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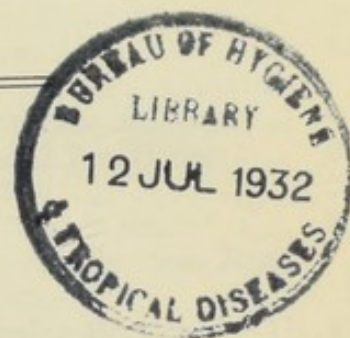
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ADMINISTRATIVE COUNTY OF ESSEX.



REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR 1931.

WILLIAM A. BULLOUGH, M.B., M.Sc., D.P.H..

COUNTY MEDICAL OFFICER OF HEALTH.

Chelmsford :

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ADMINISTRATIVE COUNTY OF LEX



REPORT



MEDICAL OFFICE OF HEALTH

WILLIAM A. BULLOUGH, M.B., M.Sc., D.P.H.

COUNTY MEDICAL OFFICER OF HEALTH

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PREFACE.

To the Chairman and Members of the Essex County Council.

I have the honour to submit to you my Thirteenth Annual Report for the Administrative County of Essex for the year 1931. This is the 42nd Annual Report which has been issued. It is devoted in the main to a summing-up of the year's work for which the County Council is primarily responsible. For the convenience of the general reader I have summarised in this Preface the more important facts and incidents.

The Census carried out in 1931 has revealed the fact that the population of the Administrative County has increased 30.3 per cent. since the 1921 Census, and is now 1,198,601. There is only one other County in England and Wales with a higher rate of increase.

The birth-rate for 1931 was 16.1, as compared with 16.8 for the previous year, the total number of births being 19,330 and 18,700 respectively.

There was an increase in the death-rate from 9.9 in 1930 to 10.4 in 1931. The increase for England and Wales, however, was greater, being from 11.4 to 12.3 respectively.

There was also an increase in the infant mortality rate (*i.e.*, death-rate among infants under one year of age) from 45 in 1930 to 52 in 1931. The rate, however, may be regarded as satisfactory when compared with the rate of 66 for England and Wales.

In respect to infectious diseases, the outstanding feature of the year was the extensive outbreak of Paratyphoid Fever in the Epping District. There were 374 cases of Typhoid or Paratyphoid Fever notified throughout the Administrative County, and 311 of these were associated with the outbreak at Epping. The disease was shown as the immediate or antecedent cause of death in nine of these cases. Fortunately, the outbreak was quickly traced to the milk supply from a farm in the Epping Rural District, and adequate steps were taken at the earliest possible moment at the farm to remove all sources of infection, and to prevent further infection of the milk supply.

Smallpox (*Variola Minor*) was much less prevalent during the year, the number of notifications falling from 602 in 1930 to 195 in 1931. There were no deaths from this disease during the year.

Notifications of all forms of tuberculosis showed a further increase from 1,524 in 1930 to 1,676 in 1931, the notification rates being 1.37 and 1.40 respectively. There was also a slight increase in the death-rate from 0.75 to 0.78. The total number of cases on the registers of local Medical Officers of Health increased from 11,100 to 11,476. This increase in number of cases resulted in a greater demand for institutional accommodation, necessitating the provision of an average number of 503 beds as compared with 474 during the previous year.

For the first time I am able to include in the Annual Report particulars of a full twelve months' working of the new Sanatorium at Black Notley, where the number of beds was increased from 164 to 184 by the provision of a surgical block for adult males, which was opened on 30th March, 1931. The staff of the Sanatorium has also been strengthened by the appointment of Dr. Franklin Wood as Part-time Consulting Radiologist under whose guidance skiagrams of first-class quality have been readily obtained, and have proved of great assistance in diagnosing early cases of tuberculosis. The results obtained from the treatment of patients at the Sanatorium have more than justified the time and money spent upon providing the County with an up-to-date Sanatorium, which is second to none in the country.

Additions have also been made to the Harold Court Sanatorium for pulmonary cases adult males, by the provision of a pavilion accommodating 20 beds; 10 of these beds replaced beds in an old pavilion which has been discarded, giving a net increase in the number of beds from 60 to 70. Further accommodation for this type of patient is needed, and the matter is receiving consideration by the Committee.

The area for which the County Council is responsible for the administration of the Maternity and Child Welfare Acts and the Notification of Births Acts was extended during the year by the inclusion of the Purfleet Urban District. Alterations to the County Council's scheme, which was surveyed during the year by a Medical Officer from the Ministry of Health, included the establishment of the first series of Ante-natal Clinics at five Centres, the provision of Child Welfare Centres in five new areas, the revision of the schemes for home helps and the payment of travelling expenses of mothers to and from Centres, the provision of beds at the Oldchurch Hospital, Romford, and the Public Assistance Institution, Chelmsford, for the treatment of puerperal sepsis and allied conditions.

The question of giving advice on birth control has been carefully considered in the light of a memorandum from the Ministry of Health, and the Committee authorised Lady Medical Officers on the staff of the County Council to give appropriate advice in the circumstances laid down in the memorandum from the Ministry of Health.

For the guidance of voluntary workers and others, a brochure No. C.W.42 was issued in January, 1931, giving full details of the various schemes in operation in the Administrative County of Essex.

A further reduction has taken place in the area in which the County Council undertakes the administration of the Midwives Acts, 1902-1926, and the Nursing Homes Registration Act, 1927, by the delegation of the powers under those Acts to Colchester Borough and Walthamstow Borough, in addition to the Boroughs of Ilford and Leyton to whom similar powers were delegated last year.

In order to raise the standard of midwifery work throughout the County, a scheme has been prepared with a view to rendering assistance to suitable independent midwives for taking a post-graduate course in midwifery, and the agreement between the Essex County Council and the Essex County Nursing Association has been amplified so as to make provision for the sending of a number of the senior nurses each year for a similar course. Close and helpful co-operation has again been maintained between the Essex County Council and the Essex County Nursing Association.

The scheme for the supervision and treatment of orthopædic cases has continued to operate successfully, and the staff has been strengthened by the appointment of a second whole-time Orthopædic Masseuse in place of part-time Masseuses at Romford and Grays.

Increasing attention to the housing conditions of the working classes has been given as called for by the Housing Act, 1930, which is an endeavour on the part of the government and legislature to do everything possible to put an end to unsatisfactory housing conditions, "the continuance of which is nothing less than a social menace." Local Sanitary Authorities must themselves take the leading part in this campaign. A separate part of the Act has been set aside for Rural Districts which aims at securing the co-operation of County Councils and Rural District Councils in overcoming the shortage of houses and the removal of unsatisfactory housing conditions. As required by the Act, the County Council has already begun to inform itself of the housing situation in each Rural District in the County and is now considering the needs and proposals of these districts. Returns from Rural Districts show that at the end of 1930 there were 2,297 houses partially unfit for human habitation, 685 totally unfit for human habitation, and 190 overcrowded.

In pursuance of the powers conferred upon County Councils by the Milk and Dairies (Consolidation) Act, 1915, a further milk sampling campaign was undertaken, and the results of the biological examination show that 8.4 per cent. of the samples contained tubercle bacilli as compared with 13.4 for the previous year. Duplicates of these samples were submitted to the coliform bacteria test, and 36.0 per cent. (34.6 per cent. in 1930) were found to contain coliform bacteria in 1/1000th c.c. arbitrarily adopted for the present as an easily attainable standard of cleanliness. These latter results are disappointing, when it is remembered that Clean Milk Competitions have been an annual feature in this County for over ten years. If every milk producer complied with the requirements of the Milk and Dairies Order, 1926, all the milk supplies would readily comply with a much higher standard than that at present adopted.

I have again included in this Report a section dealing with the work undertaken for the Public Assistance Committee, and reference is made to some of the important matters which have called for detailed investigations and reports. Particulars are recorded on pages 74 to 81 of the accommodation now available for the sick in the eleven Public Assistance Institutions in the County. The development and extensions contemplated for 1931 had to be postponed on account of the national financial crisis and the following important matters mentioned in my previous Annual Report await consideration :—

- (a) The desirability of discharging certain of the transferred functions through a Committee of the County Council other than the Public Assistance Committee to which most of the transferred powers otherwise have been referred.
- (b) The advisability of providing certain forms of medical assistance under the Public Health and other Acts mentioned in Section 5 (1) rather than under the Public Assistance Committee and the Poor Law.

- (c) The possibility of appropriating any or all of the transferred Institutions to hospital authorities, and to administer them under one or other of the Public Health Acts, &c.
- (d) The making of suitable arrangements with autonomous Education and Child Welfare Authorities. This will need special consideration if and when any action is taken under (b) above.

Experience seems to show that before steps can be taken to deal with the suggestion contained in (c) above, the whole of the Public Assistance Institutions will need to be carefully surveyed with the object of re-classifying the patients and the accommodation available. Obviously such a survey will entail a large amount of detailed work which cannot be undertaken by the present staff available.

It is with deep regret that I report the great loss to the Department caused by the death of the late Dr. Archibald Gardiner, who was appointed First Assistant County Medical Officer as recent as October, 1931. Dr. Gardiner had been on the staff of the County Council as Assistant County Medical Officer since June, 1928, and also undertook the duties of Medical Officer of Health for the Urban District of Chingford from March, 1930.

Special reference must also be made to my predecessor, Dr. John C. Thresh, whose death has occurred at the time of writing this Preface. Dr. Thresh first became associated with the Essex County Council in 1890, when he was invited to consider the Annual Reports of the local Medical Officers of Health, and to submit a summary. He was next asked to attend the quarterly meetings of the Contagious Diseases (Animals) Committee, and to advise them on any public health matters which might be referred to. In 1893, he was appointed part-time County Medical Officer of Health, which position he held until 1919, when, at his own request, made some years previously, he retired from office, but voluntarily agreed to become Consulting County Medical Officer of Health.

Dr. Thresh undoubtedly had the interests of the County of Essex at heart—he was ever ready to assist and advise Councils and officials on all matters affecting public health, and he was alive to the importance of each new phase of County health work, in addition to his researches and writings on water supplies and sewage disposal in which he was supreme.

I have great pleasure in recording my appreciation of the confidence and support given to me by the Chairman and Members of the Public Health Committee. To all the Medical Officers of Health and other officials of the local Sanitary Authorities, to the Medical, Dental, Nursing and Clerical Staffs, my best thanks are due for their efficient services. I am especially indebted to the Deputy County Medical Officer, Dr. T. P. Puddicombe, for his loyalty and support.

W. A. BULLOUGH,
County Medical Officer.

Public Health Department,
County Hall, Chelmsford.
31st May, 1932.

PUBLIC HEALTH AND HOUSING COMMITTEE.

Chairman—Alderman A. M. Mathews.

Vice-Chairman—Alderman F. D. Smith.

ALDERMEN—

A. Brooks, J. H. Burrows, C. W. Daines and A. Porter.

COUNCILLORS—

J. R. Adams, Mrs. C. B. Alderton, P. Astins, Lieut.-Col. E. N. Buxton, A. G. Giller, H. Compton Guy, R. J. Hunt, Mrs. J. H. Lester, J. C. Mead, J. Parish, H. F. Pash, W. T. Potts, C. S. Richardson, J. W. Rigby, Dr. J. H. Swanton, G. J. Wetton, Mrs. B. W. Williams, H. E. Wood, E. G. Wright and E. J. Wythes.

MEDICAL AND NURSING SERVICES JOINT SUB-COMMITTEE.

ALDERMEN—

A. Brooks, J. H. Burrows (*Chairman*), C. W. Daines, E. A. Hibbs, A. M. Mathews, A. Porter and F. D. Smith.

COUNCILLORS—

Dr. J. P. Atkinson, Mrs. B. W. Williams and E. J. Wythes.

Co-opted Member—Mrs. K. M. E. Bell.

PUBLIC ASSISTANCE COMMITTEE.

Chairman—Alderman Alfred Brooks,

Vice-Chairman—Col. Gilbertson Smith, C.A.

Mrs. C. B. Alderton, A. R. Adams, Chas. Asplin, J. E. Ball, G. T. T. Bartram, A. Bradridge, E. G. Bratchell, Mrs. A. A. F. Brooks, J. H. Burrows, Rev. B. C. Cann, H. C. Carruthers, Mrs. C. C. Chisholm, A. L. Clarke, Mrs. C. Custerson, C. W. Daines, J. R. Furze, H. G. J. Foyster, A. G. Giller, A. W. Green, F. W. Green, E. A. Hibbs, Mrs. J. H. Lester, E. Luckin, Mrs. E. E. Maley, Col. A. E. Martin, H. J. Mitchell, Miss M. L. Mathieson, E. A. Mundy, T. Philpot, A. Porter, J. W. Rigby, J. Russell, W. C. Russell, J. T. Sanders, F. D. Smith, A. G. K. Serpell, F. G. Seabrooke, Mrs. H. M. Tabor, H. B. Turner, H. L. Usborne, O. Waters and Mrs. E. M. Wise.

MEDICAL OFFICERS OF HEALTH.

The following changes in the list of Medical Officers of Health given in my Annual Report for the year 1930, took place as shown below :—

Urban Districts—

- | | | |
|-------------------|----|---|
| Braintree | .. | Dr. J. S. Bradshaw appointed 1st January, 1931, in place of Dr. P. J. Gaffikin resigned. |
| Burnham-on-Crouch | | Dr. E. Miles appointed 17th April, 1931, in place of Dr. R. Lloyd, Acting Medical Officer of Health. |
| Chingford | .. | Dr. L. S. Fry appointed Acting Medical Officer of Health in place of Dr. A. Gardiner appointed First Assistant County Medical Officer 12th October, 1931. |

Rural Districts—

- | | | |
|-----------|----|--|
| Braintree | .. | Dr. J. S. Bradshaw appointed 1st January, 1931, in place of Dr. P. J. Gaffikin resigned. |
| Dunmow | .. | " " " " |
| Stansted | .. | Dr. S. R. Richardson appointed March, 1931, in place of Dr. R. F. Dunn retired. |

STAFF.

A detailed list of the Medical and Health Visiting Staff was set out on pages 14—17 of the Report for the year 1930.

The following alterations and additions were made during 1931 :—

(1) Medical Staff.

Dr. Mary D. Rankine (Central Staff) resigned in September, 1931 ; Dr. Archibald Gardiner (M.B., Ch.B., D.P.H., M.M.S.A.), Combined Medical Officer, Chingford, who took up duty as First Assistant County Medical Officer on 12th October, 1931, died on 22nd December, 1931 ; Dr. L. S. Fry, Combined Medical Officer, Waltham Holy Cross, was appointed temporarily as Combined Medical Officer, Chingford.

Dr. Charlotte Brown (Dagenham) retired in March, 1931 ; Dr. G. M. D. Lobban (Romford and Hornchurch) resigned September, 1931 ; Dr. J. S. Harper (M.B., Ch.B., D.P.H.) commenced duty at Harold Court, &c., September, 1931 ; Dr. E. Miles (M.B., Ch.B., D.P.H.) was appointed Combined Medical Officer, Burnham-on-Crouch, April, 1931 ; Dr. J. C. Sleigh (M.B., Ch.B., D.P.H.) was appointed August, 1931, to replace Dr. J. C. H. Mackenzie at Black Notley and Chelmsford, who resigned ; Dr. O. C. Dobson (M.D., D.P.H.) commenced July, 1931, as Junior Assistant County Medical Officer and resigned December, 1931, his place being filled by Dr. J. Hatton (M.D., Ch.B., D.P.H.) in January, 1932.

Dr. C. L. Williams, Medical Officer of Health, Barking, ceased to act as Tuberculosis Officer for the County Council in that district in January, 1932.

Dr. G. Franklin Wood (M.A., M.B., B.Ch., D.M.R.E. (Cantab.), L.R.C.P.) was appointed Consulting Radiologist at Black Notley Sanatorium in March, 1931.

Dr. D. H. Haler and Dr. E. J. Legerton Smith, part-time medical practitioners performing County Council duties, also terminated duty during the year, and at the time of writing the following are employed part-time by the County Council :—Drs. Marjorie Bartlett, Sarah Boyle, T. G. Cunningham, M. E. Fox, Annie Gardiner, S. D. Goodwill, A. A. Mackenzie, F. A. M. Nelson, E. Pirrie and J. B. Ratcliffe.

(2) Health Visitors.

The following changes took place in the health visiting staff for the reasons stated :—

Name.	Qualifications.	Date commenced duty.	District and duties.	Reason for change.
G. M. White ..	New H.V. Cert. G.N.T. and Cert. Midwife	14-9-31 ..	Relief H.V. (H.V. S.N. T.N.)	New appointment.
M. A. Hughes ..	" ..	1-4-31 ..	Brentwood (H.V., S.N., T.N.), from 14-9-31	Vacancy.
H. M. Nixon ..	" ..	14-9-31 ..	Rayleigh (H.V., S.N., T.N.)	New appointment.
E. Darrell ..	New H.V. Cert. and Cert. Midwife	June, 1931 ..	Tilbury (S.N., T.N.) ..	"
E. Plummer ..	" ..	" ..	" ..	Vacancy.
N. M. Francis ..	New H.V. Cert. G.N.T. and Cert. Midwife	22-1-31 ..	Dunmow (H.V., S.N., T.N.)	"
L. Thickens ..	New H.V. Cert. and Cert. Midwife	19-1-31 ..	Burnham-on-Crouch .. (H.V., S.N., T.N.)	"
N. D. Kelly ..	New H.V. Cert., G.N.T. and Cert. Midwife	9-11-31 ..	Maldon (H.V., S.N., T.N.)	"
M. E. Lamb ..	G.N.T. and Cert. Midwife	1-1-32 ..	Chelmsford (S.N., T.N.)	"
R. E. Allcorn ..	Bd. of Ed. Cert.	1-4-31 ..	Purfleet (H.V.) ..	County Council took over Child Welfare work in Purfleet U.D. from 1-4-31.
I. Gibson ..	Bd. of Ed. Cert.	1-4-31 ..	Purfleet (H.V.) ..	
J. Cunningham ..	Cert. Midwife	27-4-31 ..	Leyton (T.N.) ..	New appointment for Ilford Area—Leyton nurse transferred.
A. Trounce ..	Bd. of Ed. Cert.	2-11-31 ..	Waltham Holy Cross (S.N. & T.N.)	Additional by arrangement with Waltham Holy Cross U.D.C.

PART I.

ACREAGE AND POPULATION.

(a) ACREAGE. The area of the County as shown by the Census 1931, was 62,696 acres, as compared with 964,443 acres in 1921. The reduction of 1,747 acres is due to encroachment by the sea, and to a revision of the area of the County by the Ordnance Survey Department since the Census of 1921.

(b) POPULATION. The table below shows the Census 1921 and 1931 populations as well as the Registrar-General's estimated population for 1931.

	Area in Acres.		POPULATION.				No. of Per- sons per acre. (Calcu- lated on 1 Cens- us).	No. of Acres per per- son.	No. of in- habited houses (Census 1921).	No. of families or separate Occu- piers (Census 1921).	Rate- able value 1931.
			Census		Registrar-General's Estimate, 1931.						
	Census 1921.	Census 1931.	1921.	1931.	For Birth- rate.	For Death- rate.					
Municipal Boroughs (9)	45,754	45,702	468,214	543,938	547,199	543,269	11.9	0.08	92,649	108,219	£6,924,600
Urban Districts (28)	97,748	97,948	219,533	375,210	374,721	373,731	3.8	0.26	35,585	39,612	
Rural Districts (17)	820,941	819,046	232,394	279,453	278,650	278,100	0.3	2.93	63,895	65,769	
	964,443	962,696	920,141	1,198,601	1,200,570	1,195,100	1.2	0.80	192,129	213,600	

A penny rate produces £27,758.

It will be seen from the table above that the population of the Administrative County has increased by 278,460 during the last intercensal period, equivalent to an increase of 30.3 per cent. In only one other County was there a higher percentage of increase, and the figures give some indication of the tremendous flow of population into Essex, chiefly from the London area.

In Table XXIX. in Part V. of my Annual Report for the year 1930 is shown particulars of the 1931 census populations of the Urban and Rural Districts in the County, and similar information is again included this year for reference purposes.

PHYSICAL FEATURES AND GENERAL CHARACTER OF THE COUNTY.

This remains the same as set out in my Report for 1930. With the exception of the Asbestos Works at Barking, none of the industries in the County can be said to have any serious influence on the health of those engaged in them.

VITAL STATISTICS.

The following table gives the chief vital statistics compared with those for England and Wales during the year 1931, and also for the preceding quinquennial period :—

	Essex.		England and Wales.	
	1927-1931.	1931.	1927-1931.	1931.
Birth-rate per 1,000 population	16.3	16.1	16.3	15.8
Death-rate	10.5	10.4	12.2	12.3
Zymotic death-rate per 1,000 population ...	0.3	0.2	Not available.	
Infant mortality rate per 1,000 births ...	50	52	67	66

NOTIFICATION OF INFECTIOUS DISEASES.

The summary of notifications of infectious diseases in the various Sanitary Districts during 1931, together with the attack rate per 1,000 population, is given in Table XXIX. in Part V. of the Report.

Excluding 1,676 notifications of Tuberculosis, it will be noted that there were 11,404 persons notified as suffering from infectious diseases, the attack rate for the Administrative County being 9.5 per 1,000 population, as against 8.4 for 1930.

Typhoid or Paratyphoid Fever.

During the year under review 374 cases of Typhoid or Paratyphoid Fever were notified in the Administrative County, this being the highest figure since the year 1905, when the number of notifications reached 398. The Registrar-General records 15 deaths from this disease.

Outbreak of Paratyphoid Fever at Epping.

There was an outbreak of a mild type of Paratyphoid Fever in the south-western portion of the County in the early part of the year, and the following table shows the number of cases notified and the number of deaths associated with this outbreak.

TABLE I.

SHOWING NOTIFICATIONS OF PARATYPHOID FEVER AND DEATHS ASSOCIATED WITH THE OUTBREAK IN THE EPPING DISTRICT.

Sanitary District.	No. of Deaths.	NUMBER OF NOTIFICATIONS.							
		Week ended Jan. 31st.	Week ended February				Week ended March		Total
			7th.	14th.	21st.	28th.	7th.	14th.	
Epping U.	6	1	22	105	72	20	9	4	233
Epping R.	1	—	2	10	6	—	1	2	21
Walthamstow B.	1	—	1	16	8	5	1	1	33
Loughton U.	—	—	2	11	—	—	1	—	14
Chingford U.	—	—	—	3	1	—	—	—	4
Leyton B.	—	—	—	1	1	1	—	—	3
Ilford B.	—	—	1	—	1	—	—	—	2
Woodford U.	—	—	—	1	1	—	—	—	2
Waltham Holy Cross U. ..	—	—	—	1	—	—	—	—	1
Totals	8	1	28	148	90	26	12	7	311

DEATHS.

It should be noted that the Registrar-General records Paratyphoid Fever as being the immediate cause of death in only two cases in the Epping Urban District. The local Medical Officer of Health states, however, that there were six deaths from Paratyphoid Fever in connection with the outbreak in that district. In four of these cases the immediate cause of death was Paratyphoid Fever, but two of the patients, whose homes were not in the Epping Urban District, were from the Public Assistance Institution. In the remaining two deaths of residents in the Epping Urban District, the immediate cause of death was carcinoma of uterus, and general peritonitis respectively, paratyphoid fever being shown as an antecedent cause of death.

NOTIFICATIONS.

The local Medical Officer of Health states that 21 cases of Paratyphoid Fever were notified in the Epping Rural District, which is one more than the number returned on the weekly notification cards for the year 1931—see Table I. on page 14.

TYPE OF DISEASE.

In most of the cases the disease was of a mild type, several cases showing practically no clinical features.

PARTICULARS OF THE OUTBREAK.

On 3rd February, 1931, the Medical Officer of Health for the Epping Urban District intimated by telephone that four cases of Paratyphoid Fever had been notified, and specimens of blood were being examined from suspected cases. This number increased to twelve on the following day.

Dr. W. Vernon Shaw was sent by the Ministry of Health to carry out the usual investigation, and assistance was also rendered by the staff of the County Public Health Department. Enquiries proved that the cause of the outbreak was due to the consumption of infected milk from a farm in the Epping Rural District where an employee had been ill whilst at work from 3rd to 24th January, 1931, with what was subsequently proved to be Paratyphoid Fever. As the disease was of a mild type, neither the farmer nor employee had any idea of the true nature of the illness. (Farmers are required by para. 17 of the Milk and Dairies Order, 1926, to immediately notify the local Medical Officer of Health when any persons or members of their households who have access to milk or the milk utensils are suffering from infectious disease).

