural Water Supplies and Sewerage Act, 1944, are proving an incentive to Local Sanitary Authorities. At the end of 1945, schemes estimated to cost nearly £800,000 (1938 figures) had been submitted to the County Council for observations. A County Council's grant scheme had, however, been in operation since 1929, the estimated grants payable in 1945-6 amounting to £12,723, the figure for 1944-5 being £5,027.

One other general feature which makes great demands on the Inspectorial staff is the work dealing with the licensing and sampling of farms where Tuberculin Tested Milk and Accredited Milk are produced. Such licensed farms (265 Tuberculin Tested and 730 Accredited) decreased from 1,018 in 1944 to 995. The Tuberculin Tested licences, however, increased from 221 to 265. Farmers had a difficult time due largely to shortages of labour, equipment and fuel, and this is reflected in the unsatisfactory results of the examination of samples of milk.

In regard to Rural Housing, special mention should be made of the formation of a Joint Advisory Committee for the Administrative County of Essex. This Joint Advisory Committee will be helpful to the Rural District Councils, particularly when dealing with the survey of present housing conditions and when consideration is being given to the action called for by results of such survey.

The final reference to Part I of the Report is in respect to the treatment of Venereal Diseases. We were pleased to welcome Col. J. M. Elliott back from military service to resume his duties at the Central Office. With Mr. Reynold Boyd, who has helped us so much during the war, he has had to cope with the increasing number of attendances of new cases which rose from 2,212 in 1944 to 2,732 in 1945. Fortunately, this rise has been checked by increased facilities and improved treatment, and there is every prospect of a steady decline in the number of new cases as demobilization is completed.

Part II—Provision of Hospital Services.

Extensive reference is made in the report to the considerable amount of work which had to be done during the year 1945. On the one hand there was continued enemy air activity, and on the other there was great difficulty in coping with the finding of accommodation for chronic sick cases, the latter being due very largely to the acute shortage of nursing and domestic staffs.

A notable feature during the year was the publication by the Ministry of Health of the Report of the Surveyors of the Hospital Services of London and the Surrounding Areas. As regards Essex, the Surveyors indicated that in their opinion the most urgent requirements were considered to be—

- (a) The provision of additional Specialist Staff.
- (b) Additional beds and Consultative Out-Patient Departments, in the Metropolitan Area particularly.

In order of priority, the most urgent developments required were considered to be—

- (1) A new Hospital in South Ilford and North Barking.
- (2) Expansion of the Essex County Hospital, Colchester, or the building of a new Hospital.
- (3) A new Hospital at Wanstead.
- (4) Extension and modernization of the East Ham Hospitals.
- (5) A new Hospital in West Ham (Canning Town).

On pages 42 to 47 is given a review of the war-time Emergency Hospital Services in the Administrative County of Essex for the years 1939–1945. It will be seen that at one time, namely, 1942, as many as 5,549 beds were available for casualties, etc., but fortunately not many of them were needed.

A section of this Part of the report also deals with the Nursing Services, including the Civil Nursing Reserve. It calls special attention to the fact that at the end of the year there were 341 vacancies for nurses of all categories in the County Council's Public Health Hospitals and Sanatoria. As a result, and owing to the acute shortage of domestic staff, there were nearly 900 beds which could not be used for patients. Particulars are given of the steps which have been and are being taken to secure additional nurses and additional domestic staff.

Part III—Treatment of Tuberculosis.

It is pleasing to record that there has been a further reduction in the death-rate from all forms of tuberculosis and that the number of deaths from pulmonary tuberculosis has now reached its former lowest level which was recorded in 1938. Fortunately also, the attack rate is showing a steady decline from the increase which took place during 1942 and 1943. There is every prospect of further reductions in both death and attack rates. The work at the Tuberculosis Dispensaries is evidently appreciated as despite the lower attack rate the number of patients on the Dispensary Registers shows a further increase. Probably this is due to the fact that the medical practitioner is notifying cases under the Regulations more promptly, and that there is an increasing willingness on the part of patients to avail themselves of the facilities available under the County Council's Scheme.

Excellent reports are again included from the Medical Superintendents at the Essex County Hospital, Broomfield, the Essex County Council Hospital, Black Notley, and the Harold Court Sanatorium. Each reveals the nature and extent of the work which is now carried out at these valuable hospitals.

The Mass Miniature Radiography Service was successfully launched in 1945 and the total number of miniatures taken during the period April, 1945, to June, 1946 numbered 25,727. As a result, 844 were found to require further investigation. Thirty-nine of this 844 did not attend for further investigation, and the results in the

remaining 805 cases are recorded on page 67. It is significant that the majority of the cases of tuberculosis discovered during these surveys were inactive and many could be regarded as soundly healed.

There was a great increase in the activities of the Tuberculosis Care Associations, which during the year ended March, 1946, expended no less a sum than £6,793 in providing extras for necessitous cases, the figure for the previous year being £3,783. It is gratifying to note the continued activity of these Voluntary Associations which help to make easier and more comfortable the life of the necessitous tuberculosis patient.

Part IV—Maternity and Child Welfare.

This section deals with the work carried out in the area for which the County Council is the Maternity and Child Welfare Authority. There was a decrease in the number of births notified in this area, namely, 9,131 in 1944 and 8,468 in 1945.

The Home Helps Scheme was further increased, with the result that the number of homes in which assistance was provided was markedly increased during the year.

Once again there was great pressure upon the accommodation available at the various Maternity Homes throughout the County, but fortunately this has been relieved to a certain extent in the south-western portion of the County by the opening of a Maternity Unit at the Essex County Council Hospital, Wanstead, in 1946.

During the year the 2,000th baby was born at the Danbury Park Maternity Home which was provided as a war measure by General and Mrs. Wigan. On 27th November, 1945, Her Majesty the Queen was graciously pleased to pay an informal visit to Danbury Park in order to present a layette to the mother of the 2,000th baby. It was a memorable occasion and provided an excellent opportunity for all concerned, including the mothers of babies born at Danbury, to express their gratitude for all that had been done. Since the Maternity Home was opened on the first day of the war, it is pleasing to record that General and Mrs. Wigan have received Royal recognition of this valuable contribution during the national emergency.

Increasing use has been made of the services of Mr. Alan Brews, the part-time Obstetric Specialist, who continued to give valuable assistance to Assistant County Medical Officers and medical practitioners in the County Council's Welfare Area.

Conclusion.

Throughout the year the confidence and support of the Chairmen and members of the Public Health and Public Assistance Committees have been a source of strength to the staff in dealing with the many and difficult problems which have arisen. I am especially indebted to the Medical Officers of Health and other Officers of the County District Councils, and to all the members of the staff of the County Public Health Department for their co-operation.

W. A. BULLOUGH,
County Medical Officer.

PUBLIC HEALTH DEPARTMENT,
COUNTY HALL, CHELMSFORD.

8th April, 1947.

PART I.

ACREAGE AND POPULATION.

The following table sets out particulars of the Registrar-General's estimated population for the year 1945, compared with the census figures of 1931. The table gives, as in previous years, the rateable value and the product of a 1d. rate.

	Acres. Census, 1931.	Population. Census, 1931.	Registrar- General's Estimated Population, 1945.	Rateable Value, 1st April, 1945.
Administrative County of Essex	959,464	1,189,004	1,286,610	£10,566,082

The product of a 1d. rate is estimated at £41,099.

SOCIAL CONDITIONS.

The social conditions were given in the report for the year 1937.

VITAL STATISTICS.

The chief vital statistics of the Administrative County compared with those for England and Wales during 1945 are set out below :—

	Essex.		England and Wales.	
	1941-1945.	1945.	1941-1945.	1945.
Birth-Rate per 1,000 population	17.2	17.3	16.0	16.1
Death-Rate per 1,000 population	11.5	11.5	11.9	11.4
Infant Mortality Rate per 1,000 Births ..	39	39	49	46
Still-Births Rate per 1,000 total live and still-births	27	25	Not available.	Not available.

NOTIFICATION OF INFECTIOUS DISEASES.

A summary of the notification of infectious diseases in the various Sanitary Districts during 1945 is set out in Table X on page 86. The table shows that 22,431 persons were notified to be suffering from infectious diseases as compared with 13,137 in the year 1944.

Scarlet Fever was less prevalent than in the previous year. The number of cases of Scarlet Fever notified was 2,045 in 1945 as against 2,448 in 1944, the number of deaths being one and three respectively. There was a considerable increase in the cases of Measles notified during the year, the figures being 15,591 in the year 1945 as compared with 3,044 in the year 1944, the deaths being 15 and four respectively.

The notifications of Whooping Cough showed a decrease, the numbers being 2,060 in 1945 and 4,893 in 1944.

Again in 1945 no cases of Smallpox were notified. With the termination of hostilities, a steady stream of Service men returning from the Far East called for exceptional vigilance in regard to the surveillance of contacts of smallpox. A very large number of such contacts proceeding to addresses in Essex were received from the Military Authorities. These were immediately sent on to the Medical Officer of Health of the County District concerned, for the necessary action to be taken.

Early in 1945 notification was received from Regional Offices of the Ministry of Health indicating that the Ministry was prepared to supplement the resources of the area in connection with the diagnosis of smallpox, by placing the services of its medical staff (telephone Whitehall 4300 (London Region); telephone Cambridge 54461 (Cambridge Region)); with experience in this disease, at the disposal of Medical Officers of Health. The arrangements which previously existed with Dr. Arthur Burrows (telephone Brentwood 2423), who has acted as smallpox consultant for many years, have been modified to the extent that in future, the specialist services provided by the Ministry will be called upon in the first instance.

In cases where assistance of this description is required, full details should be telephoned to the Public Health Department, County Hall, Chelmsford (Chelmsford 83231) or after office hours, direct to the Ministry of Health (Whitehall 4300).

Assistance to General Practitioners and Householders in case of Epidemics.

At the request of the Ministry of Health, the arrangement set out in the Report for 1944 for providing assistance to Medical Practitioners and Householders to overcome hardship and difficulties which might be caused by epidemics, were again put into operation in the latter part of the year under review. In addition to the arrangements set out in last year's Report, provision was made for assistance to be provided for Pharmacists.

Again the state of the public health made it unnecessary for any use to be made of these arrangements.

Diphtheria Immunization.

The close co-operation between the County Council and the County District Councils in regard to diphtheria immunization which was mentioned in last year's Report, continued throughout the year 1945, as also did the propaganda campaign carried out in conjunction with the Ministry of Health. Dr. J. A. H. Brincker, of the Ministry of Health, has kindly provided figures, based on returns received from County District Councils in Essex, in regard to the actual number of children immunized during the year. From these, it appears that the following numbers of children in the Administrative County were immunized against diphtheria during 1945 (figures in brackets are those for 1944):—

Age Groups 0—5	..	..	..	7,979	(11,914)
Age Groups 5—15	..	..	..	12,370	(3,554)
				20,349	(15,468)

Similar information indicates that it was estimated that by the end of the year the following percentages of the child population had been immunized :—

Age Groups 0—5	63.2 per cent.
Age Groups 5—15	80.7 per cent.

The number of notifications of diphtheria during 1945 increased from 160 in 1944 to 219, but this figure was still well below the number of 351 received in 1943.

SCABIES.

The arrangements for the treatment of Scabies during 1945 remained as outlined in the Report for the previous year, except that no supplementary facilities were available from Civil Defence services.

ESSEX EPIDEMIOLOGICAL COMMITTEE.

This Committee, which was formed in 1939, consists of Pathologists, Medical Officers of Health, Medical Superintendents and General Medical Practitioners, its terms of reference being "to survey periodically the infectious diseases occurring in the Administrative County of Essex and to consider what steps (if any) should be taken to combat those diseases." Eight meetings were held during the year, when consideration was given to many subjects, including acute anterior poliomyelitis, typhoid fever convalescents, gastro-enteritis, erythroblastosis foetalis, control of houseflies, malaria, shortage of nursing staffs at sanatoria, sonne dysentery, whooping cough vaccine, typhus fever, puerperal pyrexia, influenza and tetanus.

From time to time the Committee has adopted the practice of issuing memoranda for the guidance of Medical Officers of Health and general medical practitioners. The following memoranda are reproduced in this Report for record purposes :—

- (a) Memorandum relating to "Scarlet Fever"—see Schedule I, page 9.
- (b) Memorandum dealing with Malaria—see Schedule II, page 9.
- (c) Memorandum dealing with Poliomyelitis—see Schedule III, page 12.
- (d) Prevention of the Spread of Infection by Patients after discharge from Hospital—see Schedule IV, page 13.

Special investigations have been carried out by Dr. F. E. Camps, Pathologist, who has kindly submitted reports thereon to the Committee for their consideration. It is felt that some of these ought to be placed on record in an Annual Report and should be given greater publicity as they may be of assistance in other Counties which may at any time be faced with similar problems. Therefore, abridged reports by Dr. Camps are included in this Annual Report dealing with—

- (a) An outbreak of Sonne Dysentery at a Youth Hostel (1943)—Schedule V, page 15.
- (b) An outbreak of Sonne Dysentery at a Hospital (1944)—Schedule VI, page 20.
- (c) A small outbreak (possibly milkborne) of Streptococcal Nasopharyngitis in the Braintree and Bocking Urban District (1944)—Schedule VII, page 21.

SCHEDULE I.

Memorandum relating to "SCARLET FEVER" issued for the guidance of Medical Officers of Health, Medical Officers in charge of Hospitals and General Practitioners in the Administrative County of Essex.

It is generally agreed that "Scarlet Fever" has become so benign as to make largely unnecessary its administrative control as previously exercised. It is recognised also that this condition is only one of the many manifestations of infection with Group A haemolytic streptococci and that there is no justification for isolating in hospital individuals suffering from streptococcal sore throat associated with a rash, whilst ignoring those with a similar sore throat and no rash. To do so does not protect the community but it is impracticable to remove to hospital all those suffering from streptococcal sore throat and it follows that the needs of the particular patient should decide whether or no he should be given hospital accommodation.

Cross infection, which is largely responsible for the complications of "scarlet fever," does not occur if the patient is nursed at home and this is one of the main reasons for advocating home treatment of this disease wherever possible. Although the welfare of the patient is the first consideration, other aspects of the problem cannot be ignored, and one of these is the possibility of the spread of infection by milk or foods which are consumed uncooked, whilst another is the risk of infecting a woman in the later stages of pregnancy. Where, therefore, a case of "scarlet fever" occurs in a household, a member of which is a food handler, or where there is a woman approaching confinement, it would be inadvisable to have the patient nursed at home. It is, therefore, recommended that admission (of cases of "scarlet fever") to hospital should be determined by—

- (1) the severity of the disease ;
- (2) the home nursing facilities ;
- (3) the employment of another member of the household in the preparation or distribution of food for public consumption ;
- (4) the approaching confinement, say within one month, of any female in the patient's home.

It is highly desirable that the public should be informed of the altered view now taken by the medical profession of "scarlet fever," and it is felt that this can best be done by the family doctor.

SCHEDULE II.

Memorandum dealing with MALARIA in this Country and its Control, issued for the guidance of Medical Officers of Health, Medical Officers in charge of Hospitals and General Medical Practitioners in the Administrative County of Essex.

Malaria is a notifiable disease. Mosquitoes capable of transmitting malaria exist in Britain and as the result of the last war, the disease was reintroduced into this country. Between 1917 and 1939 over 500 cases occurred in persons who had never

been abroad, but the incidence was falling steadily and during the four years before the present war few cases were reported. The return now to this country of members of the Forces who have contacted malaria while serving abroad has increased again the risk of indigenous infection, and this danger will be even greater when demobilisation commences. It is not suggested that there will be a risk of serious outbreaks, nor is it the intention of this memorandum to divert attention from the more usual causes of pyrexial illness in this country, but the possibility of malaria being contacted in England will have to be kept in mind, particularly in those rural parts of Kent and Essex where the malaria-transmitting mosquito population is greatest. It should, perhaps, be pointed out that *Anopheles maculipennis* alone of the mosquitoes of Britain has to be considered in connection with the transmission of malaria and that this mosquito feeds on man *indoors*; those species which bite man out of doors do *not* transmit this disease.

In England, the malaria transmission season is short, probably from July to mid-September, but infections with *Plasmodium vivax* (benign tertian)—and all but one of the indigenous cases occurring in this country after the last war were due to *P. vivax*—can remain latent up to ten months in temperate climates such as ours, so that primary attacks may occur in the spring and early summer, when the anopheline population is very low. Primary attacks in people in this country might, therefore, be expected from March to October.

Measures for the control of malaria in this country comprise those directed against mosquito larvae, the destruction of adult mosquitoes in dwelling houses and thirdly the prompt recognition and treatment of human infections. Antilarval measures may at times be of service, particularly where several cases have occurred in a district where the breeding grounds (ponds, lakes, etc.) are few and easily treated. The destruction of mosquitoes in human dwellings by spraying with a suitable insecticide is of definite value and should be undertaken. In this connection, assistance can be obtained from the local Medical Officer of Health. It is, however, by prompt recognition and treatment not only of new cases but also of relapses in those who have contracted the disease overseas, that control of malaria will be most effectively ensured.

The typical attack of malaria with its three classical stages of rigor, fever and sweating, followed by an apyrexial interval is easily recognized; unfortunately, this classical syndrome is not a feature of all malarial attacks. It is impossible here to discuss the various forms which malaria may take, suffice it to say that the clinical picture may be frankly atypical, so much so that malaria should always be suspected in a sick person who has returned within one year from a malarious country, even though there may be no history of previous attacks. It is important also to bear in mind that malaria may complicate or be complicated by other diseases.

The only certain method of diagnosis is the demonstration of the malarial parasite in the blood and for this purpose the Laboratory Service established in Essex is available. Wherever possible the patient should be admitted for investigation to one of the hospitals possessing a laboratory, or failing this and if not too ill, the patient could attend as an out-patient. In this way, the pathologist would have an opportunity not only of seeing the patient, but also of collecting the specimens required under the best possible conditions. In many cases neither of these procedures will be

possible and it will then be necessary for the doctor himself to collect the material and submit it to the laboratory. The following brief instructions are for his guidance in such a case :—

BLOOD FILMS.

Malaria.

The blood of any person suspected of having malaria should be examined once daily on several consecutive days or until a diagnosis is made. Parasites are more readily found several hours after the febrile attack than at the height of the pyrexia. They are scanty and impossible to find in the blood of a person taking quinine or mepacrine. It is important to remember that failure to find malarial parasites does not exclude this disease. When obtaining blood for a film it is important that the skin should be thoroughly clean and dry ; no spirit should remain on the needle used for making the skin puncture. Slides should be clean and free from grease and scratches. Both thick and thin films—at least two of each—should be made as follows :—

THIN FILMS. The bead of blood should not be larger than the head of a pin and should be collected on the slide without allowing the slide to come in contact with the patient's skin. Without delay the spreader (the end of another slide) should be placed at an angle of 45 degrees to the slide and brought in contact with the drop of blood. When the blood has spread along the edge of the spreader the film should be made by gently pushing the spreader along the slide. Heat should not be employed to hasten the drying of the film.

THICK FILMS. The drop of blood should be a little larger than for a thin film. Having collected it on a clean slide, it should be quickly distributed by means of the needle so as to cover an area about the size of a sixpence. If there are many flies about, it is advisable to protect the film while drying by covering it with a saucer.

OTHER LABORATORY INVESTIGATIONS.

Some degree of anaemia and a leucopenia with a relative increase in mononuclear cells are of common occurrence in malaria so that a complete blood count often gives valuable confirmatory evidence. The differential leucocyte count can, of course, be made from the thin film submitted for examination for malarial parasites. Moderately accurate total red and white counts and haemoglobin estimations can be made on blood collected in an oxalate bottle or preferably in a Wintrobe's oxalate tube.

Needless to say, the pathologists in charge of the laboratories in the Essex Service will always be ready to advise as to the correct procedure in the collection and transmission of specimens, or, if necessary, to give practical instruction in the preparation of blood films.

SCHEDULE III.

Memorandum dealing with POLIOMYELITIS, issued for the guidance of Medical Officers of Health, Medical Officers in charge of Hospitals and General Medical Practitioners in the Administrative County of Essex.

Some facts concerning the cause and spread of this disease.

The virus of poliomyelitis, which is one of the smallest infecting man, is found in three situations in infected individuals :

- (1) in the tissue of the central nervous system ;
- (2) in the naso pharynx ;
- (3) in the stools.

It has never been demonstrated in any other part of the body and although its presence in the stools was noted over 30 years ago, its regular excretion by this route has only recently been established. Certain additional facts have to be borne in mind in considering the mode of spread and control of poliomyelitis :

- (1) this disease affects man only ;
- (2) a percentage, probably quite a high one, of the infected, show few or no signs of the infection and act as carriers ;
- (3) although the virus may be found in sewage since it is excreted in the stools, its existence there is probably short lived ;
- (4) flies having fed on infected excreta may carry the virus ;
- (5) this virus, like all other viruses, will only multiply in association with living cells and therefore, unlike bacteria, does not multiply outside the body.

At one time it was thought that the virus of poliomyelitis was passed from infected to susceptible persons solely through the medium of infective droplets, the virus travelling from the nasopharynx to the central nervous system—and the anterior horn cells of the cord in particular—along the axis cylinders of the nerves (this virus is neurotropic, that is to say, it does not multiply readily, if at all, except in nerve cells). Recent work has indicated that this mode of spread is not the only one and that the virus also enters by the alimentary tract through the medium of faecally contaminated food. It seems then that poliomyelitis may be spread either like influenza (infective droplets) or like Sonne dysentery (contaminated food).

What to do when poliomyelitis occurs in a residential community such as a school.

By the time that a clinical case has occurred there are certainly others in whom, however, the manifestations of infection are mild and atypical or entirely absent. Since the demonstration of poliomyelitis virus is a laborious business entailing the use of monkeys, the laboratory cannot aid as a routine measure in detecting these carriers. The measures for the control of the outbreak will, therefore, be based on general principles and our knowledge of the behaviour of this particular disease :

- (1) The clinical case or cases should, of course, be isolated and nursed with full typhoid precautions; bearing in mind that the virus may leave the patient not only by way of the stools, but also by infective droplets. Bed pans should preferably be sterilized by steam.
- (2) Persons with fever should be put to bed and isolated, particularly if they also have headache and stiffness of the neck. Temperatures should be taken morning and evening to detect such cases.
- (3) A standstill order should be placed on the school. Its population should not be dispersed since to do so might mean starting epidemics elsewhere. Should parents insist on removing their children they should be informed of the necessity of isolation for at least three weeks. The School Medical Officer should inform the Medical Officer of Health of the district to which any child is removed.
- (4) General measures to minimize spread of infection from nasopharynx or faeces should be applied to the whole community. The school routine should be reorganized so as to provide open-air conditions whenever possible. Everyone should be reminded of the importance of handwashing after defaecation and before eating.
- (5) Enquiries should be made as to any illness amongst the kitchen staff during the month before the outbreak and any individual with a suspicious history removed temporarily from duty. Attention to handwashing before handling food, and particularly after defaecation, should be rigidly enforced.
- (6) If the school possesses a swimming pool its use should be banned until the standstill is lifted.
- (7) The standstill on the school should be maintained for three weeks from the appearance of the last case. By this time further cases would be unlikely to occur and a large proportion of those excreting virus in the stools would probably have ceased to do so.

SCHEDULE IV.

Prevention of the Spread of Infection by Patients after discharge from Hospital.

Experience in the County Laboratories and the pathological laboratories of the Emergency Medical Service, Sector II, has suggested that medical officers are not always clear when discharging patients from isolation hospitals as to the precautions which are desirable in order to safeguard the public health as far as possible. The following recommendations, drawn up by the Essex Epidemiological Committee, are circulated to Medical Officers of Isolation, General and other Hospitals in the hope that they may be found of use as a guide in these matters.