The local Medical Officer of Health for the Epping Rural District in his special report, states that "As soon as there was evidence pointing to a certain milk farm the workers on the farm were examined (February 10th). Samples of blood were taken. The following day the Laboratory reported that four of these gave a positive Widal to Paratyphoid B. These four workers were removed to Hospital and the milk that they had handled destroyed. All the vessels and apparatus employed in milk production were sterilised and after 24 hours the milk was allowed to go out again. In order to make sure of its safety arrangements were made to have it

'pasteurised. Since then this Farm has been kept under close observation. The
'blood and excreta of the workers have been tested and re-tested from time to time
'as considered necessary. After the first examination all further specimens were
'reported on as negative.
'It is still difficult to say how the milk at the Farm first became infected. It is possible
'that one of the six persons acquired Paratyphoid B. from some unknown source,
'infected the milk, and through the milk the other cases on the Farm. Examination
'of the Water Supply of the Farm and its drainage failed to throw any light on the
'matter. In this connection it is to be noted that one case, notified on February 12th,
'was found to have been ill with Paratyphoid B. for a month previously. This case
'was nursed at home, a house close to the Milk Farm in question—and had its milk
'supply from there. The overflow from the Cesspit of this house goes into a ditch
'on the Farm, but although fully investigated there was no evidence that this case—
'apparently the first in the District—could have infected the milk workers or the
'milk itself. Samples of water from the ditch were reported on as negative for
'Paratyphoid B. by the Ministry of Health's Laboratory."

The attention of the medical practitioners in the Epping District was called to the outbreak, and it was pointed out to them that in all cases of continued pyrexia of uncertain origin it would be well to have a Widal test for Typhoid or Paratyphoid re-action, and they were reminded that Paratyphoid was a notifiable disease.

A special report on the outbreak in the Epping Urban District has not been issued, but it is understood that details will be given by the local Medical Officer of Health in his Annual Report for 1931.

ISOLATION AND TREATMENT.

As will be seen from the preceding Table, most of the cases (233 or 74.7 per cent.) occurred in the Epping Urban District, whilst in the Epping Rural District, there were only 21 (6.7 per cent.) cases.

Epping U.D. This Urban District does not possess an Isolation Hospital, but has an arrangement with the Walthamstow Borough for the admission of infectious cases to their Isolation Hospital at Chingford. The Walthamstow Borough has an arrangement under which cases of Typhoid or Paratyphoid Fever receive treatment at the Connaught Hospital, Walthamstow. No beds were available at that hospital at the commencement of the outbreak for the cases from Epping Urban.

Epping R.D. This Rural District Council possesses an Isolation Hospital near to Epping, but the accommodation is limited to cases of Diphtheria and Scarlet Fever.

Dr. Vernon Shaw, of the Ministry of Health, strongly advised that all cases should be removed to hospital, and in some cases considerable pressure had to be brought to bear to secure this. It resulted in practically all the patients being removed to hospital. There was no accommodation available at any hospital in this part of Essex, but fortunately, Dr. Shaw was able to get the London County Council to receive the cases into their Isolation Hospitals. This experience shows the advantages over the prevailing system of Isolation Hospitals which would accrue if the County Council had

wer to appropriate one or more of these hospitals for a large outbreak of this kind. Alternatively, the County Council ought to have an institution which could be used for large epidemics, whether of Typhoid Fever, Cerebro-Spinal Fever, Encephalitis thargica, &c. Such an institution would serve a very useful purpose in the metropolitan portion of the County.

LABORATORY SERVICE.

Full use was made by the local Medical Officers of Health and medical practitioners of the services provided by the County Council's Bacteriologist for Essex, Dr. John F. Sale, 91, Queen Victoria Street, London, E.C.4., from 26th January to 23rd March, a period of nine weeks. No less than 700 specimens of blood, faeces, or urine were sent from the districts in which cases associated with this outbreak occurred. These services were much appreciated by all concerned.

GENERAL CONCLUSIONS.

From the experience gained throughout the outbreak it would appear :—

- (1) That the legislation dealing with infectious diseases is scattered throughout at least six Acts, two Regulations, and one Order, to which a local Medical Officer of Health has to turn for guidance. It would be helpful if the principal points from all these so far as they affect the measures to be taken to deal with an outbreak of Typhoid or Paratyphoid Fever, could be merged into a booklet similar to the one issued by the Ministry of Health upon Smallpox (No. 62, dated February, 1931) for the guidance of local Medical Officers of Health.
- (2) That it would be helpful if a list of notifiable diseases was included in the book of forms on which medical practitioners notify infectious diseases. In one district during this outbreak, a medical practitioner stated that he was not aware that Paratyphoid Fever was a notifiable disease.
- (3) That there is need for the availability in Essex of hospital accommodation for extensive outbreaks of this kind. This could be provided by the County Council either having power to appropriate an isolation hospital or by providing an institution which would be available for an extensive outbreak of any infectious disease. In the Epping outbreak of Paratyphoid Fever, the County is grateful to the London County Council for coming to their assistance.
- (4) That there is need for closer supervision over the health of cowmen and other dairy workers. Farmers should make a special point of noticing illness amongst dairy workers, and of consulting a medical man when there is the slightest doubt as to the true nature of the illness in question. Further, medical practitioners should make a special point of ascertaining the occupation of patients or their families who are either suffering from, or are in contact with, infectious diseases which might be conveyed by the milk supply.

- (5) That the laboratory service which examined hundreds of specimens during the outbreak proved to be an indispensable part of the Public Health Service.
- (6) That further consideration ought to be given to the desirability of, or even the necessity for, pasteurising all ungraded milks wherever practicable.

GENERAL.

Although this outbreak caused considerable alarm amongst the general public, they should not regard it as anything other than an unfortunate accident which might happen from time to time, but with the increasing co-operation of the trade, medical men and others, the likelihood of its recurrence ought to be remote. It should be remembered that at the first alarm, further risk of infection can be avoided if the housewife will boil or pasteurise all milk before consumption.

DAIRY FARMS IN EPPING URBAN AND EPPING RURAL DISTRICTS.

At the conclusion of the outbreak of Paratyphoid Fever, a detailed inspection was made of 54 farms in the Epping Urban District and the southern half of the Epping Rural District. The general conditions observed during this inspection may be summarised as follows :—

Producers. There are 54 producers, some of whom are also retailers in these two districts. All of them are registered with the Local Sanitary Authorities as required by the Milk and Dairies Order, 1926, with one exception. The last mentioned was found to be producing milk during these visits, and the necessary action is being taken by the local Sanitary Inspector.

Cows. 1,285 cows were in milk at the 54 farms. Most of them were free from obvious dirt, but many showed lack of grooming.

Buildings. Were reasonably satisfactory structurally, except at nine farms where inadequate lighting, ventilation or drainage, or other minor defects were noticed.

Water Supply. 43 of the 54 farms obtain supplies of water from public mains. This reveals an extensive net work of water mains in such a rural area, and reflects great credit upon the local Sanitary Authorities and their officials.

At 4 of the 11 farms which obtain supplies of water from private wells the water was found to be unsatisfactory. Endeavours are being made by the local Sanitary Inspectors to secure further extensions of the public mains or improvements to the existing wells.

Milk. 55.0 per cent. of the samples complied with the Grade standard, and 68.6 per cent. had less than 500,000 bacteria per c.c., and not show the presence of coliform bacteria in 1/1000th of a c.c.

Cowmen. The majority of the cowmen were of a fairly good type, the practice of wet milking appeared to be the rule rather than the exception.

Cowmen handle a vital food twice daily, and their training in modern methods of production is of great importance. Their ranks are recruited from boys, many of whom acquire obsolete methods from existing cowmen. A series of evening classes for such prospective cowmen under the auspices of the East Anglian Institute of Agriculture and the Essex County Farmer's Union would be invaluable.

Methods. The methods of production were reasonably satisfactory at 65 per cent. of the farms, but at 35 per cent. of the farms some of the methods were not satisfactory. The chief weaknesses appeared to be non-observance of cleanly precautions throughout the process of milk production; inefficient sterilising of utensils (it is noteworthy that at only five (9.2 per cent.) of the farms was steam provided for sterilisation purposes), and inadequate protection of the milk before cooling due to the absence of covered pails.

Sanitary Inspectors. The Sanitary Inspector in the Epping Urban District took up duty on 16th June, 1930, and holds the combined post of Surveyor and Sanitary Inspector. In his previous post in the north of England he attended a Clean Milk Course for Sanitary Inspectors, and is, therefore, fully acquainted with the modern methods of milk production.

The Sanitary Inspector in the Epping Rural District has held his position since 1920, and gives his whole time to the duties of Sanitary Inspector in the southern portion of the district, except one day per week which is devoted to collecting rents of Council Houses. He attended the Clean Milk Course held at the East Anglian Institute of Agriculture, Chelmsford, in 1928, and was awarded the second prize for an essay on that course. He is, therefore, fully acquainted with the modern methods of milk production, and the visits to the farms in his district reveal the fact that he has spent much time in advising and assisting farmers in these modern methods. He has found it necessary in recent years to take legal proceedings in a few cases where continued unsatisfactory conditions had been noted at the farms.

METROPOLITAN WATER BOARD.

Part of the sewage from the Urban District of Epping drains southwards to sewage disposal works which discharge an effluent, after treatment on land, into the River Roding, and part of the sewage drains northwards to sewage disposal works, which after treatment on land, discharge an effluent into Cobbins Brook which enters the River Lee at Waltham Abbey above all the Metropolitan Water Board's intakes from the River Lee. The effluent from the last-mentioned works was examined by the Metropolitan Water Board on 18th February, 1931, and the results were so surprising bacteriologically (the effluent containing 33,000 million paratyphoid bacilli per day's flow) that immediate steps were taken by the Board to safeguard, to the fullest extent, the interests of the consumers in the East End of London. A descriptive account of the investigations carried out, and the safeguards adopted, is given by Sir Alexander Houston in his 26th Annual Report on the results of the chemical and bacteriological examination of the London waters for the twelve months ended 31st December, 1931.

SMALLPOX.

There was a marked decrease in the prevalence of Variola Minor during the year 1930, the number of cases notified being 195, as compared to 602 in the previous year. The districts chiefly affected were Dagenham Urban (71), Walthamstow Borough (68), Leyton Borough (28). The same type of disease was also prevalent in the adjoining County Boroughs and in the area of the London County Council.

There were no deaths from this disease in the Administrative County during the year.

VACCINATION ORDER, 1930.

The District Medical Officer usually holds the appointment of Public Vaccinator. It is proposed in future not to appoint as Public Vaccinators medical practitioners who hold, or intend to hold, appointments under other County or County Borough Councils.

When a vacancy has occurred in an area for the post of District Medical Officer and Public Vaccinator, the candidate recommended by the Public Assistance Committee for the post of District Medical Officer is also recommended for the appointment of Public Vaccinator. This arrangement has worked successfully in connection with the new appointments made during 1931.

All new appointments of Public Vaccinators are made in accordance with the minimum fees laid down by the Vaccination Order of 1930.

The Relieving Officers acting as Vaccination Officers on the appointed day continued in that capacity pending the preparation of a scheme under Section 24 of the Local Government Act, 1929.

The following table gives particulars of the number of primary and re-vaccinations carried out by the Public Vaccinators in the Administrative County of Essex during the year ended 30th September, 1931 :—

TABLE II.

Guardians Committee Area, or Institution.	Numbers of successful Primary Vaccinations of persons.		Number of successful re-vaccinations of persons.
	Under one year of age.	One year and upwards.	
Colchester	443	27	17
Braintree	226	19	7
Saffron Walden	295	23	7
Epping	252	19	5
South Eastern	464	66	72
Southern	1,751	500	312
Chelmsford	542	65	40
South Western	901	535	255
Rochford Public Assistance Institution	—	2	1
Children's Homes, Leytonstone	1	47	—
Training Ship "Exmouth"	6	—	16
Central Home, Leytonstone	—	1	82
Children's Homes, Wanstead	8	38	—
Totals	4,889	1,342	814

ISOLATION HOSPITALS.

Table IV. on page 22a gives particulars of the accommodation, number of cases treated, cost per bed, &c., at those hospitals for which grants for beds (£5 per bed) provided out of loan were recommended for the year ended 31st March, 1931. It will be noted that there was an increase in the average cost per patient treated from £10 15s. in 1929-30 to £22 19s. 8d. in 1930-31.

Grants at the rate of £2 10s. per bed were also made to the following hospitals for beds which were provided out of revenue:—Colchester (40); Dunmow (4); Halstead (4); Orsett (48).

VENEREAL DISEASES.

Table III. on page 22 gives particulars of the number of new patients from Essex treated at the various Clinics as well as the total number of attendances of all Essex patients. The total number of attendances of Essex patients is the highest recorded since the scheme came into operation in 1917.

The arrangements under the London & Home Counties Scheme, whereby Essex patients can utilise the Venereal Diseases Clinics established at or in connection with the principal London hospitals have been continued. In addition, facilities for advice and treatment are available at the Chelmsford, Colchester, Southend and Ipswich hospitals, and also at the Gravesend *ad hoc* Clinic.

COLCHESTER. Negotiations with the Essex County Hospital, Colchester, resulted in a revision of the arrangements in connection with the V.D. Clinic at that Hospital. The hut at the rear of the Institution hitherto used for the V.D. Clinic was leased to the County Council for a period of ten years, and extensive alterations were carried out and new equipment provided. Dr. Leigh Day, the Medical Officer, resigned on 1st March, and Dr. M. P. Reddington, of Colchester, took up the duties of Medical Officer. Since the re-arrangements took place there has been a considerable development of the work of the Clinic, which it is anticipated will further increase during the next year or two.

ILFORD. Negotiations are still in progress with the authorities of the King George Hospital, Ilford, with a view to considering the establishment of a V.D. Clinic at that hospital to serve the large population in the Ilford, Dagenham, Barking and Romford areas. At present the nearest clinic is the London County Council (Whitechapel) Clinic, Turner Street, Mile End, E.1., but this involves a considerable journey by road or train to attend the Clinics, and in some instances also loss of work.

TABLE III.

TREATMENT OF VENEREAL DISEASE, YEAR 1931.

ESSEX PATIENTS.												
Treatment Centre.	Patients from all Areas. Total No. treated for first time.	Total Number treated for first time suffering from					Total No. of Attendances of Essex Patients.	In-patient Days.	Doses of Arseno-Benzene Compounds.		Hostels.	
		Syphilis.	Soft Chancre.	Gonorrhoea.	Not V.D.	Total.			Out-Patients	In-Patients		Total.
London Hospitals	25,947	168	21	446	473	1108	37879	2062	—	—	3933	2416
St. Bartholomew's, London	1,058	4	—	20	12	36	399	—	—	—	19	—
Chelmsford	19	7	—	9	3	19	355	—	—	85	85	—
Colchester	100	59	—	25	6	90	1977	142	—	—	394	—
Ipswich	210	6	—	4	6	16	197	41	67	1	68	—
Southend	332	13	1	26	38	78	1493	—	73	—	73	—
Gravesend	304	24	8	50	26	108	2707	—	377	—	377	—
Total for 1931...	27,970	281	30	580	564	1455	45007	2245	—	—	4949	2416
Total for 1930...	29,086	322	20	503	543	1388	33614	1311	—	—	3429	2601
" 1929...	26,516	315	14	466	434	1229	28523	1632	—	—	2817	2222
" 1928...	27,576	259	12	505	425	1201	25880	2831	—	—	2491	2373
" 1927...	30,466	276	6	550	488	1320	21756	3739	—	—	2781	2579

TABLE IV.
Showing Accommodation, Number of Cases treated, Cost per Bed, etc., at those Isolation Hospitals for which Grants for Beds provided out of Loan were recommended for the Year ended 31st March, 1931.

	Billericay.	Chelmsford.	Clacton.	Colchester.	Dunmow.	Grays and Orsett.	Halstead.	Ilford.	Maldon.	Rochford.	Romford.	Saffron Walden.	Walthamstow.	Waltham Joint.	TOTAL.
Number for purpose of Grant	30	21	17	58	8	40	16	110	10	12	141	14	91	42	610
Grant from County Council	£160	£115	£85	£300	£50	£210	£90	£560	£60	£70	£715	£80	£165	£220	£3180
Cases treated during year:—															
Scarlet Fever	200	181	27	226	41	132	35	163	49	110	305	22	434	140	2065
Diphtheria	80	100	15	108	3	168	6	253	16	70	441	12	468	90	1830
Typhoid	1	8	1	14	3	1	3	8	1	—	5	—	—	16	61
Other Diseases	6	6	—	*143	1	9	1	*34	6	10	130	5	—	—	351
Total number of cases treated	287	295	43	491	48	310	45	458	72	190	881	39	902	246	4307
Bed-Days	8480	9395	1675	22232	523	18359	1479	22975	2406	6441	33709	1579	39641	7173	175867
Expenditure for the year:—	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Repayment of Loans	191 16 8	242 5 7	75 15 2	149 16 11	16 2 4	1531 0 11	64 0 0	1657 13 11	265 6 10	124 0 0	1551 18 0	108 0 0	239 17 0	456 13 4	6674 6 8
Interest on loan	163 13 10	58 3 2	9 15 3	63 8 10	1 16 8	892 19 4	44 9 2	1725 9 5	40 0 4	4 7 11	3389 7 9	61 14 5	88 10 11	50 9 0	6594 6 1
Total	355 10 6	300 8 9	85 10 5	213 5 9	17 19 0	2424 0 3	108 9 3	3383 3 4	305 7 2	128 7 11	4941 5 9	169 14 5	328 7 11	507 2 4	13268 12 9
Structural Repairs	595 17 6	234 16 7	67 19 11	1024 19 9	33 5 6	573 6 11	56 2 2	1531 13 8	168 12 4	235 10 5	484 3 8	15 11 10	1062 0 0	285 9 6	6369 9 9
Food (Patients and Staff)	1653 15 6	841 3 0	241 11 0	1291 7 10	154 18 8	1624 1 4	252 18 4	3397 19 9	555 16 8	833 1 3	2858 5 0	188 13 5	5167 0 0	475 11 4	19536 2 10
Estab. and Patients' Expenses	2018 17 1	1661 17 7	872 14 1	5140 17 7	822 13 9	6374 5 7	908 15 2	12365 8 5	1471 9 6	2004 7 1	11006 4 11	469 12 8	11376 0 0	2721 18 6	50815 7 11
Maintenance	4268 10 1	2737 17 2	1182 5 0	7457 5 2	1011 3 11	9171 13 10	1217 15 8	17295 1 10	2195 18 3	3072 18 9	14348 13 7	673 17 11	17005 0 0	3482 19 4	85721 0 6
Overhead Charges	355 10 6	300 8 9	85 10 5	213 5 9	17 19 0	2424 0 3	108 9 3	3383 3 4	305 7 2	128 7 11	4941 5 9	169 14 5	328 7 11	507 2 4	13268 12 9
Total	4624 0 7	3038 5 11	1267 15 5	7670 10 11	1029 2 11	11593 14 1	1326 4 11	20678 5 2	2501 5 5	3201 6 8	19289 19 4	843 12 4	17933 7 11	3990 1 8	98989 13 3
Cost per patient per week	£ 3 16 4	2 5 3	5 6 0	2 8 3	13 15 6	4 8 5	6 5 6	6 6 0	7 5 6	3 9 7	4 0 1	4 5 8	3 3 4	3 17 11	3 18 10
Food, Struct. and Estab. Ex.	£ 3 10 6	2 0 10	4 18 10	2 6 11	13 10 8	3 9 11	5 15 3	5 5 4	6 7 9	3 6 9	2 19 7	3 8 5	3 2 2	3 8 0	3 8 3
Cost per case treated, 1930-31	£ 16 2 3	10 6 0	29 9 8	15 12 5	21 8 9	37 8 1	29 9 5	45 3 0	34 14 9	16 17 0	21 17 11	21 12 7	19 17 7	16 4 5	22 19 8
Year 1929-30	£ 14 2 11	13 2 5	33 5 10	14 1 6	33 12 2	26 17 1	39 3 7	31 2 9	44 12 6	12 10 4	14 15 3	28 18 8	20 8 7	18 17 11	20 15 0

* Includes Tuberculosis cases treated under the County Council scheme.

† Includes Small-pox patients.

WALTHAMSTOW. The question of establishing a V.D. Clinic in connection with the Connaught Hospital, Walthamstow, remains in abeyance pending completion of the scheme for a new Clinic in the Ilford area.

EXAMINATION OF BACTERIOLOGICAL SPECIMENS.

Particulars of the specimens examined during the year 1931, by Dr. J. F. Beale, bacteriologist for Essex, 91, Queen Victoria Street, London, E.C.4. (Tel. No. City 1116) are given in Table V. on page 24. The total number was 22,625, or 6,263 less than for the year 1930. This is accounted for by the smaller number of diphtheria specimens submitted, notably from Barking Borough.

LOCAL GOVERNMENT ACT, 1929.

Steady progress has been made in connection with the various schemes required under this Act. The review of county districts has been completed and an approved scheme submitted to the Ministry of Health.

Several applications for assistance under Section 57 have been received but have either been refused, withdrawn or are still under consideration.

An approved scheme has been prepared under Section 58, but is held in abeyance pending the approval of the Ministry of Health to the scheme submitted under Section 46.

With regard to the Child Welfare powers the Ministry of Health made an Order transferring the powers under the Purfleet Urban District to the County Council as from 1st April, 1931.

The following Authorities were made responsible for the supervision of midwives by the Ministry of Health under Section 62 :—

Colchester, Ilford, Leyton and Walthamstow.

A report in connection with the Hospital Accommodation for Infectious Diseases was approved by the Public Health and Housing Committee in March and is being incorporated into a draft scheme which will be circulated to local Sanitary Authorities and Joint Hospital Boards for their observations.

HOUSING.

Table VI. on page 24a sets out particulars of the work carried out by Local Sanitary Authorities under the Public Health and Housing Acts during the year 1931.

TABLE V.

SHewing NUMBER AND TYPE OF SPECIMENS EXAMINED BY THE
BACTERIOLOGIST FOR ESSEX--YEAR 1931.

SANITARY DISTRICTS.	Diph- theria.	Sputa.	Typhoid	Ring- worm.	Miscel- laneous.	Total Specimens examined.	††Bio- logical Examina- tions.
URBAN—							
Barking B.	+3304	†420	26	7	13	3770	22
Benfleet	144	27	1	1	17	190	...
Braintree	144	†96	2	...	27	269	...
Brentwood	77	†43	20	...	5	145	...
Brightlingsea	23	17	3	1	3	37	...
Buckhurst Hill	9	16	1	...	2	28	...
Burnham-on-Crouch	6	12	...	1	2	21	...
Canvey Island	45	16	...	...	...	61	...
Chelmsford B.	+516	†154	11	11	25	727	...
Chingford	143	223	67	...	39	472	...
Clacton-on-Sea	99	†38	11	1	6	155	...
Colchester B.	11	†226	16	...	5	258	...
Dagenham	368	†370	5	49	10	762	1
Epping	199	†35	381	2	6	623	...
Frinton-on-Sea	2	...	...	...	...	2	...
Grays	+2296	†109	7	2	6	2420	...
Halstead	19	†30	3	...	6	58	...
Harwich B.	+275	†59	2	27	...	363	...
Hornchurch	39	45	2	...	1	87	...
Ilford B.	+544	†366	33	...	34	977	21
Leyton B.	+1731	†793	14	12	8	2558	...
Loughton	9	9	10	...	3	31	...
Maldon B.	50	†29	7	1	1	88	...
Purfleet	18	17	...	...	...	35	...
Rayleigh	54	12	2	...	2	70	...
Romford	+791	†193	9	3	18	1014	2
Saffron Walden B.	+41	†17	1	5	...	64	...
Shoeburyness	30	20	...	...	...	50	...
Tilbury	251	75	3	14	...	343	...
Waltham Holy Cross	+352	†31	25	4	10	422	3
Walthamstow B.	213	†749	144	33	22	1161	1
Walton-on-the-Naze	5	5	...	1	1	10	...
Wanstead	5	51	...	...	3	59	...
West Mersea	3	4	...	...	...	7	...
Witham	31	29	1	1	6	68	...
Wivenhoe	...	...	...	...	...	...	...
Woodford	216	†114	7	3	4	344	...
Total	12061	4410	814	179	285	17749	50
RURAL—							
Belchamp	5	4	...	...	...	9	...
Billericay	+549	294	15	...	13	871	1
Braintree	+332	†728	13	9	162	1244	2
Bumpstead	54	3	...	...	...	7	...
Chelmsford	72	65	6	8	29	180	...
Dunmow	30	†44	6	2	39	121	...
Epping ...	+66	50	52	2	2	172	...
Halstead	18	30	3	5	2	58	...
Lexden & Winstree	66	22	3	1	24	116	...
Maldon	+107	37	8	3	27	182	...
Ongar ...	69	10	4	...	8	91	...
Orsett ...	102	†38	5	12	...	157	...
Rochford	+361	36	11	...	18	426	...
Romford	60	†995	2	10	29	1096	...
Saffron Walden ...	16	25	...	1	1	43	...
Stansted ...	22	11	...	3	...	36	...
Tendring ..	44	†19	3	1	...	67	...
Totals— Rural ...	1923	2411	131	57	354	4876	3
Urban ...	12061	4410	814	179	285	17749	50
Adminis. County	13984	6821	945	236	639	22625	53

† Includes specimens taken at Isolation Hospital in District.

†† Sanatorium or Dispensary in District.

†† This does not include the Biological Examination of milk samples (see page 35).

SHOWING BANK STATEMENTS

BANK OF AMERICA				
DATE	DEBIT	CREDIT	BALANCE	REMARKS
1912				
Jan 1			100.00	Balance
Jan 15	50.00		50.00	Payment
Jan 30		25.00	75.00	Deposit
Feb 15	25.00		50.00	Payment
Feb 28		100.00	150.00	Deposit
Mar 15	75.00		75.00	Payment
Mar 30		50.00	125.00	Deposit
Apr 15	25.00		100.00	Payment
Apr 30		75.00	175.00	Deposit
May 15	50.00		125.00	Payment
May 30		100.00	225.00	Deposit
Jun 15	75.00		150.00	Payment
Jun 30		50.00	200.00	Deposit
Jul 15	25.00		175.00	Payment
Jul 30		75.00	250.00	Deposit
Aug 15	50.00		200.00	Payment
Aug 30		100.00	300.00	Deposit
Sep 15	75.00		225.00	Payment
Sep 30		50.00	275.00	Deposit
Oct 15	25.00		250.00	Payment
Oct 30		75.00	325.00	Deposit
Nov 15	50.00		275.00	Payment
Nov 30		100.00	375.00	Deposit
Dec 15	75.00		300.00	Payment
Dec 31		50.00	350.00	Balance
1913				
Jan 1			350.00	Balance
Jan 15	50.00		300.00	Payment
Jan 30		25.00	325.00	Deposit
Feb 15	25.00		300.00	Payment
Feb 28		100.00	400.00	Deposit
Mar 15	75.00		325.00	Payment
Mar 30		50.00	375.00	Deposit
Apr 15	25.00		350.00	Payment
Apr 30		75.00	425.00	Deposit
May 15	50.00		375.00	Payment
May 30		100.00	475.00	Deposit
Jun 15	75.00		400.00	Payment
Jun 30		50.00	450.00	Deposit
Jul 15	25.00		425.00	Payment
Jul 30		75.00	500.00	Deposit
Aug 15	50.00		450.00	Payment
Aug 30		100.00	550.00	Deposit
Sep 15	75.00		475.00	Payment
Sep 30		50.00	525.00	Deposit
Oct 15	25.00		500.00	Payment
Oct 30		75.00	575.00	Deposit
Nov 15	50.00		525.00	Payment
Nov 30		100.00	625.00	Deposit
Dec 15	75.00		550.00	Payment
Dec 31		50.00	600.00	Balance

HOUSING ACT, 1930.

The Housing Act, 1930, came into force on 1st August, 1930, and Part IV. aims in particular at securing the co-operation of County Councils and Rural District Councils in overcoming the shortage of houses and the removal of unsatisfactory housing conditions in Rural Districts. The County Council now has a definite responsibility for housing conditions in the Rural Districts in the County, and has a continuing duty to ascertain the situation in each Rural District, and to obtain particulars of the action which has been taken or is proposed to be taken to remedy unsatisfactory conditions, and to provide further housing accommodation.

So far as the provision of new houses is concerned, the County Council is required to bear a charge of at least £1 per annum per house towards the cost of the houses provided by the Rural District Council for the agricultural population, and is empowered to undertake a larger contribution for these houses, and also to make such contribution as the County Council thinks fit towards the cost of other houses provided by the Rural District Council.

RURAL DISTRICT COUNCILS. Under the Housing (Consolidated) Regulations, 1925, a local authority, which includes a Rural District Council, is required to "make provision for a thorough inspection to be carried out from time to time according to the varying needs or circumstances, of the dwelling houses or localities in the district of the local authority," and to cause to be prepared from time to time by the local Medical Officer of Health or other designated officer (usually Sanitary Inspector), a list or lists of dwelling houses, the early inspection of which is, in the opinion of the Medical Officer of Health, desirable. The officer carrying out an inspection is required to examine the state of each house in relation to certain structural matters, and to keep accurate records. A summary of these inspections and of the action taken under statutory powers is furnished each year in the Annual Report of the local Medical Officer of Health. These are summarised for the year 1931 in Table VI. on page 24a,

Under the Housing Act, 1930, every Rural District Council is placed under an obligation to furnish to the County Council at intervals such information as the County Council may reasonably require to enable it to carry out its duty. The first return was asked for in February, 1931, and the replies are summarised in Table VII. on pages 29 and 30, the gross totals being as follows :—

No. of Houses partially unfit for human habitation	..	2,297*
No. of Houses totally unfit for human habitation	..	685
No. of Temporary Structures		590
No. of Houses overcrowded		190
No. of Houses erected by R.D. Councils since 1st Jan., 1919	..	4,699
No. of Houses erected by Private Enterprise since 1st Jan., 1919	..	18,136
Estimated No. of additional Houses required for working classes		1,456

*Stansted R. did not give a number under his heading.

A perusal of these returns shows that 11 out of the 17 Rural District Councils, namely, Braintree, Bumpstead, Chelmsford, Dunmow, Epping, Lexden and Winstree, Maldon, Orsett, Rochford, Romford, and Tendring, have built or propose to build houses reasonably commensurate with the needs of the areas.

In respect to the remaining six Rural Districts, the position, according to the return for the year 1930, regarding the totally unfit houses and the action taken to replace such houses, is as follows :—

(a) *Belchamp R.* Has 33 totally unfit houses, and is only proposing to provide 18 new houses, tenders having been invited. Has erected 30 Council houses since 1919. No provision is made to replace totally unfit houses at Belchamp St. Paul's (8), Borley (2), Foxearth (2), Gestingthorpe (3), Great Henny (2), Pentlow (5), and only two new houses are suggested for Belchamp Otten (11).

This Rural District is to be merged with Halstead R. under Section 46 of the Local Government Act, 1929. It is probable that the general standard of fitness of dwelling-houses in this rural area is below the average.

(b) *Billericay R.* Has 49 totally unfit houses, and estimates 200 additional houses are required for the working classes. Has erected only 30 Council houses since 1919, being the smallest number provided by any Rural Council in the County, except Belchamp R. Private enterprise has provided more houses (6,322) than in any other Rural District in the County. It has to be remembered also that in this area there are urban-like centres, *e.g.*, Wickford, Laindon, Billericay, Pitsea and Vange. Extensive changes are, therefore, contemplated under Section 46 of the Local Government Act, 1929.

The Rural Council has launched the following programme :—

Houses in course of erection	..	..	18
Tenders accepted or advertised	..	..	72
Land purchased or to be purchased	..	..	68
			158

These proposals affect only six Parishes, and no provision is made for replacing totally unfit houses at Dunton (5), Lee Chapel (9), North Benfleet (6), South Weald (14), Vange (13), Wickford (9).

(c) *Halstead R.* Has 39 totally unfit houses, and estimates that only 10 new houses are needed. Has erected 148 Council houses since 1919. No provision is made to replace totally unfit houses at Gosfield (4), Little Maplestead (2), Little Yeldham (4), Pebmarsh (7), Sible Hedingham (11), Stambourne (3), Toppesfield (6).

(d) *Ongar R.* Has 211 totally unfit houses, which is the largest number shown in any one Rural District in the County, and estimates that only 64 houses are needed. Has erected 185 Council houses since 1919. Every parish in the Rural District is shown to have some totally unfit houses, the largest numbers being at Navestock (33), Lambourne (18), Fyfield (15),

Chipping Ongar (12), Bobbingworth (10). The estimated number of houses required is made up as follows :—Beauchamp Roding (4), Bobbingworth (8), Chipping Ongar (12), Little Laver (4), Navestock (6), Shellow Bowells (4), Stanford Rivers (12), Stapleford Tawney (6), Theydon Mount (4), Willingale Doe (4).

(e) *Saffron Walden R.* Has 34 totally unfit houses, and estimates that no additional houses for the working class are required, but points out that in most of the parishes in the district there is probably a marked decrease in the population since the Census of 1921. The totally unfit houses are in 10 of the 25 parishes. Has erected 84 Council houses since 1919.

(f) *Stansted R.* Has one totally unfit house, and estimates that 70 additional houses are needed in two parishes :—Stansted (54), Little Hallingbury (16). Has erected 58 Council houses since 1919. The possibility of building houses in other parishes will be considered in relation to the increase or decrease of the population in each as revealed by the Census.

This Rural District is to be merged with the Saffron Walden Rural District under Section 46 of the Local Government Act, 1929.

GENERAL CONCLUSIONS. It is generally recognised that in the past the absence of reasonable housing accommodation has caused many agricultural workers to migrate to the towns, and further, such workers have often had to seek housing accommodation in places remote from their work. The powers now conferred upon County Councils have for their object the securing of closer co-operation between County Councils and Rural District Councils in attacking this serious and important problem.

TOWN PLANNING.

At the end of 1930 a Town Planning Committee was constituted directly responsible to the County Council for the carrying out of duties relating to town planning, playing fields and open spaces.

(a) *Town Planning.*

The Committee surveyed the progress of Town Planning Schemes in the County, and considered how best to carry out the Town Planning Sections of the Local Government Act, 1929. It was realised that it would be desirable to set up Regional Joint Advisory Committees in all parts of the County which were not included in the area of such Committees. As a commencement, steps were taken with a view to setting up Joint Committees to comprehend the Town Planning Authorities in North-East, North-West and Mid-Essex.

The South Essex Joint Advisory Town Planning Committee issued its complete Regional Planning Report during 1931. In the Foreword, Mr. B. H. L. Williams, who was the Chairman of the Committee from its inception until ill-health compelled him to resign a few months before the Report was issued, refers to the fact that "The South Essex Joint Town Planning Committee, with the skilled assistance of Professor S. D. Adshead, have spent several years in the preparation of the regional

“ plan and report here presented. The purpose of their labours has been, first, to
 “ arrive at an understanding of the character of the Region, its resources, handicaps
 “ and possibilities ; next, to evolve a policy and plan indicating ways for facilitating
 “ the development of resources and the removal of handicaps, by making the best
 “ use of the land, in the best interest of the Region as a whole and of its component
 “ parts.

“ Unless development does follow a well-devised policy and plan, confusion and
 “ waste must follow and this part of the county will become a meaningless exten-
 “ sion of the inchoate mass which comprises the outskirts of London. The Joint
 “ Committee, therefore, are confident in inviting cordial assistance towards the
 “ realisation of this plan, not only from all the local authorities concerned, but also
 “ from all owners and developers of land, the leaders of industry, and all those
 “ interested in the future prosperity and well-being of South-East Essex and
 “ Greater London.

“ The first step would be the preparation of town planning schemes, either jointly
 “ or severally, for the whole Region, and this permits of no delay.”

The Joint Town Planning Committee are to be congratulated upon the com-
 prehensive nature of the report, which should be of great assistance to all the Local
 Sanitary Authorities concerned. “ The Joint Committee have done their best to
 “ solve this problem and it is now for the public authorities who are concerned and
 “ their constituents to take the necessary steps to prevent the waste and spoliation
 “ (unpardonable in these days of economic stress) which must take place if things
 “ are left to chance.”

(b) *Open Spaces.*

On page 59 of the South Essex Regional Town Planning Report it is recorded
 that “ one question which needs to be very seriously considered in regard to the
 “ provision of open spaces in South Essex, and which is becoming more and more
 “ important every day, is that of the increasing use of Essex as a recreative area
 “ for the East Londoner.”

A representation was made to the County Council, and on 19th May, 1931, the
 County Council decided, in pursuant to their powers under the Open Spaces Act,
 1906, to purchase “ subject to the report of the District Valuer and to the consent
 “ of the Ministry of Health, an area of approximately 60 acres at the summit of
 “ Laindon Hills as a public open space.”

The County Council also decided to take the necessary steps in connection with
 the preparation of the grant to the Council of an option to purchase another
 estate at Langdon Hills.

(c) *Playing Fields*

The County Council decided on 19th May, 1931, to make the Local Sanitary
 Authorities concerned a contribution of ten per cent. towards the purchase of play-
 ing fields in Rayleigh, Burnham-on-Crouch and Little Thurrock, on condition that
 facilities be granted in each case to the satisfaction of the Education Committee
 for the free use of the grounds by the children of the neighbouring elementary
 schools for playing organised games.

TABLE VII.

SUMMARISING RETURNS REGARDING THE HOUSING CONDITIONS OF PERSONS OF THE WORKING CLASS, 1930.

Rural District.	Census Popn., 1921.	Census Popn., 1931.	Est. Popn., 1930 (R.G.'s. estimate for 1929 in brackets.)	No. of Houses partially unfit for human habitation.	No. of Houses totally unfit for human habitation.	No. of Temporary Houses, e.g., tents, vans, sheds, or similar structures.	No. of Houses overcrowded.	No. of Houses erected since 1st January, 1919.		Whether any additional houses for the working classes are required, and if so, the estimated number.
								By R.D.C.	By private enterprise.	
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
Belchamp	4,219	3,983	3,576 (4,090)	96	33	2	—	30	38	18. Tenders invited.
Billericay	24,211	39,694	48,387 (35,950)	158	49	82	59	30	6,322	200 required. 18 under construct- ion. 72 ten- ders adver- tised or ac- cepted. 68 land pur- chased or about to be purchased.
Braintree	18,779	21,876	24,679 (20,760)	208	102	—	10	552	923	122 proposed building in 1931.
Bumpstead	2,376	2,304	2,350 (2,320)	53	12	—	10	73	7	32 required.
Chelmsford	24,616	28,641	28,065 (28,600)	36	32	39	—	587	1,502	154 „
Dunmow	15,352	15,564	15,560 (15,510)	120	36	13	28	326	287	141 „
Epping	14,625	17,345	14,625 (16,750)	57	39	7	29	337	928	115 „
Halstead	9,743	9,843	9,843 (9,980)	102	39	—	2	148	259	10 „
Lexden Winstree	17,568	18,976	17,568 (18,580)	251	30	89	15	560	669	82 „

TABLE VII.—continued.

1. Rural District.	2. Census Popn., 1921.	3. Census Popn., 1931.	4. Est. Popn., 1930 (R.G.'s estimate for 1929 in brackets.)	5. No. of Houses partially unfit for human habitation.	6. No. of Houses totally unfit for human habitation.	7. No. of Temporary Houses, e.g., tents, vans, sheds, or similar structures.	8. No. of Houses overcrowded.	No. of houses erected since 1st January, 1919.		11. Whether any additional houses for the working classes are required, and if so, the estimated number.
								By R.D.C.	By private enterprise.	
Maldon	16,479	16,280	17,050 (16,750)	61	33 (several empty.)	61	4	367	516	170 required.
Ongar	10,054	11,520	10,644 (10,460)	266	211	—	—	185	214	64 "
Orsett	14,987	20,524	22,848 (18,000)	69	19	94	5	638	1,725	R.D.C. meets cur- rent re- quirements 20 required.
Rochford	11,282	17,046	18,350 (14,830)	8	—	160	9	242	1,669	108 "
Romford	9,467	15,102	16,497 (14,220)	120	12	25	3	174	1,696	Popn. de- creasing in most Parishes. 70 required.
Saffron Walden ..	10,087	9,691	9,490 (9,650)	634 (estimate)	34	4	—	84	149	150 required, 102 of which are in course of erection.
Stansted	6,828	6,981	6,690 (6,890)	Difficult to estimate. 58	1	2	—	58	163	
Tendring	21,721	24,083	23,580 (23,720)	—	—	12	16	308	1,069	
Totals	232,394	279,543	289,802 (267,060)	2,297	685	590	190	4,699	18,136	1,456
								22,835		

HOUSING (RURAL AUTHORITIES) ACT, 1931,

This Act provides that the Minister may, on the recommendation of the Housing (Rural Authorities) Committee and with the approval of the Treasury, undertake to make special contributions towards the expenses to be incurred by Rural District Councils in providing houses for agricultural workers, and for persons whose economic condition is substantially the same as such workers.

HOUSING (RURAL WORKERS) ACT, 1926.

The administration of this Act has been delegated by the County Council to the Agricultural Committee. The duties thereunder are carried out by the County Land Agent, who has kindly supplied the following report upon the work carried out during the year 1931 :—

The number of additional requests received for Forms of Application during the year 1931 was sixty-five. Thirty-seven Forms were returned relating to 95 cottages.

The Districts in which the cottages are situate are as follows :—

Sanitary District.	No. of Applications.		No. of Cottages.		No. of Cottages in respect of which Grants have been made.		Total Grants in the year.
							£
Braintree R.	4	..	29	..	7	..	582
Belchamp R.	2	..	11	..	1	..	93
Chelmsford R.	3	..	5	..	4	..	400
Dunmow R.	2	..	5	..	—	..	—
Epping R.	1	..	2	..	2	..	133
Halstead R.	5	..	12	..	12	..	1,200
Lexden & Winstree R.	4	..	7	..	7	..	700
Maldon R.	5	..	9	..	3	..	206
Ongar R.	1	..	2	..	—	..	—
Orsett R.	1	..	1	..	—	..	—
Rochford R.	1	..	1	..	—	..	—
Stansted R.	1	..	1	..	1	..	75
Tendring R.	2	..	2	..	1	..	72
Clacton U.	3	..	5	..	—	..	—
Tilbury U.	1	..	1	..	—	..	—
Witham U.	1	..	2	..	—	..	—
	37	..	95	..	38	..	£3,461

Of the cottages included in the above applications, 38 were approved for grants as above, 5 were not approved, 32 were withdrawn, and 20 were still under consideration at the end of the year.

The total number of cottages approved for reconditioning under the Act in Essex, up to the 31st December, 1931, is 213.

SEWAGE WORKS AND RIVERS POLLUTION.

LOANS. During the year one Municipal Borough, nine Urban Districts, eight Rural Districts, and one Joint Sewerage Board made application to the Ministry of Health for sanction to borrow varying sums of money, a gross total of £766,146, for works of sewerage and/or sewage disposal. Public Inquiries were held on the dates shown in the following table :—

Date of Inquiry.	Local Sanitary Authority.	Parish.	Catchment Area.	Loan required.	Purpose.
1931.				£	
Jan. 1st	Benfleet U.	—	Thames	54,185	Sewerage & Sewage Disposal.
13th	Tendring R.	Ardleigh	Colne	7,900	"
21st	Colchester B.	—	"	10,500	Sewerage.
27th	Thurrock, Grays & Tilbury Joint Sewerage Board	—	Thames	17,050	Sewerage and Sewage Disposal.
Feb. 11th	Romford R.	Upminster	Ingrebourne	5,000	Sewage Disposal.
11th	Waltham Holy Cross U.	—	Lea	450	Sewerage.
12th	Purfleet U.	—	Mardyke	16,000	Sewerage and Sewage Disposal.
Mar. 3rd	Romford U.	—	Rom	7,130	Sewerage.
20th	Billericay R.	Basildon Bowers Gifford Nevendon Pitsea Vange	Thames	90,000	Sewerage and Sewage Disposal.
May 27th	Chelmsford R.	Buttsbury Stock Ingatestone	Wid	68,756	Sewerage and Sewage Disposal.
June 2nd	Witham U.	—	Blackwater	825	Sewage Disposal.
3rd	Purfleet U.	—	Mardyke	16,500	Sewerage.
				17,200	Sewerage and Sewage Disposal.
July 8th	Romford R.	Upminster	Ingrebourne	1,780	Sewerage.
Aug. 6th	Epping R.	Sheering	Lea	12,800	Sewerage and Sewage Disposal.
7th	Dagenham U.	—	Thames	164,169	Sewage Disposal.
Sept. 8th	Ongar R.	Abridge	Roding	7,103	Sewerage and Sewage Disposal.
8th	Canvey Island U.	—	Thames	86,000	"
9th	Ongar R.	Chipping Ongar High Ongar Shelley	Roding	27,270	"
11th	Chingford U.	—	Lea	29,811	Sewerage.
23rd	Hornchurch U.	—	Ingrebourne	98,250	Sewerage and Sewage Disposal.
Nov. 3rd	Orsett R.	Fobbing	Thames	5,600	"
Dec. 15th	Waltham Holy Cross U.	—	Lea	8,000	Sewerage.
31st	Braintree R.	Bocking	Blackwater	13,867	Sewerage and Sewage Disposal.
Total ..				£766,146	

TABLE VIII.

SHOWING SEWAGE WORKS, NUMBER OF VISITS, AND NUMBER OF SAMPLES TAKEN DURING THE YEAR 1931.

Catchment Area.	Sewage Works.	Sanitary District.	No. of Visits.	Samples taken.		
				No. satisfactory or on border line.	No. unsatisfactory.	Total.
Main	Braintree ..	Braintree U...	3	1	2	3
	Black Notley Sanatorium ..	Braintree R...	1	1	—	1
Backwater	Bocking ..	Braintree R...	1	1	—	1
	Coggeshall ..	Braintree R...	2	2	—	2
	Hatfield Peverel ..	Braintree R...	1	—	1	1
	Kelvedon ..	Braintree R...	1	1	—	1
	Silver End ..	Braintree R...	2	2	—	2
	Witham ..	Witham U. ..	1	—	1	1
m ..	Saffron Walden ..	Saffron Walden B. ..	2	3	—	3
Chelmer	Chelmsford ..	Chelmsford B. ..	2	—	2	2
	Dunmow ..	Dunmow R. ..	3	3	—	3
	Felstead ..	Dunmow R. ..	2	2	—	2
	Thaxted ..	Dunmow R. ..	2	2	—	2
Hale	Halstead ..	Halstead U. ..	4	1	3	4
	Sible Hedingham ..	Halstead R. ..	2	2	—	2
Hatch	Great Burstead ..	Billericay R. ..	1	1	—	1
	Wickford ..	Billericay R. ..	1	—	2	2
Grebourne	Brentwood Joint ..	(Brentwood U.) (Billericay R.)	2	2	—	2
	Brook Street, South Weald ..	Billericay R. ..	2	2	1	3
	Harold Wood ..	Hornchurch U. ..	2	1	4	5
	Upminster ..	Romford R. ..	2	3	—	3
e ..	High Beech Hospital ..	Waltham Holy Cross U. ..	2	2	—	2
Hardyke	Bury Farm, Great Warley ..	Romford R. ..	2	—	1	1
	South Ockendon ..	Orsett R. ..	1	—	1	1
Heding	Abridge ..	Ongar R. ..	1	—	1	1
	Buckhurst Hill ..	Buckhurst Hill U. ..	3	3	—	3
	Chigwell ..	Epping R. ..	2	2	—	2
	Chigwell Row ..	Epping R. ..	2	2	—	2
	Epping ..	Epping U. ..	4	1	3	4
	Grange Hill ..	Epping R. ..	2	—	2	2
	Hainault ..	Ilford B. ..	3	1	2	3
	Loughton ..	Loughton U. ..	2	2	—	2
	North Weald ..	Epping R. ..	2	1	1	2
	Ongar ..	Ongar R. ..	4	1	1	2
	Theydon Bois ..	Epping R. ..	3	1	2	3
	Thornwood ..	Epping R. ..	3	1	1	2
	Wanstead ..	Wanstead U. ..	1	1	—	1
	Woodford ..	Woodford U. ..	2	2	—	2
	Hornchurch ..	Hornchurch U. ..	2	1	1	2
	Billericay ..	Billericay R. ..	2	2	—	2
	Ingatestone ..	Chelmsford R. ..	5	3	1	4
	Great Warley ..	Romford R. ..	2	1	1	2
Madwell	Shenfield ..	Billericay R. ..	3	3	—	3
	Tillingham ..	Maldon R. ..	1	—	1	1
Brook						
Holland Brook	Thorpe-le-Soken ..	Tendring R. ..	2	2	—	2
Kirby Creek..	Kirby-le-Soken ..	Tendring R. ..	1	1	—	1
Samples from rivers, streams, ditches, &c. ..			5	12	11	23
Trade effluents ..			8	5	3	8
Total ..			109	80	49	129

Table VIII. on page 33 records the number of visits paid to sewage works by the County Health Inspector and the samples obtained. Of the 129 samples taken, 49 or approximately 38 per cent. were unsatisfactory. Appropriate action was taken in each case.

BLACKWATER CATCHMENT AREA. The new sewage works at Bocking, Coggeshall and Kelvedon came into operation during the year.

CHELMER CATCHMENT AREA. The Felstead Beet Sugar Factory, which opened in October, 1926, resumed operations on 7th October, 1931, and ceased on 23rd December, 1931. Since the previous season the domestic sewage works and cooling plant had been further improved. Three samples of trade effluent were obtained, which gave impurity figures of 1.5, 3.5, and 2.8 respectively, and therefore, complied with the County Council's standard of 10.0 for a passable effluent.