The Committee will always be glad to advise or give assistance on any points of difficulty :—

Disease.	Laboratory tests required before discharge.
Diphtheria ..	Three consecutive negative nose and throat swabs at intervals of 3 days.
Cerebro-spinal Meningitis	Bacteriological tests unnecessary.
Scarlet Fever ..	Bacteriological tests unnecessary. Patients may be liberated as soon as free of all signs, symptoms and complications, excluding desquamation which can be disregarded.
Enteric Fever ..	Three consecutive negative examinations of stools and urine at weekly intervals. Where the demand for beds is acute, the interval might be shortened to 3 days. In all cases of typhoid fever, the serum of the patients should be examined for the presence of antibodies for the Vi antigen of <i>Bact.typhosum</i>. If they are absent no further action need be taken. If, however, they are present it is an indication that the patient still harbours <i>Bact.typhosum</i> even though examination of the stools and urine have proved negative and a second test for Vi antibody should be made in 3 months time. If Vi agglutinins have then disappeared it may be concluded that the patient has ceased to carry typhoid bacilli and nothing further need be done. If, however, Vi agglutinins are present in a titre as high or higher than before, stools and urine should be examined twice weekly for three weeks, or failing this, on six occasions with as long an interval as possible between the samples. If typhoid bacilli are found, the patient is to be regarded as a persistent carrier; if they are not, it might be advisable to repeat the Vi agglutination test for 3 months later to see whether the titre is falling. Further action would have to depend on circumstances.
Bacillary Dysentery ..	Three consecutive negative examinations of the stool (or of rectal swabs) at intervals of 3 days.
Gastro-enteritis due to <i>Salmonella</i>	Although the organisms may be excreted in the faeces for a month or more, bacteriological tests are unnecessary except in special circumstances, <i>e.g.</i> , food handlers—see Ministry of Health Circular 2198, dated 29th November, 1940.

Collection of specimens of faeces and urine.

Faeces. When convalescents are being examined it is advisable to administer a saline purge beforehand. About a teaspoonful of freshly voided faeces should be sent to the laboratory in a sterile faeces pot. Where delay may occur between the collection

of the specimen and its reception by the laboratory, a portion of the stool should be mixed with 30 per cent. glycerol saline (adjusted to pH 8.0 with sodium phosphate). Alternatively rectal swabs may be used. Insertion of the swab is facilitated if it has been moistened and for this purpose sterile saline or boiling water can be used.

Urine. Urine should be sent to the laboratory in a sterile container with a screw cap or tightly fitting stopper.

Laboratory Methods.

If the above release tests are to be of value it is essential that they should be made by reliable methods. The following laboratory methods are recommended :—

- | | | |
|------------------------|-------|--|
| Enteric Fever | .. | Wilson and Blair's medium and desoxycholate-citrate agar plates should be used for direct plating and also for plating from an enrichment medium such as tetrathionate broth. |
| Bacillary dysentery | .. | Desoxycholate-citrate agar plates should be used. |
| Vi agglutination tests | .. | As a safeguard against variations in the agglutinability of different batches of the preserved suspension, it is advisable to store a Vi positive specimen and re-test it simultaneously with the subsequent specimen. The serum should not be inactivated by heating nor should any disinfectant be added. If it is handled with care for sterility, the Vi agglutinin titre will remain unaltered for periods up to several years. |
| Diphtheria | .. .. | Swabs should be examined culturally on one of the tellurite media. |

SCHEDULE V.

(1) **Abridged Report by Dr. F. E. Camps upon an outbreak of Sonne Dysentery at Peckers Youth Hostel.**

On Thursday, July 29th, 1943, a report was received from Peckers Youth Hostel at Great Canfield about cases of acute gastro-enteritis that had occurred, and in the late afternoon Dr. Camps visited the Camp. The history given at the time was that the Camp, which consisted of adult members of the Youth Hostel in the house and children numbering 119, together with masters and mistresses drawn from the South West Essex Technical College, Walthamstow, had assembled on Saturday, July 24th. Apparently there was no illness at the time nor had any of the outgoing members of the Camp or house complained of any symptoms. On Sunday, July 25th, the Camp had three visitors. One of these visitors was ill on that day whilst two were unwell on the succeeding days with symptoms of enteritis. Examination of rectal swabs undertaken at the end of that week were negative. On Tuesday, July 27th, two children reported sick and were found to be complaining of sickness, diarrhoea and abdominal pain and to have elevated temperatures. A doctor was called in who diagnosed Infective Hepatitis, and on his instructions they were sent home at once.

It later transpired that one of these children had been unwell on the previous Thursday, July 22nd, but her symptoms had disappeared when she came down to Camp on Saturday. Bacteriological examination of a rectal swab taken from her at home at the end of the week was positive for Sonne dysentery. Further cases occurred during the night of July 27th, the 28th and on the morning of the 29th, and it was at this stage that the County Medical Officer was notified.

On clinical examination of the sick children at the Camp, and from the description of the epidemic, it became apparent that the outbreak was one of a bacterial alimentary infection of the dysenteric type and probably from the mildness of the symptoms Sonne dysentery. From the fact that cases had occurred only in the Camp and not in the house, and that the milk, water and food supplies were common to both, it was immediately clear that the source of infection *must* lie in the Camp. Examination of the Camp showed an unsatisfactory state of affairs; the latrines, which were Elsan chemical closets, contained no disinfectant and, in the case of the girls', were situated only a short distance from the dining and food preparation tent. Furthermore, food was being handled without the preliminary washing of hands by the children, and facilities were far from satisfactory for the children to wash their hands after going to the lavatory. All these facts taken in conjunction with the very hot weather and the large fly population, clearly predisposed to an epidemic of alimentary infection. Immediate measures were taken to control the epidemic and these consisted of disinfecting all Elsan closets, an overhaul of sanitary arrangements and storage of food and instructions in elementary hygiene in regard to handling of food and washing of hands.

It was found that there was no accommodation for sick children in the nature of an isolation room nor was there any Nurse available. In view of this, it was decided to transfer all sick children to hospital, to establish an isolation room and to install properly trained nursing personnel to supervise these arrangements. Accordingly, with the aid of the A.R.P. service ambulances, all cases were evacuated first to Black Notley Emergency Hospital, later to Haymeads Hospital, and still later to St. Margaret's Hospital, again to Black Notley Emergency Hospital and finally St. John's Hospital, until bacteriological findings were negative on the remaining Camp inmates. The Camp was eventually closed by sending home all children who had two successive negative rectal swabs. The results of the various cases are incorporated in the charts which were produced at the meeting. Finally, certain recommendations were made for the future, which it was decided would have to be carried out before the Camp re-opened.

Certain other interesting observations were made during the epidemic, one of these by Professor Bedson, that the infecting strain of Sonne dysentery was atypical from the point of view of sugar reactions although typical serologically. These observations in detail were noted in a chart produced at the meeting.

Treatment in various hospitals varied; in Black Notley Emergency Hospital some cases were treated with sulphaguanidine whilst other control cases were treated with a saline purgative; at Haymeads Hospital, some cases were treated with sulphapyridine, and others untreated as controls. Comparison of these results showed that the general trend of opinion was that all cases were mild. Dr. Grant, of Black Notley,

Hospital, noted one case of granulopenia amongst cases treated with sulphaguanadine, and from this it would appear that it was unwise to use such treatment in cases one might expect to improve spontaneously.

A further observation was made as to the question of notification of dysentery, for at the present moment it is an extremely common disease and no specific measures have been taken to control it.

Conclusions.

An outbreak of Sonne dysentery has been described in a holiday camp.

The actual mode of introduction into the camp is obscure, but it seems probable that it was introduced on Sunday, July 23rd, by visitors, although the possibility of one of the children being a carrier cannot be completely left out.

The conditions favouring such an epidemic are outlined and measures taken to control it given.

Clinical observations and also effects of treatment are noted.

(Sd.) F. E. CAMPS.

2) Report by Dr. A. Grant upon cases of Sonne Dysentery treated at Black Notley Hospital.

A total of 41 cases were admitted, of which 4 were not cases of dysentery, but had pyrexia due to upper respiratory infections. The remaining cases presented the clinical features of dysentery and *B. dysenteriae* Sonne was cultured from the stools.

The children were accommodated in two wards cleared except of a small number of soldiers also admitted as suspected cases of dysentery. All cases were kept in bed until at least two negative stool cultures had been obtained consecutively. Separate bed-pans were provided for each case and sterilized with Dettol after use. All crockery and cutlery was boiled.

The children were of good intelligence and clean habits and co-operative. This eased the nursing problem and there was no spread of infection to the non-dysenteric cases or nursing staff.

Typically the clinical picture was of an ill-looking child with dry skin and tongue and pyrexia 100—102. There was general malaise, frontal headache and anorexia. About one in three complained of nausea and a few had vomited once or twice at the onset. Abdominal discomfort was troublesome only for a short period preceding the motions and there was no tenesmus. From 6 to 8 stools had been the average in the twenty-four hours before admission. The stools were watery, with some excess of mucus in many cases but without noticeable blood. There was tenderness over the course of the colon.

Thirteen unselected cases of the first batch admitted were given sulphaguanidine gm. 4.5 daily for three days followed by gm. 3.0 for four days. The remainder were given general constitutional treatment after an initial purge. In both groups the pyrexia had settled and a feeling of well-being had been restored after about 48 hours in hospital, though slight diarrhoea persisted for several days longer in many cases.

In most of the sulphaguanidine treated cases earlier negative stool cultures were obtained, 11 out of 13 being negative two days after the course of the drug was con-

cluded against 6 out of 17 negatives in the non-sulphaguanidine cases treated for the same period. In many instances, however, positive cultures recurred within the next few days. Thus, no significant advantage could be claimed for sulphaguanidine in the dosage administered; possibly this was inadequate.

A toxic action of sulphaguanidine was observed in one case only, where granulocytopenia occurred which gave rise to temporary anxiety. A report of this case is appended.

SEVERE GRANULOCYTOPENIA FROM SULPHAGUANIDINE.

A recent M.R.C. Memorandum reports that Sulphaguanidine has shown little toxicity to date, although nausea, drug-rash and fever have occasionally been noted. (11) The occurrence of severe granulocytopenia in a patient treated with this drug for Sonne dysentery is, therefore, of some interest.

A girl aged 15 years who complained of headache, vomiting and diarrhoea since the previous day was admitted to an E.M.S. Hospital with a pyrexia of 101.2 and tenderness over the course of the colon. The general condition was good and the frequent watery stools contained no blood or excess of mucus. Desoxycholate cultures produced a heavy growth of *B.dysenteriae* Sonne.

Sulphaguanidine treatment was begun on the third day of the illness, 1.5 gm. being given three times daily for the first three days when, the temperature having become normal and the stool cultures negative, the dose was reduced to 1 gm. three times daily which was continued for four days. Six days after the drug had been discontinued the stools again became relaxed and the stool cultures again became positive. A second course of sulphaguanidine was begun eight days after the conclusion of the first course, 1.5 gm. being given four times daily.

After only two doses had been given, the temperature, previously normal, rose to 100.2 and there was complaint of a feeling of lassitude and slight headache. These symptoms persisted although the temperature showed morning remissions to normal and on the third day of the second course, when a total of 15 gm. had been given, sulphaguanidine was discontinued. At this time the leucocyte count was 5,500 c.mm. of which 64 per cent. were polymorphs, many of which showed toxic granularity. On the following day the temperature showed no morning remission and the leucocyte count had fallen to 4,100 c.mm. of which 38 per cent. were polymorphs. A day later the pyrexia reached 103 and the leucocyte count had fallen to 2,000 c.mm. of which only 10 per cent. were granulocytes.

Sodium pentnucleotide was given in 10 c.c. doses three times daily for four days and twenty-four hours after its commencement the leucocyte count had improved to 4,000 c.mm. Of these 38 per cent. were of the granulocyte series, 4 per cent. being myeloblasts, 16 per cent. myelocytes and 18 per cent. polymorphs. Thenceforth there was gradual improvement, but six days elapsed before primitive white cells ceased to be present in fair numbers and before the temperature became normal. Apart from the appearance of some normablasts during the pentnucleotide treatment the red cells were not affected. There were no necrotic lesions and no petechiae.

Comment : Sulphaguanidine is used in the treatment of bacillary dysentery because of the bacteriostatic action of the proportion of the dose which reaches the colon absorbed and is finally excreted in the faeces. Attention has centred on this action and it requires to be emphasized that approximately two-thirds of the amount administered by mouth is absorbed before the ileocaecal valve is reached.(1) That relatively low blood concentrations occur with this sulphonamide is due in a far greater measure to rapid elimination in the urine than to poor absorption from the intestine.(2) The possibility of agranulocytosis resulting from the administration of sulphaguanidine given to large groups of cases in epidemics when regular checking of the granulocyte count may be impracticable.

That agranulocytosis is liable to occur during second courses of treatment has frequently been observed with other sulphonamides and in the case recorded the early onset of headache, lassitude and slight pyrexia following the resumption of sulphaguanidine is suggestive of a specific sensitisation of the tissues by the first course of the drug.

References.

- M. M.R.C. War Memo. No. 10 "The Medical Use of Sulphonamides," p. 39 and p. 9, 1943.
 F. Firor, W. M. and Poth. E. J. : Ann.Surg.114 : 663, 1941.

Report by Drs. Hill and Lawrence on cases admitted to Haymeads Emergency Hospital from Peckers Camp during outbreak of Sonne Dysentery—July, 1943.

During the period from July 30th to August 1st, 28 children were admitted to the hospital from Peckers Camp. They were aged from 14—16. Six of the children showed no symptoms of the disease and rectal swabs gave negative results. They had been sent in because of slight pyrexia (up to 99 degrees) which, in view of the prevailing climatic conditions, cannot be considered abnormal. Of the remaining 26, 10 were found to have B.dysenteriae Sonne in rectal swabs, the remainder showed the clinical features of dysentery though the swabs were negative and will be considered in the remainder of this report to have had the disease.

Of the 26 cases, 13 were found to have little or no constitutional upset and the remaining 13 were moderately ill. There were no severe cases. The duration of symptoms prior to admission varied from 0—4 days.

All cases were treated by rest in bed, light diet and an initial purge (castor oil or sodium sulphate). Alternate cases received sulphapyridine 2 gms stat and 1 gm 4 hourly till the rectal swab became negative.

The duration of stay in hospital varied from 9 to 21 days with an average of 10 days for the control group and 14 days for the sulphonamide treated group. All were discharged fit, having had three consecutive negative swabs.

Pyrexia lasted for 0—12 days, average 2 days in the controls and 3 days in the treated group. Three cases were apyrexial throughout. Diarrhoea lasted 0—5 days, average 4 days in the controls, 1 day in the treated group. Four cases had no diarrhoea.

The swab continued to be positive for 2—12 days, average 10 days in the control group. Four days in the treated group. In no case did a positive result recur after the drug had been stopped. Toxic rash and drug fever was encountered in 4 cases. The fever was brisk and the rash extensive, but all settled in 2 days after the drug had been stopped.

Conclusions.

Under treatment with sulphapyridine diarrhoea cleared up more rapidly and the organism was eliminated more quickly from the stools. Only the latter feature was sufficiently marked to be statistically significant. Owing to the incidence of toxic reactions, the period of stay in hospital was not shortened appreciably in the treated group. It is concluded that, sulphapyridine has an effect on the causal organism *in vivo*, but that owing to the mild nature of the disease and the short convalescent carrier period, its use is not justified in this disease.

SCHEDULE VI.

Precis of Report made by Dr. F. E. Camps, on outbreak of Sonne Dysentery at St. John's Hospital, Chelmsford, in February and March, 1944.

The first case identified was Nurse S on January 30th, 1944, who was working in the Annexe and other cases were diagnosed in the Annexe in a ward used for sick, aged and infirm. However, examination of the nursing records, with the kind help of the Superintendent Nurse, revealed the fact that other cases of diarrhoea had occurred amongst the old men prior to this date, but as this symptom was a common feature, it had not been stressed. Four nurses and a sister in the Annexe had also had symptoms on January 21st. Cases occurred in the Children's Ward on February 3rd, the average age being from 6 weeks to 11 years. Three of these children died, but in the two cases in which a post mortem was carried out by a Medical Officer, no proof that death was due to Sonne dysentery was obtained. Control measures at first consisted of ceasing admission, isolating cases as far as possible and rectal swabbing all patients in infected wards. As a further precaution, all food workers in the hospital and nursing staff in the infected wards were also examined bacteriologically by means of rectal swabs; these investigations were negative. Sulphaguanadine and sulphasuxadine were used prophylactically and for treatment, a report upon the results of which will be made later.

Certain features of the epidemic appeared of considerable importance :—

- (1) The difficulty arising in controlling an outbreak in a large hospital not originally designed for the purpose for which it is now used.
- (2) The great disadvantage of absence of any isolation facilities.
- (3) The dangers and almost insurmountable difficulties arising from the association of aged and infirm with acute and sub-acute medical and surgical cases in the same hospital with a common staff.

A temporary measure was introduced in dealing with this epidemic, an arrangement being made with the local Medical Officer of Health, Dr. Thomas, by which all bacteriologically positive cases could be admitted into the Isolation Hospital and treated there by the Medical Officers of St. John's Hospital affording continuity of treatment and providing infectious disease facilities for the hospital.

(Sgd.) F. E. CAMPS.

SCHEDULE VII.

Report upon a small outbreak (possibly milkborne) of streptococcal nasopharyngitis in the Braintree and Bocking Urban District.

In reporting to the Committee the facts of this outbreak I must, as a preliminary, admit that although there is evidence to support the origin as being milkborne, owing to circumstances beyond my control, it has been impossible to prove it and there are facts which could sustain a case of ordinary contact infection. One thing, however, can be said definitely, namely, that if it was not milkborne it certainly ought to have been.

I do not propose to go into the details of how the matter came to light, as this will serve no useful purpose, and the important points will follow naturally as a sequence of events in chronological order.

Situated in the Notley Road, Braintree, is a small farm which produces milk and under the zoning system supplies a stretch of Notley Road extending roughly from the railway bridge to the Braintree Urban District boundary just beyond Black Notley Lodge; it also includes Rifle Hill, Buckwoods Road, and Challis Lane. The total number of houses supplied is approximately 200, which contain 563 persons made up as follows:—

Adults	..	..	..	..	..	358
5—15 years	..	..	..	..	..	117
Under 5 years	..	..	..	..	..	88

Any excess of milk is sent to the Wholesaler and pasteurized.

The farm is worked by two brothers named C....., one of whom lives with his family on the premises, and the other lives with his family in Bakers Lane, which is in the Rural District. Both are associated with the milking. It would appear that "Scarlet Fever" has been more than usually prevalent in the Braintree area during the last nine months. On April 12th, 1944, V. C..... (10 years), of Bakers Lane, developed Scarlet Fever and was attended by her doctor, but not notified. On 27th April her sister, S. C..... (2 years) also developed the disease and later discharging nose and ears. She too was not notified and remained at home until about 23rd May, when she was sent to the Isolation Hospital, being discharged on 12th June. During the entire period of the acute illness of these two children, and whilst the child S..... had presumably an infectious discharge from the nose and ears, the father C..... continued in contact with milk. In justice to him it should be said that he sought medical advice on the matter and was told that it was quite safe. No examination other than clinical was made.

No cases of Scarlet Fever were notified from the milk area, although 17 occurred in other parts of Braintree, until 11th May, when T. R. (7 years) developed the disease, to be followed by his brother P. on 17th May. Both were notified. A brother of these two boys was employed as a milker by the C. and was stood off work from the 12th until the 22nd May; he returned only after found to be bacteriologically negative.

In the meantime between the 11th May and 24th May, eleven other cases of Scarlet Fever occurred amongst the milk consumers as compared with a total of only three cases in the whole Braintree Urban District in the same period. After this no further cases were reported until 10th June, when S. C. (13 years), the daughter of the farmer, developed Scarlet Fever. Investigation has shown that she was in contact with the sister of R. M. (9 years), who, although her brother had developed Scarlet Fever (unnotified) on 16th May, had continued to attend school. S. C. was followed by five more cases, amongst whom was her mother. Two families were involved, comprising three and two cases, and they also live in close proximity to one another in Buckwoods Road.

On 11th June the farmer's family had no further contact with milk, and on 15th June both the C. brothers had their throats swabbed, which showed in each case a profuse growth of *Str. pyogenes* type 1, as also did S. and Mrs. C. On 18th June, C. (Bakers Lane) ceased to have contact with milk. Investigating back, it was found that the farmer had had hay fever for some time which taken in association with the positive bacteriological findings, suggests a chronic sinusitis. He is being examined by an ear, nose and throat surgeon.

Unfortunately, from the epidemiological point of view, no swabs from cases were sent to the public health laboratory at Black Notley Hospital, and hence any reconstruction must be purely circumstantial. This postulates the first outbreak as having arisen from the C. children at Bakers Lane and being transmitted to the milk either by their father or by his infecting his brother at Lodge Farm. The second outbreak could have been caused in the same way or by the sister of R. M. who may have infected S. C., the farmer's daughter, who in her turn conveyed the infection to her father. It was not until 19th June that Mr. Marsh and myself were called in, and it was then a case of shutting the stable door after the horse was out, although I felt that in the interests of the community immediate measures must be taken to prevent any spread by milk if it was occurring. These measures took the usual form in a milkborne epidemic :—

- (1) Cessation of contact by any suspect persons or contacts which in this case was only the Bakers Lane C., as the Farmer C. had already been stopped by his doctor and had left the farm.
- (2) Bacteriological investigations of both these men, which proved them both to be carrying the organisms (type 1 *Str. pyogenes*).
- (3) All milkers to wear masks until proved bacteriologically negative.
- (4) A survey of the milking utensils, etc., and their sterilization.
- (5) Examination of the milk bacteriologically and pasteurization until proved clear. The samples taken as groups were all negative.
- (6) Notifications of practitioners of the possibility of a milk infection.

Summary.

The evidence in favour of a milkborne epidemic is the explosive nature of the outbreak even on such a small scale and the probability that many more milder cases occurred. It should be noted at this point that only "rash" cases have been collected which are probably *not* the largest proportion. This is based on previous experience, which in the Chelmsford outbreak (type 2) showed of 852 cases recorded 401 having had rashes which is about 50 per cent. However, the cases unrecorded almost certainly had no rash and hence the proportion was probably more in the nature of 33 per cent. In the Doncaster outbreak 135 cases had rashes in 364, which is about 37 per cent.

The most suggestive evidence is of course the presence of infectious milkers. It will be recollected that two ways of infecting the milk can occur, firstly, droplet infection into the milk from the milker, which usually owing it is alleged, to the inhibiting property of the milk on the growth of *Str.pyogenes* will cause a smaller number of cases and secondly the actual infection of the cows udder with *Str.pyogenes* (human pathogen) which will usually result in a large number of cases. The bacteriological evidence here excludes the latter. Other circumstances would be due to the war and would account for the absence of the normally high proportion of adults, namely, the shortage of milk, making it unlikely to be drunk by itself, whereas the children with their additional milk, might well take it raw. Further, it is possible that the outbreak would be modified by the majority of children taking their milk at school (where it came from a different source) and hence less raw milk at home. Against a milkborne epidemic is the possibility of contact cases, but such cases are inevitable when the household milk supply is the same.

Discussion.

This centres around the cause of the possible outbreak and how it could have been avoided. There appear to have been two small outbreaks, the first occurring in May, can be attributed to C. (Bakers Lane) having been allowed to break all the rules of public health which was due primarily to a failure to notify his children's illness. Had it been notified then the Public Health authorities would have stopped him milking until he was shown to have been bacteriologically "clear" and at the same time "cleansed" the C. household. This would also have required an investigation of the dairy and its workers, and hence all possible chance of any milk infection would have been removed. It may be asked why I have not collected more cases, but the reason for this was that it appeared advisable *not* to focus the attention of the lay public on the outbreak once it was satisfactorily controlled.

Before concluding, it will be of interest to the Committee to hear that it was suggested that isolation of Scarlet Fever at home was impracticable as the children mixed with the next door neighbours; an obvious misinterpretation of the meaning of the word *isolation*. In addition, the memorandum (see Schedule I on page 9) was misinterpreted when the milk contacts families were nursed at home.

(Sgd.) F. E. CAMPS.

CANCER.

The number of deaths occurring in the County from cancer during the year 1945 is shown in the table below. The death rate per 1,000 of the population increased from 1.85 in 1944 to 1.93 in the year under review :—

	Age Period.						Total.
	0—	1—	5—	15—	45—	65—	
Borough and Urban Districts	—	2	6	137	817	1065	2027
Rural Districts	—	—	—	18	138	296	452
Total for Administrative County	—	2	6	155	955	1361	2479

Various steps have been taken since 1939 to implement the requirements of the Ministry of Health in respect to the treatment of cancer in the administrative County. These steps were based broadly on the following requirements :—

- (a) a comprehensive Scheme to give effect to the Cancer Act, 1939 ;
- (b) the establishment of a deep X-ray therapy department at the Oldchurch County Hospital, Romford ;
- (c) close co-ordination with the existing Cancer Unit at the London Hospital.