Experience during the past few years with the trade effluent from this factory has shown that the County Council's standard impurity figure of 10.0 for sewage and trade effluents needs re-consideration to meet special cases of this kind. When the standard was set up about twelve years ago it was found to be suitable for the normal sewage and trade effluents which usually receive a reasonable dilution after being discharged into a stream. In respect to Felstead, however, the factory takes practically the whole of the water from the Stebbing Brook (approximately 4 million gallons per day), uses the bulk of it for condensing purposes, causing marked increase of temperature, passes it through sprayers into cooling ponds from which it is returned to the Stebbing Brook in the form of a warm trade effluent.

The River Chelmer into which the Stebbing Brook flows, is adversely affected by this large volume of trade effluent, not only owing to its high temperature, but to its increased impurity figure.

On 28th January, 1932, the Public Health and Housing Committee decided that "it should be placed on record and brought to the notice of all persons concerned that the County Council's standard impurity figure of 10.0 is intended only for sewage and trade effluents, the volume of which in each case is not more than one-tenth of the bulk of the stream into which they discharge."

Trade Effluent—Temperature. The temperatures of the samples of trade effluent obtained from the Felstead Beet Sugar Factory were 35.0°C., 30.0°C., and 33.0°C. respectively. The discharge of this warm effluent in a large volume again had a deleterious effect upon the river water in the removal of oxygen and the production of fungoid growth. Representations were again made to the Works Manager, who replied that he could not "say just what can be done to effect further cooling. The problem will have to be investigated and studied."

TER CATCHMENT AREA. During August, 1931, a survey was made of the main portion of the River Ter in co-operation with the Medical Officer of Health and Sanitary Inspector for the Braintree Rural District, when several points of pollution were found. On 16th September, 1931, at the conclusion of a spell of dry weather

amples were taken from the river and tributaries at various points, and were examined by the Bacteriologist for Essex. The results showed that the river was affected by drainage from Hatfield Peverel, and to a lesser extent from Terling.

The Braintree Rural District Council has already prepared a scheme of sewerage and sewage disposal for Hatfield Peverel, but financial circumstances have checked progress.

FOOD AND DRUGS.

The County Analyst, Dr. Bernard J. Dyer, 17, Great Tower Street, London. E.C.4, has kindly provided me with a copy of his Annual Summary for the period 1st December, 1930, to 30th November, 1931, from which the following particulars have been extracted :—

		Samples analysed.	Samples unsatisfactory.	Percentage of unsatisfactory samples.
Northern District of the County	..	1,466	.. 43	.. 2.9
Southern District of the County	..	2,151	.. 40	.. 1.9
Metropolitan District of the County	..	2,095	.. 23	.. 1.1
Benfleet Urban District	..	11	.. —	.. 4.8
Dagenham Urban District	..	4	.. —	
Walthamstow Borough	..	85	.. 6	
Wanstead Urban District	..	49	.. 1	
		5,861	113	

MILK. Of the 1,502 samples examined, 65 proved unsatisfactory, 26 of which contained added water in quantities varying from 3 per cent. to 35 per cent., and the remaining 39 samples were deficient in fat to an extent ranging from 5 per cent. to 33 per cent. of the minimum quantity of fat proper to normal milk.

BUTTER. One sample was found to consist wholly of margarine.

ICE CREAM. Four samples sold under this name should not have been described as made from cream, as they contained no more cream than would correspond to the milk which they contained.

MILK SUPPLY.

Milk and Dairies (Consolidation) Act, 1915.

No routine inspections of dairy herds by Veterinary Surgeons were undertaken during 1931, the activities being confined to the taking of samples of milk by the County Food and Drugs Inspectors and the County Health Inspector for biological examination and coliform bacteria test.

(a) *Biological Examinations.* Out of 427 samples, 36 (or 8.4 per cent.) were found to contain tubercle bacilli. There were in addition 41 inconclusive tests owing to deaths of guinea pigs from intercurrent infection.

The 36 positive samples were obtained from 33 farms. Each dairy herd at these farms was inspected by the County Council's appropriate part-time veterinary surgeon with the following results :—

(i) 39 cows from 30 farms were slaughtered under the Tuberculosis Order, 1925, 20 being in an advanced stage of tuberculosis, and 19 not in an advanced stage of tuberculosis.

(ii) 6 cows had been disposed of otherwise at 3 farms.

(b) *Coliform Bacteria Test.* Out of 434 samples, 156 (or 36 per cent.) were found to contain coliform bacteria in 1/1000th cubic centimetre, arbitrarily adopted for the present as an easily attainable standard of cleanliness.

SECTION 4. During the year 11 notifications were received under Section 4 of the Milk and Dairies (Consolidation) Act, 1915, to the effect that biological examinations of samples of milk from 12 farms within the County of Essex had revealed the presence of tubercle bacilli. Each dairy herd at these 12 farms was inspected by the County Council's appropriate part-time Veterinary Surgeon with the following results :—

(i) 15 cows from 10 farms were slaughtered under the Tuberculosis Order, 1925, 7 being in an advanced stage of tuberculosis, and 8 not in an advanced stage of tuberculosis.

(ii) The Veterinary Surgeons failed to find any cow suffering from tuberculosis at 2 farms.

Milk and Dairies Order, 1926.

The local Sanitary Inspectors in two Boroughs, five Urban Districts, and seven Rural Districts took advantage of the County Council's laboratory facilities by submitting 237 samples of milk to microscopical examination, one (or 0.4 per cent.) being found to contain acid-fast bacilli indistinguishable from the tubercle bacilli. These samples were also submitted to the coliform bacteria test, and in 81 samples (34.2 per cent.) coliform bacteria were present in 1/1000th cubic centimetre, arbitrarily adopted for the present as an easily attainable standard of cleanliness.

Milk (Special Designations) Order, 1923.

The following licences granted under this Order to produce graded milks were in operation during the year 1931 :—

Kind.	No.	Granted by.
Certified Milk	5	Ministry of Health.
Grade A. (Tuberculin Tested) Milk ..	22	Ministry of Health.
Grade A.	47	County Council.
	—	
Total	74	
	—	

Grade "A" Milk.

For the first time there is a decrease in the number of Grade A licences issued, the number falling from 54 (which is the highest number issued) in 1930, to 47 in 1931. This reduction is due to the fact that one farm obtained a licence to produce Sterilized Milk; one farm obtained a licence to produce Grade A (Tuberculin Tested) Milk; and five farms reverted to the production of ordinary milk either because they could not find a purchaser for the better article, or "on account of expense."

Three hundred and nine visits were paid to Grade A and other farms by the County Health Inspector, who obtained 285 samples for bacteriological examination. In each case where the sample from a farm licensed to produce Grade A milk did not comply with the standard, suitable representations were made to the farmer, and, in some instances, asked for the assistance of the East Anglian Institute of Agriculture, with satisfactory results.

Tuberculosis Order, 1925.

The Agricultural Committee are responsible for the administration of this Order, and have again taken steps to eliminate and slaughter tuberculous cows, as will be seen from the following figures which have been furnished by the Clerk of the County Council:—

	1930.	1931.
No. of animals examined by Veterinary Surgeon ..	28,866 ..	38,895
No. of animals slaughtered under the Order ..	836 ..	1,102
No. of such animals found on post mortem to be—		
(a) Not tuberculous	2 ..	1
(b) Tuberculous—not advanced	511 ..	677
(c) Tuberculous—advanced	323 ..	424
Compensation paid by County Council	£5,273 ..	£7,001
Salvage	£1,718 ..	£1,693

WATER SUPPLIES.

During the year three Rural District Councils and one Urban District Council made application to the Ministry of Health for approval to loans for works of water supplies, and in consequence public enquiries were held on the dates shown below:—

Date of Inquiry.	Local Sanitary Authority.	Parish.	Amount of Loan.	Purpose.
1931. March 12th	Chelmsford R.	Danbury East Hanningfield Little Baddow Rettendon Runwell Sandon Woodham Ferris	£ 16,000	Water Supply
June 25th	Witham U.	—	11,525	Water Supply
October 16th	Bumpstead R.	Helions Bumpstead	2,355	do.
November 17th	Orsett R.	Langdon Hills	7,170	do.
		TOTAL	£37,050	

TRADE, HOUSE AND OTHER REFUSE.

One Urban District (Rayleigh) made application to the Ministry of Health for sanction to borrow £430 for the purchase of land for a refuse tip. A public inquiry was held on 24th February, 1931.

LONDON REFUSE. At a Conference of Local Sanitary Authorities in the Administrative County who were affected by the dumping of London refuse, held on 9th December, 1930, the County Council was urged to recommend all Local Authorities interested that they should make bye-laws as far as possible on the lines of the Model Bye-Laws furnished by the Ministry of Health. During the year 1931, the following Local Authority adopted such bye-laws :—Orsett R.

A new dump has been commenced at Mucking, in the Rural District of Orsett, where London refuse is being disposed of in accordance with the local bye-laws.

MENTAL TREATMENT ACT, 1930.

As mentioned in last year's report, an Out-Patient Clinic has been established by the County Council at Oldchurch Hospital, Romford, and the following is a brief extract from the Annual Report of Dr. W. G. Masefield, the Medical Superintendent of the Brentwood Mental Hospital, who is in charge of this Clinic :—

“ The weekly Out-Patient Clinic at Oldchurch Hospital, Romford, for early Mental and Nervous Cases was started at the end of May, and has been held regularly. The number of patients seen is 75, with some 140 attendances. The patients come under three headings (1) those sent by Medical Practitioners of the district (2) those under “ observation ” in the Public Assistance Hospital and (3) those who have been previously under treatment at this Hospital. Experience gained at this weekly Clinic has led one to the conclusion that the services of a trained Social Worker would be of great value. Reliable information on family and personal history, and on home environment is of prime importance in dealing adequately with many of the cases that seek advice, and this can only be obtained by the personal touch in the home itself. I should like to think that in the near future, it may be found possible for the services of one of the workers of our County Voluntary Association to be retained for this form of specialised work.”

In addition, prior to the Act coming into force, an Out-Patient Clinic had been established at the Essex County Hospital, Colchester, by Dr. R. C. Turnbull, Medical Superintendent of the Severalls Mental Hospital. This clinic has also carried out excellent work during the year.

MENTAL DEFICIENCY.

Ascertainment has continued as in previous years, cases referred being examined and reported on by Dr. T. P. Puddicombe, Deputy County Medical Officer. He has continued to act as medical advisor in cases referred by the Justices for mental examination.

Two hundred and sixty cases have been examined and classified as follows :—

			Males.		Females.		Totals.
Feeble minded	..	..	82	..	54	..	136 (a)
Imbeciles	..	..	42	..	37	..	79
Idiots	..	..	13	..	14	..	27
Not certified under the Act	..	..	10	..	8	..	18 (b)
Totals			147	..	113	..	260

(a) includes 15 males and 3 females and (b) 4 males and 3 females referred by the justices.

Of the feeble minded 9 were subject to epileptic attacks and 3 were post encephalitics. The imbeciles include 24 mongols and 6 epileptics. The idiots include epileptics and 2 mongols.

During 1931 the pressure on residential accommodation has not been relieved and all concerned anxiously await the extensions provided for at the Royal Eastern Counties Institution. It is hoped that building will commence early in the Autumn of 1932.

The numbers at the end of the year under some form of control were as follows :—

In Institutions	..	..	559
Under Statutory Supervision	..	..	826
Under Guardianship	..	..	35

Of the above numbers, 47 were placed in Institutions, 2 under guardianship and 82 under Statutory Supervision during the year.

The Essex Voluntary Association have continued to render invaluable service on similar lines to previous years by assisting in ascertainment, supervision and the organisation of occupation centres, &c.

BLIND PERSONS ACT, 1920.

The Essex County Association for the Care of the Blind has continued, by arrangement with the Essex Education Committee, to carry out the work under this Act.

At the end of the year there were 1,285 Blind Persons on the Register, an increase of 97. These included 120 under 16 years of age and 1,165 adults. 28 of the latter were undergoing periods of training at the end of the year. 923 were classed as untrainable, an increase of 109.

The Association had under supervision 295 persons with seriously defective sight, 44 blind persons from other areas and approximately 100 cases not definitely classed as blind.

Examinations, when required, have been made and the necessary certificates provided by the Assistant County Medical Officers in respect of the degree of blindness and suitability for training.

METEOROLOGY.

The information given in Table IX. below has again been kindly supplied by the County Meteorological Station at Chelmsford. It will be noted that the rainfall for 1931 was slightly less than the rainfall for 1930.

TABLE IX.

OBSERVATIONS FROM THE COUNTY METEOROLOGICAL STATION AT CHELMSFORD.

1931.	Dry bulb readings.	Wet bulb readings.	Maximum readings.	Minimum readings.	Absolute maximum.	Date of absolute maximum.	Absolute minimum.	Date of absolute minimum.	Number of rainy days.	Rainfall in inches.
January	37.0	36.0	42.8	33.6	51	19th	25	10th	21	1.84
February	37.8	36.6	44.2	34.4	55	25th	29	8th and 22nd	21	1.76
March	39.4	37.2	46.7	32.7	61	19th and 20th	21	10th	5	0.25
April	46.6	44.4	53.1	39.7	66	12th	32	1st	20	3.26
May	55.4	52.1	60.8	45.3	71	27th	38	1st	13	2.57
June	60.7	57.6	68.2	50.6	76	14th, 27th and 28th	38	26th	10	1.25
July	62.2	59.6	69.4	52.8	78	24th	45	1st and 21st	16	3.21
August	59.9	57.5	66.2	50.6	78	5th	38	24th and 26th	20	3.78
September	53.9	52.0	61.1	44.2	68	1st, 15th, 16th & 19th	32	8th	14	1.72
October	48.8	47.1	57.0	38.8	69	6th	19	27th and 28th	5	0.61
November	45.8	44.9	51.5	38.4	62	3rd	28	17th	15	1.74
December	40.1	39.5	45.6	36.4	59	4th	23	20th and 31st	9	0.62
TOTALS—										
Year 1931	...	...	...	...	...	...	...	...	...	22.71
„ 1930	...	...	...	...	...	...	...	...	...	23.10

PROPAGANDA.

(1) **TRAVELLING HEALTH EXHIBITION.** The County Council assisted in providing Health Exhibitions in the following districts :—Braintree and Bocking, Brentwood, Brightlingsea, Dedham, Epping, Good Easter, Great Horkesley, Heybridge, Hornchurch, Little Clacton, North Weald, Rainham, Romford, Rowhedge, Tending, Thaxted, Thorpe, Tollesbury, Upminster, Waltham Abbey, Weeley, Wickford.

(2) **HEALTH LECTURES.** Members of the staff of the County Public Health Department gave 55 lectures during the year to Women's Institutes, Women's Guilds, Nursing Associations, Brotherhoods, &c.

PART II.

TUBERCULOSIS.

Notifications.

PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1930. A summary of the notifications made in the Administrative County of Essex during the period 28th December, 1930, to 2nd January, 1932, is given below :—

TABLE X.

	(a) FORMAL NOTIFICATIONS.												Total Notifica- tions.
	Primary Notifications of New Cases of Tuberculosis.												
	Age Periods.												
	0—	1—	5—	10—	15—	20—	25—	35—	45—	55—	65—	Total (all ages)	
Pulmonary, Males	—	10	14	18	84	96	208	140	86	44	10	710	831
„ Females	1	4	7	20	77	122	161	85	34	20	14	545	568
Non-Pulmonary, Males	19	33	51	31	29	16	27	16	5	7	—	225	302
„ Females	7	37	49	24	23	16	16	14	8	—	2	196	209

(b) SUPPLEMENTAL RETURN.

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

	Age periods.											Total.
	0—	1—	5—	10—	15—	20—	25—	35—	45—	55—	65—	
Pulmonary, Males	1	—	4	2	11	13	27	32	33	14	12	149
„ Females	—	1	2	3	15	22	34	47	10	7	4	145
Non-pulmonary, Males	6	8	15	14	5	2	5	1	1	—	2	59
„ Females	3	7	6	4	2	4	6	4	1	1	—	38

The sources from which information as to the above-mentioned cases was obtained are shown overleaf.

Source of Information.	No. of Cases.	
	Pulmonary.	Non-Pulmonary.
Death Returns from Local Registrars	138	52
Posthumous Notifications	11	10
"Transfers" from other areas (other than transferable deaths)	145	35

TABLE XI.

Number of cases of Tuberculosis remaining at the 31st December, 1931, 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.	
	4275	3783	8058	1730	1688	3418	
Number of cases removed from the Registers during the year by reason <i>inter alia</i> of:—							
1. Withdrawal of notification... ..	34	44	78	14	23	37	115
2. Recovery from the disease... ..	29	31	60	26	29	55	115
3. Death	438	324	762	52	39	91	853

TABLE XII.

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
1926	1240	1.25	616	0.62	359	0.36	141	0.14	1599	1.61	757	0.76
1927	1178	1.14	677	0.66	351	0.34	146	0.14	1529	1.48	823	0.80
1928	1011	0.93	677	0.63	365	0.33	135	0.12	1376	1.26	812	0.75
1929	996	0.90	716	0.64	361	0.32	133	0.12	1357	1.22	849	0.76
1930	1110	1.00	704	0.63	414	0.37	129	0.12	1524	1.37	833	0.75
1931	1255	1.05	777	0.65	421	0.35	162	0.13	1676	1.40	939	0.78

TABLE XIII.

SHOWING DEATHS FROM TUBERCULOSIS REGISTERED WITH LOCAL REGISTRARS OF BIRTHS AND DEATHS IN THE ADMINISTRATIVE COUNTY DURING 1931, AND PARTICULARS REGARDING NOTIFICATION UNDER THE PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS (*Transferable Deaths are excluded*).

DISTRICTS.	No. of Deaths.	When Notified.							No Information.
		After Death	Within 3 months of death.	Within 3-6 months of death.	Within 6-12 months of death.	Within 1-2 years of death.	Within 2-4 years of death.	More than 4 years before death.	
Urban.									
Barking	38		10	3	6	5	8	5	1
Benfleet	10		2	2	1	2			3
Braintree	4						2	1	1
Brentwood	8		2	2		1		2	1
Brightlingsea	4		1					1	2
Buckhurst Hill	1					1			
Burnham-on-Crouch	2		1				1		
Canvey Island	6		4			2			
Chelmsford B.	17	1		1	4	4	4		3
Chingford	13		3	2		1	3	3	1
Clacton-on-Sea	10					3	3	1	3
Colchester B.	44	2	9	3	3	8	4	5	10
Dagenham	85	2	17	5	7	15	9	7	23
Epping	3	1	1	1					
Frinton-on-Sea	1				1				
Grays	15		1	3	2		4	2	3
Halstead	7		1	2	1			3	
Harwich B.	6	1				1	1	2	1
Hornchurch	20		5		3	1	2	2	7
Ilford B.	70	2	16	7	9	11	5	16	4
Leyton B.	93	10	17	4	11	17	11	22	1
Loughton	2						2		
Maldon B.	7		1		1		2	2	1
Purfleet	4	1	2				1		
Rayleigh	4		1					2	1
Romford	21	1	3	2	2		2	5	6
Saffron Walden B.	1			1					
Shoeburyness	5				1		1	2	1
Tilbury	13	2	2	1	1	2	1	3	1
Waltham Holy Cross	3		1				1		1
Walthamstow B.	69	6	20		9	9	10	10	5
Walton-on-the-Naze	1								1
Wanstead	6			1	1				4
West Mersea									
Witham	1				1				
Wivenhoe	2			1		1			
Woodford	13	1	1	2	4		2	1	2
Totals	609	30	121	43	68	84	79	97	87
Rural.									
Belchamp	2		1			1			
Billericay	16	1	5			1	2	4	3
Braintree	7	1	1	2	1	1			1
Bumpstead									
Chelmsford	7	1			1				5
Dunmow	6			1		1	2	2	
Epping	5		1	3				1	
Halstead	6			1	3	1	1		
Lexden and Winstree	20	1	5	1	2	2	2	2	5
Maldon	7			2		1		2	2
Ongar	9		2			2			5
Orsett	9	1	3			1	1	2	1
Rochford	12			1	3		2	1	5
Romford	4					1	1		2
Saffron Walden	1							1	
Stansted	1						1		
Tendring	15		3	1	2	2	3		4
Totals	127	5	21	12	12	14	15	15	33
URBAN DISTRICTS	609	30	121	43	68	84	79	97	87
RURAL DISTRICTS	127	5	21	12	12	14	15	15	33
TOTALS	736	35	142	55	80	98	94	112	120

Dispensaries.

A list of Tuberculosis Dispensaries as at the end of December, 1931, is given on page 50.

At the beginning of the year arrangements were completed with the Authorities at the King George V. Hospital, Ilford, for utilising the Out-Patient Department of the Hospital at Five Elms, Dagenham, as a Tuberculosis Dispensary.

Table XV. shows the work done at the Dispensaries during the year. The special efforts commenced in previous years to ensure that the Dispensary Registers only contain the names of those patients about whom definite information is available have been continued and have resulted in the removal from the Registers of a number of cases for various reasons. A pleasing feature of the work done at the Dispensaries is the large number of contacts examined during the year. There were 1,651 contacts examined as compared with 978 examined during 1930, and it is hoped that this branch of the dispensary work will continue to increase.

X-Ray examinations also continue to increase, as has been anticipated in previous reports. There were 1,224 examinations during the year as compared with 938 examinations during 1930, apart from 113 carried out at Black Notley.

The remainder of the work at the dispensaries has been satisfactory and calls for no special comment this year.

Institutional Treatment.

Tables XVI. to XIX. give particulars of the extent of institutional treatment during the year. Full use was made of the 500 beds allowed in the estimates. A fluctuating waiting list makes it difficult to always have available a sufficient number of beds for all types of cases, but with few exceptions, it was possible to find accommodation for patients without an over-long waiting period.

(1) COUNTY SANATORIA.

(a) BLACK NOTLEY SANATORIUM. One of the wooden pavilions previously used at the old sanatorium was adapted with the addition of four shelters in order to provide accommodation for twenty male patients suffering from non-pulmonary tuberculosis, increasing the total accommodation to 184 beds. It has not been possible to keep these twenty beds always occupied, but by a different use of twelve beds at the Ilford Sanatorium it is hoped that shortly it will be possible to have all surgical cases of tuberculosis treated at the Black Notley Sanatorium. This will facilitate the supervision of the cases by Sir Henry Gauvain, the Consulting Surgeon to the County Council.

At my request the following report has been submitted by Dr. M. C. Wilkinson, Medical Officer of the Black Notley Sanatorium, upon the work carried out at that Institution during 1931 :—

The opening of the X-Ray Department and of the block for the treatment of male patients suffering from non-pulmonary tuberculosis were the chief developments in the work of the sanatorium during 1931.

The X-Ray Department was opened at the end of January. The apparatus consists of a 10 K.V. transformer unit, a couch equipped for taking radiographs of recumbent patients, and a stand for screening and radiography in the upright position. The couch is fitted with a Potter-Bucky attachment; Cuthbert Andrews tubes are used with both sets of apparatus. Adjoining the X-Ray Room is a Developing Room and a room specially built for the storage of films.

Dr. Burton Wood, in an article in the Report of the Medical Officer of Health for the year 1930, says :—" Fortunately the great advance in the science of radiography has enabled us to dispense with guess work, and to diagnose the presence of tuberculous disease in its early stages, with a confidence and accuracy impossible half-a-dozen years ago. Needless to say, such precision is only possible when skiagrams are of first-class quality." With the apparatus and expert guidance of Dr. Franklin Wood available at Black Notley, it has been possible to maintain the standard of radiography at this requisite level.

The number of radiograms taken during 1931 was a thousand and fifteen. A hundred and thirteen of these were of out-patients. In addition, a large number of screen examinations were made, this method being in daily use to control the refills of pneumo-thorax cases. Radiography after Lipiodol injection has also been used by Dr. Burton Wood in special cases.

On March 30th the men's surgical block was opened. This contains twenty beds for non-pulmonary cases. Twelve of these beds are in a wooden pavilion which formed part of the old Black Notley Sanatorium. Eight beds are in four double-bedded shelters which adjoin the pavilion. At the time of writing this report a verandah has been built on to the pavilion, thus affording facilities for Sun Treatment. During 1931 thirty-six patients were admitted to this block.

The total number of patients admitted to the sanatorium in 1931 was three hundred and nineteen : the number of patients discharged was three hundred and four : the patients admitted were as follows :—

To the women's pulmonary pavilions	..	..	135
To the children's medical pavilion	..	..	68
To the children's surgical blocks	..	..	48
To the women's surgical ward	..	..	32
To the men's surgical block	..	..	36

Of the one hundred and thirty-five patients admitted to the pulmonary pavilions, ninety-six were between the ages of fourteen and twenty-eight. Of the latter number many were suffering from the acute form of phthisis

which occurs in early adult life. The number of cases under pneumo-thorax treatment therefore remained high, fifty-one cases receiving this form of treatment during 1931 : in two of these cases the operation of thoracoscopy was also performed. Other accessory forms of treatment were phrenic evulsion, which was performed in seven cases, and treatment by Sanocrysin injections, courses of which were given in ten cases.