In 1945 the Ministry of Health approved Interim Arrangements for the Diagnosis and Treatment of Cancer, and Kindred Matters under the Cancer Act, 1939. These are set out below. Closer co-operation has been effected with the London Hospital, and arising therefrom it is anticipated that a wider scheme based on the requirements of the geographical County, may ultimately be brought into being.

Interim Arrangements.

The interim arrangements approved by the Minister of Health under Section 11 of the Cancer Act, 1939, provide for :—

- (1) Facilities for the diagnosis and treatment, including in-patient treatment and medical observation after treatment, at the London Hospital, White-chapel, E.1, and the Oldchurch County Hospital, Romford. Provision is made for the Radiotherapist at the London Hospital to be associated with the treatment provided at the Oldchurch County Hospital ;
- (2) The payment of travelling expenses, including those of a companion, to patients availing themselves of the services provided ;
- (3) The examination of pathological specimens at the London Hospital ; the keeping of records ; the provision of staff and equipment and such other arrangements that may be incidental or consequential

TREATMENT OF VENEREAL DISEASES.

I am indebted to the County Council's Consultant Venereologist, Mr. Reynold H. Boyd, F.R.C.S., for the following :—

During the five years preceding the war the incidence of Venereal Disease had declined to a minimum as a result of increased clinic facilities, helped by publicity and educational campaigns, and the settled and prosperous social conditions. At the outbreak of war there was, as there always is, a sharp increase in the figures, due to the disturbed times and the uprooting of home ties. During the next few years the number of cases of Venereal Disease steadily rose, being finally controlled by improved contact-tracing and better treatment methods, notable amongst which were the latest sulfa drugs. The situation appeared well under control, but in 1945, the year we are reviewing, there was again a large increase in the figures which rose from 2,218 new cases in 1944 to 2,732 for the year 1945. The reasons were threefold :—

- (1) The return of many displaced persons to difficult and altered home conditions ;
- (2) Demobilization of men who had been treated in the services, but whose tests of cure were to be completed at civilian centres ;
- (3) Infection imported from Germany contracted by men on the eve of leave and left with their contacts in England when they returned.

Again the rising graph line was steadied by extending clinic facilities, by the efforts of the social worker in contact-tracing and rounding up of defaulters, by the stricter enforcement of Regulation 33B, and by the introduction of penicillin. This drug was now more available and was used extensively in the treatment of gonorrhoea and early syphilis, and by its rapid effect it has undoubtedly lessened the period of infectivity and the spread of Venereal Disease. It must not be thought, however, that it is a complete answer to V.D. problems or that it will lead to their eradication. It is but an additional arm in our treatment.

In October, 1945, Col. J. M. Elliott returned from his long war service to resume the administration of this branch of the Essex Public Health Services and to share the rapidly increasing burden of clinical work with Mr. Reynold Boyd. It immediately became possible to have another evening session at the Oldchurch Hospital, Romford, thus relieving the congestion at the other clinics.

Thus the year that has shown such an alarming rise in our attendance figures has ended satisfactorily with this rise checked by increased facilities and improved treatment and we can now look forward with confidence to maintaining this control and to a steady decline as demobilization is completed.

Attendances at Clinics.

On page 27 is set out the usual table giving the number of new patients and attendances at clinics.

Travelling Facilities.

During the financial year ended 31st March, 1946, fares of necessitous patients to and from the nearest clinic were paid by the Council at a cost of £55 8s. 10d.

Regulation 33B.

Below is set out a summary of the working of this Defence Regulation during the year :—

	M.	F.	Total.
(1) (a) Total number of contacts in respect of whom Form 1 was received	3	118	121
(b) Number in (a) transferred from other areas	—	7	7
(2) Number of cases in (1) in which attempts were made during the current period outside the scope of the Regulation, to persuade the contact to be examined before the latter had been named on a second Form 1	3	92	95
Contacts found	3	51	54
Contacts examined or already under treatment	—	42	42
(3) (a) Number of those on (1) in respect of whom two or more Forms 1 were received	—	22	22
(b) Number included in (3) (a) in respect of whom the first Form 1 was previously reported under (1)	—	5	5
(c) Number included in (3) (a) transferred from other areas	—	2	2
(4) Number of those in (3) (a) who were :—			
(i) Found	—	12	12
(ii) Examined after persuasion or already under treatment	—	8	8
(iii) Served with Form 2	—	4	4
(iv) Examined after Service of Form 2	—	2	2
(v) Prosecuted for failure :—			
(a) to attend for and submit to medical examination	—	—	—
(b) to submit to and continue treatment	—	2	2
(vi) Transferred to other areas	—	3	3
(vii) Cannot be found	—	6	6
(viii) Referred back to Canadian Army	—	1	1

Social Worker.

During the year 1945, the Social Worker appointed in accordance with Ministry of Health Circular 2834, dated 23rd July, 1943, paid 621 visits, 243 of which were in respect to Defaulters (338 in 1944), and 378 to persons who had been the subject of both single and double notifications under Defence Regulation 33B (205 in 1944). In regard to the latter, it is of interest to note that only 54 (14 per cent.) of the persons who had been the subject of notification were actually found. Of these, 42 or 78 per cent., attended an approved clinic.

TREATMENT OF VENEREAL DISEASE, YEAR 1945.

Treatment Centre.	Patients from all Areas.	Total No. treated for first time.	ESSEX PATIENTS					Total No. of Attendants of Essex Patients.	In-patient Days.
			Total Number treated for first time suffering from						
			Syphilis.	Soft Chancere.	Gonorrhoea.	Not V. D.	Total.		
London Hospitals	...	27,764	76	1	184	885	1,146	13,149	332
St. Bartholomew's, London...	...	643	—	—	4	4	8	22	—
Romford	...	647	69	—	110	461	640	8,500	810
Chelmsford	...	232	20	2	52	158	232	2,341	134
Colchester	...	332	32	—	78	208	318	3,822	212
Harwich	...	30	4	—	2	19	25	273	—
Ipswich	...	412	4	—	3	6	13	144	—
Southend	...	673	19	—	31	93	143	1,291	—
Gravesend	...	262	6	—	13	62	81	1,382	—
Bishops Stortford	...	137	—	—	10	19	29	137	—
Tottenham	...	811	9	—	9	79	97	420	—
Total for 1945...	...	31,943	239	3	496	1,994	2,732	31,481	—
Total for 1944...	...	24,796	217	4	412	1,585	2,218	29,435	—
" 1943...	...	26,605	205	4	374	1,490	2,073	30,125	—
" 1942...	...	19,430	211	4	422	913	1,550	28,117	—
" 1941...	...	18,254	207	3	429	703	1,342	24,062	—

VACCINATION.

During the year ended 31st December, 1944 (the latest period for which complete information is available) the Vaccination Officers' returns summarized in Table III show that 22,288 births were registered. Of these, 8,526 were successfully vaccinated and in 8,609 instances a statutory declaration of conscientious objection was made. Of the remaining 5,153 births, 1,186 removed to places unknown, 1,595 removed to districts of other Vaccination Officers who were duly notified. In 135 cases vaccination was postponed by medical certificate, 76 proved insusceptible to vaccination and 607 died unvaccinated. At the end of the year, 1,554 births remained which had not been entered in the vaccination register or temporarily accounted for in the report book.

LABORATORY SERVICE.

BACTERIOLOGICAL LABORATORY SERVICE. The comprehensive service as outlined in Form P.H. 28, dated March, 1942, and by agreement with the Ministry of Health, was continued throughout the year. Specimens were again received and examined at the six laboratories included in that agreement. A summary of the work undertaken at each laboratory is given below on the unit basis which has been in operation since October, 1943 :—

Laboratory.	No. of Units.
Billericay, St. Andrew's Hospital	52,244
Black Notley, Essex County Council Hospital	38,660
Broomfield, Essex County Council Hospital	56,624
Colchester, Essex County Hospital	67,253
Epping, St. Margaret's Hospital	48,903
Romford, Oldchurch County Hospital	116,200
	379,884

Taken at the average rate of four units per specimen, the total number of specimens reached 94,971 for the year 1945, against 87,152 for the year 1944.

SUPPLEMENTARY LABORATORY SERVICE. The Counties Public Health Laboratories, Gidea Park, continued the arrangements for a prescribed area which area incorporated in Form P.H. 28a. Below is a summary of the work carried out at this laboratory :—

Kind of Sample.	No. of Examinations.
Water	405
Sewage effluents	356
Milk, Ice Cream and other foods	1,214

OTHER LABORATORY SERVICES. Samples of milk (see pages 34-35), taken from County Council Hospitals, Institutions and Children's Homes, Schools, Farms, Central Depots and in course of delivery to the consumer are examined by :—

Laboratory.	Examination undertaken.
Essex Institute of Agriculture, Writtle	Bacteriological.
Dr. A. L. Sheather, Chorley Wood	Biological.

TABLE II.
VACCINATION.

Guardians Committee Areas.	No. of Births in "Birth List Sheets" registered 1st Jan. to 31st Dec., 1944.	No. of these Births entered by 31.1.46 in Cols. I, II, IV and V of the "Vaccination Register" (Birth List Sheets), viz. :—					No. of Births which on 31.1.46 remained unentered in the "Vaccination Register" on account of :—			No. of these Births remaining 31.1.46 neither entered in the "Vaccination Register" nor temporarily accounted for in "Report Book."	No. of Certificates of successful Primary Vaccination of Children under 14 received during 1945.	No. of Statutory Declarations of Conscientious objection received by V. O. during 1945.
		Col. I. Successfully vaccinated.	Col. II.		Col. IV. No. of Statutory Declarations.	Col. V. Died unvaccinated.	Postponement by medical certificate.	Removal to Districts the Vaccination Officers of which have been appraised.	Removal to places to unknown and cases not found.			
			Inusceptible of vaccination.	Had Small-pox.								
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Braintree ..	890	408	11	—	409	23	6	21	10	2	464	351
Chelmsford ..	3,645	1,484	10	—	1,168	99	21	557	101	205	1,378	978
Colchester ..	2,521	1,298	8	—	946	65	1	98	75	30	1,517	858
Epping ..	1,459	489	12	—	795	26	7	100	24	6	444	747
Saffron Walden ..	544	335	1	—	156	17	—	11	24	—	451	144
Southern ..	7,115	2,474	20	—	2,644	232	61	380	425	879	3,240	2,616
South-Eastern ..	2,391	650	6	—	1,111	54	14	248	98	210	731	1,107
South-Western ..	3,723	1,388	8	—	1,380	91	25	180	429	222	2,179	1,210
	22,288	8,526	76	—	8,609	607	135	1,595	1,186	1,554	10,404	8,011

The Totals of the figures in columns 3 to 11 agree with the figure in Column 2.

SEWAGE WORKS AND RIVERS POLLUTION.

Table III on page 31 gives details of the samples of sewage and trade effluents obtained during the year. 396 visits were paid to the sewage works, when 323 samples were taken. Of these, 93 or 28.8 per cent., failed to comply with the standard laid down by the Essex County Council. In each unsatisfactory case, an appropriate representation was made to the Authority concerned, but unfortunately very little can be done until materials and labour become more readily available for this class of work, except in cases of national importance or those for which priority can be claimed. There are several sewage works where major improvements are needed, and acute problems will arise at other works when the new housing schemes are completed.

Special reference must be made to a new item in the Table, namely, Sewage Works at Aerodromes and Military Camps. In view of the fact that four rivers in the County are used as sources of public water supplies, it was important that the best possible arrangements should be made for the disposal of sewage from aerodromes and camps. Fortunately, the Ministries concerned readily appreciated the need for co-operating with the Local Sanitary Authorities and the County Council, with one valuable result so far as the future is concerned, namely, it secured the siting of some of the sewage disposal works so that after the war they could be taken over by the Local Sanitary Authorities under sewerage and sewage disposal schemes for the villages in the locality.

Before the war, a sewage disposal works had been operating for some years at one permanent Aerodrome. During the war 27 emergency disposal works were constructed, and in addition there were many small plants provided at large houses and camps throughout the County. 207 samples were obtained during the past few years from the 27 works, and 108 (52.2 per cent.) were unsatisfactory. The reasons for this high percentage of failures included the following :—

- (a) Faulty construction of some of the works due to rapid erection, particularly the filter beds ;
- (b) Faulty operation of works due to inexperienced labour, frequent changes in supervising personnel, and lack of operating equipment ;
- (c) Overloading of the works—standard works for a population of 2,000 at times had to serve a population of 4,000 or more ;
- (d) Excessive quantities of grease reaching the works—even where existing grease traps were cleansed the contents were often discharged into the nearest manhole ;
- (e) Oil and petrol often passed with swilling down and water into the drains ;
- (f) Contents of chemical closets brought from dispersal and other Camps were at times discharged in large quantities into manholes.

TABLE III.

SHewing SEWAGE WORKS, NUMBER OF VISITS AND NUMBER OF SAMPLES TAKEN DURING THE YEAR 1945.

Catchment Area.	Sewage Works.	Sanitary District.	No. of Visits.	Samples taken.		Total.
				No. satisfactory or on border line.	No. unsatisfactory.	
Beam ..	Romford and Hornchurch Jt. ..	Romford B. and Hornchurch	.. 3 ..	4	5	9
Blackwater	Bocking ..	Braintree and Bocking U.	.. 5 ..	3	2	5
	Coggeshall ..	Braintree R.	.. 5 ..	4	—	4
	Kelvedon ..	Do. ..	.. 7 ..	4	2	6
	Latchingdon ..	Maldon R.	.. 1 ..	—	—	—
	Silver End ..	Witham U.	.. 3 ..	3	—	3
	Tillingham ..	Maldon R.	.. 1 ..	1	—	1
	Witham ..	Witham U.	.. 5 ..	5	—	5
Brain ..	Braintree ..	Braintree and Bocking U.	.. 5 ..	—	4	4
	White Notley ..	Braintree R.	.. 8 ..	7	—	7
Cam ..	Newport ..	Saffron Walden R.	.. 4 ..	1	2	3
	Saffron Walden ..	Saffron Walden B.	.. 3 ..	—	3	3
Chelmer ..	Chelmsford Jt. ..	Chelmsford B.	.. 4 ..	4	—	4
	Dunmow ..	Dunmow R.	.. 5 ..	1	6	7
	Felstead ..	Do. ..	.. 6 ..	4	—	4
	Thaxted ..	Do. ..	.. 4 ..	—	3	3
Colne ..	Earls Colne ..	Halstead R.	.. 5 ..	4	—	4
	Tiptree ..	Lexden and Winstree R.	.. 4 ..	4	—	4
	East Donyland ..	Do. ..	.. 2 ..	1	—	1
	Laver Breton ..	Do. ..	.. 2 ..	—	—	—
	Halstead ..	Halstead U.	.. 4 ..	—	4	4
	Sible Hedingham ..	Halstead R.	.. 4 ..	—	1	1
	Tolleshunt Knights ..	Maldon R.	.. 2 ..	—	2	2
	Great Bentley ..	Tendring R.	.. 5 ..	2	2	4
Crouch ..	Burnham ..	Burnham U.	.. 1 ..	—	1	1
	Laindon ..	Billericay U.	.. 3 ..	1	1	2
	Wickford (Louvaine Avenue) ..	Do. ..	.. 1 ..	—	1	1
	Great Burstead ..	Do. ..	.. 3 ..	3	—	3
Holland ..	Thorpe-le-Soken ..	Tendring R.	.. 4 ..	3	—	3
Brook						
Ingrebourne	Brentwood ..	Brentwood U.	.. 4 ..	3	1	4
Kirby Creek	Kirby-le-Soken ..	Frinton and Walton U.	.. 3 ..	1	2	3
Mardyke ..	Bury Farm ..	Hornchurch U.	.. 4 ..	3	2	5
	Orsett ..	Thurrock U.	.. 3 ..	1	1	2
	South Ockendon ..	Do. ..	.. 1 ..	1	—	1
	Thorndon Park Estate (South) ..	Brentwood U.	.. 3 ..	3	—	3
Carried forward ..			.. 127 ..	71	45	116

Catchment Area.	Sewage Works.	Sanitary District.	No. of Visits.	Samples taken.		Total.
				No. satisfactory or on border line.	No. unsatisfactory.	
	Brought forward	.. ..	.. 127 ..	71	45	116
Roach	Great Stambridge	.. Rochford R.	.. 4 ..	3	—	3
	Great Wakering	.. Do. ..	.. 3 ..	1	1	2
	Rayleigh (East)	.. Rayleigh U.	.. 2 ..	—	2	2
Roding	Abridge	.. Ongar R. ..	.. 5 ..	4	—	4
	Chigwell	.. Chigwell U.	.. 4 ..	4	—	4
	Chigwell Row	.. Do. ..	.. 5 ..	1	3	4
	Epping (Southern)	.. Epping U. ..	.. 5 ..	4	1	5
	High Ongar Main Road	Ongar R. ..	.. 2 ..	—	—	—
	Council Houses					
	Moreton	.. Do. ..	.. 3 ..	—	3	3
	North Weald	.. Epping R. ..	.. 5 ..	4	—	4
	Stanford Rivers	.. Ongar R. ..	.. 5 ..	4	—	4
	Theydon Bois	.. Epping R. ..	.. 5 ..	3	—	3
	Theydon Mount	.. Ongar R. ..	.. 4 ..	—	1	1
	Council Houses					
	Wanstead	.. Wanstead and Woodford B.	.. 3 ..	3	—	3
	Woodford East	.. Do. ..	.. 4 ..	3	1	4
Sea	Great Holland	.. Frinton and Walton U.	2 ..	1	1	2
	St. Osyth East	.. Tendring R.	.. 3 ..	2	—	2
	St. Osyth West	.. Do. ..	.. 1 ..	—	1	1
	Little Oakley	.. Do. ..	.. 4 ..	2	—	2
Stort	Hatfield Broad Oak	.. Dunmow R.	.. 5 ..	4	—	4
	Hatfield Heath	.. Do. ..	.. 5 ..	4	—	4
Stour	Dedham	.. Lexden and Winstree	4 ..	2	—	2
	Dovercourt	.. Harwich B.	.. 3 ..	—	3	3
	Lawford	.. Tendring R.	.. 1 ..	—	—	—
	Parkeston	.. Do. ..	.. 1 ..	—	1	1
	Steeple Bumpstead	.. Halstead R.	.. 5 ..	1	1	2
Ter	Hatfield Peverel	.. Braintree R.	.. 6 ..	4	1	5
Wid	Billericay	.. Billericay U.	.. 3 ..	3	—	3
	Ingatestone	.. Chelmsford R.	.. 3 ..	1	2	3
	Mountnessing	.. Do. ..	.. 2 ..	—	2	2
	Shenfield, Hutton, etc.	Brentwood U.	.. 3 ..	3	—	3
	Thorndon Park	.. Do. ..	.. 3 ..	3	—	3
	(northern)					
Aerodromes and Military Camps	.. ..	.. ..	.. 103 ..	72	17	89
Other samples, including private sewage works, rivers, streams, ditches, etc.	.. ..	.. ..	40 ..	19	7	26
Trade effluents	.. ..	.. ..	.. 13 ..	4	—	4
Total			.. 396 ..	230	93	323

RURAL WATER SUPPLIES AND SEWERAGE ACT, 1944.

This Act places at the disposal of the Minister of Health a sum of £15,000,000 to assist schemes prepared by Local Sanitary Authorities for the provision or improvement of water supply and for the provision of sewerage facilities in rural localities in England and Wales.

Under Section 2 of the Act, if the Minister undertakes to make a contribution for either a water or sewage scheme, the County Council concerned is also required to contribute. Consequently, Local Authorities must obtain, for submission to the Ministry of Health, the County Council's observations on all schemes for which applications are to be made for grants.

During 1945, the Essex County Council furnished observations on 19 schemes for water supplies and sewerage and sewage disposal submitted by 9 Local Sanitary Authorities at an estimated cost (1938 figures) of nearly £800,000.

CONTRIBUTIONS TO RURAL DISTRICT COUNCILS. In accordance with the provision of the County Council's approved Scheme to give effect to Section 307 of the Public Health Act, 1936, and the Rural Water Supplies and Sewerage Act, 1944, the County Council agreed to make to the undermentioned Rural District Councils payment of the following amounts, being the approved estimated grants payable in respect of the financial year 1945-46 :—

Rural District.						Amount.
						£
Braintree	..	..	..	..	..	4,906
Dunmow	..	..	..	..	..	2,998
Epping ..	..	..	..	..	..	695
Halstead..	..	..	..	..	..	862
Ongar ..	..	..	..	..	..	1,080
Rochford	..	..	..	..	..	450
Saffron Walden	..	..	..	..	..	1,732
						£12,723

MILK SUPPLY.

Milk (Special Designations) Regulations, 1936-43.

(a) LICENCES. The increase in licences to produce Tuberculin Tested Milk and the decrease in licences to produce Accredited Milk have continued—see the following figures for the present and previous years :—

Grade.				1944.		1945.
Tuberculin Tested	..	..	..	221	..	265
Accredited ..	..	..	..	797	..	730
Totals	..	..	..	1,018	..	995

Two applications for licences were refused as the applicants failed to comply with the requirements of the Regulations.

Reports upon unsatisfactory samples of milk were considered by the Milk Subcommittee, with the following results :—

No. of Notices of intention to revoke licences	..	..	..	48
No. of Licences revoked	..	..	..	19

(b) **SAMPLES OF DESIGNATED MILK:** Samples were taken direct from licensed farms and at Central Depots. A reduction in staff is reflected in the smaller numbers of samples obtained, namely, 5,842 in 1944 against 5,290 in 1945. Every sample was submitted to the Methylene Blue Reduction Test and some were also submitted to the Coliform Bacteria Test, with the following results :—

Quarter ended, 1945.	Total.	Satisfactory.			Unsatisfactory.		(1944).
		No.	per cent.		No.	per cent.	
31st March ..	1,409	1,332	94.2	..	77	5.5	(4.5)
30th June ..	1,597	1,218	76.3	..	379	23.7	(17.2)
30th September ..	1,210	733	60.6	..	477	39.4	(39.8)
31st December ..	1,074	969	90.2	..	105	9.8	(4.4)
	5,290	4,252	80.4	..	1,038	19.6	(17.8)

The percentage of unsatisfactory samples is higher than last year, due very largely to more acute shortage of labour, shortage of fuel, inability to get boilers repaired or to obtain new boilers, shortage of equipment, and delays in securing repairs to war-damaged buildings. Many farmers, however, were able to secure repairs to war-damaged buildings and improvements to buildings in order to bring them up to the standard for the production of tuberculin tested milk.

All applications for building licences were considered by the War Damage Panels of the Essex War Agricultural Executive Committee, on which the County Health Inspector was co-opted as a member. This has ensured that all repairs and improvements have fitted in with the requirements of the Milk & Dairies Order, 1926, and the Milk (Special Designations) Regulations, 1936-45.

Valuable assistance was again rendered by the advisory staff of the Essex Institute of Agriculture and the Essex War Agricultural Executive Committee in those cases where farmers were having difficulty in producing satisfactory samples of milk.

Biological Examinations.

Reports received dealt with 801 samples of milk taken during routine visits at farms and central depots and gave the following results :—

110 were inconclusive, an unusually high figure.

Appropriate action at the laboratory secured a marked reduction by the end of the year.

682 were free from tubercle bacilli.

9 (1.3 per cent.) contained tubercle bacilli, this being the lowest percentage on record.

Details of each positive sample were referred to and followed up by the Divisional Inspector of the Ministry of Agriculture and Fisheries, who subsequently furnished interim and final reports in each case.

Milk-in-Schools Scheme.

Samples were again obtained at the Schools during each school term and submitted to biological and bacteriological examinations :—

- (a) **BIOLOGICAL.** Reports were received from the laboratory on 136 samples. 21 gave inconclusive results. One sample (0.87 per cent.) was found to contain tubercle bacilli, and this was followed up by the Divisional Inspector of the Ministry of Agriculture and Fisheries.
- (b) **BACTERIOLOGICAL.** 300 samples were obtained and 64 (21.3 per cent.) failed to pass the prescribed tests. Every unsatisfactory sample was followed up with satisfactory results.

National Milk Testing and Advisory Service.

Close co-operation has continued between the Essex War Agricultural Executive Committee and the Essex County Council, particularly through the Milk Production Sub-Committee, upon which the County Council has two representatives.

Where unsatisfactory samples of milk are obtained under this Testing and Advisory Service from farms producing designated milk, particulars are furnished to the County Public Health Department, the Inspectorial staff of which undertakes all the necessary follow-up work. The results are supplied to the Essex War Agricultural Executive Committee for inclusion in the reports to the Milk Production Sub-Committee and to the Ministry of Agriculture and Fisheries.

Water Supplies to Farms.

The Grant-in-Aid Scheme formulated by the Ministry of Agriculture and Fisheries covers virtually all classes of new farm water supply installations to agricultural land and to buildings housing cattle or containing straw pulp plants, with the exception of supplies for pigs and poultry, irrigation of land used for market gardens including glasshouses and spraying of orchards, etc. It is a fundamental requirement that the increase in food production resulting from the work should justify the Exchequer Grant.

A Water Supplies Panel was set up by the Essex War Agricultural Executive Committee to deal with applications for assistance under the Scheme, and by request the County Health Inspector serves as a member of the Panel. This has provided a good connecting link between public health and the agricultural interests.

RURAL HOUSING.

In April, 1942, the Central Housing Advisory Committee asked its Rural Housing Sub-Committee under the Chairmanship of Sir Arthur Hobhouse "to review the subject of Rural Housing, especially in relation to changes caused by the war and the policy to be pursued after the war." The Sub-Committee's report, published in 1944, included the following recommendation:—

"The Ministry of Health should forthwith invite County Councils and Rural District Councils to set up a voluntary Joint Committee for each county, representative of all the Rural District Councils in the county, and the County Council, in its health and housing capacity, and including any other persons representative of bodies interested in housing within the county whom the Committee thinks fit to co-opt.

"The Joint Committee should be charged by the Ministry of Health to consider ways and means of improving the general level of rural housing throughout their areas under existing statutory powers and should give special consideration to—

- (i) measures for securing the best standards of housing throughout the county ;
- (ii) arrangements for the comprehensive survey and periodic inspections of rural housing conditions ;
- (iii) the adoption of more uniform standards for demolition, reconditioning and repairs ;
- (iv) consideration of the working of the Housing (Rural Workers) Acts in the county ;
- (v) consideration of the adequacy of housing programmes within the county ;
- (vi) measures for assisting Rural District Councils with an exceptionally heavy rate burden either directly due to housing expenditure or through the provision of water supplies or sewerage ;
- (vii) arrangements for mutual aid between authorities in such matters as the loan of officials, bulk purchase, or other matters common to two or more districts."

The Joint Advisory Committee for the Administrative County of Essex held its first meeting in Chelmsford on 29th November, 1944, the County Council's representatives being Aldermen F. D. Smith and C. W. Daines, and Councillors J. H. Caesar, Gordon and S. G. Haskins. Its second meeting was held on 1st March, 1945, when, subject to minor amendments, approval was given to the Standards of Fitness in Rural Housing as recommended by the Essex Branch of the Sanitary Inspectors' Association.

On 30th May, 1945, the Joint Advisory Committee resolved that Mrs. E. Gooch, J.P., C.C., a Member of the Hobhouse Committee, be requested to address a representative meeting at the Shire Hall, Chelmsford. This meeting was held on 24th July, 1945 ; it was well attended and Mrs. Gooch gave an interesting account of the work of the Hobhouse Committee, making special reference to the value and scope of the Joint Advisory Committee. The County Planning Adviser and the County Lands Agent also gave addresses.

FOOD AND DRUGS ACT, 1938.

I am indebted to the County Analyst for the following information in regard to the work undertaken by him during the year 1945 :—

Samples analysed	..	..	..	..	1,105
Samples unsatisfactory	..	..	..	..	169

The usual details regarding kinds of samples examined have been omitted owing to the need for curtailing this Annual Report.

MENTAL DEFICIENCY ACTS, 1913—1927.

Arrangements were continued under which Dr. A. R. Forbes, Assistant County Medical Officer, examined and reported on cases suspected to be mentally defective for consideration by the Statutory Committee for the Care of the Mentally Defective.

He also, on application, examined and reported on cases to the Courts of Justice.

Dr. W. H. Alderton, Assistant County Medical Officer, also assisted.

A total of 138 cases were examined and classified as follows :—

Diagnosis.	Number examined.		
	Male.	Female.	Total.
Feeble-minded	34	29	63
Imbecile	26	28	54
Idiot	1	6	7
Not certifiable under the Acts	8	6	14
Total	69	69	138

At the end of 1945 the Statutory Committee were responsible for the care and control or supervision of 2,718 persons, classified under the following headings :—

	Male.	Female.	Total.
In Institutions (excluding cases on licence)	466 ..	348 ..	814
Under Statutory Supervision	923 ..	739 ..	1,662
Under Guardianship (including cases on licence)	15 ..	26 ..	41
On licence from Institutions	89 ..	112 ..	201
Totals	1,493 ..	1,225 ..	2,718

In February, 1945, Dr. F. Douglas Turner, C.B.E., Medical Superintendent of the Royal Eastern Counties Institution, Colchester, resigned owing to ill-health. Dr. Turner was appointed as Medical Officer at the Royal Eastern Counties Institution in 1905, and on the death of his father in 1914, succeeded him as Medical Superintendent.

Under Dr. Turner's direct supervision, there was an enormous expansion of the Institution, the number of beds increasing from 250 to 2,150, additional premises being opened in Colchester, Halstead, Witham and Cambridge, and a new Institution at Colchester called the Turner Village, was opened in 1935.

Dr. Turner is a national figure in the Mental Deficiency world, has acted as representative of the Voluntary Institutions for Defectives, when the Mental Deficiency Act, 1913, was under consideration, served on the Joint Committee appointed by the

Board of Education and Board of Control to enquire into mental deficiency, and on the Departmental Committee to advise on Mental Deficiency Colonies. He was also a member of the Provisional National Council for Mental Welfare.

Dr. Turner introduced the system of licensing patients out on trial, and this has been adopted by practically every Institution for Defectives in the country with great success.

MENTAL TREATMENT ACT, 1930.

The Consultant Psychiatric Clinics held by Dr. A. G. Duncan, Medical Superintendent of Severalls Mental Hospital, Colchester, at the Chelmsford and Colchester Hospitals, and by Dr. W. G. Masefield, Medical Superintendent of the Brentwood Mental Hospital, at the Oldchurch County Hospital, Romford, have continued. Dr. A. G. Duncan reports as follows :—

“ The following are the figures for 1945 :—

			Colchester.		Chelmsford.
New cases	..	..	153	..	59
Total attendances	..	..	300	..	126

I do not think there are any fresh details to add about the usefulness of these Clinics. I hope it may be possible in the near future to resume the weekly session at Chelmsford.”

Dr. W. G. Masefield reports as follows with regard to the Clinic at Oldchurch County Hospital, Romford :—

“ We saw 502 new patients at the Oldchurch Clinic last year and the total attendance of old and new amounted to 1,177, making an average attendance per session of 23.07 patients. As the average attendance in 1944 was 20 patients, it can be seen that increasing use is being made of the Clinic and we are seeing a higher number of new patients, and my advice has been sought for a number of patients who are having in-patient treatment at Oldchurch. The number of patients to be seen is more than can be dealt with fully at one weekly session. In the near future, with the return of experienced medical staff from the Forces, an additional day will certainly be necessary, and the question of instituting further clinics in other parts of the County must come up for consideration.

I am very grateful to Dr. Forbes for his valued assistance and to Dr. Miles and his staff at Oldchurch for their continued help.”

BLIND PERSONS ACTS, 1920—38.

The facilities provided for the certification, medical supervision and general care of the blind have continued under the supervision of the Ophthalmic Specialists. The part-time services of Miss L. H. Macfarlane, M.D., D.P.H., D.O.M.S., and Messrs T. Collyer Summers, F.R.C.S., E. J. Baldwin, M.B., B.Ch., D.O.M.S., S. G. Corner, M.D., D.O.M.S., D. D. Evans, M.D., D.O.M.S., C. L. Gimblett, M.D., F.R.C.S., W. Hadden Gordon, M.D., D.O.M.S., W. Glasse Watson, M.B., Ch.B., D.O.M.S., G. T. Foster-Smith, M.B., B.S., and J. E. Bendor Samuel, M.B., B.S., M.R.C.S., L.R.C.P., continued to be available.

During the year 367 persons were examined by the Specialists and occupational training given to 35 persons.

On 31st March, 1946, a total of 2,258 (males 1,025, females 1,233), were on the Blind Persons Register. Of these 2,207 (males 995, females 1,212), are over 16 years of age. 1,913 are classified as unemployable, viz : males 774, females 1,139, and of these 65 are in homes for the blind, 40 in mental hospitals and 151 in Public Assistance Institutions.

Of the trades, etc., followed by the blind workers, the main occupations show the following numbers :—

Mat makers	18	Machine knitters ..	14
Piano Tuners	19	Basket Workers ..	20
Poultry Keepers	15	Dealers	13
Music Teachers	11	Telephone Operators ..	13
Boot Repairers	7	Clerks and Typists ..	17

In addition, 23 blind persons are in sighted industry.

PART II.

PROVISION OF HOSPITAL SERVICES.

Hospitals.

During the year 1945, a considerable number of beds reserved for E.M.S. purposes in the Council's Hospitals was released by the Ministry of Health, but at the end of the year there were still 985 beds reserved for the admission of the various classes of patients for whom treatment was provided under the Emergency Medical Scheme. There was continued enemy air activity in the form of V-weapons until the end of the European war in mid 1945, but fortunately the number of casualties dealt with in the Council's Hospitals was comparatively small.

One of the main difficulties with which the Hospitals had to cope was the finding of accommodation for chronic sick cases, and the difficulties were greatly accentuated by the shortage of nursing and domestic staffs to which reference is made in another part of this report.

Few major works of adaptation were carried out, but by the end of the year it had been found possible practically to complete the alterations at the Essex County Council Hospital, Wanstead, to provide a Maternity Unit of 20 beds. Work was also commenced on the adaptation of one of the wards in the Orsett Lodge Hospital, to enable this to be converted to a Maternity Unit of 15 beds, on modern lines.

It should be noted that the demand for maternity beds throughout the County fell short of the supply. It was, however, found possible to arrange for every necessitous maternity case to receive hospital treatment.

London Hospital Survey.

A notable feature during the year was the publication by the Ministry of Health of the Report of the Surveyors of the Hospital Services of London and the Surrounding Areas. This Report was prepared by Dr. A. M. H. Gray and Dr. A. Topping, on

behalf of the Ministry. The Report of the Interdepartmental Committee on medical schools, which sat under the Chairmanship of Sir William Goodenough, Bt., appeared in time for its conclusions to be taken into account, and co-ordinated with the findings of the London Hospital Surveyors in respect of their comments on teaching in special hospitals.

The basic principle of the London Hospital Surveyors' report was the division of the geographical County into a number of Hospital Districts, each to be served by a District Hospital, consisting of one or more hospitals, including special accommodation such as fever and maternity. It was recommended that each District Hospital should be in a position to give all the necessary treatment for any type of case in this area, with the exception of the rarer specialities for which provision would be made at selected centres. Each District Hospital would include a block for the chronic sick, a maternity unit, and in many areas a separate fever block. All other hospitals in the district would be linked with the District Hospital, and in certain circumstances would be regarded as outlying branches of the District Hospital. A strong feature of the report was the suggestion that there should be an ordered partnership of all hospitals, including voluntary and municipal, within each district.

Considerable stress was laid on the provision of adequate out-patient facilities and the further development of specialist and consultant services was strongly urged.

The geographical County of Essex was divided by the Surveyors into 10 Hospital Districts, based on Colchester, Chelmsford, Southend, Grays/Tilbury, Epping, Romford, Ilford, Leyton, East Ham and West Ham respectively. The Borough of Saffron Walden, and the Rural Districts of Saffron Walden and Dunmow, were excluded from the survey of London and the surrounding areas, as it was considered that these could best be dealt with by inclusion in Hospital Districts based on centres outside the County of Essex, namely, in Cambridgeshire and Hertfordshire.

The Surveyors pointed out that it would be appreciated that their recommendations would involve considerable additional building, which, having regard to shortages of labour and materials, could not be undertaken for a considerable number of years. As regards Essex, the Surveyors indicated that in their opinion the most urgent requirements were considered to be—

- (a) the provision of additional Specialist Staff ;
- (b) additional beds and Consultative Out-Patient Departments in the Metropolitan area, particularly.

In order of priority, the most urgent developments required were considered to be—

- (1) A new Hospital in South Ilford and North Barking ;
- (2) Expansion of the Essex County Hospital, Colchester, or the building of a new Hospital ;
- (3) A new Hospital at Wanstead ;
- (4) Extension and modernization of the East Ham Hospitals ;
- (5) A new Hospital in West Ham (Canning Town).

Co-ordination of Hospital Services.

Reference was made in the Report for 1944 to the formation of the Essex Hospitals Joint Advisory Council, on which are represented the Voluntary Hospitals, together with representatives of the Authorities owning Municipal Hospitals in the geographical County. A number of meetings of the Advisory Council were held, and considerable progress made in regard to the co-ordination of hospital services throughout the County. The discussions which took place largely centred round the recommendations made by the London Hospital Surveyors. A number of Sub-Committees were set up to deal with various detailed aspects of the problems involved, the two main Sub-Committees being—

- (1) A Sub-Committee to survey the existing hospital facilities throughout the County, and to consider how best these facilities might be expanded and utilized to the greatest advantage ;
- (2) A Sub-Committee to consider the arrangements in the geographical County for the diagnosis and treatment of cancer and kindred matters, within the provisions laid down in the Cancer Act, 1939.

Roffey Park Rehabilitation Centre.

During 1945, nine patients from Essex were sent to the Rehabilitation Centre, Roffey Park, Horsham, Sussex, under the approved scheme referred to in last year's report.

Haymeads Hospital, Bishop's Stortford.

During the war, Haymeads Hospital, Bishop's Stortford, was developed under the Emergency Hospital Scheme to such an extent that the facilities of an acute general hospital were made available. In order that Essex patients living near the Essex-Herts border should be able to avail themselves of these facilities, an agreement was concluded on 1st June, 1945, with the Hertfordshire County Council, whereby ten beds are reserved at Haymeads Hospital for the accommodation of Essex cases to be dealt with under the County Council's powers under the Public Health Act, 1936. Considerable use has been made of this arrangement, to the benefit of persons who would otherwise have to travel long distances to the nearest available general hospital. The above arrangement is a modification of the old arrangement for the allocation of 33 beds at Haymeads for Essex Social Welfare patients, the ten beds being regarded as part of their final quota of 33.

Passmore Edwards Convalescent Home.

During the year, negotiations were entered into for the purchase of the Passmore Edwards Convalescent Home at Clacton-on-Sea. This Home is ideally situated on the sea front, and, with certain alterations, can be made eminently suitable for the treatment of certain types of cases. In the first instance, it is proposed that this Home should be used for convalescent tuberculosis cases.

Educational Provision for Patients.

Early in the year the Ministry of Health, in conjunction with the Ministry of Education, put forward a scheme for the establishment of courses of study for long-stay patients in hospitals and sanatoria. Arrangements were accordingly made with

the Education Committee, whereby the Principals of Regional Technical Collegess maintain a panel of teachers willing to undertake this work. Medical Superintendentss are thus enabled to apply to the Regional Technical Colleges whenever they have any patients who wish to avail themselves of this scheme. The best response has been from the Essex County Council Hospital, Broomfield, where long-stay cases of pulmonary tuberculosis are accommodated.

A Review of the Wartime Emergency Hospital Services in the Administrative County of Essex—1939-1945.

Early in 1938, as a result of the deteriorating international situation, the Ministry of Health took certain steps to review the hospital facilities throughout the country.

Little practical effect was achieved in the first instance, but in the period following the Munich crisis, it was obvious that urgent steps would have to be taken to ensure that, in the event of war, there would be a satisfactory Hospital Service available. The Ministry, therefore, arranged for a comprehensive survey of the existing Hospital Services in the County, to be undertaken in conjunction with the County Council. Dr. A. Leslie Banks, now Principal Regional Medical Officer of the Ministry, was seconded for this purpose, and gave invaluable help in initiating the arrangements. It was anticipated that in the event of war, and consequent air bombardment of London, casualties would be on an astronomical scale (30,000—60,000 a day was mentioned), a foreboding which happily was not ultimately realized. The main purpose of the survey was to ensure that Hospitals in Essex, as one of the Home Counties, would be prepared to take the maximum number of casualties from London that could be accommodated.

A previous review of the existing Hospital and Institutional accommodation in the County was carried out in 1934 by the County Medical Officer, and on the figures obtained at that time it appeared that there were 2,300 beds available on reasonable bed space standards. Although practically no additions had been made to the hospital accommodation as available in 1934, with the exception of the utilization of the Wanstead Hospital for 200 chronic sick patients, the Ministry's Survey indicated that there would be potentially available in the Council's Hospitals and Institutions 5,457 beds, from which it will be seen all peace-time standards had been discarded.

The standard of accommodation and the level of the existing services were, except in a few instances, much below the desired and necessary efficiency, to enable satisfactory treatment to be given to the type of patient envisaged. As a result of this, a considerable amount of upgrading was immediately undertaken in various Hospitals and Institutions, and additional equipment was installed to meet the situation from the limited resources available. Thus the first steps were taken in laying down the general basis of the Emergency Hospital Scheme, and from then onwards, progress was steady; in spite of the diversity of the Institutions concerned, a reasonably efficient Hospital Organization was on the way to being established.

It was anticipated that the flow of patients would be from London towards the coast, and the Hospitals were, therefore, classified into—

- (a) Casualty Receiving Hospitals.
- (b) Advance Base Hospitals; and
- (c) Base Hospitals.

By this means, it was hoped that casualties could be dealt with expeditiously and rapidly transferred from the vulnerable areas to areas then considered to be non-vulnerable.

It is worth noting at this juncture, that following on the fall of France, and the threat of imminent invasion of this country, the anticipated direction of flow had to be revised.

In 1939* the Ministry of Health set up the Sector Organization by which the country was divided into areas, each of which was associated with a teaching hospital at the apex. The teaching hospital for Essex was the London Hospital. Each Sector was normally in charge of a Group Officer, and the Group Officer was Mr. Russell J. Howard, one of the Senior Consulting Surgeons of this Hospital. In respect to Essex, the Group Officer and his staff, together with Liaison Officers from Municipal Hospitals and Voluntary Hospitals, were installed in the basement of the Essex County Council Hospital, Wanstead, as their Headquarters. Officers of the Department (Dr. G. G. Stewart and Miss M. Ruck) were appointed as Municipal Liaison Officers. Preparations were further intensified, and a considerable amount of equipment from the London Hospital was dispersed at selected Essex hospitals, and provisional allocations of medical and nursing staff were also made, in order that these could be transferred as and when required. This close co-operation, with a large teaching Hospital, was found to be of inestimable value, and there is no doubt that considerable benefit resulted to the County Council's hospitals as a result of this close association of services and staff.

By the actual transfer of Specialist Staff from the London Hospital to the periphery, the first step in decentralization from London had been taken, and it is quite possible that this move resulted in far reaching consequences.

On the 3rd September, 1940, a Joint Sub-Committee of the Public Health and Housing and Public Assistance Committees appointed to act as a Co-ordinating Sub-Committee in regard to the administration of emergency hospital beds, held its first meeting, and met at regular monthly intervals thereafter. There is no doubt that this Sub-Committee performed a valuable function in ensuring co-ordinated action upon main principles in all the County Council's hospitals and institutions which were included in the Emergency Scheme.

In 1940 hutted annexes had been provided by the Ministry of Health at the Essex County Council Hospital, Black Notley, St. John's Hospital, Chelmsford, St. Andrew's Hospital, Billericay, and St. Margaret's Hospital, Epping, and this meant that an additional 1,986 beds became available, together with full ancillary services to enable these beds to function as General Hospital Units.

A Casualty Bureau was established at Sector Headquarters to enable the appropriate records to be kept, and to ensure for the smooth working of the arrangements for the transfer of patients as required. Closely linked with this Bureau was the Ambulance Service, which reached a considerable peak of efficiency. There was close co-ordination between the Civil Defence Ambulance Services for which the County Council were responsible, and the Ministry of Health Ambulance arrangements which were directly controlled by the Group Officer. There was close co-operation throughout with the Civil Defence Organization.

At the end of 1940, there were approximately 4,050 beds available in County Council hospitals and institutions as compared with 2,882 in the year 1938. Of the former, approximately 3,300 were reserved for the reception of casualties and service and E.M.S. patients, while 750 beds were specifically available for the reception of the civilian sick.

In the latter part of 1940, the Hospital Scheme was tested when heavy day bombing on the Thames Estuary and the Metropolitan areas commenced. The large numbers of casualties which were originally anticipated, fortunately did not materialize and on the whole the Service worked reasonably smoothly and efficiently. Mention should be made of the fact that the hutted annexes at the hospitals mentioned proved extremely satisfactory.

Later in 1940, when night bombing became the custom, the work of the hospital staffs was not in any way lessened, and much of the hospital organization functioned in dangerous circumstances.

With the development of the Hospital Services, it should be noted that following the decentralization of the teaching facilities at the London Hospital, medical students were allocated to the Oldchurch County Hospital, Romford; the Essex County Council Hospital, Wanstead; St. Andrew's Hospital, Billericay; St. John's Hospital, Chelmsford; St. Margaret's Hospital, Epping; St. Mary's Hospital, Colchester; Essex County Council Hospital, Black Notley; and Orsett Lodge Hospital; as well as to various Voluntary Hospitals. St. Andrew's Hospital, Billericay, was particularly closely associated with the teaching hospital for this purpose.

Side by side with the treatment of air raid casualties and service cases, the treatment of the acute and chronic sick continued. Although there were difficulties in the allocation of beds for chronic sick, the acute civilian case was still dealt with in an expeditious manner.

The establishment of a Sector Pathological Service was a great advance on the existing Pathological Services, and this Service, which had its beginnings in 1940, gradually laid down the pattern of the future services for this speciality in the County. Tribute must be paid to the outstanding work of Professor S. P. Bedson, of the London Hospital, in organizing the Laboratory Service. As far as Hospitals were concerned at that time, the existing Hospital Pathological Services were, in many instances, indifferent and inefficient. Professor Bedson, as Sector Pathologist in Essex, was established in St. Margaret's Hospital, Epping, and it was from this Centre that the co-ordinated and comprehensive service was developed. The original Organization modified to meet local circumstances and improved as a result of experience, now gives the clinician, whether in hospital or general practice, highly efficient assistance. In this connection, too, should be mentioned the Blood Transfusion Services, which were developed in close association with the Pathological Services. For these Dr. John Shone assumed responsibility under the direction of Professor Bedson.

As the war progressed, it was found that the concentration of Special Services in separate Centres proved of the greatest value, and undoubtedly resulted in considerable saving of life. For example, in the wide field of orthopaedics, the designation of hospitals suitably equipped and staffed to deal with this type of case, resulted in much higher standards of treatment, and earlier recovery with fully restored function.

Similar considerations applied to the more limited specialities such as brain surgery, neuro-surgery, etc.

In July, 1941, the Sector Organization was disbanded with the closing of Sector Headquarters at Wanstead, and, for operational reasons, the County of Essex, except for a small part which was transferred to Sector 2, came under the jurisdiction of the Ministry's Hospital Officer at Cambridge. Dr. D. L. MacKenna assumed control from this date, and it was largely due to his efforts that the continued efficiency of the E.M.S. remained at a high level. The Regional area thus formed was considerably larger than before, but in point of fact a greater degree of decentralization was effected by the appointment of the County Medical Officer of Essex as agent for the Hospital Officer. The change resulted in a still more efficient organization, and from this time forward much of the control of the Services was organized from County Hall, Chelmsford. At the same time, Dr. J. Graham, Senior Medical Officer (Hospital Services) in the Department, was appointed as an Assistant Hospital Officer for the Region. It was found that the geographical County of Essex formed a suitable regional area for administration, and that one of the results of the new move was that a still closer link up took place between the Municipal and Voluntary Hospitals.

During 1942, the Emergency Hospital Organization continued to function smoothly, and no undue demands were made on beds by air raid casualties, which continued to be small in number. During this year, however, the demand on beds for civilian sick showed a steady upward tendency, partly as a result of lack of home facilities, owing to the absence of members of families on war work, and also due to an increase in Hospital-mindedness on the part of patients. At the same time more and more Medical Officers were being called up for service with H.M. Forces, and additional burdens were, therefore, placed on the remaining staff.