The number of patients admitted to the surgical blocks during the year was a hundred and sixteen : of these, the majority were cases of tuberculosis of bones or joints. An adjustment in the accommodation for these patients was made by admitting children to the pavilion which was formerly used entirely for women. Eighteen beds in this pavilion are now available for children, and it has been termed the No. 2 Children's Surgical Block.

The number of patients requiring operation in 1931 was fifty-four. In addition, there were a hundred and thirty-five minor operations, such as incision or aspiration of abscesses, performed in the wards. Ninety-five patients have received courses of Artificial Light Treatment. The number of celluloid splints made for patients on discharge was twenty-seven.

We enjoy the great advantage of a visit by Sir Henry Gauvain each month.

The following special visits were made to the sanatorium :—

On April 17th, the County Medical Officer arranged the visit of the Conference of Health Visitors ; on May 16th Alderman F. D. Smith visited the sanatorium with a party of the Rotarians of Ilford ; on September 12th a Conference of Essex Tuberculosis Care Associations was held at the sanatorium and a discussion on Colonies for Tuberculosis patients took place under the chairmanship of Alderman F. D. Smith.

The co-operation of Miss M. D. Williams, Dispenser-Clerk, has made it possible to do the routine sputum examinations at the sanatorium and to increase the amount of laboratory work done. The total number of bacteriological examinations made in 1931 was five hundred and thirty.

In April, 1931, an outbreak of mild scarlet fever occurred in the No. 1 children's surgical block ; there were ten cases in all. As this was the second outbreak occurring in this ward, it was decided to test all children on admission to the surgical blocks for susceptibility to scarlet fever, and to immunise those susceptible.

The number of dental treatments in 1931 was one hundred and thirty-four.

The number of children who were of school age, and who came under instruction from the teachers in 1931 was one hundred and twenty-eight. The majority of these were bed patients. This constituted an increase in the number of children requiring instruction which was met provisionally by a re-organisation of the time-table, whereby additional time was provided by the teachers.

I append statistics of the results of treatment of patients who were discharged in 1931.

(Signed) M. C. WILKINSON,
20th April, 1932. *Resident Medical Officer.*

Discharges from January 1st to December 31st, 1931.

Adults.

	Quiescent.	Improved.	Not Improved.
Pulmonary tuberculosis between 14—28 years	36	40	16
Pulmonary tuberculosis over 28 years	9	13	8
Observation cases discharged as negative	18	—	—
Admitted as tuberculous, diagnosis not confirmed	1	—	1
Tuberculous cervical adenitis	5	—	2
Tuberculous peritonitis	9	—	1
Tuberculous pleurisy	3	—	—
Tuberculous spine	4	3	2
Tuberculous hip	3	2	—
Tuberculous knee	2	2	—
Other joints	8	—	—
Lupus	2	—	—
Various	7	4	2
	107	64	32

Children.

	Quiescent.	Improved.	Not Improved.
Pulmonary tuberculosis under 14	2	—	1
Observation cases, discharged as negative	29	—	—
Admitted as tuberculous, diagnosis not confirmed	5	—	—
Tuberculous cervical adenitis	18	4	1
Tuberculous pleurisy	4	—	—
Primary infection of childhood	6	—	—
Tuberculous spine	6	1	1
Tuberculous hip	4	—	—
Tuberculous ankle	5	—	—
Other joints	3	1	—
Various	7	1	2
	89	7	5

Total number of discharges .. 304

(b) **HAROLD COURT SANATORIUM.** A new pavilion of twenty beds was erected at the sanatorium during the year to replace an old pavilion. With this new pavilion and the continued use of a number of shelters the accommodation at this sanatorium was increased from 60 to 70 beds. The improvements in treatment recorded during recent years have been well maintained.

(c) **HIGH BEECH SANATORIUM.** The number of beds at this sanatorium was reduced from 36 to 32, which is proving adequate for the type of case now admitted, *i.e.*, children suffering from tubercular glands and convalescent children from the Black Notley Sanatorium.

(2) INSTITUTIONS UNDER AGREEMENT.

No changes in the number of beds available or the types of cases admitted, have been made in connection with the Colchester, Chingford and Ilford Sanatoria.

(3) INSTITUTIONS NOT UNDER AGREEMENT.

Despite the increases and improved accommodation available at County Sanatoria, it was necessary for an average number of 178 beds to be taken at various Institutions outside the County.

Tuberculosis Care Associations.

Table XX shows the work carried out by Care Associations during the year.

A new Care Association to serve Grays and District commenced to function towards the end of the year and should find plenty of scope for its activities in that particular area.

Grants were made by the County Council as follows to the Care Associations for "After-Care" purposes in respect to the year ended 31st March, 1932 :—

Care Association.	Amount of Grant. £	Care Association.	Amount of Grant. £
Barking	40	Leyton	90
Chelmsford	50	Romford	40
Dagenham	50	Saffron Walden	25
Halstead	15	Walthamstow	90
Ilford	80		

In addition to these grants, the County Council make a grant of not exceeding £20 per annum to each Care Association for expenditure in connection with printing, stationery, &c.

A pamphlet explaining the County Scheme for the treatment of Tuberculosis has now been issued to the Care Associations for distribution as and when necessary.

elters.

During the year an average number of 84 shelters was in use by patients at their homes.

Travelling Facilities for Patients.

An amount of £72 6s. 0d. was expended during the year in providing necessitous patients with free travelling vouchers upon admission or discharge from institutions and special visits to " Out-patient " Departments.

Extra Nourishment.

During the year 66 patients were granted extra nourishment vouchers at a cost of £73 12s. 5d.

Public Health (Prevention of Tuberculosis) Regulations, 1925.

Public Health Act, 1925. (Section 62).

No action was taken during the year by the County Council under the above regulations and Act.

New Cases and Mortality during 1931.

The following table is supplied at the request of the Ministry of Health :—

NEW CASES AND MORTALITY DURING 1931.

Age Periods.	New Cases.				Deaths.			
	Pulmonary.		Non-pulmonary.		Pulmonary.		Non-pulmonary.	
	M.	F.	M.	F.	M.	F.	M.	F.
—	1	1	25	10	1	1	13	5
—	10	5	41	44	3	1	18	20
—	18	9	66	55	} 7	5	14	14
—	20	23	45	28				
—	95	92	25	25	} 78	85	8	12
—	109	144	18	20				
—	235	195	32	22	113	123	10	8
—	172	132	17	18	97	55	6	6
—	119	44	6	9	79	35	4	7
—	58	27	7	1	45	18	7	5
5 and upwards ..	22	18	2	2	21	10	2	3
	859	690	284	234	444	333	82	80

TABLE XIV.

DISPENSARIES AND VISITING STATIONS AT 31st DECEMBER, 1931.

Address	Hours of Attendance.	Tuberculosis Officer.
1 BARKING— 37, Linton Road	Mondays, 3 to 5 p.m. Thursdays, 10.30 a.m. to 12.30 p.m.	Dr. C. Leonard Williams
2 BRAINTREE— 71, Rayne Road	Wednesdays, 11.30 a.m. to 1 p.m.	Dr. J. S. Bradshaw
3 BRENTWOOD— 39, Queens Road	Wednesdays, 4 to 6 p.m.	Dr. J. Harper
4 BRIGHTLINGSEA— New Church Schools	Wednesdays, 1st and 3rd in each month, 2 to 3 p.m.	Dr. W. A. Milne
5 CHELMSFORD— General Hospital, London Road	Fridays, 2 to 4 p.m.	Dr. J. C. Sleight
6 CLACTON— Skelmersdale Road	Fridays, 11 a.m. to 12 noon	Dr. W. A. Milne
7 COLCHESTER— 12, Trinity Street	Tuesdays, 10.30 a.m. to 12.30 p.m. Thursdays, 10.30 a.m. to 12.30 p.m.	Dr. W. F. Corfield Dr. W. H. Alderton
8 DAGENHAM— King George V. Hospital, Five Elms	Mondays, 9.30 to 11.30 a.m. Thursdays, 9.30 to 11.30 a.m.	Dr. W. L. Yell
9 DUNMOW— 47, Stortford Road	Tuesdays, 1st and 3rd in each month, 10.30 to 11.30 a.m.	Dr. J. S. Bradshaw
10 EPPING— Women's Institute, St. John's Road	Tuesdays, 11 a.m. to 1 p.m.	Dr. L. S. Fry
11 GRAYS— Hilldrop House, 59, London Road	Mondays, 4 to 6 p.m. Thursdays, 2 to 4 p.m.	Dr. J. Harper
12 HALSTEAD— Out-Patients' Dept., Cottage Hospital	Wednesdays, 11.30 a.m. to 12.30 p.m.	Dr. J. S. Ranson
13 HARWICH— 27, West Street	Tuesdays, 11 a.m. to 12 noon.	Dr. J. Ramsbottom
14 ILFORD— 130, Cranbrook Road	Mondays, 7.30 to 8.30 p.m. Tuesdays, 3 to 5 p.m. Wednesdays, 10 a.m. to 12 noon. Fridays, 3 to 5 p.m.	Dr. W. L. Yell
15 LEYTON— 180, High Road	Mondays, 2 to 4 p.m., and 6 to 8 p.m. Tuesdays, 10 a.m. to 12 noon. Thursdays, 10 a.m. to 12 noon, and 2 to 4 p.m. Fridays, 2 to 4 p.m.	Dr. T. L. Ormerod
16 MALDON— Wantz Chase	Tuesdays, 2nd and 4th in each month, 10.30 to 11.30 a.m.	Dr. E. Miles
17 ROMFORD— 29, Eastern Road	Tuesdays and Fridays, 9.30 a.m. to 12.30 p.m.	Dr. V. Feldman
18 SAFFRON WALDEN— General Hospital	Tuesdays, 1st and 3rd in each month 2 to 4 p.m.	Dr. S. R. Richardson
19 SOUTHEND— 30, Clarence Street	Wednesdays, 2.15 (Men) 3.15 (Women)	Dr. N. S. R. Lorraine
20 WALTHAMSTOW— Old Monoux School, High Street	Mondays, 2 to 4 p.m. Tuesdays, 2 to 4 p.m. Wednesdays, 10 a.m. to 12 noon, and 6 to 8 p.m. Thursdays, 2 to 4 p.m. Fridays, 10 a.m. to 12 noon Saturdays, 10 a.m. to 1 p.m.	Dr. J. Sorley
21 WEELEY— Tendring R.D.C. Offices	Thursdays, 5 to 7 p.m.	Dr. J. Ramsbottom
22 WOODFORD— The Shrubbery, High Rd.		Dr. T. L. Ormerod

† For cases from Rochford Rural District, Benfleet, Rayleigh and Shoeburyness Urban Districts by arrangement with the County Borough of Southend.

TABLE XVI.

(e) SHOWING THE IMMEDIATE RESULTS OF TREATMENT OF DEFINITELY TUBERCULOUS PATIENTS DISCHARGED DURING THE YEAR FROM INSTITUTIONS.

Classification on admission to the Institution.				Condition at time of discharge.	Duration of Residential Treatment in the Institution.												GRAND TOTALS.				
					Under 3 months.			3-6 months.			6-12 months.			More than 12 months.				TOTALS.			
					M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.		M.	F.	Ch.	
PULMONARY TUBERCULOSIS.				Class T. B. minus.	Quiescent ...	9	20	2	2	7	...	8	5	1	3	2	2	22	34	5	61
				Not quiescent ...	33	15	...	10	12	...	5	4	2	6	1	...	54	32	2	88	
				Died in Institution	1	1	...	...	2	...	3	...	1	...	1	...	4	4	1	9	
				Class T. B. plus. Group 1.	Quiescent ...	1	8	...	3	2	...	...	1	...	1	1	...	5	12	...	17
				Not quiescent ...	12	12	...	12	7	1	3	1	1	4	4	1	31	24	3	58	
				Died in Institution	...	3	...	...	1	1	...	...	...	2	...	...	3	3	1	7	
				Class T. B. plus. Group 2.	Quiescent ...	5	12	...	2	10	...	6	4	...	1	7	1	14	33	1	48
				Not quiescent ...	105	40	...	46	29	...	21	27	...	11	9	...	183	105	...	288	
				Died in Institution	28	7	...	7	3	...	3	1	1	5	1	...	43	12	1	56	
				Class T. B. plus. Group 3.	Quiescent ...	1	...	...	1	...	1	...	...	...	...	2	1	...	3		
				Not quiescent ...	4	4	...	7	...	...	3	...	1	1	...	12	8	...	20		
				Died in Institution	6	5	...	5	1	...	2	...	1	...	...	14	6	...	20		
NON-PULMONARY TUBERCULOSIS.				Bones and Joints.	Quiescent ...	1	3	3	3	1	2	6	4	13	1	5	21	11	13	39	63
				Not quiescent ...	4	1	5	...	1	...	1	4	2	1	...	1	6	6	8	20	
				Died in Institution	...	...	...	...	...	...	...	...	...	4	1	...	4	1	...	5	
				Abdominal.	Quiescent ...	...	2	2	1	1	2	1	1	...	...	...	2	4	4	10	
				Not quiescent ...	...	1	1	...	1	...	...	1	...	...	...	...	3	1	4		
				Died in Institution	...	...	...	...	1	...	1	...	...	...	...	...	1	1	2		
				Other Organs.	Quiescent ...	...	1	1	...	1	1	1	1	2	1	...	2	3	4	9	
				Not quiescent ...	5	2	...	...	...	...	...	...	...	...	...	...	5	2	...	7	
				Died in Institution	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
				Peripheral Glands.	Quiescent ...	2	2	21	...	3	20	2	...	17	...	...	4	4	5	62	71
				Not quiescent ...	...	1	8	1	...	3	...	...	...	...	...	...	1	1	11	13	13
				Died in Institution	...	...	...	...	...	1	2	...	...	...	...	...	2	...	1	3	3

TABLE XVIII.

NON-PULMONARY TUBERCULOSIS.

Table showing in summary form (a) the condition at the end of 1931 of all patients remaining on the Dispensary Registers and (b) the reasons for the removal of all cases written off the Registers.

Condition at the time of the last record made during the year to which the Return relates.				Previous to 1926					1926.					1927.					1928.					1929.					1930.					1931.					
				Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	TOTAL.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	TOTAL.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	TOTAL.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	TOTAL.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	TOTAL.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	TOTAL.						
(a) Remaining on Dispensary Register on 31st December.	Disease arrested.	Adults.	M.	25	1	4	1	31	7	...	...	1	8	7	1	2	3	13	8	2	1	2	13	4	1	4	1	10	...	...	1	...	1	1	1	...	...		
			F.	16	1	7	10	34	3	2	3	4	12	7	2	2	1	12	3	3	1	7	14	7	2	1	8	18	3	2	2	3	10	1	1	...	3	5	
		Children.	85	23	18	76	202	38	13	2	37	90	23	7	2	34	66	13	7	2	29	51	9	11	4	36	60	11	5	3	39	58	3	...	1	2	6		
	Disease not arrested.	Adults.	M.	16	...	10	4	30	2	1	1	...	4	5	2	2	...	9	3	1	3	1	8	7	3	4	7	21	9	...	3	8	20	13	4	8	8	33	
			F.	13	4	7	5	29	2	1	3	2	8	4	2	3	5	14	7	2	3	1	13	10	5	5	6	26	9	5	4	6	24	12	6	4	7	29	
		Children.	36	6	5	13	60	9	1	1	13	24	21	...	2	16	39	21	2	1	27	51	15	5	5	51	76	32	6	3	66	107	51	27	12	97	187		
	Condition not ascertained during the year				5	3	2	1	11	:	3	1	...	5	4	...	1	4	9	...	...	...	1	1	2	3	2	2	9	1	...	...	1	2	...	...	...		
	Total on Dispensary Register at 31st December				196	38	63	110	397	62	21	11	57	151	71	14	14	63	162	55	17	11	68	151	54	30	25	111	229	65	18	16	123	222	81	39	25	117	262
	Transferred to Pulmonary				...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
	(b) Not now on Dispensary Register and reasons for removal therefrom.	Discharged as recovered.	Adults.	M.	12	4	2	6	24	4	1	2	3	10	2	...	...	2	4	1	...	1	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...		
F.				23	7	2	19	51	6	2	1	5	14	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
Children.			58	21	17	119	213	4	6	1	11	22	5	2	...	10	17	1	1	...	3	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
Lost sight of or otherwise removed from Dispensary Register				207	119	83	143	552	65	31	25	133	254	50	18	10	46	124	37	22	13	46	118	26	14	6	31	77	15	6	6	22	49	3	3	2	6	14	
DEAD.		Adults.	M.	21	3	5	4	33	2	1	2	...	5	...	3	1	1	5	2	...	1	2	5	3	1	1	...	5	2	...	1	1	4	...	...	2	2	4	
			F.	8	3	2	3	16	4	1	...	1	6	5	5	1	1	12	2	2	2	1	7	...	1	...	1	2	3	...	1	1	5	...	1	...	...	1	
		Children.	11	4	2	2	19	5	2	1	...	8	4	2	...	1	7	1	2	...	2	5	1	1	...	...	2	1	1	...	2	1	3	1	...	5			
Total written off Dispensary Register				340	161	111	296	908	90	44	32	153	319	67	30	12	61	170	44	27	17	55	143	30	17	7	32	86	21	7	8	24	60	4	7	5	8	24	
GRAND TOTALS OF (a) AND (b) (excluding those transferred to Pulmonary)				536	199	164	406	1305	182	65	43	210	470	138	44	26	124	332	99	44	28	123	294	84	47	32	143	306	86	25	24	147	282	85	46	30	125	285	

Results of the 1954-55 season for the various crops

Crops									
1954-55									
1955-56									
1956-57									
1957-58									
1958-59									
1959-60									
1960-61									
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2072-73									
2073-74									
2074-75									

TABLE XIX.

(a) SHOWING THE EXTENT OF RESIDENTIAL TREATMENT AND OBSERVATION DURING THE YEAR IN INSTITUTIONS (OTHER THAN PUBLIC ASSISTANCE INSTITUTIONS).

		In Institu- tions on Jan. 1st. (1)	Admitted during the year. (2)	Discharged during the year. (3)	Died in the Insti- tions. (4)	In Institu- tions on Dec. 31st. (5)
Number of doubtfully tuberculous cases ad- mitted for observation	Adult males	8	30	34	2	2
	Adult females	4	36	40	—	—
	Children	20	70	78	—	12
	Total	32	136	152	2	14
Number of definitely tuberculous patients admitted for treatment	Adult males	190	399	343	59	187
	Adult females	160	268	261	17	149
	Children	131	125	139	4	114
	Total	481	792	743	80	450
GRAND TOTAL		513	928	895	82	464

(b) PARTICULARS OF NUMBER OF TUBERCULOSIS PATIENTS ADMITTED TO PUBLIC ASSISTANCE INSTITUTIONS DURING 1931 FOR TREATMENT UNDER THE TUBERCULOSIS SCHEME.

		In Institu- tions on Jan. 1st. (1)	Admitted during the year. (2)	Discharged during the year. (3)	Died in the Insti- tions. (4)	In Institu- tions on Dec. 31st. (5)
Number of definitely tuberculous patients admitted for treatment	Adult males	4	24	11	11	6
	Adult females	4	40	25	10	9
	Children	—	3	1	1	1
	Total	8	67	37	22	16

These figures have been included in (c).

(c) SHOWING THE EXTENT OF RESIDENTIAL TREATMENT PROVIDED DURING THE YEAR IN PUBLIC ASSISTANCE INSTITUTIONS.

		In Institu- tions on Jan. 1st. (1)	Admitted during the year. (2)	Discharged during the year. (3)	Died in the Insti- tutions. (4)	In Institu- tions on Dec. 31st. (5)
Number of patients suffering from pulmon- ary tuberculosis ad- mitted for treatment and segregation.	Adult males	47	131	83	44	51
	Adult females	46	170	70	103	43
	Children	1	4	2	1	2
	Total	94	305	155	148	96
Number of patients suffering from non-pul- monary tuberculosis admitted for treatment and segregation.	Adult males	6	9	2	6	7
	Adult females	4	40	28	1	15
	Children	5	8	10	1	2
	Total	15	57	40	8	24
GRAND TOTAL		109	362	195	156	120

(d) SHOWING THE RESULTS OF OBSERVATION OF DOUBTFULLY TUBERCULOUS CASES DISCHARGED DURING THE YEAR FROM INSTITUTIONS.

Diagnosis on discharge from observation.				FOR PULMONARY TUBERCULOSIS.						FOR NON-PULMONARY TUBERCULOSIS.						TOTALS.		
				Stay under 4 weeks.			Stay over 4 weeks.			Stay under 4 weeks.			Stay over 4 weeks.					
				M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.
Tuberculous	..	..		7	3	2	3	8	11	—	—	—	2	2	10	12	13	23
Non-tuberculous		..		11	18	14	8	5	22	—	2	3	3	1	16	22	26	55
Doubtful	..	..		—	1	—	—	—	—	—	—	—	—	—	—	—	1	—
Died	..	..	..	1	—	—	—	—	—	—	—	—	1	—	—	2	—	—
TOTALS	..	..		19	22	16	11	13	33	—	2	3	6	3	26	36	40	78

TABLE XX.

TUBERCULOSIS CARE ASSOCIATIONS IN ESSEX.

(The information given in this Table is in respect to the year ended 31st March, 1932).

Name of Association.	Day and Time of Meetings.	Income including Balance in hand.	Expenditure.		Total No. of Cases assisted.	Nature of Assistance Provided.
			Assistance.	Other Items.		
BARKING	Third Wednesday in each month at 8 p.m.	£ s. d. 283 14 4	£ s. d. 66 0 1	£ s. d. 1 18 10	20	Extra Nourishment Clothing Fares
CHELMSFORD	Third Monday in each month at 7 p.m.	341 2 1	165 14 1	39 2 9	32	Extra Nourishment Clothing Convalescent Holiday Treatment Loan of Appliances
DAGENHAM	Third Tuesday in each month at 8.15 p.m.	406 7 8	238 10 0	21 9 6	58	Extra Nourishment Clothing Convalescent Holiday Treatment
GRAYS	Third Monday in each month at 5.30 p.m.	109 0 5	4 7 10	2 6 5	7	Extra Nourishment Clothing Ambulance Fares, &c.
HALSTEAD	Second Tuesday in each month at 3 p.m. (except August)	Drawn from Central Fund of Halstead Care of Children Committee	8 5 6	6 3	6	Extra Nourishment Clothing
ILFORD	First Tuesday in each month at 7.30 p.m.	642 6 11	471 18 5	24 4 8	89	Extra Nourishment Clothing Dentures Convalescent Holiday Treatment
LEYTON	Third Friday in each month at 7.30 p.m.	659 9 1	472 7 7	33 4 6	141	Extra Nourishment Convalescent Holiday Treatment Advisory
ROMFORD	Fourth Thursday in each month at 8 p.m.	626 12 1	258 17 3	23 13 8	55	Extra Nourishment Convalescent Holiday Treatment Advisory
SAFFRON WALDEN	Fourth Tuesday in each month at 2.30 p.m.	152 8 6	138 11 3	5 10 0		Extra Nourishment Convalescent Holiday Treatment
WALTHAMSTOW	First Friday in each month at 7 p.m.	506 8 5	270 6 10	44 4 8	131	Extra Nourishment Nursing Fares to Hospital Assistance towards Appliances Convalescent Holiday Treatment

PART III.

MATERNITY AND CHILD WELFARE ACT, 1918.
NOTIFICATION OF BIRTHS ACTS, 1907 & 1915.

(1) COUNTY AREA. The County Council was responsible during the year 1931 for administering the above Acts in the following 34 Sanitary Districts :—

The information in the following table is obtained from (a) the births actually notified to the County Health Department, (b) particulars of unnotified births furnished by the local Registrars of Births and Deaths, and (c) deaths of mothers and infants and notifications of Puerperal Fever and Ophthalmia Neonatorum as given by the Registrar-General.

Sanitary Districts.	Acreage	Census Popula- tion, 1931.	No. of Births notified by		No. of Births Unnoti- fied.	Deaths of Infants under 1 year.	Deaths of Mothers in child- birth.	No. of Notifi- cations of	
			Mid- wives.	Doctors and Parents.				Puer- peral Fever.	Oph- thalmia Neona- torum.
Maldon B.	3,004	6,559	28	66	3	4	...	...	1
Saffron Walden B.	7,502	5,930	30	23	3	1	...	...	...
Benfleet U.	6,356	12,091	68	84	14	7	...	...	...
Braintree U.	2,224	8,912	85	59	4	4	1	1	...
Brentwood U.	460	7,209	45	59	3	1	1	1	1
Brightlingsea U.	2,852	4,145	2	44	3	1	...	...	...
Burnham-on-Crouch U.	4,507	3,395	19	25	1	2	...	...	1
Canvey Island U.	4,351	3,530	26	8	1	3	...	...	...
Chingford U.	2,810	22,051	115	153	41	22	1	4	...
Epping U.	1,420	4,956	16	69	2	2	...	...	...
Frinton-on-Sea U.	419	2,196	2	8	...	2	...	...	...
Halstead U.	649	5,878	22	64	5	5	...	...	...
Hornchurch U.	6,783	28,417	171	298	22	36	3	1	...
Purfleet U.	8,900	8,511	95†	47†	4†	15	...	...	2
Rayleigh U.	5,644	6,256	42	23	26	4	1	...	...
Shoeburyness U.	1,031	6,717	93	15	...	7	...	...	...
Walton-on-the-Naze U.	1,951	3,066	2	35	1	2	...	...	...
West Mersea U.	3,171	2,067	4	19	...	...	...	...	...
Witham U.	3,712	4,367	36	32	1	3	...	...	...
Wivenhoe U.	1,562	2,193	6	20	1	2	1	1	...
Belchamp R.	26,501	3,983	23	15	...	4	...	1	...
Billericay R.	49,393	39,694	346	240	8	34	3	3	...
Braintree R.	62,352	21,876	175	158	6	19	3	...	...
Bumpstead R.	11,873	2,304	26	7	1	2	...	...	...
Dunmow R.	73,501	15,564	111	102	17	7	2	4	3
Epping R.	39,057	17,345	99	102	10	9	1	...	1
Halstead R.	38,715	9,843	47	69	8	3	1	1	...
Maldon R.	81,961	16,280	114	110	8	8	1	...	...
Ongar R.	47,236	11,520	73	96	16	12	...	1	...
Rochford R.	38,465	17,046	153	353	16	22	1	1	...
Romford R.	16,376	15,102	81	90	3	16	1	...	1
Saffron Walden R.	59,976	9,691	93	45	2	5	...	...	...
Stansted R.	22,952	6,981	55	47	9	2	...	...	...
Tendring R.	72,239	24,083	246	140	14	10	1	1	2
Totals ...	709,905	359,758	2,549	2,725	253	276	22	20	12

† From 1st April, 1931.

On 1st April, 1931, the Purfleet (Transfer of Maternity and Child Welfare Services) Order, 1931, came into operation transferring from the Purfleet Urban District Council the powers under the Notification of Births Acts to the County Council.

(2) MEDICAL STAFF. Particulars in regard to the Medical Staff are given on page 11.

(3) **HEALTH VISITORS.** In April, 1931, an additional Health Visitor was appointed to serve the Rochford and Billericay area, and in September, 1931, a Relief Health Visitor was appointed. This Health Visitor is sent from the Central Office to any area where assistance is required owing to illness, absence on holiday, arrears of work, &c.

By arrangement with the Orsett Rural District Council, their two Health Visitors undertook Child Welfare duties for the County Council in the Purfleet Urban District.

On 31st December, 1931, the Health Visiting Staff undertaking Child Welfare work on behalf of the County Council numbered as follows :—

Whole-time (also undertaking School and Tuberculosis duties)		26	} Equivalent whole-time H.V. for C.W.=10 $\frac{3}{4}$.
Whole-time (part-time C.C. and part-time L.A.)		3	

N.B.—The above figures do not include the Chief Health Nurse and her Assistant.

The District Nurse-Midwives continued to assist the Health Visitors as far as possible.

A summary of the work undertaken during the twelve months ended 31st December, 1931, is given in Table XXII.

In April, 1931, the revised Instructions to Health Visitors were issued, an additional section being included relating to Infant Life Protection duties.

A successful Conference of Health Visitors was held at the County Hall, Chelmsford, on 17th April, 1931.

Facilities were granted by the County Council for one School Nurse and one Tuberculosis Nurse to participate in the County Council's scheme for probationer Health Visitors, whereby they received a course of training for the new Health Visitor's Certificate.

(4) **ANTE-NATAL CLINICS AND CHILD WELFARE CENTRES.** Table XXI. shows the Ante-Natal Clinics and Child Welfare Centres under the County Council's Scheme. Ante-Natal Clinics have been established during the year 1931 at Braintree, Chingford, Hadleigh, Laindon and Maldon.

TABLE XXI.

(a) **ANTE-NATAL CLINICS.**

Name and Address of Clinic.	Sessions.	No. of Sessions.	Total No. of Attendances of Expectant Mothers.	Medical Officer.
Braintree, 71, Rayne Road ..	1st and 3rd Wednesdays	21	63	Sarah Boyle.
Chingford, Brotherhood Hall ..	Mondays	18	236	Annie B. Gardiner.
Hadleigh, Congregational Church Hall	1st Tuesday	8	36	Jemina B. Ratcliffe.
Laindon, St. Nicholas Church Hall	2nd and 4th Thursdays	18	207	Jemina B. Ratcliffe.
Maldon, Health Centre, Wantz Chase	2nd Wednesday	3	9	Sarah Boyle.
West Thurrock, Parish Room..	2nd Monday	11	125	Maud Bennett.

Table XXI—continued.

(b) CHILD WELFARE CENTRES.

Name and Address of Centre.	Approximate population served.	Sessions.	Total attendances of infants and children in			Medical Officer.	Annual Maintenance Grant.
			1929.	1930.	1931.		
Abridge, Parish Room ...	1244	2nd and 4th Wednesdays	342	473	466	L. S. Fry	£ s. d. 7 10 0
Aveley, Church Room, High Street (C.C. from 1/4/31)	1567	Alternate Fridays	—	—	456	A. Borland	30 0 0
Bardfield, Methodist Chapel Room (opened 15/9/31)	1480	2nd Tuesday ...	—	—	91	V. J. Crawford	10 0 0
Belchamp St. Paul, Gages Farm	607	2nd and 4th Wednesdays	180	239	200	J. S. Ranson	5 0 0
Billericay, Women's Institute Hall	4000	2nd and 4th Tuesdays	484	536	796	B. F. Beatson	15 0 0
Bocking, Village Hall ...	2000	2nd and 4th Thursdays	387	485	498	Sarah Boyle	12 0 0
Braintree, Congregational Chapel, London Road	8912	2nd and 4th Tuesdays	2189	1959	2036	Annie Gardiner	35 0 0
Boy Scouts' Hut, Ray Street, Coggeshall Road		1st, 3rd and 5th Tuesdays					
Brentwood, Montpelier House	7209	Alternate Fridays	1222	1167	1022	B. F. Beatson	10 0 0
Brightlingsea, New Church Schools	4145	1st and 3rd Wednesdays	308	281	253	W. A. Milne	10 0 0
Burnham-on-Crouch, St. Mary's Hut	5000	1st and 3rd Fridays	621	697	1016	E. Pirrie	20 0 0
Canvey Island, Whittier Hall	3530	1st and 3rd Wednesdays	343	480	365	J. B. Ratcliffe	10 0 0
Chingford (South), Brotherhood Hall	11000	Tuesdays ...	1830	3111	3842	L. S. Fry	30 0 0
Chingford (North), South Room, Church Hall, The Ridgeway	11000	Thursdays ...	2154	2278	2665	L. S. Fry	20 0 0
Debden, Memorial Hall ...	1214	4th Wednesdays ...	198	206	161	S. R. Richardson	5 0 0
Dunmow, Congregational Church Schoolroom	6795	1st and 3rd Fridays	328	463	322	Marjorie Bartlett	15 0 0
Earls Colne, Village Hall ...	2732	1st and 3rd Wednesdays	177	231	233	J. S. Ranson	10 0 0
Eastons, Village Hall	1250	1st Wednesdays ...	—	46	228	Marjorie Bartlett	10 0 0
Epping, Women's Institute Hall, St. John's Road	4956	Thursdays ...	2005	1694	2375	A. Watney	20 0 0
Felsted, Memorial Hall	1969	2nd Tuesdays ...	—	52	310	W. S. Willmore	10 0 0
Hadleigh, Congregational Church Hall	2246	1st and 3rd Tuesdays	753	692	943	J. B. Ratcliffe	15 0 0
Halstead, Technical School	5873	Thursdays	1018	1462	1642	J. S. Ranson	20 0 0
Harlow, Women's Institute Club	3200	2nd Fridays ...	221	242	366	T. G. Cunningham	5 0 0
Hatfield Heath, Trinity Hall, & Little Hallingbury, branch at Church Room	2102	4th Fridays ...	359	262	256	T. G. Cunningham	5 0 0
Hatfield Peverel, Village Hall		4th Wednesdays ...					
Heddinghams Y.M.C.A. Hut, Sible Heddingham	1600	2nd and 4th Thursdays	483	503	310	E. Pirrie	7 10 0
Heybridge, Waring Hall ...	2723	1st and 3rd Tuesdays	471	708	733	J. S. Ranson	15 0 0
Hornchurch, Church Hall, Park Lane	2200	2nd and 4th Tuesdays	207	318	310	E. Pirrie	10 0 0
Laindon, Manor Mission Hall	9727	Mondays ...	1131	3251	4035	V. Feldman	C.C. Centre
Maldon, Health Centre, Wantz Chase	3000	Wednesdays ...	1123	1797	2233	B. F. Beatson	30 0 0
Matching Tye, Women's Institute Hall	6559	Fridays ...	2063	2179	2432	E. Miles	5 0 0
Ongar, Congregational Church Hall	500	3rd Fridays ...	211	164	211	T. G. Cunningham	5 0 0
Parkeston, Wesleyan Schoolroom, Garland Road	5631	2nd and 4th Thursdays	460	568	787	J. C. Sleight	20 0 0
	2000	Alternate Tuesdays	347	240	244	J. Ramsbottom	10 0 0

Table XXI—continued.

Name and Address of Centre	Approximate population served.	Sessions.	Total attendances of infants and children in			Medical Officer.	Annual Maintenance Grant.
			1929.	1930.	1931.		
Pea, St. Michael's Hall, Rectory Road	7000	2nd and 4th Wednesdays	850	665	753	J. B. Ratcliffe	£ s. d. 20 0 0
Pleet, Welfare Hall ... (C.C. from 1/4/31)	2500	Alternate Tuesdays	—	—	815	J. S. Hawes	30 0 0
Pleigh, The Hut	1700	2nd and 4th Tuesdays	—	86	276	E. Pirrie	10 0 0
Pewinter, Parish Hall ...	600	2nd Wednesdays ..	223	150	107	S. R. Richardson	5 0 0
Pinham, Social Hall ...	2196	Alternate Thursdays	422	557	582	W. A. M. Stewart	C.C. Centre
Pinnsden Heath, Club Room, Leslie Cottage, Pinnsden	1342	1st Thursdays	221	174	119	B. F. Beatson	7 10 0
Plegh, Memorial Hall ...	4000	2nd and 4th Tuesdays	471	736	862	N. S. R. Lorraine	15 0 0
Plenhall and Silver End Silver End Garden Village (Hill)	1200	1st, 3rd and 4th Thursdays	593	1055	1534	Annie Gardiner	15 0 0
Plymouth, Congregational Rooms	5976	2nd and 4th Mondays	827	1216	1326	J. B. Ratcliffe	15 0 0
Plymouth Walden, Central Hall, High Street	5930	Fridays	1320	1195	1130	S. R. Richardson	15 0 0
Plymouth, Parish Room ...	778	1st Fridays	123	161	132	T. G. Cunningham	5 0 0
Plymouth, Council Offices	6717	1st and 3rd Thursdays	817	662	619	N. S. R. Lorraine	20 0 0
Plymouth Benfleet, Baptist Church (Kents Hill Road)	5000	1st and 3rd Mondays	523	519	544	J. B. Ratcliffe	10 0 0
Plymouth Ockendon, British School (C.C. from 1/4/31)	1500	2nd and 4th Mondays	—	—	358	Maud Bennett	C.C. Centre
Plymouth, Central Hall ...	3184	1st and 3rd Wednesdays	581	686	671	S. R. Richardson	5 0 0
Plymouth, Congregational School (opened Jan., 1931)	1700	Last Fridays	—	—	269	Marjorie Bartlett	10 0 0
Plymouth Bumpstead, Lecture Hall	1784	1st and 3rd Wednesdays	202	231	280	J. S. Ranson	10 0 0
Plymouth, Red Triangle Hut	1250	1st and 3rd Wednesdays	394	488	508	Annie Gardiner	7 10 0
Plymouth, Bolford St. School-room	1200	1st Friday	—	293	249	C. A. Weller	10 0 0
Plymouth, Sorrell Room	1267	Fridays	642	1069	896	W. F. Erskine	5 0 0
Plymouth, Church Schools	1972	1st and 3rd Fridays	617	535	468	J. B. Ratcliffe	10 0 0
Plymouth, Parish Hall .. (opened June, 1931)	2370	1st and 3rd Thursdays	—	—	162	E. Miles	10 0 0
Plymouth, Parish Room ...	1721	3rd Tuesdays	225	277	440	E. Pirrie	15 0 0
Plymouth, St. Lawrence Hall	3559	Alternate Fridays	945	1558	1618	V. Feldman	C.C. Centre
Plymouth, Gordon Hall Institute	4500	1st and 3rd Thursdays	—	275	245	J. B. Ratcliffe	20 0 0
Plymouth Wakering, Village Hall	2584	2nd and 4th Thursdays	174	521	670	J. B. Ratcliffe	10 0 0
Plymouth, Parochial Hall, Brentwood	5974	Alternate Fridays	951	709	635	B. F. Beatson	10 0 0
Plymouth, Public Health Offices	4000	1st and 3rd Fridays	155	174	290	J. Ramsbottom	C.C. Centre
Plymouth Mersea, Church Hall	2000	2nd Wednesdays...	248	187	180	W. H. Alderton	10 0 0
Plymouth Thurrock, Parish Room (C.C. from 1/4/31)	2500	1st and 3rd Mondays	—	—	680	W. T. G. Boul	C.C. Centre
Plymouth, Village Hall (opened June, 1931)	1500	3rd Mondays	—	—	225	Marjorie Bartlett	10 0 0
Plymouth, Mission Hall ...	2000	3rd Mondays	449	371	396	B. F. Beatson	7 10 0
Plymouth Bishops, Church Room (opened Feb., 1931)	1000	2nd and 4th Wednesdays	—	—	322	E. Pirrie	10 0 0
Plymouth, Church House, Collingwood Road	4367	2nd and 4th Wednesdays	544	668	363	Annie Gardiner	15 0 0
Plymouth, Yeldham, Reading Room	1000	1st and 3rd Thursdays	210	316	370	J. S. Ranson	10 0 0

TABLE XXII.

SHOWING SUMMARY OF CHILD WELFARE WORK CARRIED OUT BY EACH
HEALTH VISITOR AND DISTRICT NURSE-MIDWIFE.

Nursing Area Districts.	Notifications received.		H.Vs. No. of Visits						D.N.Ms. No. of Visits.						Total visits.	
			Pre- Natal.	Post-Natal.				Pre- Natal.	Post-Natal.							
				First Under 1 yr.	visits. 1—5 yrs.		Re-visits. Under 1 yr.		1—5 yrs.	First Under 1 yr.	visits. 1—5 yrs.		Re-visits. Under 1 yr.	1—5 yrs.		
	Live Births.	Still Births.	Under 1 yr.	1—5 yrs.	Under 1 yr.	1—5 yrs.	Pre- Natal.	Under 1 yr.	1—5 yrs.	Under 1 yr.	1—5 yrs.	Pre- Natal.	Post- Natal.			
Saffron Walden B. and Saffron Walden R. (part)	173	5	30	54	1	307	266	1098	224	277	1006	1405	1128	354		
Bumpstead and North Halstead and Bel- champ R.	117	2	56	132	23	586	1099	517	68	1	517	386	573	281		
Halstead U. and South Halstead and Bel- champ R.	150	4	58	176	37	458	866	667	89	5	560	570	725	276		
Wivenhoe U. and West Mersea U.	48	1	39	50	20	213	329	61	24	—	27	105	100	76		
Tendring West ..	159	4	100	113	138	322	641	854	147	301	795	1119	954	357		
Brightlingsea U., Frin- ton U., Walton U., and Tendring (part)	89	4	10	67	3	116	210	89	32	41	28	23	99	52		
Tendring East ..	212	11	19	206	14	253	360	383	75	30	207	150	402	129		
Stansted R. and Dun- mow R. (part)	123	5	34	16	4	103	302	587	232	130	557	294	621	163		
Dunmow R. (South), and Braintree R. (part)	134	2	26	120	152	161	185	620	254	384	457	725	646	243		
Braintree R. (part), Dunmow R. (North), and Saffron Walden R. (part)	111	4	83	158	365	391	368	828	390	647	1132	1387	911	485		
Braintree U. and part Braintree R.	206	5	33	205	65	162	123	603	109	41	456	206	636	136		
Braintree R. (South), and Witham U.	276	7	22	186	472	500	10	955	153	629	793	23	977	276		
Epping U. and R. (part)	246	7	34	68	7	225	240	994	209	32	965	831	1028	252		
Ongar R. ..	166	3	193	150	122	646	1052	630	91	156	286	394	823	289		
Burnham U. and Mal- don R. (South)	96	6	23	64	15	397	817	913	124	178	506	1122	936	222		
Maldon B. and Maldon R. (S.W.)	133	2	29	111	7	150	180	339	44	—	401	265	368	111		
Maldon R. (North) ..	120	5	24	44	—	432	618	634	197	448	662	829	658	322		
Chingford U. ..	266	2	55	219	79	266	177	123	23	—	38	—	178	86		
Chigwell Parish ..	33	—	16	46	9	124	197	275	28	—	121	78	291	60		
Romford R. (part) ..	81	3	11	83	1	212	183	56	19	3	137	92	67	77		
Hornchurch U. and Romford R. (part)	536	8	47	581	95	322	77	81	—	—	—	—	128	107		
Brentwood U. (part), Billericay R., and Romford R. (part)	238	1	12	111	31	151	267	749	275	57	670	716	761	222		
Billericay R. (part) ..	281	16	38	197	15	375	383	798	174	46	854	369	836	244		
Rochford R. (part) and Shoeburyness U.	215	3	33	171	327	360	785	374	207	238	637	560	407	322		
Canvey Island U., Ben- fleet U. and Billeri- cay (part)	232	8	38	86	183	182	330	1073	142	62	284	107	1111	183		
Billericay R. (part), Rochford R. (part), and Rayleigh U.	546	27	6	366	64	203	163	726	202	96	422	251	732	173		
Purfleet U. (part) ..	28	—	—	24	—	43	47	—	—	—	—	—	—	11		
Purfleet U. (part) ..	107	7	26	78	21	385	275	—	—	—	—	—	26	77		
Totals ..	5122	152	1095	3882	2270	8045	10550	15027	3532	3802	12518	12007	16122	5660		

The following new Child Welfare Centres were established during the year :—
 at Bardfield, Stebbing, Tillingham, Wethersfield, Wickham Bishops, and on the
 1st April, 1931, the County Council took over the following Centres in the Purfleet
 Urban District :—Aveley, Purfleet, South Ockendon, West Thurrock and West
 Thurrock Ante-Natal Clinic.

(5) COMBINED TREATMENT CENTRES. For particulars regarding Combined
 Treatment Centres see page 72 of this Report.

(6) PROVISION OF MILK. The two schemes outlined in the report for the year
 1928, for the provision of Milk (a) for districts served by Centres, and (b) for districts
 not served by Centres were continued, with the slight amendment to the scale for
 determining necessitous cases set out in the Report for the year 1928.

(a) *Districts served by Child Welfare Centres.* The total amount claimed from the
 County Council by Child Welfare Centres was £585 7s. 6d., representing assistance to
 1,200 families.

(b) *Districts not served by Centres.* Under this scheme 144 mothers and 75 infants
 were granted supplies of cow's milk or dried milk for varying periods, free of charge,
 at a total cost of approximately £296 6s. 8d.

Dried milk was also supplied at cost price to Child Welfare Centres and persons
 recommended by the Health Visitors to the extent of £684 19s. 4d.

(7) DENTAL TREATMENT. This Scheme was continued, and at the end of the
 year 38 Child Welfare Centre Committees had agreed to participate in the scheme.
 Particulars of the work carried out are as follows :—

	1930.	1931.
No. of Patients who received treatment ..	53	101
Total Cost	£149 6 0	£424 7 6
Proportion paid by County Council ..	£70 7 8	£248 3 1

These figures illustrate the rapid development of the scheme during the past
 year.

(8) HOME HELPS. The number of patients taking advantage of these facilities
 appears to be increasing, and during the year 1931 seventeen applications were
 received as follows :—Burnham-on-Crouch (1), Maldon (9), Pitsea (1), Stebbing (1),
 Thaxted (1), Wethersfield (1), and in districts not served by Centres (3).

(9) TRAVELLING EXPENSES OF MOTHERS ATTENDING CHILD WELFARE CENTRES.
 At the end of the year 1931, seventeen Child Welfare Centres were participating in
 the scheme, namely :—Bocking, Burnham-on-Crouch, Debden and Wimbish, Epping,
 Harlow, Ongar, Purleigh, Rivenhall and Silver End, Rochford, Stansted,
 Stebbing, Terling, Thaxted, Tollesbury, Wethersfield and Great Yeldham.

(10) PUBLIC HEALTH (NOTIFICATION OF PUERPERAL FEVER AND PUERPERAL
 SEPTICÆMIA) REGULATIONS, 1926. During the year ended 31st December, 1931, copies
 of notifications made by medical practitioners were received from Medical Officers of
 Health in the Administrative County and the County Child Welfare Area as follows :—

		Administrative County.		C.C. Child Welfare Area.	
		1930	1931.	1930.	1931.
Puerperal Fever	..	73	80	..	31 20
Puerperal Pyrexia	..	106	156	..	31 44

(See also page 67).

(i) *Obstetric Specialist.* The arrangements for the services of the Obstetric Specialist, Andrew McAllister, Esq., F.R.C.S., of 79, Wimpole Street, W.1, previously referred to, were continued.

(ii) *Institutional Treatment.* In addition to the existing arrangements for hospital treatment of patients suffering from Puerperal Fever and Puerperal Pyrexia, in July, 1931, the Public Health Committee made arrangements with the Public Assistance Committee for the reception of such patients in the Chelmsford and Romford Public Assistance Institutions. During the year 1931, twenty patients were admitted to Hospitals and Institutions at a cost of £228 1s. 8d.

(iii) *Skilled Nursing.* The arrangements were continued with the Essex County Nursing Association for the provision of skilled nursing in the homes of patients when the circumstances render the removal of the patient to hospital difficult or impossible.

(iv) *Bacteriological Examinations of (a) lochia (b) blood.* Facilities for these examinations were available under the County Laboratory Scheme.

(11) PUBLIC HEALTH (OPHTHALMIA NEONATORUM) REGULATIONS, 1926. The arrangements made under these Regulations were fully set out in the Report for the year 1927.

During the year ended 31st December, 1931, copies of 80 notifications of Ophthalmia Neonatorum, made by medical practitioners to Medical Officers of Health in the Administrative County, were received. (See page 67).

Nine of the above notifications relate to patients living in the County Child Welfare Area and the following particulars of these patients have been obtained :—

Treated		Vision		Vision		Total		Deaths.
At Home.	In Hospital.	Unimpaired.		Impaired.		Blindness.		
		R.	L.	R.	L.	R.	L.	
6	..	3	..	9	..	9	..	—

One patient was admitted to Hospital (St. Margaret's) during the year under the County Council's arrangement for the treatment of this disease.

(12) HOSPITAL TREATMENT FOR MATERNITY PATIENTS. The arrangements with certain hospitals for the admission of the following types of maternity patients were continued :—

- Complicated or difficult cases of confinement where hospital treatment is essential.
- Cases of confinement where, in the opinion of the Medical Attendant, the patient cannot with safety be confined in her own home.

During the year twenty-six patients were admitted under the above schemes at a cost of £226 11s., the amount recovered from patients being £24 4s.

(13) **TREATMENT OF MINOR AILMENTS—CHILDREN UNDER SCHOOL AGE.** This scheme was continued and 13 children under school age received operative treatment during the year.

(14) **TREATMENT OF ORTHOPAEDIC PATIENTS.** Full details of the scheme for the treatment of orthopaedic patients adopted by the Public Health and Education Committees were given in the Annual Report for 1927.

The following summary of developments during the year 1931 and work carried out under the scheme will be of interest.

(a) *Number of Cases on Books.* At the end of 1931, 1,552 cases had been dealt with under the scheme since its inception. Of these about 540 have completed their treatment or left the County area, so that approximately 1,012 cases still require treatment, supervision or observation.

(b) *Ascertainment and Re-examination Clinics.* During 1931 Mr. Whitchurch Howell attended 60 clinic sessions for the County Council in the districts shown below, and carried out 1,155 examinations of County patients.