At the end of 1942, the following was the position, in respect to bed accommodation available :—

Normal bed capacity	..	..	..	2,737
Additional beds by crowding	..	..	..	826
Additional beds in hutments	..	..	..	1,986
				5,549

During 1943, there was little to report except that the Organization had by this time become fairly established, and could generally be said to be working smoothly and efficiently.

At the beginning of 1944, intensive use of the County Council's hospitals and institutions continued, and some 3,771 beds were still reserved for the admission of the classes of patients for whom treatment was provided under the E.M.S.

These were as follows :—

- (1) Civilians suffering from war injuries and war service injuries ;
- (2) Members of the Fighting Forces, including Civil Defence ;
- (3) Unaccompanied children evacuated under Government Scheme ;
- (4) Mothers and children admitted for 48 hours' rest and shelter ;
- (5) Sick civilians removed from shelters, rest and feeding centres and house in target areas ;

- (6) Refugees ;
- (7) Certain categories of sick civilians ;
- (8) Transferred war workers ;
- (9) Evacuees.

In the early part of 1944, considerable preparation took place in anticipation of D-Day, particularly in connection with the possible reception of battle casualties from Europe. This necessitated a complete reorganization of the Scheme, and whereas in the early days of the war it had been anticipated that the flow of casualties would be organized as from West to East, it was now found that the line of transit would be approximately South to North. A further complication was that considerable changes had to be made in the Scheme, as it affected London and the Metropolitan areas, owing to the anticipation of the use of V-weapons by the enemy. Many of the London Hospitals were practically completely evacuated, and this added to the demands for accommodation in hospitals in the Extra-Metropolitan Area. When the use of V-weapons actually commenced, it was found that the Hospital Services continued to function efficiently, and no serious disorganization took place at any period during this time. It was felt that the general organization was as efficient as it could be as a result of experience of the lessons gained in the early part of the war, and every possible step was made in advance to meet any emergency that might arise.

By this time plans were complete for the taking over of selected buildings for use as Emergency Hospital accommodation, in the event of any hospital having to be completely evacuated owing to damage or for other reasons. While no major works of adaptation were carried out at these buildings, everything was prepared as far as possible, so that this accommodation could be brought into use at short notice. Fortunately it was never found necessary to implement these measures. When the war in Europe was concluded in 1945, it could be said that the hospitals in the County had stood up to every demand made on their service.

Mention should be made of the assistance given in the working of the Scheme by the Medical Officers of Health of the Local Sanitary Authorities, nor should the valuable service given by the Civil Nursing Reserve be forgotten. This Organization served a most useful purpose, but in retrospect it would appear that many intelligent girls took a short cut into a war occupation, without prospects, whereas with suitable guidance, they might have gone on to full nursing training. In this connection, mention must not be omitted of the valuable contribution to the war effort made by many otherwise busy people, who formed the Essex Local Emergency Organization, which was responsible for advising the County Medical Officer, who acted as chairman, in regard to all matters in connection with the Civil Nursing Reserve.

The Local Emergency Organization consisted of representatives of the following :—

- British Red Cross Society
- Women's Voluntary Service
- Voluntary Hospitals
- St. John Ambulance Brigade
- British Medical Association
- Municipal Hospitals and Institutions, together with the Regional Nursing Officer and Sector Matron.

The Committee met on 24 occasions, and reference has been made in previous reports of the valuable work carried out by Miss H. R. Stock, D.N., S.R.N.

The developments which took place as a result of war experience in rehabilitation and occupational therapy will be extremely valuable for the future. Many lessons were learned in new lines of treatment and medical and surgical advance which have proved, and will continue to prove, life-saving in the years to come. A notable instance is the remarkable progress in Blood Transfusion Services, which could be said to be completely revolutionary.

The Essex Epidemiological Committee was of inestimable value to the Hospital Services during the war period and issued memoranda and instructions regarding the epidemiological side of hospital work which were of great assistance in respect to possible outbreaks of infection as a result of war conditions. Much of this Committee's work was linked up with the Laboratory Services.

Damage was sustained by enemy action at a number of the Council's hospitals, the most serious at New Hall, Boreham, which had been taken over by the Public Assistance Committee for the accommodation of chronic sick cases. It was ultimately found necessary to completely evacuate this Institution, which accommodated 100 patients, but fortunately the loss of life was small. Damage was sustained at various other hospitals, including Suttons Institution, but this Institution had been evacuated of patients early in the war, owing to its vulnerability, but in no cases were the essential services of the hospitals interrupted.

The following Convalescent Homes were set up during the war under the auspices of the British Red Cross Society and St. John Organization, and the facilities available at these Homes were fully utilized :—

Name of Home.					Beds provided.
Stansted Hall	..	..	..	..	100
Moyns Park	..	..	..	..	50
Kelvedon	..	..	..	..	50
Greenstead Hall	..	..	..	..	45
Hillingdon House	..	..	..	..	65

SUMMARY AND CONCLUSIONS.

The most important results of the E.M.S. were, firstly, the upgrading of accommodation that was carried out in many hospitals, including the installation of modern equipment, and consequent improvement of facilities for the treatment of patients. Secondly, improved Consultant and Specialist Services, which will have some effect in respect to the improvements of standards of medical and surgical treatment of the future. Thirdly, the decentralization of Hospital Services from London. Finally, the better understanding and co-operation between Voluntary and Municipal Hospitals, which, as a direct result of the establishment of the E.M.S., will no doubt lead to much more co-ordination and integration of the Hospital Services of the future in the County, and has undoubtedly laid the foundation for the future of the Services under the National Health Service Act.

Ambulance Services.

With the cessation of hostilities, the year 1945 witnessed the first timid advances towards post-war development in the ambulance services of the County. This development was, for many reasons, necessarily restricted. The two main factors hindering progress were the continued scarcity of man-power and the uncertainty as to the Government's plans for the Health Service of the future.

So far as the County Council's own Ambulance Service was concerned, there is very little change to report. This service, based as it is on County Hospitals and Institutions, had not suffered the same war-time upheaval as those operated by the Borough and District Councils, although, perforce, its scope had, in certain districts notably at Oldchurch, Billericay and Chelmsford, considerably widened. Owing to the breakdown during hostilities of pre-war arrangements in surrounding districts coupled with the difficulty of keeping vehicles roadworthy, the ambulances at these hospitals not only carried out their primary functions of serving the hospitals to which they were attached, but also carried out a considerable amount of work which would normally have been performed by local authorities. In the early part of the year it became necessary to site an ambulance at St. James' Hospital, Saffron Walden, to cater for the needs of maternity cases in the district.

During and since the war it was not possible to do very much by way of replacement of worn-out vehicles and, owing to the shortage of spare parts and of skilled mechanics, it was extremely difficult to carry out major repairs. Much credit is due to those drivers and mechanics who took such pride in their vehicles and who worked so hard to keep their ambulances roadworthy.

Local Authorities had an even more difficult time during the year than the County Council. Prior to the war the ambulance services of many of these authorities had been operated by the Fire Brigades while, in other cases, the needs had been catered for by ambulances run by voluntary organizations. During the war the Fire Service had become nationalized and the Ministry of Home Security had decreed that ambulance services must not be run by the National Fire Service. On the other hand, many of the voluntary services could not continue their peace-time activities owing to war-time commitments coupled with the shortage of man power.

The Civil Defence Ambulance Service had, in many areas, stepped into the breach and either manned the peace-time ambulances or in certain districts which had not been ambulance authorities, provided a complete ambulance service with their own improvised emergency ambulances.

During the war there also came into being a sitting-case car service provided partly by the cars of the Civil Defence Ambulance Service and, to a greater extent, by the Volunteer Car Pool operated by the Women's Voluntary Services.

With the end of the war with Germany these two great war-time services closed down, the Civil Defence Services at the end of June, 1945, and the Volunteer Car Pool at the end of July, 1945.

Local authorities were then left in a quandary. The uncertainty regarding the Government's ultimate plans for Health Services made most Councils chary of embarking on expensive schemes, but it was generally felt that something of an interim

nature at least had to be done. In many cases the advice and help of the County Council and its officers were enlisted. Authorities without vehicles made an effort to obtain ambulances. Some Authorities, as a temporary measure, purchased ex-Civil Defence Ambulances, while others obtained ex-Army Ambulances. Personnel to man the ambulances was obtained by the transfer of members of the Civil Defence Ambulance Service. The end of the year saw a greater number of Ambulance Authorities in the County than before the war, among the newcomers being Clacton U.D.C., Billericay U.D.C. and Chelmsford R.D.C. The general quality of the vehicles had, however, deteriorated.

E.M.S. Ambulance Service.

When the "appointed days" for the "stand-down" of the Civil Defence Ambulance Service and the Volunteer Car Pool approached, the Ministry of Health became concerned regarding the carrying out of the many inter-hospital transfers involved in connection with the Emergency Medical Service. It was obvious that the County Council could not, with their own overworked ambulances, cope with this additional work, nor could the services of the local authorities be expected to tackle this with their already attenuated services. The Ministry then asked the County Council to agree to operate a separate service with ex-Civil Defence vehicles to be purchased by the Ministry from the Council and for which all expenses would be fully reimbursed. Considerable discussion on matters of detail took place between the appropriate officers of the County Council both before and after the inception of the service. Among other things it was agreed that the vehicles could be used for County Council purposes at appropriate rates of payment.

The E.M.S. Ambulance Service was born on the 1st July, 1945, and, by the end of the year, had overcome its growing pains and developed into a lusty infant. During the first six months of its existence the service was built up to consist of six ambulances and four cars with six driver-attendants. The vehicles were based as follows :—

Chelmsford	..	..	..	Ambulances	2	Cars	1
Romford	..	..	..	"	2	"	1
Epping	..	..	..	"	1	"	1
Colchester	..	..	..	"	1	"	1

The number of miles travelled was 15,355, of which 5,533 were on County Council business.

Hospital Car Service.

This service commenced operations on the 1st August, 1945, as the successor to the Volunteer Car Pool and, in fact, many of the volunteer drivers were members of the original organization. The main difference between the Volunteer Car Pool and the Hospital Car Service is that whereas there was no charge for the use of vehicles under the former organization, the charge for the use of Hospital Car Service cars is 3d. per mile.

Cars can only be ordered by the Almoners of Voluntary Hospitals or by authorized officers of County and District Councils. They may not be requisitioned direct by patients or by medical practitioners in private practice.

The Hospital Car Service is not intended for the use of those who can afford to pay ordinary hire rates for cars or taxis, but only for necessitous cases and for those who are unable to obtain transport by any other means.

During the five months since its inception the service has run 3,757 miles on behalf of the County Council.

Ambulances of Voluntary Organizations.

Little can be said of these services except that where they are suitably situated and are available, considerable use is made by the County Council of ambulances belonging to the St. John Ambulance Brigade and the British Red Cross Society.

Enquiries regarding the Ambulance Services are dealt with by the County Ambulance Officer at 15, King Edward Avenue, Chelmsford (Tel. 3231, extension 306).

NURSING SERVICES.

Civil Nursing Reserve.

On the 31st December, 1945, there were 540 whole-time members on the Essex Register of the Civil Nursing Reserve—63 Trained Nurses, 62 Assistant Nurses and 415 Nursing Auxiliaries.

Members of the Civil Nursing Reserve have given invaluable service in many ways and were formally thanked by the Minister of Health on the termination of hostilities. The Minister also expressed the hope that Local Emergency Organizations would not in any way relax their efforts to maintain recruitment, but during the year there was a steady decline in the recruitment of new members.

With the termination of hostilities and the disbandment of the A.R.P. Organization, the employment of the Civil Nursing Reserve members remaining in that organization came to an end.

Late in the year the Minister of Health announced the arrangement for the release of members from the Civil Nursing Reserve, which was based on the length of service, the latest date for release being the end of June, 1946.

The policy of removing the names of non-effective members from the register was continued during the year. The Ministry of Health, however, have now opened membership to persons willing to serve in an emergency, and have also decided to pay members for regular part-time service.

In conformity with the general increase in nurses' salaries, increased rates of pay for the Civil Nursing Reserve became effective as from the 1st January, 1946.

General.

At the end of the year there were 341 vacancies for nurses of all categories in the County Council's Public Health Hospitals and Sanatoria. As a consequence of this plus the acute shortage of domestic staff, there were nearly 900 vacant beds.

The shortage of nurses is, of course, not a problem peculiar to Essex, and, in fact, the position in Essex is probably as good as anywhere in the Eastern Region. It is a national problem, and one which is a matter of great concern to both the Ministry of Labour and National Service and to the Ministry of Health.

Although more nurses are being trained than before the war, there is still not a sufficient number available to meet the increasing needs of the civilian population. It is a fact that the demand for nurses is increasing, and will continue to increase for many years.

All possible and reasonable steps were taken by the Public Health and Housing Committee to improve the position, and no possible avenue was left unexplored. The scheme for the transfer of serving soldiers and members of the A.T.S. for duty in hospitals had disappointing results. Whilst there was undoubtedly a large number of nurses available in Eire, passport difficulties were so great that only a comparatively few nurses actually reached this country.

The position in regard to the engagement of staff was kept as fluid as possible, and male nurses were employed, as they became available, to fill appropriate vacancies for female nursing staff. Male and female ward orderlies were also engaged to fill vacancies in nursing and domestic staff, their duties being to assist with the cleaning of the wards and sanitary annexes, preparation and distribution of meals, feeding and washing of patients, and in the making of beds. Such orderlies do not ordinarily attend on any patients who are seriously ill, these patients being attended solely by members of the nursing staff. The inclusive wages of orderlies were fixed at £4 12s. 0d. a week for men and £3 10s. 0d. a week for women, non-resident.

It will be appreciated that the general shortage had unfortunate repercussions on the sick population of the County. It was necessary to restrict admission to hospitals to cases of extreme urgency, and to ensure that patients did not stay in hospital any longer than was absolutely necessary. This was neither satisfactory from the point of view of the patients nor the Hospital Service.

Under the Control of Engagement Order, 1945, made by the Minister of Labour and National Service, the engagement of men and women between specified ages had to be made through the Ministry. It was therefore necessary to obtain exemption certificates from the Ministry of Labour and National Service before vacancies on nursing staffs could be advertized, and the Ministry's approval had to be obtained to appointments made.

During the year a booklet entitled "Staffing the Hospitals" was issued by the Ministry of Health. This booklet contained codes of working conditions for hospital and institutional nurses, midwives and domestic staff, which had been agreed between the Government and representatives of employing bodies and staffs.

Careful consideration was given to the recommendations contained in the booklet, which have been approved in principle by the County Council, and to the application of such recommendations to the County Council's Public Health Hospitals and Sanatoria.

During the year arrangements were made for two Sisters to attend a course of lectures on venereal disease, arranged by the Royal College of Nursing.

A tribute must be paid to the existing nursing and domestic staff for the unselfish manner in which they devoted themselves to their duties and the welfare of their patients.

Much use was made during the year of nurses from Nursing Co-operations. Certain Co-operations, however, applied for fees in excess of the ceiling rates fixed at the Conference of Home Counties Authorities in 1943, and, at the end of the year, the question of such fees was under consideration.

During the year licences for the supply of nurses were granted to three agencies under the Nurses Acts, 1943 and 1945.

Assistant Nurses.

Under Part (1) of the Nurses Act, 1943, existing Assistant Nurses, unless otherwise entitled, were not, from the 15th October, 1945, able to use, in relation to themselves, any expression containing the title "Nurse" unless they were on the Assistant Nurses' Roll. All nurses who appeared to be eligible for inclusion were therefore advised to apply for admission to the Roll.

Rules relating to the training and examination of Assistant Nurses were issued by the General Nursing Council during the year.

Three examinations were held during the year in connection with the Essex scheme for the training of Assistant Nurses. Twenty-six nurses successfully passed the examination set, and qualified as Enrolled Assistant Nurses.

In 1945, the Scheme for the training of Assistant Nurses conducted by the Public Assistance Committee continued to function, but the number of girls offering themselves for this type of training showed a decrease over the previous years, presumably partly owing to the greater financial attraction offered by industry. The training of Assistant Nurses continued at four Hospitals, namely, St. Margaret's Hospital, Epping; Lodge Hospital, Orsett; St. Andrew's Hospital, Billericay; and St. John's Hospital, Chelmsford; all candidates passing through the Preliminary Training School at St. Margaret's Hospital, Epping. One difficulty arose, namely, that a number of girls under training showed a desire to continue at St. Margaret's Hospital rather than be transferred to one of the other hospitals, for the remainder of their training period.

At the end of the year under review the following numbers of girls were under training :—

St. Margaret's Hospital, Epping	..	..	..	10
Lodge Hospital, Orsett	..	..	..	17
St. Andrew's Hospital, Billericay	..	..	..	1
				—
				28
				—

Too much emphasis cannot be placed on the valuable work carried out by these Assistant Nurses who helped to fill a gap in the ranks of those devoting their time to the care of the Chronic Sick Patients.

CIVIL DEFENCE CASUALTY SERVICES.

Medical Rest Centres and Rest Homes for Homeless Persons.

Staffing difficulties continued during the year at Medical Rest Centres and Rest Homes for Homeless Persons. The Medical Rest Centre for Homeless Persons at Holmhurst, Manor Road, Loughton, was closed during the year, as the need for this Centre was not so acute, and the Centre at 5, Forest Drive, Leyton, was also closed and the premises transferred to Leyton Borough Council for re-housing purposes.

With regard to the Medical Rest Homes, that at Church Hall, Broxton, had to be closed owing to lack of staff, and Little Waltham Hall was also closed, the premises being derequisitioned. At the end of the year there were, therefore, no Medical Rest Homes in the County, and the two remaining Medical Rest Centres for Homeless Persons were :—

Beechlands, 42, Alderton Hill, Loughton.

Brookfield, Oak Hill, Woodford Green.

In the tables which follow an attempt is made to summarise the many and varied activities carried out under the County Tuberculosis Scheme :—

(a) Summary of notifications during the period from the 1st January, 1945, to the 31st December, 1945, in the area of the County of Essex.

(b) New cases of Tuberculosis coming to the knowledge of the Medical Officer of Health during the above-mentioned period, otherwise than by formal notification.

[illegible]

The sources from which information as to the above-mentioned cases was obtained are shown below :—

Source of Information.						No. of Cases.		
						Pulmonary.	Non-Pulmonary.	
Death Returns	from local Registrars		...	...	3	1		
	transferable deaths from Registrar-General		...	...	—	—		
Posthumous Notifications		...	...	...	6	11		
“Transfers” from other areas (other than transferable deaths)		...	...	...	105	12		
Other Sources. (Forms I and II)		...	..	...	96	21		
Total					...	...	210	45

TABLE V.
NOTIFICATION REGISTER.

Number of cases of Tuberculosis remaining at the 31st December, 1945, on the Registers of Notifications kept by District Medical Officers of Health in the County.	Pulmonary.			Non-Pulmonary.			Total Cases
	Males	Females	Total	Males	Females	Total	
	5332	4482	9814	2092	1987	4079	

TABLE VI.
SHOWING ATTACK AND DEATH RATES FROM TUBERCULOSIS IN THE ADMINISTRATIVE COUNTY OF ESSEX.

YEAR.	Pulmonary Tuberculosis.				Non-Pulmonary Tuberculosis.				Tuberculosis (All Forms).			
	Noti- fica- tions.	Rate per 1,000 Pop.	Deaths.	Rate per 1,000 Pop.	Noti- fica- tions.	Rate per 1,000 Pop.	Deaths.	Rate per 1,000 Pop.	Noti- fica- tions.	Rate per 1,000 Pop.	Deaths.	Rate per 1,000 Pop.
1912-16	Not		851	0.86	Not		269	0.27	Not		1120	1.13
1917-21	avail- able.		752	0.89	avail- able.		199	0.24	avail- able.		951	1.13
1922-26	1110	1.16	656	0.69	320	0.34	148	0.15	1430	1.50	804	0.84
1927-31	1110	1.00	710	0.64	382	0.34	141	0.13	1492	1.34	851	0.77
1932-36	1145	0.89	644	0.50	391	0.30	131	0.10	1536	1.19	775	0.60
1937-41	1161	0.87	612	0.45	348	0.26	116	0.09	1509	1.13	728	0.54
1942	1387	1.09	622	0.49	431	0.34	126	0.10	1818	1.43	748	0.59
1943	1417	1.11	639	0.50	436	0.34	109	0.09	1853	1.45	748	0.59
1944	1335	1.06	593	0.47	364	0.29	113	0.09	1699	1.35	706	0.56
1945	1273	0.99	548	0.42	337	0.26	112	0.09	1610	1.25	660	0.51

There has been a further reduction in the death rate from all forms of tuberculosis. The death rate from pulmonary tuberculosis has reached its former lowest level (namely 0.42) which was previously reached in 1938 for the first time.

The attack rate is also showing a steady decline from the rise which took place during 1942 and 1943. Unless unforeseen circumstances intervene there would not appear any reason to doubt further reductions in both death and attack rates. Nevertheless, the present housing difficulty and the lack of adequate accommodation for patients suffering from advanced disease, who require segregation, may postpone the desired goal.

Notifications of service men and women discharged from the Forces on account of tuberculosis, number exactly the same as 1944, namely, 271, and of this number 164 were recommended for institutional treatment, under the County Tuberculosis Scheme. During 1946 the Ministry of Pensions awarded pensions to 213 ex-service men and women. The comparable figure for 1944 was 232.

Dispensaries.

Despite the lower attack rate the number of patients on the Dispensary Registers throughout the administrative County shows a further increase, namely, 8,022, as compared with 7,497 for 1944. Since the year before the war (1938) when the total number on the Dispensary Registers was 5,525, there has been an increase of 2,497 patients. From Table V on page 55 it will be seen that the total number of patients on the notification register at the end of 1945 was 13,893. At the end of 1938 the figure was 10,631. The increase in the Notification Register figures during the war years is, therefore, 3,262. There is probably very little significance in these increased figures in view of the reduction in both attack and death rates, but it is probable that the figures do show that the Medical Practitioner is fulfilling his duty in promptly notifying cases under the Regulations, and so far as the number on the Dispensary Registers is concerned, it might indicate that patients are now more willing to avail themselves of the facilities available under the County Tuberculosis Scheme. Nevertheless, there is still a large number of patients who do not come to the notice of the Tuberculosis Officer until the disease is in an advanced stage.

Owing to the lack of installed X-ray facilities at most of the Dispensaries, it has not been possible to add to the A.P. refill clinics already established at the Ilford and Walthamstow Clinics. It is hoped, however, that with post-war conditions, it will be possible to instal X-ray plant at certain other dispensaries as the value of the dispensary having its own X-ray Department cannot be over-estimated.

Institutional Treatment.

Most of the patients suffering from both pulmonary and non-pulmonary tuberculosis, who need active treatment are dealt with at the County Council's main Tuberculosis Hospitals at Broomfield and Black Notley, where despite staffing difficulties, much excellent work has been carried out. The other County Sanatorium, at Harold Court, is nevertheless, still serving a very useful purpose, although it has still been impossible to fill more than approximately half the beds available at this Sanatorium on account of staffing difficulties.

The following are reports from the Medical Superintendents of these three County Hospitals :—

Essex County Council Hospital, Broomfield.

(Medical Superintendent : DR. W. L. YELL).

Shortages in staff and materials remain a feature of the present situation. There are no innovations in diagnosis and treatment to record and no alteration in policy. The year's work within the hospital is shown in tabular form :—

Admissions	203	Artificial pneumothorax	
Discharges	182	refills—	
Deaths (including one non-pulmonary) ..	31	In-patients ..	6,000
Transfers	11	Out-patients ..	2,326
In-patients X-rayed ..	2,612	Aspirations ..	260
Out-patients X-rayed ..	1,333	(151 washouts)	
Staff X-rayed	537	Inductions	63
Thoracoplasty 64 stages		Appendicectomy	1 case
Adhesions .. 80 cases		Injection of laryngeal nerve	1 „
Rib resection .. 2 „		Incision of abscess of leg	1 „
Phrenic crush .. 5 „		Plasters	8 cases
Bronchoscopy .. 2 „		Light treatment	296
Monaldi drainage 3 „			

The discharges may be examined in more detail :—

	Obs.	T.B. minus.	T.B. + I.	T.B. + II.	T.B. + III.	Non-T.B.
Classification on admission ..	8	62	18	114	4	—
Classification on discharge ..	—	50	20	103	2	2
Quiescent	—	46	16	52	—	—
Died	1	7	1	17	4	—

Special forms of treatment :—

(a) Thoracoplasty.