Orthopaedic Clinic.	No. of Sessions.	No. of Examinations.
Braintree	3 ..	85
Brentwood	3 ..	77
Chelmsford	3 ..	24
Clacton	4 ..	54
Colchester	4 ..	81
Dagenham	5 ..	173
Epping	2 ..	18
Grays and Tilbury	10 ..	284
Halstead	3 ..	38
Harwich	4 ..	18
Maldon	3 ..	49
Romford	3 ..	63
Saffron Walden	2 ..	17
Southend	2 ..	30
Stansted	2 ..	7
Woodford	7 ..	137
1931	60 ..	1155*
1930	62 ..	1167
1929	58 ..	952

*Includes 1,022 Examinations of School Children.

(c) *Hospital Treatment.* The following figures show the position regarding institutional treatment on 1st January, 1931, as compared with that on 1st January, 1932 :—

No. recommended and accepted by Committee for hospital treatment.				Being investigated.				Total.	
Education.		C.W.		Education.		C.W.			
1-1-31	..	7	..	1	14	..	6	..	28
1-1-32	..	13	..	2	13	..	4	..	32

Number in Hospital under the County Scheme.

Education and Child Welfare.						
		Education.		Child Welfare.		Total.
1-1-31	..	8 1/3rd	..	1	..	9 1/3rd
1-1-32	..	13 1/3rd	..	3	..	16 1/3rd

(NOTE :—The 1/3rd of a bed mentioned above means that the County Council was only responsible for one third of the cost of the hospital treatment of one patient).

In regard to hospital treatment under the County Council's arrangement, during the year 44 Education and 13 Child Welfare patients completed hospital treatment, and 50 Education and 17 Child Welfare patients were admitted into Hospital.

(d) *Orthopaedic Masseuses.* Miss W. H. Tabor was County Orthopaedic Masseuse throughout the year under review. In September, 1931, a second Orthopaedic Masseuse was appointed whole-time, namely, Miss M. Scott, C.S.M.M.G., M.E., and she replaced the part-time Masseuses at Romford and Grays.

Clinic.	Masseuse.	County Council Patients.						
		No. of sessions.	No. of attendances.	No. of patients treated.	Form of Treatment.			
					Massage.	Exercises.	Elec.	Super-vision.
Grays and Tilbury	Miss Scott, C.S.M.M.G., M.E.	153	1043	255	8	91	4	162
Romford	Miss Scott, C.S.M.M.G., M.E.	72	232	64	1	39	—	28
Dagenham (opened Jan., 1931)	Miss Scott, C.S.M.M.G., M.E.	81	997	182	3	128	—	53
Woodford	Miss Parsons, C.S.M.M.G.	151	801	77	17	58	—	2
Epping	Miss Parsons, C.S.M.M.G.	113	112	18	11	11	2	1
Maldon	Miss Tabor, C.S.M.M.G., M.E.	44	328	69	—	40	—	33
Brentwood	Miss Scott, C.S.M.M.G., M.E.	80	607	107	3	69	—	39
Colchester	By arrangement with the Hos- pital until end of Nov. and from Dec. a separate Clinic was held, Miss Tabor attending.	—	75	10	4	4	2	4
Braintree (opened 9/10/31)	Miss Tabor, C.S.M.M.G., M.E.	12	37	15	1	3	2	11

From the above table it will be seen that the arrangements with the Essex County Hospital, Colchester, for the attendance of Orthopaedic Patients for After-care Treatment were terminated in November, 1931, and in conjunction with the Colchester Corporation a Treatment Clinic was established at Trinity Street, Colchester, with Miss Tabor in attendance once a week for an experimental period of six months. Also Treatment Clinics were established at Dagenham in January, 1931, and at Braintree in October, 1931.

NURSING HOMES REGISTRATION ACT, 1927.

A detailed report was given in the 1928 Report of the provisions under the Act and the procedure adopted by the County Council.

(i) *Particulars of Registration.* The Clerk of the Council has furnished the following information in regard to Nursing Homes for the year 1931 :—

	Maternity Homes only.	Other Nursing Homes.
No. of applications for registration	6	9
No. of Homes registered	6	9
No. of Orders made refusing or cancelling registration	Nil	Nil
No. of Appeals against such Orders	—	—
No. of applications for exemption from registration	Nil	1
No. of cases in which exemption granted	Nil	1

The powers and duties of the County Council under the Nursing Homes Registration Act, 1927, within the Boroughs of Colchester and Walthamstow were delegated to the Corporations of such Boroughs as and from 1st April and 1st October, 1931, respectively.

(ii) *Regulations for Staffing of Nursing Homes.* Regulations approved by the County Council in 1930 came into operation in all Nursing Homes under the County Council's supervision as and from 1st September, 1931.

(iii) *Presence of Boarded-out or Foster Children in Registered Nursing Homes.* The decisions referred to in the previous year's report, precluding keepers of Registered Nursing Homes from having Boarded-out or Foster Children resident in the Homes came into operation on 1st September, 1931.

(iv) *Fire Precautions.* Towards the end of the year 1931 the County Architect made detailed reports on the Nursing Homes from the point of view of fire precautions.

CHILDREN ACT, 1908—PART I.

Infant Life Protection.

All the Health Visitors in the County Child Welfare Area are appointed Infant Life Protection Visitors and make visits of inspection at intervals of at least once a quarter to each foster-mother and child registered.

At the end of the year there were 537 registered foster children in the care of 42 foster-mothers.

MIDWIVES ACTS, 1902-1926.

(a) *ALLOCATION OF POWERS.* Further delegations of the powers under the Midwives Acts were made by the County Council during the year, namely, Colchester Borough and Walthamstow Borough as and from 1st April, 1931.

(b) PRACTISING MIDWIVES. During the year under review 328 midwives notified their intention to practise in the Administrative County, excluding the Colchester, Ilford, Leyton and Walthamstow midwives. Of these, 286 were actually in practice at the end of the year 1931. These midwives are classified as follows :—

Total No. of Midwives in practice at end of year.	Dependent.	Trained. Independent.	L.O.S. Certificated.	Bona-fide
286 ..	164 ..	110 ..	10 ..	2

The total number of live births and still births which occurred during the year 1931 in the Administrative County, excluding Colchester, Ilford, Leyton and Walthamstow Boroughs, was 13,291, and of these 5,940 (44.6 per cent.) were attended by midwives in the capacity of a midwife, and 2,841 (21.3 per cent.) as maternity nurses under the supervision of medical practitioners.

Each midwife was asked to state the number of confinement cases which she attended as a midwife during the year 1931, and it was found that 125 trained and 4 *bona-fide* midwives attended 10 or less cases each : 65 trained and 2 *bona-fide* attended 11—20 cases each ; 46 trained and 5 *bona-fide* attended 21—40 cases each ; 14 trained 41—60 cases each ; 17 trained and 1 *bona-fide* 61—100 cases each ; and 7 trained midwives attended over 100 cases each.

(c) HANDYWOMEN. During the year 1931 reports were received regarding four cases of confinement attended by four women who were not certified and who acted as midwives without being under the direction and personal supervision of the doctor. It was considered necessary in one case to institute legal proceedings, and the woman concerned was fined £1. In the other cases letters of warning were sent by the County Medical Officer.

(d) NOTIFICATIONS. The following list shows the number of notifications received from certified midwives in accordance with the rules of the Central Midwives Board during the year as compared with the previous four years :—

	1927.	1928.	1929.	1930.	1931.
Records of Medical Aid ..	1592 ..	1851 ..	2085 ..	2285 ..	2006 ..
Records of Still-births ..	122 ..	114 ..	109 ..	117 ..	10 ..
Deaths of Mothers ..	6 ..	9 ..	6 ..	10 ..	..
Deaths of Infants ..	39 ..	69 ..	70 ..	73 ..	7 ..
Artificial Feeding ..	51 ..	51 ..	74 ..	78 ..	5 ..
Liability to be a source of Infection ..	*165 ..	*207 ..	*257 ..	*303 ..	*28 ..
Laying-out for Burial ..	261 ..	222 ..	230 ..	235 ..	22 ..
Ophthalmia Neonatorum or Discharging Eyes ..	142 ..	184 ..	250 ..	294 ..	2 ..

*This figure includes all cases of high temperature.

The 2,006 cases (33.8 per cent.) where midwives sought the assistance of a doctor were for various reasons, namely :—

Albuminuria	53 cases.	Pemphigus Neonatorum	
Contracted Pelvis ..	5 „	or Spots on Infant ..	49 cases.
Dangerous Feebleness of		Phimosis	20 „
Infant	49 „	Phlebitis	8 „
Eclampsia	4 „	Placenta Adherent ..	51 „
Haemorrhage :—		Placenta Praevia ..	2 „
Ante-partum	75 „	Premature Birth ..	58 „
Post-partum	49 „	Prolonged Labour ..	283 „
Hydramnios	4 „	Presentation (abnormal)	123 „
Instrumental Assistance ..	2 „	Pyrexia (High Temp.)	114 „
Malformation of Child ..	18 „	Rigid Os	2 „
Miscarriage, Abortion ..	83 „	Ruptured Perineum ..	332 „
Miscellaneous Causes ..	321 „	Spina Bifida	9 „
Ophthalmia Neonatorum		Thrombosis	2 „
or Discharging Eyes ..	237 „	Uterine Inertia ..	53 „

Puerperal Fever, Puerperal Pyrexia and Ophthalmia Neonatorum.

Special investigations were made into all cases of high temperature of mother and discharging eyes of infant in a midwife's practice. The results of these investigations showed that during 1931, in fifteen cases of high temperature and eight of discharging eyes, the rules of the Central Midwives Board were not properly carried out. Warning letters were sent or verbal cautions given to the midwives concerned.

Three midwives were interviewed by the Committee and severely reprimanded for infringement of the rules in respect of six of the patients suffering from high temperature (two of whom died), and one suffering from discharging eyes.

Particulars of the number of cases of Ophthalmia Neonatorum notified in the Administrative County during the year are given in the following table, together with the proportion of such cases per 1,000 births :—

CASES OF OPHTHALMIA NEONATORUM NOTIFIED. YEARS 1926-31.

Year.	Total Births.	Number of Cases notified of Ophthalmia Neonatorum.	No. of Cases per 1000 Births.
1926	16,743	72	4.3
1927	16,661	84	5.0
1928	17,758	79	4.4
1929	18,218	75	4.1
1930	*15,629	*80	5.1
1931	†13,291	†46	3.5

*Less Ilford and Leyton.

†Less Colchester, Ilford, Leyton and Walthamstow.

Pemphigus Neonatorum.

All suspected cases of Pemphigus Neonatorum occurring in a midwife's practice are investigated with a view to seeing that every possible precaution is taken to prevent a spread of the disease.

Enquiries were made into 49 suspected cases, occurring in Barking (6), Billericay R. (5), Brentwood U. (1), Bumpstead R. (1), Dagenham U. (14), Dunmow R. (1), Grays U. (5), Lexden and Winstree R. (1), Ongar R. (1), Orsett R. (3), Purfleet U. (2), Romford U. (1), Saffron Walden R. (1), and Tilbury U. (7).

One midwife received a written caution for infringement of the rules.

Inspection Visits.

Twelve hundred and eighteen routine visits were made to midwives during the year, and of these 492 were undertaken by Assistant County Medical Officers and 726 by the Chief Health Nurse and her Assistant, and the Relief Health Visitor.

Written cautions were sent to 37 midwives for minor infringements of the rules other than those referred to in the paragraphs relating to Puerperal Fever, Ophthalmia Neonatorum and Pemphigus Neonatorum on page 67.

In addition one midwife was interviewed by the Committee and severely censured in connection with her inadequate ante-natal supervision in two cases. One midwife was interviewed by the County Medical Officer in regard to her ante-natal care of a patient who subsequently died in hospital.

In November, 1931, a midwife was reported to the Central Midwives Board regarding her attendance on a patient who had died, but the Board found the charges alleged against the midwife not proved.

Doctors' Fees.

In accordance with Section 14 of the Midwives Act, 1918, during the year ended 31st December, 1930, the County Council paid the sum of £2,106 15s. 6d. as fees to medical practitioners and recovered from patients during the year the sum of £644 3s. 3d.

The following comparative table is of interest, shewing (a) the number of medical aid notices received from midwives during the past five years, and (b) the corresponding number of doctors' claims made against the County Council in respect of such notices. This table shows that the percentage of confinements in which medical aid was sought is still increasing. The reduced number of medical aid notices is explained by the delegation of powers to Colchester, Ilford, Leyton and Walthamstow Boroughs :—

Year.	No. of Medical Aid Notices received from Midwives.			Percentage of Confinements		No. of Medical Aid Notices for which Doctors' claims have been received.		Total amounts of claims.			Amounts recovered from patients.			
				attended by Midwives in which medical aid was sought.				£	s.	d.	£	s.	d.	
1927	..	1592	..	21.6	..	1056	..	1,545	5	0	..	397	5	6
1928	..	1851	..	23.7	..	1153	..	1,825	2	3	..	635	16	9
1929	..	2085	..	25.3	..	1352	..	2,112	19	6	..	852	2	2
1930	..	2285	..	31.9	..	1507	..	2,225	19	6	..	689	11	3
1931	..	2006	..	33.8	..	1495	..	2,106	15	6	..	644	3	3

Lectures.

The Essex Midwives Association arranged a special course of lectures in Chelmsford which was held in May and June, 1931. Dr. Christy Browne gave lectures on ante-natal supervision and also the care of the premature baby. They were greatly appreciated by the 60 midwives who attended the lectures. The County Council assisted the Association by a grant towards the lecturer's fees, travelling expenses, &c.

Essex County Nursing Association.

(a) GENERAL. For the four quarters of the year 1931 the following grants were paid by the County Council to the County Nursing Association in accordance with the agreement :—

	£	s.	d.
(i) Cost of training District Nurse-Midwives	1,546	0	0
(ii) Maintenance of four Emergency Nurses	266	0	0
(iii) Grants to affiliated District Nursing Associations ..	5,674	17	10
(iv) Equipping District Nurse-Midwives for new areas ..	60	0	0
(v) Clerical and organising expenses	220	0	0
(vi) £2 per Nurse-Midwife for central expenses	315	0	0
(vii) Grant towards Post-Graduate Course	50	0	0
(viii) Deficit (proportion)	58	6	9
	£8,190	4	7

(b) DISTRICT NURSING ASSOCIATIONS. At the end of 1931 the number of District Nursing Associations in the Administrative County which were affiliated to the County Nursing Association and which employed 178 Nurses, was as follows :—

No. of affiliated D.N. Associations.	No. undertaking Midwifery and District Nursing.	No. performing Maternity District Nursing duties only.
152	144	9 (4 of which undertake general nursing only).

A summary of the visits made by the District Nurses belonging to affiliated associations during the past five years is given below :—

	1927.	1928.	1929.	1930.	1931.
Midwifery	29,089	30,500	33,766	34,775	33,068
Maternity	27,445	30,355	30,393	31,664	34,458
District General	184,577	193,060	205,600	209,927	207,100
District Tuberculosis	4,674	4,510	4,928	3,154	3,517
Health Visiting { Pre-Natal	13,937	16,380	17,800	20,614	21,530
Post-Natal	22,008	22,684	22,715	27,100	29,578
Home Visits (School Children)	8,879	8,629	9,605	8,831	8,200
Total No. of visits	290,609	306,118	324,807	336,065	327,451

Of the 152 affiliated Associations, 149 participate in the County Council's Combined Nursing Scheme.

(c) PARISHES SERVED—

Number in the County (excluding extra-Metropolitan area) ..	377
Number served by affiliated District Nursing Associations ..	314

GENERAL.(a) **Maternal Mortality.**

The following table shows the number of maternal deaths in the Administrative County of Essex each year since 1921 :—

	1931.	1930.	1929.	1928.	1927.	1926.	1925.	1924.	1923.	1922.	1921.
<i>Urban—</i>											
Puerperal Sepsis ..	23	24	21	21	20	14	6	16	15	11	19
Other accidents of pregnancy and parturition *26	41	21	32	23	22	22	22	22	28	23	28
<i>Rural—</i>											
Puerperal Sepsis ..	10	9	6	7	4	4	6	5	1	7	—
Other accidents of pregnancy and parturition *9	16	10	12	9	10	15	8	12	15	5	

*Defined as "Other Puerperal Causes."

The maternal mortality rate per 1,000 births for 1931 is 3·4.

(b) **Survey.**

During the year a Medical Officer on the Staff of the Ministry of Health made a thorough survey of the County Council's Maternity and Child Welfare Schemes.

(c) **Pamphlet C.W.42—Child Welfare Brochure.**

Owing to the continued growth and development of the Maternity and Child Welfare Services it was necessary to publish in January, 1931, Pamphlet C.W.42, giving full details of the various schemes in operation in the area served by the County Council for child welfare purposes.

(d) **Post-Graduate Course—Independent Midwives.**

Although under the Agreement between the Essex County Nursing Association and the County Council provision is made for the post-graduate training of district nurse-midwives, no such facilities have yet been provided for independent practising midwives. In September, 1931, however, the Public Health Committee generally approved of the following scheme :—

"One of the most important points mentioned in the Interim Report of the Departmental Committee on Maternal Mortality and Morbidity was that the standard of midwifery practice needs raising throughout the country.

"In the revised agreement between the Essex County Council and the Essex County Nursing Association, which came into operation on 1st April 1930, an additional clause was included to the effect that the County Council

would make an annual grant to the Essex County Nursing Association of not exceeding £50 towards the expenses of the Association in sending a number of their senior nurses each year to a post-graduate course in midwifery.

"It appears desirable to consider adopting a similar scheme whereby the County Council could render assistance to suitable independent midwives for taking a post-graduate course. There are about 120—130 independent practising midwives in the County, some of whom attend a large number of patients as midwives each year.

"A post-graduate course usually lasts two months and the fees are £4 4s. a month. A midwife dependent upon her earnings would probably need a grant for travelling expenses, laundry and general out-of-pocket expenses whilst absent from her practice. It is suggested that, as a commencement, a subsistence grant of not exceeding £2 per week plus the £8 8s. fee for the course might be granted to say five independent midwives per year, on the understanding that such midwives undertook to resume practising in the Administrative County on completion of the course, and continue practising in that area for a period of not less than twelve months or forfeit the amount of grant allowed by the County Council.

"In selecting the five midwives regard would be given to the age, capabilities, conduct and mode of practice of the midwives."

Birth Control.

During the year the Ministry of Health issued Circulars 153/M.C.W., dated March, 1931, and 1208 dated 14th July, 1931, on this subject. A special Sub-Committee was appointed to consider this question and the following resolutions were approved by the Maternity and Child Welfare Sub-Committee in August, 1931 :—

"That the County Medical Officer of Health be authorised to arrange for the lady Medical Officers on the Staff of the County Council to give advice on contraceptive methods at ante-natal centres to those women coming within the scope of Memorandum 153/M.C.W.

"That the question of the male Doctors on the Staff of the County Council giving advice on contraceptive methods be considered at a later date."

Report of Chief Health Nurse.

The Chief Health Nurse (Miss D. M. Landon) has furnished the following report in connection with her duties during 1931 :—

The appointment of a Relief Health Visitor has tended to increase the efficiency of the work as she has been able to assist in places where there is a considerable pressure or home visits are not up-to-date.

Almost all the Health Visitors have so many fixed appointments that it is very difficult for them to pay a sufficient number of home visits where the real educational part of the work is carried out.

On the whole the Health Visitors have carried on their work in a satisfactory manner, and the standard maintained is a high one.

COMBINED MEDICAL SERVICE.

The Combined Medical Service Scheme, outlined in detail in previous reports, was continued during the year. Table XXIII gives details of the 13 schemes in operation on 31st December, 1931.

COMBINED TREATMENT CENTRES.

The Combined Treatment Centres under the County Council at the end of 1931 were as follows. This list does not include Clinics solely used as School Clinics or Tuberculosis Dispensaries, or as Child Welfare Centres, but those used for more than one of these three services :—

Centre.	Purpose for County Council.	Date opened.
1. Braintree—71, Rayne Road	School Clinic and Tuberculosis Dispensary, also Ante-natal Clinic	Transferred to these premises, November, 1928.
2. Brentwood—Montpelier House	School Clinic, Tuberculosis Dispensary and Child Welfare Centre	April, 1929.
3. Brightlingsea — New Church Schools	School Clinic, Tuberculosis Dispensary, and Child Welfare Centre	September, 1924.
4. *Clacton-on Sea—Skelmersdale Road	School Clinic and Tuberculosis Dispensary	January, 1921.
5. Dagenham—		
†(a) Ford Road ..	School Clinic	Transferred to these premises April, 1930.
†(b) Becontree Avenue	School Clinic	July, 1930.
(c) King George Hospital, Out-patients Dept., Five Elms	Tuberculosis Dispensary School Clinic	January, 1931. April, 1931.
6. Dunmow—47, Stortford Road	School Clinic and Tuberculosis Dispensary	October, 1926.
7. Epping—Women's Institute, St. John's Road	School Clinic, Child Welfare Centre, and Tuberculosis Dispensary	School Clinic and T.B. Dispensary transferred to these premises June, 1928.
8. Halstead—Cottage Hospital	School Clinic and Tuberculosis Dispensary	November, 1923.
9. Maldon—Health Centre, Wantz Chase	School Clinic, Tuberculosis Dispensary and Child Welfare Centre	May, 1928.

**TABLE XXIII.—SHOWING COMBINED MEDICAL SERVICE SCHEMES IN OPERATION,
31st DECEMBER, 1931.**

Area No.	Sanitary District.	Population Census, 1931.	Acreege. Census, 1931.	Date Scheme commenced.	Name of Officer.	Duties.†
1	Lexden & Winstree R. a ... West Mersea U. ... Wivenhoe U. ...	18976 2067 2193	66246 3171 1562	1st April, 1920	W. H. Alderton ...	M.O.H. and Assist. C.M.O. Assistant C.M.O. only
		23236	70979			
2	Clacton-on-Sea U. a ... Brightlingsea U. ... Walton-on-Naze U. ... Frinton-on-Sea U. ...	15851 4145 3066 2196	4052 2852 1951 419	1st June, 1920	W. A. Milne ...	M.O.H. and Assist. C.M.O. Assist. C.M.O. only " " " "
		25258	9274			
3	Tendring R. ... Harwich Borough a, b ...	24083 12700	72239 1512	11th Sept., 1920	J. Ramsbottom ...	M.O.H. and Assist. C.M.O. Assist. C.M.O. only
		36783	73751			
†4	Grays U. a ... Tilbury U. a ... Purfleet U. ... Orsett R. a ...	18172 16826 8511 20524	1360 1859 8900 29158	1st August, 1922	W. T. G. Boul ...	M.O.H. and Assist. C.M.O. " " " " " "
		64033	41277			
5	Saffron Walden Borough Saffron Walden R. ... Stansted R. ...	5930 9691 6981	7502 59976 22952	1st Jan., 1923... 26th Mar., 1931	S. R. Richardson ..	M.O.H. and Assist. C.M.O. " " " "
		22602	90430			
6	Halstead U. ... Halstead R. ... Belchamp R. ... Bumpstead R. ...	5878 9843 3983 2304	644 38715 26501 11873	1st Sept., 1923	J. S. Ranson ...	M.O.H. and Assist. C.M.O. " " " " Assist. C.M.O. only
		22008	77733			
7	Braintree U. ... Braintree R. ... Dunmow R. ... Witham U. ...	8912 21876 15564 4367	2224 62352 73501 3712	1st Oct., 1923...	J. S. Bradshaw ...	M.O.H. and T.O. only. " " " " " "
		50719	141789			
8	Barking U. a, b ...	51277	3809	1st April, 1920	C. L. Williams ...	M.O.H. and T.O.
9	Colchester Borough a, b	48607	11333	13th July, 1921	W. F. Corfield ...	M.O.H. and T.O.
10	Shoeburyness U. ... Canvey Island U. ... Rayleigh U. ... Benfleet U. ... Rochford R. ...	6717 3530 6256 12091 17046	1031 4351 5644 6356 38465	1st Feb., 1925...	N. S. R. Lorraine	M.O.H. and Assist. C.M.O. " " " " " " Assist. C.M.O. only
		45640	55847			
11	Waltham Holy Cross U. a ... Chingford U. ... Epping U. ... Epping R. ... Buckhurst Hill U. a ... Loughton U. a ...	7116 22051 4956 17345 5486 7390	11016 2810 1420 39057 874 3962	24th July, 1929	L. S. Fry	M.O.H. and Assist. C.M.O. Temp. M.O.H. from Oct., 1931, and Assist. C.M.O. Assist. C.M.O. only T.O. only " "
		64344	59139			
12	Brentwood U. ... Billericay R. ...	7209 39694	460 49393	1st Oct., 1930...	B. F. Beatson ...	M.O.H. and Assist. C.M.O. Assist. C.M.O. only.
		46903	49853			
13	Burnham-on-Crouch U. ... Maldon B. ... Maldon R. ...	3395 6559 16280	4507 3904 81961	16th Apr., 1931	E. Miles	M.O.H. and Assist. C.M.O. Assist. C.M.O. only " "
		26234	89472			

† Dr. W. T. G. Boul was assisted by Dr. Maud Bennett in School and Child Welfare work and by Dr. Harper in Tuberculosis work.