				Result of Thoracoplasty.	
				Preliminary cavity drainage.	No preliminary drainage.
Completed	..	..	..	2	16
Sputum made negative ..	..	..	..	Nil	7
Sputum absent but T.B. plus with intensive methods ..	..	..	..	1	2
Sputum rare positive ..	..	..	..	Nil	Nil
Sputum positive	..	..	..	1	6
Improved	..	..	..	1	13
Not improved	..	..	..	1	1
Died	..	..	..	Nil	2

(b) *Artificial Pneumo-thorax Treatment.*

	A.P. induced before admission.			A.P. induced at Broomfield.			One A.P. induced before and 1 after admission.
	Uni-lateral.	Bi-lateral.		Uni-lateral.	Bi-lateral.		
Number ..	21	—	..	60	2	..	2
Satisfactory ..	12	—	..	46	2	..	2
Unsatisfactory ..	7	—	..	11	—	..	—
Adhesions cut ..	11	—	..	47	2	..	2
Abandoned ..	3	—	..	7	—	..	—
Significant effusion	7	—	..	11	—	..	—

(c) *Phrenic Operations.*

				No benefit.	Sputum negative or cavity closed.	
Alone ..	..	..	..	1	..	—
With A.P. ..	..	..	..	3	..	2
With pneumoperitoneum		..	..	—	..	—

Among the admissions, there were 11 cases of pleurisy with effusion, and family history was positive in 49 cases. The average age of patients on discharge was 30.

The figures for 1945 as in the preceding year, are too small to form a basis for any firm conclusions, and are remarkable mainly in their similarity to those for 1944. Attention is drawn once again to the proportion discharged quiescent, namely, 64 per cent. or, if the eleven pleural effusions are omitted, 61 per cent. In addition to its value in segregating the active infectious cases of tuberculosis, the sanatorium has two main features, first to set the patient's feet firmly on the road to recovery, and second, to render him non-infectious. In discharging a patient with disease quiescent, both these aims have been achieved, for no patient is regarded as quiescent while tubercle bacilli remain in the sputum. Unfortunately some patients are admitted with advanced tuberculosis, and others, in the absence of a specific, which does not yet appear to have been found, do not respond to treatment. Yet it is encouraging that nearly two-thirds should have been discharged quiescent, with the standard for quiescence becoming ever more strict. Improved and intensive methods in bacteriological investigation reveal tubercle bacilli in the sputum of patients who a few years ago would have been labelled 'quiescent', but in consequence are not so classed to-day, so that some of the improvement in the immediate results of treatment may be hidden. It is more than probable that many of the disappointing, and often unexpected, relapses occurring in such patients in the past can be explained on the grounds of inadequate sputum examination failing to reveal the presence of scanty tubercle bacilli which were still present at the time of discharge from sanatorium. It is expected that the results of recent developments in laboratory technique will be reflected in a full year in the more exact, if less encouraging, assessment of results of treatment; fluorescent microscopy, with the employment of the ultra-violet lamp, has been used

during the last quarter only of the present year. Checked by other methods, it is yielding an increase of positive findings in the examination of sputum and other discharges.

It will be noted that the average duration of in-patient treatment tends to increase, and was 15 months for patients discharged in the year under review. Prolonged treatment is necessary if it is to have any measure of success, and these repercussions on the waiting list must be accepted until more bed-accommodation and more nurses are available.

A noteworthy change in recent years has been the improved standard of nursing in sanatoria for the treatment of pulmonary tuberculosis, due in some degree to the increased scope and use of thoracic surgery, but also to the schemes of training for the certificate of the Tuberculosis Association and to the affiliation of sanatoria with general hospitals for general training. During 1945 it became increasingly apparent that a depleted nursing staff, however willing, could not keep up indefinitely the necessary standard, and that the long postponed reduction of beds was becoming inevitable if their health was to be safeguarded or even their services retained.

Essex County Council Hospital, Black Notley.

(Medical Superintendent : DR. M. C. WILKINSON).

During 1945 there was considerable pressure of work, both in the Sanatorium and in the E.M.S. portions of the hospital. The tuberculosis work is based on the principle of adequate bed rest under sanatorium conditions and any short cut to recovery must be regarded with suspicion and as a potential source of danger to the patient. Yet by the full application of ancillary methods of treatment, such as collapse therapy for pulmonary tuberculosis or surgical operations for non-pulmonary tuberculosis more rapid and often more certain results can be obtained. Such ancillary methods were therefore applied assiduously and were extended to groups of patients not ordinarily considered suitable, frequently with marked success. In 1932 it is noted in my annual report that the average stay of all pulmonary patients was 8.5 months and of all non-pulmonary 9.0 months. This figure includes short stay observation cases. In 1945 the average duration of stay of all patients suffering from pulmonary tuberculosis was 5.3 months and of patients suffering from non-pulmonary tuberculosis was 5.0 months. This significant change in the duration of treatment may be in some measure due to the development of ancillary methods of treatment, which, however, depend for their success on the basic principle of bed rest under sanatorium conditions.

This was also a busy year in the E.M.S. Hospital. 'Cold' battle casualties arrived both before and after the end of the war, from various fronts, not least from the army of the Burma front. The summer months were marked by the reception of several large convoys, first of service wounded and sick, later of repatriated allied prisoners of war. During the year the hospital was also frequently used by neighbouring practitioners for the treatment of medical and surgical emergencies.

In this report it will only be possible to refer briefly to the work of each department, and the following description summarises the development of Black Notley during the war years, both for the treatment of tuberculosis and as an E.M.S. Hospital primarily concerned with the treatment of service cases.

Treatment of Pulmonary Tuberculosis.

There were 249 patients admitted during 1945 for the treatment of Pulmonary Tuberculosis. 271 patients were discharged.

Special treatments were given as follows :—

Artificial pneumothorax inductions	..	..	..	101
Pneumoperitoneum inductions	..	..	..	39
Artificial pneumothorax refills	..	..	..	3,541
Pneumoperitoneum refills	..	..	..	1,071
Operations for thoracoscopy and division of adhesions	..			110
Operations for phrenic paralysis	..	..	..	51
Aspirations and air replacements	..	..	..	181

Artificial pneumothorax refill clinics for out-patients are held twice a week. The number of artificial pneumothorax refills given at these clinics was 1,053, and the number of artificial pneumoperitoneum refills 149.

A consultative clinic was held in the sanatorium by Dr. R. C. Cohen, M.D., D.P.H., twice a month; there were 361 attendances during the year.

The work of the maternity unit progressed satisfactorily during 1945. There were 45 confinements. The success of this work has attracted widespread notice in medical circles. Owing to the shortage of beds for tuberculosis, it was recently decided to restrict admissions for confinements to tuberculous women with active disease and to exclude those whose disease had become quiescent, as experience has shown that risk of reactivation of tuberculous disease in these is minimal.

As in previous years the work of the Dunmow and Braintree Tuberculosis Dispensaries has been carried out by Dr. R. C. Cohen.

Non-Pulmonary Tuberculosis.

During 1945 there were 236 patients admitted for the investigation or treatment of non-pulmonary tuberculosis and 288 discharged. I am indebted to Mr. S. L. Higgs, F.M.C.S., Consulting Surgeon for Surgical Tuberculosis for the Essex County Council, for his supervision and encouragement in this work. These patients were divided into the following categories :—

Skeletal tuberculosis	..	99	Tuberculosis of cervical glands	60
Genito-urinary tuberculosis	12		Primary thoracic infection in	
Abdominal tuberculosis	..	21	children	.. 26
			Observation negative	.. 18

Operations for patients suffering from non-pulmonary tuberculosis were performed as follows :—

For skeletal tuberculosis—

Arthrodesis of spine ..	11
" knee ..	5
" shoulder ..	2
" ankle ..	3
Osteotomy of hip, with or without graft ..	9
Laminectomy ..	2
Costo-transversectomy ..	4
Excisions of tuberculous bone	15
Amputations ..	2
Biopsies ..	4
For tuberculous abscess ..	34
Dressings under anaesthetic	17

For genito-urinary tuberculosis—

Cystoscopy ..	88
Nephrectomy ..	11
Epididymectomy ..	2
For abdominal tuberculosis—	
Anastomosis of bowel ..	11
For tuberculous glands—	
Tonsillectomies ..	42
Incision and curettage of abscess ..	34
Excision of glands ..	48
Various—	
Rib resection ..	1
Appendicectomies ..	3

Plaster of Paris splints are frequently used in the treatment of skeletal tuberculosis. Approximately 300 plaster splints were made during 1945.

An essential part of the orthopaedic treatment of surgical tuberculosis is splintage, both during hospital treatment and afterwards when the patient is ambulant. To have a splint department in the hospital, including a shop for the making of surgical boots, is to increase enormously the efficiency of the work and the rate of discharge of the patients. During 1945 three hundred and twenty-four surgical appliances were manufactured in the hospital splint shop, and thirty-six surgical alterations to boots were made. The splint shop also undertakes the splint work for certain orthopaedic clinics. A word of praise is due to the Head Splint Maker, Mr. F. H. Cocker, for the very efficient manner in which he has managed the splint department.

Consultative clinics were held during the year at various centres by Dr. M. C. Wilkinson. One is held each month at the Essex County Hospitals at Oldchurch, Wanstead and Black Notley, and one every alternate month at the Benfleet Treatment Centre, by arrangement with the Tuberculosis Officer, Dr. R. A. N. McMath. During 1945 four hundred and thirteen patients were sent to these clinics by Tuberculosis Officers either for consultation or for follow-up purposes.

General Medical and Surgical Work.

Mr. R. Reid, M.S., F.R.C.S., and Mr. H. A. H. Harris, F.R.C.S. (E), the visiting Surgeons, were responsible for the surgical side of the E.M.S. Hospital, and were ably supported by the resident surgical staff. The medical work was carried out by Dr. A. Grant.

During 1945, 3,299 patients were admitted to the E.M.S. Hospital and 3,416 discharged. Of these, 556 patients were admitted to the fracture unit under Mr. Harris, 37 patients to the peripheral nerve injury unit and 334 patients to the E.N.T. Unit. Another important feature of the work was the investigation of patients for medical boards and the preparation of their papers;

in all 416 patients were medically boarded. The army authorities during the war arranged for a regular weekly board at Black Notley; during the greater part of the war the late Col. H. Moran was President of these boards and with the co-operation of Dr. Alan Grant, M.D., and Major H. P. Snowden, M.C., the Military Registrar, their work was carried out very smoothly.

Operations performed in the E.M.S. Hospital during 1945 numbered 1,125, and may be summarised as follows :—

Tonsillectomy	267	Appendicectomies ..	48
Other E.N.T. operations ..	67	Intestinal operations ..	16
Hernia	100	Trendelenberg operations ..	39
For fracture	82	For Haemorrhoids ..	30
Bone and joint operations ..	48	Skin grafts	22
Manipulations under anaes- thetic	44	Genito-urinary operations ..	76
Debridement of wounds ..	28	Gynaecological operations ..	25
Amputations	5	For abscess	61
Operations on nerves ..	11	Various	149
Operations on tendons ..	7		

Special Departments.

Radiography. This work has been under the direction of Dr. Franklin G. Wood, D.M.R.E. There are two departments, one in the E.M.S. part of the hospital and the other in the sanatorium. Both these departments were working to capacity in 1945. The departments were at times short staffed, and the staff—Miss V. Slater and Miss Williams—are to be congratulated on maintaining a high standard of work.

The number of patients X-rayed was—

	In-patients.	Out-patients.
Sanatorium	2,272	1,071
E.M.S.	3,297	774
Total	7,414	

Laboratory. The large number of investigations carried out by the laboratory in 1945 shows the extent to which laboratory methods assist in diagnosis and treatment. The work was ably carried out by Dr. Ross Mackenzie and her staff. The number of examinations was as follows :—

For E.M.S. patients	36,041
For Sanatorium patients	26,091
Public Health specimens	15,495
	77,627

The number of post-mortems performed was 20.

Blood Transfusion Service. During 1945 Dr. Alan Grant, who acted as Medical Officer in the hospital in charge of resuscitation, kept a blood bank

established in the hospital. This service has become an essential part of the routine establishment. Thanks are due to Mrs. Eades for the part she has played in maintaining this service and to the numerous persons in the district who volunteered as donors.

Rehabilitation. Considerable stress has been laid by the Ministry of Health on rehabilitation. This work is divided between four departments, mutually reciprocal, the persons concerned are the surgeons and nurses, the physiotherapists, the remedial gymnasts and the occupational therapists. Much of the work has been concerned with the rehabilitation of service cases suffering from gun shot injuries, but under peace-time conditions it is being extended to civilian practice also. The work was under the direction of Mr. H. A. Harris and Dr. W. C. Menzies.

Dispensary. The work in this department has proceeded smoothly under Mr. A. S. Wigley.

Finally, tribute should be paid to the Matron and the Nursing Staff for the constantly high standard maintained and the unvarying cheerfulness with which duties were always performed, both in the Sanatorium and E.M.S.S. Hospitals. Many service men, as well as tuberculous patients, found their way back to health at Black Notley during 1945, and to assist them was a privilege eagerly accepted by all staff.

Major Snowden, M.C., played no small part in the work of the hospital in 1945, and to him the thanks of all the civilian staff are due. Thanks are also due to the clerical and administrative staff who, though short handed, were able to cope with the various administrative problems and procedures.

During the war and during 1945 it was possible to keep alive interest in research, and several papers emanated from Black Notley, including "X-ray Examination of the Hip-joint in Tuberculous Disease with Special Reference to the Localisation of Cavities and Tuberculous Foci." Franklin G. Wood, M.B., D.M.R.E., and M. C. Wilkinson, M.B. (Lond.) *British Journal of Radiology* Vol. XVIII. No. 24, October, 1945. "Pulmonary Tuberculosis and Pregnancy" Raymond C. Cohen, M.D., D.P.H., *British Journal of Tuberculosis*. Vol. XII No. 1. January, 1946.

Harold Court Sanatorium.

(Medical Superintendent : DR. S. THOMPSON).

The work at this Sanatorium has continued during the year, and there has always been a waiting list of patients for admission. Many patients asked to be admitted to Harold Court owing to ease of access for their visitors.

The difficulties of staffing, common to most Sanatoria, have been experienced at Harold Court, but a slight improvement in the nursing and domestic staff position allowed Pavilion II to be re-opened in April, so that 10 very useful beds were provided for patients who were up part of the day. This has proved very useful as a convalescent annexe to the artificial pneumo-thorax ward, and has released beds for induction of A.P. in more patients.

There are no facilities at Harold Court for thoracic surgery, but during the year arrangements were made with the London Chest Hospital, whereby patients requiring thoracoscopy and adhesion section, could be transferred to the London Chest Hospital for such treatment and returned to Harold Court on its completion. In this way the results of treatment on discharge from Sanatorium have been much improved, as has also the ultimate prognosis.

Following the completion of war damage repairs, which were very extensive, a plan was put forward for improving the amenities for medical, nursing and domestic staff and patients, by the provision of central heating for the main building, a new Dispensary, and a dental room with equipment. This scheme has received the approval of the Public Health Committee and when it is completed and certain interior decoration of the Pavilions is also carried out, it is hoped that the nursing and domestic staff will be increased, with the provision of more attractive facilities, so that the whole 57 beds can be brought into use.

The following list gives details of the number of patients treated, and the general clinical work of the Sanatorium :—

Number of patients admitted	..	..	..	68
Number of patients discharged home	..	..	..	51
Number of patients transferred to other Institutions				2
Number of patients died	..	..	..	10

A.P. Treatment—

Number of Inductions	..	..	..	21
Number of Refills (in-patients)	..	..	..	398
Number of Refills (out-patients)	..	..	..	30
Number of Screen Examinations	..	..	..	922

Two patients transferred to London Chest Hospital for adhesion section, and re-admitted to Harold Court.

Gold Treatment—

Number of patients treated	..	..	..	7
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X-Ray Examinations—

148 in-patients and 10 members of staff X-rayed at Ilford Tuberculosis Dispensary.

11 in-patients and 1 member of staff X-rayed at the Essex County Hospital, Broomfield.

4 members of staff X-rayed at Victoria Hospital, Romford.

1 member of staff X-rayed at Brentwood and District Hospital.

During the year it was possible to make a very satisfactory arrangement with the Thurrock Urban District Council for the use of 48 beds in the Thurrock Isolation Hospital for male patients suffering from Pulmonary Tuberculosis. As an up-to-date X-ray Department has been established at this hospital these beds are proving of tremendous value to the County Tuberculosis Scheme.

Although it was possible to maintain in the aggregate approximately 1,000 beds in the above-mentioned County Hospitals and other Institutions, it was not possible to make any inroads into the very lengthy waiting list, which has now persisted for

some considerable time. The consequential hardships on patients and their relatives owing to the waiting period required before a patient can enter an institution can be well appreciated and caused many administrative problems in arriving at fair decisions as to those cases where priority of admission is really justifiable. It still seems to be an important point as to whether priority of admission should be given to the early treatable cases, or to the patient suffering from an advanced stage of the disease, and who is in a crowded home, where he is spreading infection. As far as practicable each case is considered on its merit, and dealt with accordingly.

In Essex it has been the practice to keep together in the Black Notley and Broomfield Hospitals, the earlier type of cases, needing treatment, and for which these hospitals are specially equipped. It is, however, a serious matter for consideration as to whether each hospital should take a quota of the patients suffering from advanced disease, in order to avoid any one particular institution being regarded as an institution for advanced cases only. On the other hand, there is no doubt that the presence of advanced cases in an Institution where mainly early cases are admitted must exercise a depressing and consequently a deleterious effect on the patient in the earlier stages of the disease.

Financial Allowances for Tuberculosis Patients.

The special Government Allowances available for tuberculosis patients coming within specified medical categories have undoubtedly been of great assistance in improving some of the difficulties confronting the patient, not only undergoing institutional treatment but during the preceding protracted waiting period. It should, however, again be mentioned that the exclusion of the chronic and advanced cases from the benefits of these Government Allowances demands from the Tuberculosis Officer much tact, and often occasions much embarrassment, in explanations which are necessary to both the patient and relatives. Nevertheless, the value of these allowances, as far as they go, cannot be over emphasized. At the end of 1945 there were 634 patients receiving these allowances, as compared with 592 at the end of 1944.

Mass Miniature Radiography.

The Unit commenced work on the 30th April, 1945, under the direction of Dr. Hugh Ramsay as Medical Director. Headquarters have been established within the precincts of the E.C.C. Hospital, Wanstead. This accommodation is unsatisfactory but is serving its purpose pending the provision of more suitable and adequate quarters.

Miss F. George, the Organizing Secretary for the Unit, has had an arduous period of initiating the introduction of the Unit's activities to a number of factories where subsequently surveys have been carried out. The co-operation shown by the factory managements has been noteworthy, and has greatly assisted in enabling the surveys to be undertaken smoothly and happily.

The following statistics relate to work done during the period April, 1945, to June, 1946 :—

Total miniatures	..	..	..	..	..	25,726
Normal films	..	..	..	..	..	23,625
Nil significant and classified (other than Tuberculosis)	..	..	..	..	..	945
Did not attend for repeat miniature	..	..	..	..	..	13
Did not attend for large film	..	..	..	..	..	42

Did not attend clinic or investigation	39
Inactive T.B. lesions	1,002
Active : in need of sanatorium treatment	60
	25,726
Large films taken	1,584
Investigation required	844
Investigated	805
Did not attend	39
	844

Tuberculous Lesions.

Active primary lesions	5
Inactive primary lesions	481
Active post-primary lesions—unilateral	32*
Active post-primary lesions—bilateral	24*
Inactive post-primary	520
	1,062

(*Recommended for Sanatorium Treatment.)

The majority of the cases of tuberculosis discovered during these surveys are inactive and many can be regarded as soundly healed.

The number of cases found to be suffering from active tuberculosis has not proved to be excessive. It will be appreciated, however, that many conditions other than tuberculosis are revealed by the X-ray examination, and with the patient's consent, the private practitioner is advised.

After Care.

An appreciation of the continued value of the work done by the 10 voluntary Care Associations is again recorded. These Associations expended the sum of £6,793 during the year ended 31st March, 1946, in providing a number of "extras" for necessitous cases.

Financial assistance is given to these Care Associations by the County Council on the basis of 30/- per 1,000 population covered by the Association's activities. In addition, a number of the Associations receive substantial amounts under the Sunday Entertainments Act, 1932. The other main sources of income for these Associations are annual Flag Days and the sale of Christmas Seals.

In October, 1945, an additional Care Association was formed to serve the Epping and Loughton area and has been called the Forest Area Care Association.

Under the County Tuberculosis Scheme, 293 grants of milk were made to patients during 1945. These grants are limited to necessitous patients coming within specified medical categories.

Open Air Shelters.

Although not so extensively used as in the earlier years of the Tuberculosis Scheme, open air shelters are still loaned to patients for use in their gardens or other approved sites. There were 54 of these shelters on loan during 1945. Patients who undertake to live in the shelters all the year round are given preference.

PART IV.

MATERNITY AND CHILD WELFARE.

County Area.

The County Council's Maternity and Child Welfare Schemes, full details of which have been given in previous reports, were continued during the year in the 31 (out of a total of 43) Sanitary Districts in which the County Council is the Welfare Authority. This area remains the same as in 1945.

In 37 out of the 43 Sanitary Districts, the County Council is the Local Supervising Authority under the Midwives Act.

The number of births, notified and unnotified, in the County Council's Welfare Area is given below, together with the number of notifications of Maternal Deaths.

No. of Births notified by—		No. of Births Unnotified.	No. of Notifications of Maternal Deaths.
Midwives.	Dr. and Parents.		
5,451	3,017	71	19

The Maternal Mortality Rate for the County Council's Welfare Area is 1.69, as compared with the rate of 1.20 for the Administrative County and 1.22 for England and Wales.

Ante-Natal Clinics, Maternity and Child Welfare Centres, Weighing Centres, Toddlers' Clinics and Women's Welfare Clinics.

At the end of the year 1945 there were 38 Ante-Natal Clinics, 124 Child Welfare Centres, 16 Toddlers' Clinics, 21 Weighing Centres and 10 Women's Welfare Centres in the County Welfare Area.

During the year new Clinics were established as follows :—

Child Welfare Centres—

Latchingdon (Maldon Rural District).

Kirby Cross (Tendring Rural District).

From August, 1945, the Weighing Centre at Salcot (Lexden and Winstree Rural District) was held as a Child Welfare Centre.

Weighing Centres—

Blackmore (Ongar Rural District).

Nazeing (Epping Rural District).

Wimbish (Saffron Walden Rural District).

Owing to lack of premises, the Chrishall Weighing Centre was closed in May, 1945, but was re-opened in October, 1946.

Provision of Milk and Medicaments.

The Health Visitors and Voluntary Workers at Child Welfare Centres continued to co operate with local Food Officers in the operation of the Ministry of Food National

Dried Milk Scheme for expectant and nursing mothers and children under the age of five years. The work undertaken includes storage and distribution of fruit juices and cod liver oil and the whole scheme has worked satisfactorily with the ready and helpful co-operation of the local Officers of the Ministry of Food.

From information supplied by the Ministry of Food during the year under review, the following issues of vitamins have been made in the County Council's Welfare Area, excluding the Metropolitan Police Districts of Chingford Borough, Chigwell and Waltham Holy Cross Urban Districts :—

	Bottles.			
Orange Juice	..	..	..	111,778
Cod Liver Oil	..	..	..	12,260
A. & D. Tablets	..	..	..	2,601

Dental Treatment and Dentures.

The scheme for dental treatment and provision of dentures for expectant and nursing mothers and dental treatment for children under five years of age was continued.

During the year under review a total of 1,031 patients received dental treatment.

Home Helps Scheme.

The figures given below show the progress which had been made at the end of the year 1945 in regard to the provision of Home Helps and Domestic Helps, in accordance with the instructions received from the Ministry of Health :—

	31-12-44.		31-12-45.	
No. of whole-time Home Helps	..	4	..	8
No. of occasional Home Helps	..	90	..	150
No. of cases attended during the year ..	..	120	..	313

The following is an analysis of the cases attended, showing the areas of the County in which use has been made of the Scheme :—

Urban Districts—

	Full-time.				Occasional.	
Benfleet	..	..	..	6	..	1
Billericay	..	..	..	8	..	34
Brentwood	..	..	..	8	..	2
Chigwell	..	..	..	19	..	14
Chingford B.	..	..	..	—	..	64
Epping	..	..	..	—	..	6
Halstead	..	..	..	—	..	4
Hornchurch	..	..	..	31	..	67
Maldon B.	..	..	..	—	..	1
Rayleigh	..	..	..	6	..	—
Witham	..	..	..	—	..	3

						Full-time.	Occasional.
Rural Districts—							
Braintree	..	..	..	..	..	1	9
Chelmsford	..	..	..	..	..	—	2
Dunmow	..	..	..	..	..	—	1
Halstead	..	..	..	..	..	—	13
Maldon	..	..	..	..	..	—	2
Ongar	..	..	..	..	..	—	3
Rochford	..	..	..	..	..	1	1
Saffron Walden	..	..	..	..	..	—	6
						80	233

The following is an outline of the Scheme as it exists at the time of writing (early 1947).

SCOPE OF SCHEME.

Helps are provided for the following types of cases in the part of the County for which the County Council is the Welfare Authority :—

Domestic Help.

- (a) Where the housewife falls sick or must have an operation.
- (b) Where the wife is suddenly called away to see her husband in hospital and arrangements have to be made to look after the children.
- (c) Where elderly people are infirm or where one of them suddenly falls ill.
- (d) Where several members of a family are ill at the same time, *e.g.*, during an influenza epidemic.

Home Help.

Cases where expectant and nursing mothers require a woman to help in the housework, to care for other children, etc., whilst the mother is laid aside owing to her condition.

ENGAGEMENT AND REMUNERATION OF PERSONNEL.

Women who are engaged and remunerated by the Council are employed on both Home Help and Domestic Help duties and are classified either as—

- (a) Whole-time Helps.
- (b) Occasional Helps.

Whole-time Helps are in the continuous employ of the Council and are remunerated at the rate of £3 3s. 0d. per 42-hour week, overtime is paid at the rate of 1/6 per hour (1/9½ per hour in the Metropolitan Police Area).

When not engaged on Home Help or Domestic Help cases these women are employed as Domestic Assistants at Hospitals or Day Nurseries in their own locality.

Occasional Helps are paid at the rate of 1/6 per hour (1/9½ per hour in the Metropolitan Police Area) for each case which they attend either as Home Help or Domestic

Help. A record is kept of each occasional Help and they are invited to take cases from time to time when a whole-time Help is not available, unless the occasional Help indicates that she is only prepared to undertake the one case for which she is booked.

SUPERVISION.

The County Council's Non-Medical Supervisor of Midwives acts as Organizer of the Home Helps Service and it is estimated that she devotes 50 per cent. of her time to these duties, which include dealing with all applications, and addressing meetings of interested bodies, *i.e.*, Women's Co-operative Guilds, Mothers' Meetings, etc.

ARRANGEMENTS FOR BOOKINGS.

Applications are submitted by patients either to the County Public Health Department or to Health Visitors in the County. In all cases where approval is given to the provision of a Home Help or Domestic Help, bookings are arranged by the Health Visitors, all of whom are responsible for the running of the Scheme in their own areas.

In normal cases a Home Help is provided for a maximum period of two weeks only, but in exceptional circumstances, *i.e.*, abnormal confinement or numerous young children, approval is given to an extension of the normal period.

RECOVERY OF COST FROM PATIENTS.

The full cost of the provision of a Home Help or Domestic Help is calculated at £4 4s. 0d. per 42-hour week. This charge includes the actual remuneration paid by the Council to the Help, and in addition, a sum estimated to cover overhead and incidental expenses arising from the administration of the Scheme.

In cases where Domestic Help is required for a few hours daily and not for a full 42-hour week, arrangements are made accordingly with an occasional Help and the patient's contribution is based on the number of hours worked by the Domestic Help per week.

Patients who are not able and willing to pay the full cost are invited to submit particulars of their income and expenditure on a prescribed form and their contribution is then assessed in accordance with the Council's Standard Contributions Scale.

Puerperal Pyrexia Regulations, 1939.

During the year 1945, copies of notifications made by the medical practitioners were received from Medical Officers of Health of County Districts in the Administrative County in respect of 232 cases of Puerperal Pyrexia as against 188 in 1944. Of these, 74 were in respect to cases in the County Council's Welfare Area (45 in 1944).

Twelve patients from the County Council's Welfare Area were admitted to hospitals and institutions during the year, under arrangements made by the Committee.

Public Health (Ophthalmia Neonatorum) Regulations, 1926—1937.

During the year ended 31st December, 1945, 36 cases of Ophthalmia Neonatorum were notified in the Administrative County, and of these 9 related to patients residing in the County Council's Welfare Area.

Particulars obtained in regard to these patients indicate that 5 of them were treated at home and 4 were admitted to hospital. In no case was vision impaired.

One patient was admitted to hospital during the year under the County Council's arrangements for the treatment of this disease.

Hospital Treatment of Maternity Patients.

The arrangements outlined in previous reports for the admission of maternity patients to hospital for confinement have been continued. Although evacuation schemes for expectant mothers ceased during 1945, the problems associated with shortage of accommodation and staff continued to exist. During the year 2,116 patients were admitted to hospitals and Maternity Homes under the Council's arrangements. The opening of the Maternity Unit at Essex County Council Hospital, Wanstead, in December, 1946, has relieved to a certain extent the pressure in the south-western portion of the County and the re-opening of the Unit at Orsett Lodge Hospital in August, 1946, has been a considerable asset in relieving the pressure on the maternity accommodation at St. John's Hospital, Chelmsford. This latter hospital was working to capacity throughout the year.

The Danbury Park and Writtle Park Maternity Homes rendered excellent service, the 2,000th baby being born at Danbury Park on the 24th October, 1945, where 351 women (210 from the County Council's Welfare area) were confined during the year. Danbury Park never became an institution in the accepted sense, and those mothers who had the good fortune to have their babies there regarded it as a home from home.

Although, with the ending of the war, General and Mrs. Wigan felt they would again like to have their home to themselves, they added considerably to the country's indebtedness to them by continuing their good work until 1st May, 1946, when the Danbury Park Maternity Home was closed.

Treatment of Minor Ailments—Children under School Age.

Under the scheme 68 children under school age received operative treatment during the year for the removal of Adenoids and Tonsils, or Circumcision.

Treatment of Orthopaedic Patients.

The arrangements whereby the Orthopaedic Scheme is available for children under five years of age were continued and during the year 15 children received hospital in-patient treatment, 722 children attended at After Treatment Centres and 282 examinations were carried out by the Orthopaedic Surgeons.

At the end of the year there were 24 After Treatment Centres in operation, one new Centre being established at Waltham Abbey during the year.

Obstetric Specialist.

Mr. Alan Brews, the part-time Obstetric Specialist, has continued to be of valuable

assistance to Assistant County Medical Officers and Medical Practitioners in the area for which the County Council is the Local Supervising Authority and Welfare Authority.

The following is the number of examinations carried out by Mr. Brews during the year :—

Clinic or Hospital.	No. of Patients examined.
Danbury Park	333
*St. John's Hospital, Chelmsford	189
*Chingford Combined Treatment Centre	53
St. Margaret's Hospital, Epping	208
Essex County Council Hospital, Black Notley	37
Various	29
	849

*Consultative Clinic.

In addition, he carried out 113 operations :—

Type of Operation.	No.
Major operations (including 12 Hysterectomies and 11 Caesarean Sections)	41
Minor operations (including 31 External Versions)	72
	113

Nursing Homes.

The number of Registered Homes at the end of the year was as follows :—

(a) Maternity Homes only	17
(b) Maternity and Nursing Homes	16
(c) Nursing Homes (including Convalescent Homes)	14

Routine inspections have been made at regular intervals and the general conditions existing at the Homes have maintained a satisfactory standard throughout the year. Difficulties are still being experienced by the Keepers of the Homes in relation to staff.

Child Life Protection.

At the end of the year there were 521 foster children in the care of 221 foster mothers. Under the Council's Scheme for the care of illegitimate children referred to later on in this report there are 11 foster mothers participating in the Guaranteed Payment Scheme; in appropriate cases this Scheme is also available for legitimate children.

In one case proceedings were instituted under Section 208 of the Public Health Act, 1936, but as the principal witness in the case left the country, it was necessary

for the proceedings to be withdrawn. The Foster Home concerned has now become closed.

Adoption of Children (Regulation) Act, 1939.

During the year 57 notifications were received which resulted in the adoption of 38 children. In the remaining 19 cases, the arrangements for adoption were still pending at the end of the year.

Midwifery Service.

At the end of the year, the following Midwives were employed under the County Council's Scheme and the table shows the number of cases attended during the year :—

		Midwifery.	Maternity.
17 County Council Midwives	.. ..	555	168
27 Welfare Council Midwives	.. ..	1,058	275

The following table shows the number of Midwives in domiciliary practice at the end of the year :—

Total No. of Midwives in Domiciliary practice at end of year.	Dependent.	Trained. Independent.
320 ..	286 ..	34

The total number of live-births and still-births which occurred in 1945 in the thirty-seven out of forty-three Sanitary Districts comprising the area for which the County Council is Local Supervising Authority under the Midwives Acts (*i.e.*, excluding the Boroughs of Barking, Colchester, Dagenham, Ilford, Leyton and Walthamstow) was 13,039, and of these 7,891 (60.52 per cent.) were attended by Midwives in the capacity of Midwife and 2,780 (21.32 per cent.) in the capacity of Maternity Nurse.

In the list indicated below, particulars are given in regard to the notifications received from State Certified Midwives during the year in accordance with the rules of the Central Midwives Board :—

Records of Medical Aid	.. ..	2,167*
Records of Still-Births	.. ..	127
Deaths of Mothers	.. ..	4
Deaths of Infants	.. ..	117
Artificial Feeding	.. ..	156
Liability to be a source of infection	.. ..	235
(These figures include all cases of High Temperature)		
Laying-out for Burial	.. ..	127
Ophthalmia Neonatorum or discharging eyes	.. ..	104
(Includes cases notified as Ophthalmia Neonatorum)		

*Percentage of Confinements attended by Midwives in which medical aid was sought 27.5.

) HOUSING ACCOMMODATION.

The efficiency of the service is seriously prejudiced by the difficulties experienced in finding proper and suitably situated accommodation for Midwives and the Housing authorities in the County have been requested to give sympathetic consideration to applications from Domiciliary Midwives. In this connection, the Ministry of Health subsequently issued Circular 98/46, dated 8th May, 1946, requesting that every effort should be made to assist any Midwife, District Nurse or Health Visitor in obtaining suitable accommodation, pointing out that in the large housing estates, provision should be made for such accommodation in the interests of tenants.

) GAS AND AIR ANALGESIA.

With a view to all domiciliary midwives in the County Council's Local Supervising authority Area being provided with a Gas and Air Analgesia Apparatus, arrangements were made in October, 1945, for Midwives to undergo the necessary course of instruction at Oldchurch County Hospital, Romford. It is only possible for two Midwives to undergo the course at one time owing to the shortage of Midwives and up to the end of the year 8 Midwives had successfully passed the course of instruction and the necessary arrangements were made for the apparatus to be provided.

Doctors' Fees.

The following comparative table is of interest, showing (a) the number of Medical Aid Notices received from Midwives during the year 1945; and (b) the corresponding number of doctors' claims made against the County Council in respect of such notices :—

No. of Medical Aid Notices received.	No. of Medical Aid Notices for which Doctors' claims have been received.
2,167	1,421

Essex County Nursing Association.

The following particulars give the number of District Nursing Associations in the Administrative County which are affiliated to the County Nursing Association :—

No. of affiliated D.N. Associations.	No. undertaking Midwifery and District Nursing.	No. performing General Nursing duties only.
147	140	7

The 147 Associations referred to above employ 168 District Nurse Midwives, and 7 District Nurses (General only).

The Association continues to render invaluable assistance in maintaining an adequate Midwifery and District Nursing Service, particularly in the scattered Rural areas.

To enable the Association to carry out alterations and extensions to the Training Home at Beachcroft Road, Leytonstone, the County Council has agreed to a grant up to and not exceeding £1,800 being paid to the Association.

Owing to the retirement of Miss E. A. Davieson, Miss E. M. Macalister was appointed as County Superintendent and took up duty on 1st July, 1945.

Domiciliary Nursing.

Under the National Health Service Act, 1946, it will become the duty of the County Council to provide a satisfactory Domiciliary Nursing Service.

For many years past the district nursing throughout the County has been undertaken by local Nursing Associations, most of which are affiliated to the Essex County Nursing Association, whilst a few are independent Associations, viz., at Colchester, Grays, Ilford, Barking and Walthamstow.

During the whole of the present century, there has been a most happy partnership between the Essex County Council and the Essex County Nursing Association, in supplying Village Midwives in the first place, but which developed later on into what is now recognized as a District Nursing Midwifery Service. The Essex County Nursing Association is amongst the few County Associations who have their own Training Home—at Beechcroft Road, Leytonstone, with a branch at York House, Dagenham, where suitable candidates have been trained as Midwives, and also received training as District Nurses. The result has been that Essex has recruited a very fine type of nurse, and brought great credit on that type of nurse known as a Village Nurse Midwife.

To meet modern requirements more and more District Nurses are now recruited from State Registered Nurses, and the day will come when there will be no more newly trained and appointed Village Nurse Midwives. Nevertheless, it should be definitely stated that they served their day and generation, not only faithfully but skilfully, and this sincere tribute is willingly rendered to them.

The County Nursing Association has been affiliated for the last few years to the Queen's Institute of District Nursing. In the area of the County covered by the Essex County Nursing Association, the number of Village Nurse Midwives and District Nurses employed in 1946 was 185, together with six part-time reliefs.

The Essex County Council have paid very substantial grants to the County Nursing Association for recruitment, training and placing of Midwives and District Nurses, and also as a contribution to the salaries and expenses of the maintenance of the Nurses and Midwives on the districts. In more recent years payments have been made from the County Council in respect to District Nursing Services for old age pensioners, people in receipt of relief, and tuberculosis patients.

The relationship between the County Council and County Nursing Association has been, from the commencement, of a most cordial nature, and this was strengthened over a long period by the same person holding the offices of County Superintendent and Chief Health Nurse. It was only the growth of these duties that forced the separation of the two offices some years ago in Miss Landon's time.

Apart from the services provided by the Essex County Nursing Association and other independent Nursing Associations in the County, it has been found, in the course of preliminary enquiries, that there may be some Domiciliary Nurses and Midwives practising in the County either independently or in the employ of some private concern or agency. These nurses are, without question, playing a definite part in the provision of an adequate Domiciliary Nursing Service and full consideration will have to be given to the part they play in the scheme of things when making plans for a Domiciliary Nursing Service under the National Health Service Act.

Hostel for Mothers and Babies—"Ardmore," Buckhurst Hill.

This Hostel continues to fulfil a very useful purpose in providing accommodation for mothers with their babies who, after confinement, may experience difficulty in coping with their immediate future. Forty-four mothers and babies were admitted during the year, the average length of stay being 58 days.

The arrangements were also continued whereby Student Health Visitors and probationers from Nurseries assist at the Hostel in order to obtain practical knowledge of the care of the normal infant.

Care of Premature Infants.

In accordance with Ministry of Health Circular 20/44 relating to Care of Premature Infants, the arrangements whereby all infants weighing $5\frac{1}{2}$ lbs. or less at birth are kept under special observation of the Health Visitor, have been continued. During the year, out of a total of 8,928 births in the Council's Welfare Area, 298 notifications were received in respect of children weighing $5\frac{1}{2}$ lbs. or less. Whenever possible and necessary, the services of a Home Help are made available to assist the mother, so that she can give her whole attention to the baby.

Dr. K. H. Tallerman, the part-time Consulting Paediatrician, has been of great assistance to Assistant County Medical Officers and medical practitioners and Consulting Clinics have been established at—

Oldchurch County Hospital, Romford.

St. John's Hospital, Chelmsford.

St. Margaret's Hospital, Epping.

Essex County Council Hospital, Black Notley.

„ „ „ Wanstead.

Care of Illegitimate Children.

The Scheme whereby the County Council guarantees payment to suitable foster-mothers who undertake the care and maintenance of babies apart from their mothers, has continued, and eleven foster-mothers were participating in the Scheme at the end of the year 1945. In addition to an increase in the rate of payment to foster-mothers from 11/6 per week and £3 per quarter clothing allowance to 12/6 per week and £3 per quarter clothing allowance, the Scheme has been extended to include illegitimate children.

Co-operation with the Chelmsford Diocesan Moral Welfare Association has been continued, together with the grants to assist in maintaining the various Shelters established by the Association.

Premises at Writtle Wick, near Chelmsford, have been acquired for the establishment of a residential Nursery, where there will be accommodation for 25 children, and although both illegitimate and legitimate children will be admitted, the Nursery, together with the Hostel for Mothers and Babies at Buckhurst Hill, will be of great assistance in connection with the care of illegitimate children.

General.

The issuing of priority dockets to enable expectant mothers who are being confined in their own homes to obtain a supply of sheets, has been continued and during the year 1945, 8,838 priority dockets were issued.

Elimination of Verminous Conditions.

The arrangements were continued whereby the County Council through their Health Visitors, assist mothers of young children in the promotion of cleanliness and good habits and the elimination of verminous conditions.

Emergency Maternity Homes and Residential Nurseries, etc.

(a) EMERGENCY MATERNITY HOMES.

Writtle Park (30 beds) and Danbury Park (20 beds).

There is a reference on page 72 to the valuable contribution made to the national emergency at the Danbury Park Maternity Home; the work carried out at the Writtle Park Maternity Home was equally valuable. The mansion, forming part of Lord Petre's Estate, in delightful surroundings in the vicinity of Chelmsford, was taken over by the Ministry of Health for the purposes of the Government Evacuation Scheme and was opened on 2nd October, 1939. The Ministry allowed the County Council to make use of beds not required for the accommodation of evacuees. During the whole period of six years 2,570 women were confined there in ever increasing numbers (103 in the first full year and 583 in the year under review).

Great credit is due to the staff who had innumerable difficulties to overcome in strenuous times, but who never lost sight of the fact that the happiness and well-being of the patients under their care were the primary considerations.

The Home was closed on 2nd March, 1946.

(b) RESIDENTIAL NURSERIES.

- (1) St. Paul's, Walden Place, Saffron Walden (12 children).
Farmadine, Saffron Walden (12 children).
Carina, Walden Grove, Saffron Walden (12 children).

These Nurseries were discontinued during the year 1945.

- (2) St. Luke's, Newton Hall, Dunmow (30 children).

This Nursery has continued to operate satisfactorily, and by arrangement children under five years of age residing in the County Council Welfare Area have been admitted in addition to evacuee children.

(c) WAR-TIME DAY NURSERIES.

The following gives particulars of the Day Nurseries in operation at the end of the year. The Nurseries established at Laindon and Maldon were closed in August and October, 1945, respectively :—

Name.	Accommodation.	Opened.
Hornchurch 75, North Street (whole-time)	30 children (10 under two years of age and 20 between 2 and 5 years of age)	1st July, 1942.
Witham, "Brookcote," Chipping Hill (whole-time)	40 children (8 under two years of age, 32 between 2 and 5 years of age)	14th Sept., 1942.
Rainham, Rainham Hall (whole-time)	45 children (12 children under two years of age, 33 between 2 and 5 years of age)	6th Jan., 1943.
Waltham Abbey The Cedars, Seward- stone (whole-time)	40 children (10 under two years of age, 30 between 2 and 5 years of age)	16th March, 1943.
Friends' Meeting House Saffron Walden (part-time)	40 children between 2 and 5 years of age)	1st Dec., 1941.
Chingford 136-138, Chingford Mount Road (whole-time)	52 children (18 under 2 years of age, 34 between 2 and 5 years of age)	20th Sept., 1943.
Chingford Hatch Lane (whole-time)	50 children (20 under 2 years of age, 30 between 2 and 5 years of age)	12th April, 1944.
Upminster 23, Hall Lane (whole-time)	40 children (12 under 2 years of age, 28 between 2 and 5 years of age)	1st Dec., 1943.
Hornchurch Elm Park, 8 and 9, Elm Park Parade (whole-time)	30 children, 1—5 years of age ..	29th Dec., 1943.

Nursery Provision for Children under 5 years.

In a joint circular issued by the Ministry of Health and Ministry of Education on 14th December, 1945, in regard to the future Nursery provision for children under five years of age, it was indicated that consideration should be given to the needs of the following :—

- (a) Nursery Schools or Classes ;
- (b) Day Nurseries ;
- (c) Establishment of temporary Afternoon Creches ;
- (d) Provision of Evening "Sitters-in."

Owing to the acute shortage of teachers, particularly of women trained for Nursery work, the Education Committee have signified that it is not possible at present to transform any of the existing Day Nurseries to Nursery Schools, and arrangements have been made for all the Day Nurseries to be continued as such. In addition, consideration is being given to the need for the establishment of an additional Day Nursery at Chingford and a new Nursery at Buckhurst Hill.

The need for the establishment of Creches or the provision of "Sitters-in" has not yet arisen.

Combined Medical Service.

(1) HORNCHURCH URBAN DISTRICT.

As a result of the retirement of Dr. A. Ball, Medical Officer of Health for the Hornchurch Urban District, arrangements were made for Dr. P. X. O'Dwyer to act as Medical Officer of Health until the appointment of a successor could be made.

(2) CLACTON AND FRINTON AND WALTON URBAN DISTRICTS.

As indicated in last year's report, the services of Dr. W. A. Milne, Medical Officer of Health and Assistant County Medical Officer for the Clacton and Frinton and Walton Urban Districts, who was due for retirement in September, 1943, were continued for a further period of one year from 16th September, 1944. Dr. Milne intimated his desire to retire at the end of September, 1945, and arrangement was made for Dr. J. R. Hetherington, Medical Officer of Health for the Borough of Harwich to act temporarily in his place. Later, however, it was found that the demands on Dr. Hetherington's services for the Borough of Harwich were increasing and arrangements were made for Dr. J. Ramsbottom, Medical Officer of Health and Assistant County Medical Officer for the Tendring Area, to undertake temporarily the duties of Medical Officer of Health and Assistant County Medical Officer in the Clacton and Frinton and Walton Urban Districts.

(3) BOROUGH OF WANSTEAD AND WOODFORD.

Dr. R. Vere Hodge, Medical Officer of Health for the Borough of Wanstead and Woodford, retired during the year and from 10th September, 1945, Dr. F. G. Brown was appointed temporarily to the combined post of Medical Officer of Health and Assistant County Medical Officer.

(4) EPPING URBAN AND RURAL DISTRICT AND ONGAR RURAL DISTRICT.

On the retirement of Dr. W. F. Erskine, Medical Officer of Health for the Rural District of Epping, it was agreed by the Epping Urban and Rural and Ongar Rural District Councils, that in order to implement the Scheme made under Section 111 of the Local Government Act, 1933, that arrangements should be made for the appointment of a full-time Medical Officer of Health for these districts who will also act as an Assistant County Medical Officer.

Combined Nursing Service.

On 31st December, 1945, Health Visiting staff were employed on Child Welfare work on behalf of the County Council as follows :—

52 Whole-time (also undertaking School and Tuberculosis duties)	}	Equivalent whole-time Health Visitors for Child
1 Part-time		Welfare—approx. 21.

N.B.—The above figures do not include the Superintendent Health Visitor and her Assistant, but include the Relief Health Visitors and Probationer Health Visitors. The District Nurse Midwives continue to assist the Health Visitors as far as possible.

PART V.

PUBLIC ASSISTANCE.

The Press has been full of sensational articles during the past few months in respect of reports of apparent neglect and mismanagement of Institutions, both public and private, who have the care of elderly people, young children and various kinds of mental and physical defectives. The writers of some of these articles display a sense of discovery in their writings, and it may be that the public have not sufficiently appreciated the kind of work that is going on and has been going on for a century and more, in respect to the care and attention to those not able to look after themselves.

This kind of work has more and more fallen to the lot of the Social Welfare Service, or, as it used to be called, the Poor Law Department, and it is quite time a very firm word was spoken on behalf of that much abused section of the public service. Actually it has been the unacknowledged receiver of all kinds of responsibilities which have been discarded by other bodies and institutions. The Social Welfare Department has not only the power, but in many cases the duties, to take over these responsibilities, and they have undertaken them without any beating of drums or any fervent appeals for public attention.

Those who have personal acquaintance with the work they have been doing week in and week out, often under the greatest difficulties and inconveniences, know what heroic and magnificent work of continuing nature has been performed. They get no publicity, no glamour, no bouquets. If any person deserves a halo it is the Assistant Nurse working in the senile and infirm wards of our Public Infirmaries attached to our Social Welfare Institutions. There is none of the excitement of acute operation work and rapid recoveries, but just the ordinary daily grind to keep bodies clean and the ordinary amenities observed.

Hospital Services.

The three main Public Assistance Institutions, namely, St. John's Hospital, Chelmsford, St. Margaret's Hospital, Epping, and Orsett Lodge Hospital, continued to play their part in respect to the Emergency Hospital Scheme, but during the year St. Andrew's Hospital, Billericay, was withdrawn and reverted to its original purpose of treating the chronic sick. In this connection, it must be pointed out that the grave shortage of nursing and domestic staff had its repercussions on the availability of beds for this type of patient. Every effort was made to obtain additional staff, but the numbers fell far short of requirements. It was, therefore, found necessary to institute strict supervision in regard to all admissions, in order that beds should be put to the best possible use. Admissions were limited to emergencies, and cases in urgent need of nursing attention. Reference has been made in another part of this Report to the steps taken in regard to the re-establishment of a Maternity Unit on up-to-date lines at the Orsett Lodge Hospital.

In respect to the Maternity Unit at St. John's Hospital, Chelmsford, plans were approved by the Ministry of Health whereby this Unit would be altered in order to

bring it into line with the latest modern practice in Units of this description. At the end of the year it had not been found possible, however, for the necessary work to be commenced.

Orsett Lodge Hospital—Geriatric Rehabilitation.

Some remarkable results have been achieved at Orsett Lodge Hospital in the rehabilitation and welfare of the aged sick, to which group we are beginning to apply the term "Geriatric."

Physiotherapeutic methods are used by Mr. L. Cosin, F.R.C.S., and his staff, in getting old patients out of bed after illnesses which would usually confine them to bed for the rest of their lives. As a result, it is claimed that, of all old people admitted to Orsett, about 20 per cent. only are considered to be permanently bed-ridden, while 40 per cent. should be capable of getting up, and either returning to their own homes or being transferred to accommodation more suited to their physical condition.

In the active Geriatric Wards, the old people are encouraged to carry out exercises in bed during the early stages of convalescence, so that they can have exercises in walking as soon as they are ready for it.

Patients suffering from strokes are afforded treatment, which aims at avoiding any permanent disability.

Cases of Rheumatoid Arthritis are treated in a novel manner, by utilizing long helical springs of varying strength, attached to canvas slings, supporting the affected limb, thus facilitating movement.

The chief impression gained from the active Geriatric Ward is one of busy hopefulness, where progress towards recovery is confidently expected and constantly occurring.

Rehabilitated patients are accommodated in long stay or Hostel Wards (approximately 30 women and 40 men). These patients require only a minimum of nursing attention, thus releasing Nurses for the Wards for the permanently bed-ridden.

In addition to Physiotherapy, a great deal of Occupational Therapy is being carried out by the old people, and recently an exhibition of work by over 30 of them was much admired for the skill and diversity of the completed articles. Nearly 1,000 articles are finished by old people each year.

Apart from the obvious sense of happiness displayed by these patients, the chief impression one gains is that as a by-product an approach is being made towards helping to solve, to some extent, the nursing shortage.

A note of praise is due to the devoted band of Voluntary Helpers, and Occupational Therapists, who have played a very active part in this work.

A considerable amount remains to be done in Geriatric work, and the Ministry of Health have shown great interest in what is going on at Orsett, and elsewhere, to solve the problem of the apparently hopeless case of the old person admitted to hospital with some crippling disability. It is hoped that this type of work will be extended as time goes on to all Hospitals and Institutions controlled by the County Council.

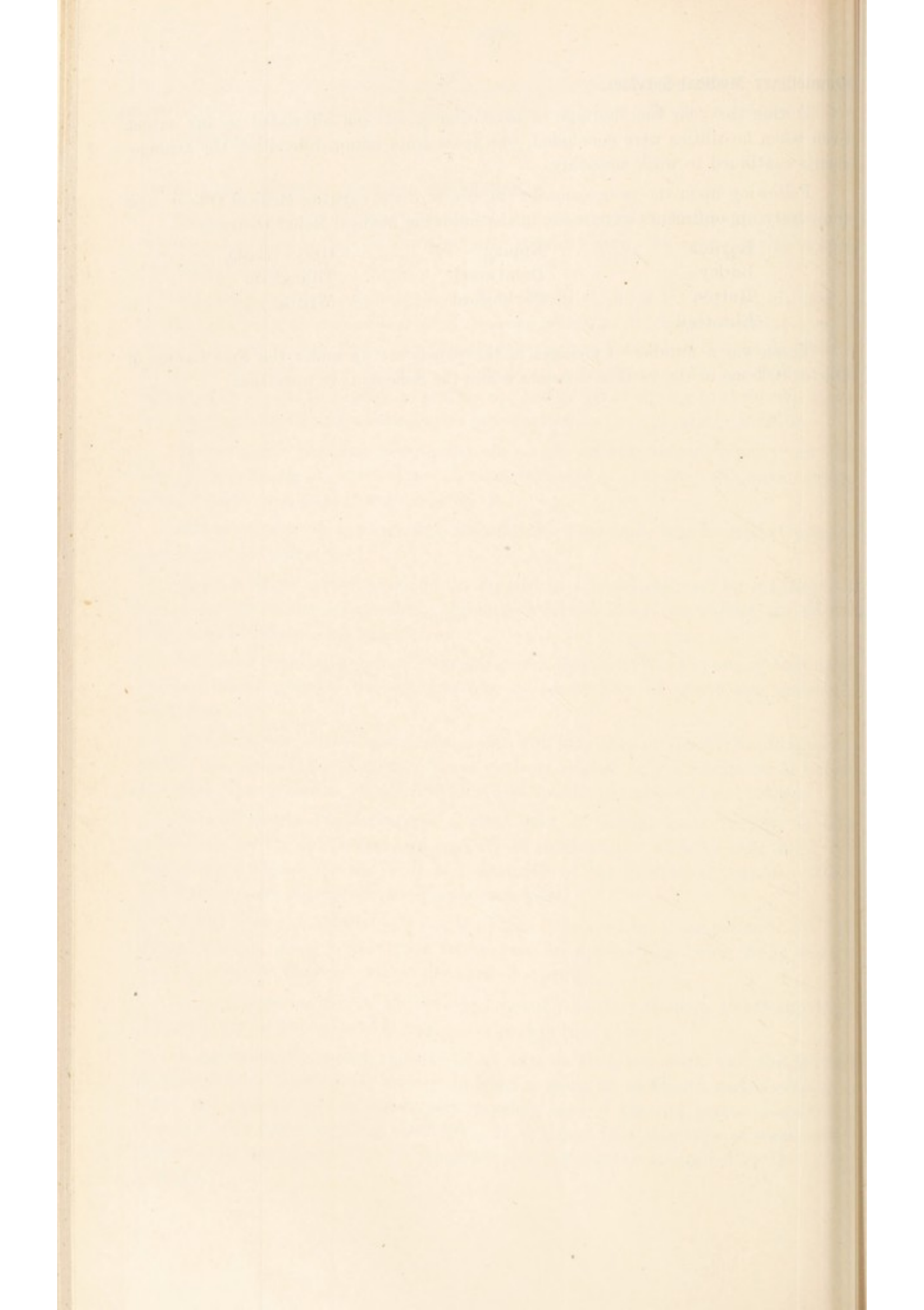
Domiciliary Medical Services.

During the year the shortage of practitioners was not alleviated to any extent even when hostilities were concluded, but apart from minor difficulties, the arrangements continued to work smoothly.

Following upon the resignation or the death of the existing Medical Officer, new temporary appointments were made in the following Medical Relief Districts :—

Roydon	Epping	Grays (East)
Borley	Brentwood	Tillingham
Hutton	Chelmsford	Writtle
Elmstead		

There was a number of changes in the panels set up under the Free Choice of Doctor Scheme in the various districts where the Scheme is in operation.



PART VI.

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TABLE VIII.

BIRTHS, DEATHS, ANNUAL RATES, &c., 1945.

Sanitary District	Census 1931						Deaths at Various Ages (figures supplied by Medical Officer of Health)															Crude annual rates per 1,000 estimated population					Infant Mortality Rate per 1,000 live Births
	Area	Adjusted Population	Estimated Population	Live Births	Still Births	Deaths at all Ages	Deaths under 1 Year of Age	Under 1 year	1 and under 2	2 and under 5	5 and under 15	15 and under 25	25 and under 35	35 and under 45	45 and under 55	55 and under 65	65 and under 75	75 and upwards	Total Deaths	Birth Rate	Death Rate	Zymotic Death Rate	T.B. Death Rate	Other Res. Death Rate			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)		
URBAN																											
BARKING B.	3,877	51,270	65,360	1,167	33	611	45	45	4	3	10	22	34	35	89	104	120	145	611	17.9	9.3	0.11	0.58	1.35	39		
BENTLEY	6,361	12,091	17,350	282	5	260	3	—	1	2	2	6	8	10	32	76	120	260	163	15.0	—	—	—	—	1.21	11	
BELLINGHAM	29,367	27,708	37,430	639	19	553	32	29	4	9	12	8	7	21	28	78	144	213	553	17.1	14.8	0.17	0.53	1.34	50		
BRAINTREE AND DOCKING	6,812	13,497	16,290	275	9	186	14	14	2	2	1	3	4	11	12	33	39	65	186	17.0	11.5	—	—	—	0.74	31	
BRENTWOOD	18,269	23,694	25,970	319	6	270	22	22	2	2	3	6	7	7	19	46	61	95	270	12.3	10.4	0.19	0.65	1.12	69		
BRIGHTLINGSEA	2,832	4,147	3,997	72	2	70	5	—	—	—	—	—	—	—	—	—	—	—	79	18.0	19.8	—	—	—	1.50	69	
BURNHAM-ON-CROUCH	5,332	3,492	3,293	55	1	56	3	—	—	—	—	—	—	—	—	—	—	—	17	16.7	17.0	—	—	—	0.61	55	
CANTY ISLAND	4,331	3,332	7,960	137	5	83	6	6	1	—	—	—	3	2	2	4	16	21	28	83	17.2	10.4	—	—	—	1.63	44
CHESHAM	4,772	27,457	32,970	616	15	355	28	27	1	3	1	5	8	21	27	63	91	108	355	18.7	10.8	0.15	0.48	1.30	45		
CHIDWELL	8,971	16,338	25,170	447	5	282	17	16	3	1	3	5	7	15	18	31	69	111	279	17.8	11.2	0.16	0.40	1.39	38		
CHINGFORD	2,868	22,676	37,790	606	19	321	18	18	3	1	6	10	6	19	33	51	74	96	317	16.0	8.5	0.11	0.32	0.87	30		
CLACTON-ON-SEA	6,470	16,737	14,690	216	2	262	11	11	3	—	2	1	5	3	14	26	81	116	262	14.8	17.9	0.14	0.34	1.10	51		
COLCHESTER B.	12,011	49,131	44,940	825	23	557	33	33	4	5	2	10	13	17	44	81	131	217	557	18.4	12.4	0.16	0.31	1.00	40		
DAVENHAM	6,554	89,362	94,530	1,847	49	659	78	29	1	2	13	8	17	14	47	59	65	79	334	19.5	7.0	0.14	0.37	0.98	42		
EPFING	1,488	5,081	5,875	162	4	69	2	1	—	—	—	—	—	—	5	14	18	22	61	17.4	11.7	—	—	—	0.85	29	
EPFING AND WALTON	6,293	7,324	5,282	77	2	96	2	2	1	1	3	2	—	—	6	19	28	32	96	14.6	18.2	—	—	—	0.76	26	
HALSTAD	1,176	6,012	6,017	89	1	89	6	—	—	—	—	—	—	—	2	6	19	28	32	14.7	14.7	—	—	—	1.60	67	
HAVERING B.	1,512	12,046	9,963	217	9	124	8	8	1	1	1	1	2	4	7	11	22	39	92	14.7	14.7	—	—	—	2.01	37	
HORNCHURCH	19,768	39,389	84,430	1,553	36	837	63	64	5	13	28	27	25	67	104	135	155	218	841	18.4	9.9	0.11	0.50	1.22	41		
ILFORD B.	8,425	131,061	151,520	2,479	55	1,664	81	81	11	19	28	44	49	89	178	273	409	493	1,664	16.4	11.0	0.79	0.45	1.15	33		
LEYTON B.	2,594	128,313	87,330	1,474	34	1,147	53	52	5	6	19	25	40	46	80	207	294	373	1,147	16.9	13.1	0.80	0.40	1.83	35		
LEYTON B.	4,869	8,542	8,807	151	5	103	6	6	2	—	3	—	1	3	6	14	22	40	104	17.1	11.7	0.11	0.22	1.48	40		
MALDON B.	5,727	6,407	7,539	123	5	120	2	2	1	—	3	3	2	7	15	38	46	120	16.3	15.9	—	—	—	0.40	1.99	16	
MALDON B.	9,342	37,840	57,860	1,138	31	624	46	47	3	5	8	15	18	45	63	99	141	180	624	19.6	10.8	0.14	0.47	1.33	40		
MALDON B.	7,502	5,930	6,976	107	5	101	5	5	1	—	—	3	—	6	7	16	29	37	101	15.3	14.5	—	—	—	0.29	1.58	47
MALDON B.	38,324	61,644	60,820	1,156	29	641	52	52	9	7	5	23	20	41	63	103	151	193	637	19.0	10.5	0.25	0.44	1.63	43		
MALDON B.	10,958	7,092	6,670	103	4	74	11	10	—	1	3	3	1	3	7	5	13	26	72	15.4	11.1	—	—	—	0.39	1.20	110
WALTHAM HOLY CROSS	4,342	132,972	103,320	1,713	56	1,271	66	64	3	17	11	26	128	337	337	337	337	337	1,271	16.6	12.3	0.06	0.39	1.61	39		
WALTHAM AND WOODFORD B.	3,842	43,129	48,290	759	15	627	24	24	1	4	11	9	16	23	42	112	152	232	626	15.7	13.0	—	—	—	0.37	1.33	32
WEST MERSEA	3,171	2,967	2,162	52	1	37	1	1	—	—	—	2	1	—	4	5	12	16	37	24.1	17.1	—	—	—	—	19	
WETHAM	7,329	6,751	7,619	145	3	81	10	10	—	—	—	1	—	—	—	—	—	—	81	19.0	10.6	0.28	0.13	0.92	69		
WYVENHOE	1,493	2,193	2,160	41	—	34	2	2	—	—	—	—	—	—	2	3	13	14	34	19.0	15.7	0.46	—	—	2.31	49	
TOTAL—BOROUGH AND URBAN	256,982	1,694,325	1,699,240	18,982	488	12,273	754	754	169	189	1,233	3,045	6,863	12,273	17.4	11.2	0.11	0.46	1.30	40							
RURAL																											
BRAINTREE	59,556	16,378	16,680	251	6	204	7	7	—	1	1	5	4	9	14	32	51	80	294	15.0	12.2	—	—	—	0.30	1.08	28
CHESHAM	86,566	27,836	33,320	586	17	358	21	21	3	3	3	2	7	11	20	37	106	145	358	17.5	10.7	0.15	0.18	1.34	36		
CHESHAM	72,487	15,320	17,760	266	4	225	14	14	—	4	3	3	8	13	20	43	112	225	15.0	12.7	0.17	0.17	1.18	33			
DEKKEN	34,851	13,576	15,470	261	5	265	8	8	—	3	1	3	3	11	16	34	37	88	224	16.9	13.3	0.01	0.32	1.42	31		
EPFING	76,093	19,997	15,440	215	14	227	7	8	1	1	2	3	4	12	30	63	98	223	13.9	14.7	0.13	0.19	0.97	33			
LEYTON AND WINTREE	66,697	19,418	19,720	329	6	260	9	9	—	1	5	1	4	8	24	33	61	113	259	16.7	13.2	0.05	0.20	1.06	27		
MALDON	78,597	13,348	12,750	214	8	185	10	10	—	1	2	3	6	3	10	30	39	81	185	16.8	14.6	0.08	0.23	1.26	47		
OSNAB	47,236	11,523	12,660	251	5	171	14	14	—	1	—	3	5	4	11	24	43	58	193	19.8	13.5	0.08	0.24	1.74	56		
REDFORD	36,080	13,969	15,240	264	11	220	14	14	1	1	2	5	6	3	12	22	75	79	220	17.3	14.4	0.07	0.26	1.84	53		
REDFORD	78,585	15,543	16,400	235	8	227	8	8	—	2	1	2	4	12	30	54	112	227	143	13.8	—	—	—	—	0.30	1.10	24
REDFORD	65,884	21,771	20,780	360	8	279	10	10	4	1	3	3	4	11	21	54	79	89	279	17.3	13.4	—	—	—	0.29	1.49	28
TOTAL—RURAL	702,482	184,679	196,370	3,232	92	2,561	122	122	31	19	147	496	1,746	2,561	16.5	13.0	0.08	0.24	1.30	38							
TOTAL—BOROUGH AND URBAN	256,982	1,694,325	1,699,240	18,982	488	12,273	754	754	169	189	1,233	3,045	6,863	12,273	17.4	11.2	0.11	0.46	1.30	40							
TOTAL—RURAL	702,482	184,679	196,370	3,232	92	2,561	122	122	31	19	147	496	1,746	2,561	16.5	13.0	0.08	0.24	1.30	38							
TOTAL—ADMINISTRATIVE COUNTY	959,464	1,189,004	1,286,610	22,214	580	14,834	876	876	200	208	1,400	3,541	8,609	14,834	17.3	11.5	0.10	0.43	1.30	39							

The figures in Columns 9-20 are given by the District Medical Officers of Health, whereas the totals are supplied by the Registrar-General.

TABLE IX.
CAUSES OF DEATH—YEAR 1945
(Figures supplied by the Registrar-General).

[illegible]

TABLE X
NOTIFICATIONS OF INFECTIOUS DISEASE
 52 WEEKS ENDED 30TH DECEMBER, 1945.

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(Figures obtained from the Quarterly Corrected Returns, Civilians only).

	SCARLET FEVER.	DIPHTHERIA.	MEASLES.	WHOOPING COUGH.	PARA- TYPHOID FEVER.	ENTERIC FEVER.	PUERPERAL PYREXIA.	ERYSIP- ELAS.	OPHTHALMIA NEONATORUM.	PNEU- MONIA.	ENCEPHALITIS LETHARGICA.	ACUTE POLIOMYELITIS.	MALARIA.	CEREBRO- SPINAL FEVER.	DYSEN- TERY.	CHICKEN POX.	VARICELLS.	TOTAL.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	
URBAN.																		
BARKING B.	103	16	1102	82	—	—	8	27	3	80	—	1	—	3	4	—	2	1431
BENTLEY	39	4	372	12	—	—	1	6	—	14	—	1	—	1	—	—	1	431
BELLSLEY	41	5	577	87	—	—	1	2	—	29	—	2	—	2	15	—	2	765
BRAINTREE AND BUCKINGHAM	5	—	369	4	—	—	—	1	—	—	—	1	—	—	6	—	—	328
BRAINTREE	25	13	450	83	2	—	1	1	—	14	—	2	—	—	—	—	—	621
BRIGHTLINGHAM	—	—	4	10	—	6	—	2	—	18	—	1	—	—	—	—	—	39
BROMHAM AND CROUCH	—	—	12	1	—	—	—	1	—	—	—	—	—	2	27	—	—	296
CARVEY ISLAND	5	2	125	—	—	—	—	—	—	—	—	—	—	—	—	—	—	328
CHILMSFORD B.	16	—	126	18	1	—	—	—	1	8	—	—	—	—	—	1	—	621
CROFT	27	1	270	53	—	—	20	6	1	13	—	—	—	—	—	—	—	14
CHINGFORD B.	61	4	210	94	—	—	—	4	—	4	—	1	—	—	—	—	—	143
CLACTON	8	4	6	—	—	—	3	9	1	88	—	—	1	2	2	—	—	20
CONCHES B.	76	8	473	49	3	—	13	10	—	—	—	—	—	2	10	—	—	380
DAGENHAM	232	19	1320	177	—	—	13	41	16	38	—	1	—	1	37	—	—	509
EFFING	10	3	60	—	1	—	—	2	—	110	—	4	—	4	37	—	—	712
ERTON AND WALTON	2	—	15	—	—	—	—	—	—	4	—	—	10	—	—	—	—	139
HALESTAD	2	—	67	11	—	—	—	—	—	6	—	—	—	—	41	5	2	23
HARROGATE	14	—	266	40	1	—	—	—	—	7	—	—	—	—	—	—	—	1980
HOLDSWORTH	123	8	1195	38	—	—	15	5	3	7	—	—	—	—	—	—	—	139
LEEDS	216	45	2150	536	—	1	34	11	2	83	—	2	—	1	—	—	—	80
LEWIS B.	310	15	797	99	—	—	—	51	3	44	—	—	—	—	—	—	—	337
LYONS B.	15	5	301	2	1	—	7	14	1	233	—	13	4	5	4	—	—	1686
MALDON B.	5	—	84	3	—	—	—	9	—	11	—	—	2	4	—	—	—	356
MALDON	95	9	876	74	1	—	1	6	—	11	—	—	2	4	—	—	—	1319
MALDON WALDEN B.	14	1	31	—	—	—	27	21	—	44	—	—	—	1	62	—	26	434
THORNTON	89	20	570	113	—	1	3	—	—	—	—	3	—	19	15	—	—	110
WALTHAM HAY CROSS	5	—	54	15	—	—	—	6	1	83	—	1	—	—	—	—	—	1178
WALTHAMSTON B.	266	16	691	131	—	—	2	1	—	—	—	—	—	—	—	—	—	46
WALTHAMSTON AND WOODFORD B.	61	8	568	47	1	—	32	25	2	71	—	—	—	2	17	—	16	922
WEST MERSEA	1	—	65	1	—	—	—	10	—	20	—	1	—	8	83	—	—	83
WYTHAM	11	1	75	13	—	—	—	2	—	—	—	4	—	1	16	—	—	738
WYTHAM	1	—	101	11	—	—	1	1	—	2	—	2	—	—	—	—	—	67
TOTAL	1888	207	13332	1807	11	9	186	274	39	1037	1	39	10	60	495	6	60	19461
RURAL.																		
BRAINTREE	7	—	100	6	—	—	2	—	—	6	—	—	—	1	8	—	—	131
CHILMSFORD	15	2	347	46	—	—	3	3	1	12	—	—	—	2	7	—	—	437
DUNSTON	13	1	389	20	—	—	—	1	—	9	—	—	—	3	—	—	—	445
EFFING	23	2	283	21	—	—	1	—	—	5	—	1	—	—	—	—	—	352
HALESTAD	9	—	74	26	—	—	—	—	—	6	—	—	—	—	9	—	—	129
LEEDS AND WIMBORNE	18	—	242	45	—	—	1	1	—	—	—	—	—	—	12	—	—	346
MALDON	15	—	180	17	—	—	1	—	—	22	—	—	—	—	—	—	—	225
OSING	5	4	76	6	—	—	—	6	—	2	—	—	—	—	—	—	—	97
ROCHFORD	27	3	230	24	—	—	4	—	—	6	—	1	—	2	1	—	15	304
SAPFORD WALDEN	16	—	193	9	—	—	22	11	—	21	—	—	—	—	—	—	—	227
TENNING	9	—	145	33	—	—	7	3	—	4	—	1	—	—	26	—	—	217
TOTAL	157	12	2259	253	—	—	42	27	1	104	—	3	1	8	63	—	40	2970
TOTAL—BOROUGH AND URBAN DISTRICTS	1888	207	13332	1807	11	9	186	274	39	1037	1	39	10	60	495	6	60	19461
TOTAL—RURAL DISTRICTS	157	12	2259	253	—	—	42	27	1	104	—	3	1	8	63	—	40	2970
TOTAL FOR ADMINISTRATIVE COUNTY	2045	219	15591	2060	11	9	228	301	40	1141	1	42	11	68	558	6	100	22431