† M.O.H. : Local Medical Officer of Health. Assist. C.M.O. : Assistant County Medical Officer. T.O. : Tuberculosis Officer.
S.M.I. : School Medical Inspector. a Autonomous Child Welfare Areas. b Autonomous Education Areas.

TABLE XXXIII

No. of cases		Total		Percentage	
of population		of cases		of population	
in 1900		in 1900		in 1900	
in 1910		in 1910		in 1910	
in 1920		in 1920		in 1920	
in 1930		in 1930		in 1930	
in 1940		in 1940		in 1940	
in 1950		in 1950		in 1950	
in 1960		in 1960		in 1960	
in 1970		in 1970		in 1970	
in 1980		in 1980		in 1980	
in 1990		in 1990		in 1990	
in 2000		in 2000		in 2000	
in 2010		in 2010		in 2010	
in 2020		in 2020		in 2020	
in 2030		in 2030		in 2030	
in 2040		in 2040		in 2040	
in 2050		in 2050		in 2050	
in 2060		in 2060		in 2060	
in 2070		in 2070		in 2070	
in 2080		in 2080		in 2080	
in 2090		in 2090		in 2090	
in 2100		in 2100		in 2100	

Centre.	Purpose for County Council.	Date opened.
10. Rochford—Congregational Rooms	School Clinic and Child Welfare Centre	Used for School Clinic from October 1927.
11. Romford—29, Eastern Road	School Clinic and Tuberculosis Dispensary	School Clinic transferred to these premises in July, 1925.
12. Saffron Walden—Cottage Hospital	School Clinic and Tuberculosis Dispensary	Transferred to these premises June, 1927.
13. Shoeburyness—Council Offices	School Clinic and Child Welfare Centre	August, 1921.
14. Stansted—Central Hall	School Clinic and Child Welfare Centre	April, 1919.
15. Weeley—Public Health Offices	School Clinic, Tuberculosis Dispensary and Child Welfare Centre	November, 1926.
16. Woodford — "The Shrubbery"	School Clinic and Tuberculosis Dispensary	Used for Tuberculosis Dispensary from March, 1927.

*Used by Local Sanitary Authority as Child Welfare Centre and Maternity Home.

†Used by Local Sanitary Authority as Child Welfare Centres, &c.

PART IV.

PUBLIC ASSISTANCE.

General.

Dr. T. S. McIntosh, Medical Officer of the Ministry of Health, carried out during the year a survey of the whole of the County Public Health Services, including the medical services of the Public Assistance Committee. He visited each Public Assistance Institution and gave detailed consideration to the steps taken to develop the work in accordance with the objects of the Local Government Act, 1929.

The medical aspect of the Public Assistance work has developed satisfactorily during the year and energetic steps were taken to consolidate further the measures adopted in 1930 to control and co-ordinate the work of Medical Officers of Institutions and District Medical Officers.

Institutional Accommodation for the Sick.

Since the preparation of my Annual Report for the year 1930 more detailed information has been obtained in regard to the accommodation for the sick in the 11 Public Assistance Institutions, together with the actual number of beds occupied on 31st December, 1931. I give below a separate table dealing with each Institution, together with a few brief notes of any extensions or alterations which have taken place during 1931 and suggestions for future consideration :—

Colchester Institution.

Name of Medical Officer :
Dr. W. F. Payne.

Address of Institution :

Pope Lane, Colchester.
Telephone No. Colchest r 3259.

Classification of Wards.	No. of Wards.	BEDS.							
		Men.		Women.		Children (under 16).		Total.	
		Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.
Medical ..	11	79	63	65	53	—	—	144	116
Surgical ..									
Chronic Sick ..									
Children ..	1	—	—	—	—	9	1	9	1
Maternity ..	1	—	—	4	2	—	—	4	2
Total ..	13	79	63	69	55	9	1	157	119

Improvements. A Day Room was provided for about 50 casuals at a cost of £446 and other minor improvements were carried out at this Institution at a cost of £175.

Remarks. The Institution was erected nearly 100 years ago. Consideration has been given to closing it and providing additional accommodation at Stanway. This scheme is at present held up owing to the necessity for strict economy.

Stanway Institution.

Name of Medical Officer :
Dr. W. F. Payne.

Address of Institution :

Stanway, Colchester.

Telephone No. : Colchester 3303.

Classification of Wards.	No. of Wards.	BEDS.							
		Men.		Women.		Children (under 16).		Total.	
		Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.
Medical ..	7	32	—	27	—	—	—	59	—
Surgical ..									
Chronic Sick ..									
Children ..									
Tuberculosis ..	2	2	—	2	2	—	2	4	4
Maternity ..	1	—	—	3	—	—	—	3	—
Infant ..	1	—	—	20	20	—	—	20	20
Defectives ..	1	—	—	20	20	—	—	20	20
Total ..	11	34	—	52	22	—	2	86	24

Improvements. The water carriage sewage disposal system was installed at a cost of £1,595 and the erection of a Disinfector House was also approved at a cost of £435.

Remarks. This Institution was erected nearly 100 years ago and was extended and modernised in 1909. Consideration has been given to other extensions when the financial situation permits, the object being to accommodate eventually all the inmates from the Colchester Institution. The latter will then be closed or used for other purposes.

Tendring Institution.

Name of Medical Officer :
Dr. F. Atthill.

Address of Institution :

Tendring, Clacton-on-Sea.

Telephone No. : Manningtree 46.

Classification of Wards.	No. of Wards.	BEDS.							
		Men.		Women.		Children (under 16).		Total.	
		Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.
Medical ..	14	32	34	49	47	—	1	81	82
Surgical ..									
Chronic Sick ..									
Maternity ..	1	—	—	2	—	—	—	2	—
Total ..	15	32	34	51	47	—	1	83	82

Improvements. Additional nursery accommodation was provided at a cost of £296 10s.

Electric lighting was installed at a cost of £623.

Remarks. The Infirmary, erected in 1901, is modern, well equipped and sufficient for the requirements of the district. There is ample land for further extensions.

Braintree Institution.

Name of Medical Officer :
Dr. T. W. Panter.

Address of Institution :

Rayne Road, Braintree.
Telephone No. : Braintree 24.

Classification of Wards.	No. of Wards.	BEDS.							
		Men.		Women.		Children (under 16).		Total.	
		Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.
Medical ..	8	31	31	54	49	9	3	94	83*
Surgical ..									
Chronic Sick ..									
Children ..									
Tuberculosis ..	1 (Hut)	—	—	2	1	—	—	2	1
Maternity ..	1								
Total ..	10	31	31	56	50	9	3	96	84

*This figure does not include 8 male patients sleeping in the House. Total—92 sick patients.

Improvements. Repairs and improvements were carried out to the Children's Nursery of the Institution at a cost of £290 10s.

Remarks. In view of the nature of the accommodation the maternity beds are only used in emergency, whilst owing to the construction of the shelter the bed for a tuberculosis patient is only usable during the summer months.

Saffron Walden Institution.

Name of Medical Officer :
Dr. H. Bartlett.

Address of Institution :

Saffron Walden.
Telephone No. : Saffron Walden 32.

Classification of Wards.	No. of Wards.	BEDS.							
		Men.		Women.		Children (under 16).		Total.	
		Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.
Chronic Sick ..	8	28	24	32	27	—	—	60	51
Children ..	—	—	—	—	—	—	2	—	2
Maternity ..	1	—	—	2	—	—	—	2	—
Mental Defectives ..	1	—	—	18	17	—	—	18	17
Total ..	10	28	24	52	44	—	2	80	70

This Institution was built over 100 years ago. As mentioned elsewhere, it is proposed to erect a new Institution to serve this area at Takeley and to close the Saffron Walden Institution.

Improvements. The accommodation for casuals has been improved at a cost of £620.

Epping Institution.

Name of Medical Officer :

Dr. C. E. Denning.

Address of Institution :

The Plain, Epping.

Telephone No. : Epping 30.

Classification of Wards.	No. of Wards.	BEDS.							
		Men.		Women.		Children (under 16).		Total.	
		Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.
Medical ..	8	36	35	38	30	4	3	78	68
Surgical ..									
Chronic Sick ..	7	27	6	51	31	—	—	78	37
Tuberculosis ..	2	3	1	3	—	—	—	6	1
Maternity ..	1	—	—	3	2	—	—	3	2
Mental :									
Long stay*		4	4	6	6	—	—	10	10
Total ..	18	70	46	101	69	4	3	175	118

*Of the 4 male beds provided, 1 is in the Infirmary and 3 in the Institution.

Of the 6 female beds provided, 1 is in the Chronic Sick Ward and 5 in the Institution.

Improvements. Improvements were carried out to the laundry at a cost of £619 and steps were also taken to ensure an adequate supply of water in case of fire, at a cost of £167.

New Nurses' Home. The erection of a Nurses' Home was approved, at an estimated cost of £11,000.

Orsett Institution.

Name of Medical Officer :

Dr. F. A. M. Nelson.

Address of Institution :

Orsett, Grays.

Telephone No. : Orsett 8.

Classification of Wards.	No. of Wards.	BEDS.							
		Men.		Women.		Children (under 16).		Total.	
		Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.
Medical ..	13	62	57	85	61	14	23	161	141
Surgical ..									
Chronic Sick ..									
Tuberculosis ..	3	11	9	10	4	—	—	21	13
Maternity ..	5	—	—	7	2	—	—	7	2
Mental ..	2	2	—	3	—	—	—	5	—
Total ..	23	75	66	105	67	14	23	194	156

Improvements. Substitution of coal gas in place of petrol gas for cooking at a cost of £241.

Extensions. Sanction has been obtained and the buildings nearly completed for extensions to the Nurses' Home at a cost of £6,197.

Remarks. Several additions have been made to the original buildings which were erected about 100 years ago. Ample facilities are available for extensions.

Oldchurch Hospital, Romford.

Name of Medical Superintendent :
Dr. W. S. O'Loughlin.

Address of Institution :

Oldchurch Road, Romford.
Telephone No. : Romford
418, 419 (two lines).

Classification of Wards.	No. of Wards.	BEDS.							
		Men.		Women.		Children (under 16).		Total.	
		Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.
Medical ..	6	76	76	86	61	—	—	162	137
Surgical ..	6	76	78	86	67	—	—	162	145
Chronic Sick ..	6	78	55	88	66	—	—	166	121
Children ..	8	—	—	—	—	*90	*135	90	135
Venereal ..	2	9	9	5	5	—	—	14	14
Tuberculosis ..	2	34	34	34	34	—	—	68	68†
Isolation ..	8	—	—	—	—	20	35	20	35
Maternity ..	2	—	—	36	22	—	—	36	22
Mental.. ..	2	16	16	16	15	—	—	32	31
(a) Short stay	}	Observation Wards only. No certified Beds.							
(b) Long stay									
Mental Defectives ..	1	—	—	60	60	—	—	60	60
Total ..	43	289	268	411	330	110	170	810	768

*Whilst only 90 beds are provided, extra beds had to be added to accommodate 135 children at this time.

†Actually there were 71 Tuberculosis patients in Hospital at this time, but owing to the T.B. Pavilion being full three very early cases were accommodated in general wards.

Alterations and Extensions. Extensions to the Nurses' Home to accommodate 247 staff at a cost of approximately £37,000.

New Hospital Block erected in 1930—equipped at a cost of approximately £5,000.

Improvements. A minor Operating Theatre was equipped at a cost of £250.

Improvements and alterations were effected to the Maternity Block and Ante-Natal Department at a cost of £675, plus £375 for equipment.

Improvements to kitchen and cooking plant at a cost of £947.

Remarks. As mentioned elsewhere a Special Puerperal Fever Unit has been established at this hospital.

Consideration is being given to the enlargement of the Hospital by removing the remainder of the Poor Law inmates to proposed new accommodation at Suttons where additional land has been purchased at a cost of £3,700.

It will be noted from the table above that the Infirmary portion of this Institution is really functioning as a general hospital and serves an area containing a population of approximately 350,000.

Billericay Institution.

Name of Medical Officer :

Dr. J. Douglas Wells.

Address of Institution :

The Retreat, Billericay.

Telephone No. : Billericay 2.

Classification of Wards.	No. of Wards.	BEDS.							
		Men.		Women.		Children (under 16).		Total.	
		Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.
Medical ..	12	29	29	29	29	—	—	58	58
Surgical ..		—	—	—	—	—	—	—	—
Children ..	1	—	—	—	—	8	8	8	8
Maternity ..	*2	—	—	5	5	—	—	5	5
Total ..	15	29	29	34	34	8	8	71	71

*Includes one lying-in Ward.

Additions. Structural alterations carried out so as to provide additional nurses' accommodation, at a cost of £411.

Remarks. Most of the hospital portion of the Institution is quite recent, having been erected in 1926. Provision was then made for future extensions by the addition of another storey, if required. 5½ acres of land are available for future developments.

Chelmsford Institution.

Name of Medical Officer :

Dr. J. T. Whitley.

Address of Institution :

48, Wood Street, Chelmsford.

Telephone No. : Chelmsford 61.

Classification of Wards.	No. of Wards.	BEDS.							
		Men.		Women.		Children (under 16).		Total.	
		Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.
Medical ..	4	5	5	5	5	—	—	10	10
Surgical ..		10	10	10	10	—	—	20	20
Chronic Sick ..		36	34	40	38	—	—	76	72
Children ..	2	—	—	—	—	4	2	4	2
Tuberculosis ..	2	4	—	4	1	—	—	8	1
Maternity ..	4	—	—	11	—	—	—	11	—
Puerperal ..	3	—	—	3	2	—	—	3	2
Total ..	15	55	49	73	56	4	2	132	107

Improvements carried out :—

Domestic hot water service at a cost of £175.

New Steam Disinfector at a cost of £219.

Conversion of Board Room into Officers' Bedrooms £197.

Renovations to Nurses' Home £190.

Remarks. Infirmary and Nurses' Home opened in 1926 are modern and well built.

Excellent maternity accommodation is available, and as mentioned elsewhere a Special Puerperal Fever Unit has been established at this Institution.

Maldon Institution.

Name of Medical Officer :
Dr. E. Miles (Temp.)

Address of Institution :
32a, Spital Road, Maldon.
Telephone No. : Maldon 35.

Classification of Wards.	No. of Wards.	BEDS.							
		Men.		Women.		Children (under 16).		Total.	
		Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.
Medical ..	9	26	17	23	21	—	2	49	40
Surgical ..									
Chronic Sick ..									
Tuberculosis ..	2	2	—	2	1	—	—	4	1
Maternity ..	2	—	—	5	—	—	—	5	—
Total ..	13	28	17	30	22	—	2	58	41

Improvements. The domestic water supply, hot water services and heating installation, have been improved.

Additional accommodation for several nurses has been provided at a cost of £74.

Remarks. The Infirmary was erected in 1873, and there is at present unused accommodation for about 100 inmates. The future use of these beds is under consideration.

OUTSIDE INSTITUTIONS—ACCOMMODATION.

TABLE XXIV.

Outside Authority.	Name of Institution where beds are available for Essex patients by agreement.	No. of beds available by agreement.	No. of beds occupied on 31st December, 1931.
Herts C.C.	Bishop's Stortford Institution	51	37
Middlesex C.C.	Edmonton Institution	21	30
	North Middlesex Hospital	33	14
	Enfield Poor Law Schools	13	5
	—	67	—
			49
East Ham C.B.C.	Aldersbrook Children's Homes	131	125
West Ham C.B.C.	Central Home, Leytonstone	571	538
	Whipps Cross Hospital	312	267
	Forest Gate Hospital	201	249
	Home for Aged Poor	118	118
	Margate Home	19	3
	—	1221	—
			1175
Southend C.B.C.	Rochford Hospital	128.3	135
	Rochford Institution	75.7	47
	Rochford Children's Home	14.6	15
	—	218.6	—
			197
		1688.6	1583

ABLE-BODIED AND CASUALS.

TABLE XXV.

Area.	Institution.	Beds available for able-bodied cases on 31st December, 1931.		Average number of casuals per night for 1931.
		Men.	Women.	
Colchester	Colchester	54	23	22
	Stanway	48	62	14
	Tendring	61	71	9
Braintree	Braintree	111	61	60
Saffron Walden	Saffron Walden	36	13	30
Epping	Epping	42	23	26
South Eastern	Orsett	127	28	37
Southern	Romford	208	206	50
Chelmsford	Chelmsford	105	64	51
	Billericay	141	79	43
	Maldon	80	73	30
		1013	703	372

Items specially reported upon during the year.

Many varied questions arose which involved detailed investigation and careful consideration by the appropriate Committees and special reports were submitted. Among the chief matters thus dealt with were the following :—

Use of Alcoholic Liquors in Public Assistance Institutions.

A full report was submitted with a schedule giving particulars of the amount of alcoholic liquor consumed at the different Institutions in the Administrative County. As a result of this report, steps were taken which have considerably reduced the amount of alcoholic liquor consumed, and some irregularities in recording in the Institutions have been remedied. Instructions were also given to Medical Officers so as to standardise the procedure in ordering alcoholic liquors throughout the whole of the Public Assistance Institutions in the County.

Milk Supply.

An inspection was made of 15 farms from which milk was supplied to the Public Assistance Institutions in the Administrative County of Essex under contracts for the six months ended 30th September, 1931. The results of these inspections showed that 73 per cent. of the samples of milk were unsatisfactory in respect to cleanliness; that 40 per cent. of the farms obtained supplies of water from public mains; that 60 per cent. of the farms obtained supplies of water from other sources, and that with one exception, those supplies were unsatisfactory; that at 46 per cent. of the farms some improvements were needed to the buildings, and that at 33 per cent. of the farms the methods of production were unsatisfactory. Appropriate recommendations were made to the local Medical Officers of Health concerned.

These facts revealed the need for obtaining milk of a prescribed standard of cleanliness for the Public Assistance Institutions, and it was recommended that the Public Assistance Committee should favourably consider purchasing Grade A (Tuberculin Tested) Milk, or Grade A Milk, or Grade A Milk Pasteurised, preferably the first-named if that is available, for all the Institutions and Homes in the Administrative County.

The Public Assistance Committee decided that Grade A (Tuberculin Tested) Milk be purchased whenever possible for use in the Children's Homes in the County for a period of one year following the expiry of the existing contracts. The following amplified paragraph was also included in the Specifications on the Form of Tender for the Supply of Milk :—

‘ All milk supplied under the Contract shall be pure whole milk, produced under clean conditions, with all its cream as given by the cows, free from preservative, colouring or other foreign matter, and shall contain not less than 3.25 per cent. of butter fat, and 8.50 per cent. solids not fat, except during the month of April, when the fat shall be not less than 3 per cent. All milk shall be well cooled, clean and perfectly sweet on delivery, and except for pasteurised and other graded milks, shall not contain more than 500,000 bacteria per cubic centimetre, and the Coliform Bacillus shall be absent in 1/1000th cubic centimetre.’

Bedsore.

Investigations were made in regard to the prevalence of bedsore among the patients in the Institutions, which showed that at the time of enquiry 17 patients were suffering from bedsore. While appreciating that certain patients may be

admitted to an Institution suffering from these sores, with adequate nursing and attention the condition should clear up in a reasonable period. Moreover, similar attention should be sufficient to prevent the actual occurrence of bedsores whilst the patient is in the Institution. After consideration of the report the matter was referred to the House Committees of the Institutions in order that they may keep the position under observation.

Waking Hours.

In October, 1931, a report was submitted to the appropriate Committee, giving particulars of the time when patients are awakened in the morning and also the time of the first meal. This report showed that the average time of wakening the patients was 5 a.m., whilst the average time for the first meal was approximately 7 a.m. As a result of this report the House Committees were asked to further consider the matter with a view to some modification being made in the existing arrangements.

Consultants' Services.

Having regard to the responsibility of the Council for the health of between 4—5,000 inmates in Public Assistance Institutions, consideration was given to the appointment of suitable consultants and a full report on this matter was submitted, indicating the services available under the Public Health Committee's arrangements.

Subsequently, the following decisions were made :—

(a) *Consulting Surgeon.* That a Consulting Surgeon be appointed for one session per week at a remuneration of 200 guineas per annum, and travelling expenses. The services of Sir Henry J. Gauvain are available for cases of surgical tuberculosis when required.

(b) *Consulting Physician.* It was recommended that the services of Dr. W. Burton Wood, Consulting Physician for Pulmonary Tuberculosis, be utilised. The services of Dr. W. Masefield are also available when required.

(c) *Orthopaedic Surgeon.* That the present arrangements for utilising the services of B. Whitchurch Howell, Esq., F.R.C.S., be continued.

(d) <i>Consulting Ophthalmologist.</i>	) That for the time being no definite arrangements be made.
(e) <i>Ear, Nose and Throat Specialist.</i>	

The above arrangements provide primarily for visits by the Consultants concerned to Oldchurch Hospital, Romford, but they also allow of visits to other of the County Council Institutions if and when required.

Oldchurch Hospital, Romford—Skin and Radium Department.

In December, 1931, the Committee considered and approved of a report for the establishment of a Skin and Radium Department at the Oldchurch Hospital, Romford, in charge of Dr. Arthur Burrows, of the London Hospital and London Skin Hospital.

This special department comprises beds and other necessary adjuncts and marks the commencement of a determined effort to deal with patients suffering from certain types of cancer, particularly of the skin (including rodent ulcer), lip, tongue, cervix of the uterus, &c. In addition, intractable cases of skin disease or other obscure skin conditions will be dealt with in this special department.

Dietaries.

This subject has received a good deal of attention during the year, having regard to the requirements of the Public Assistance Order, 1930. The provisions of the 1930 Order might have been interpreted to infer that the definite quantities per patient laid down in previous Orders has been rescinded, but on enquiry at the Ministry of Health the opinion was expressed that each patient was still entitled to the quantities of food previously specified. A report is now being prepared on the question of dietaries but in the meantime an experiment is being made at one of the Institutions by suitably grouping the inmates to ascertain the practicability and efficiency of a proposal to revise the method of serving meals, *i.e.*, by providing each inmate with a helping in accordance with appetite instead of the prescribed quantity laid down. The actual quantity of food mentioned in the Orders of 1913 and 1930 will be available if not actually served on the tables.

When this experiment is concluded steps will be taken to revise and co-ordinate the dietaries at all Institutions, but in the meantime attention is being focussed on the improvement of the facilities available for the preparation and cooking of food.

Salaries of Nursing Staffs.

On 7th October, 1931, a joint report by the County Accountant, the Public Assistance Officer and the County Medical Officer was submitted dealing with scales of salaries of nursing staffs, and the grading of the Institutions for this purpose. Other points dealt with were (a) definitions of the different types of nurses, (b) uniform allowances and other emoluments, and (c) the procedure to be adopted in connection with medical treatment of nurses who are ill or who may be admitted to an Infectious Diseases Hospital.

Bound up with the subject of Nursing Staffs is the important question of formulating at an early date a County Nursing Service whereby suitable candidates from the Girls' Secondary and other Schools can enter the County Service as probationers, and subsequently serve their 3 years' general training in one or more of the County Institutions. At the close of the year this scheme was still under consideration.

Subscriptions to Voluntary Hospitals and other Bodies or Associations.

Consideration was given to continuing the contributions previously paid by the Boards of Guardians to Hospitals, local bodies and other Associations, and subscriptions amounting to £537 were made to Hospitals both in London and in Essex, and to Tuberculosis Care Associations and other Voluntary Bodies in the County. It was also agreed that subscriptions paid to District Nursing Associations in the County by the late Boards of Guardians be continued for the current year with a limit of £5 for each Nurse. Arrangements are being made for this annual grant to be paid to the County Nursing Association, who will arrange the distribution to the 152 District Nursing Associations in accordance with the work undertaken.

Examination of Bacteriological Specimens.

The arrangements made in 1930 with the Counties Public Health Laboratories, 91, Queen Victoria Street, E.C.4., to carry out bacteriological examinations in accordance with an agreed tariff were continued throughout the year.

Treatment of Out-Patients—Public Assistance Institutions.

The question of contributions by out-patients for treatment at Oldchurch Hospital, Romford, was considered, and subsequently the Committee approved of a scale of small fees for attendances by such patients. Arrangements were made whereby in necessitous cases the charges would be reduced or entirely waived.

Management of Institutions.

A Special Sub-Committee considered the most satisfactory method of managing the Committee's Institutions and submitted a scheme on the following lines which was subsequently approved and adopted in April, 1931 :—

That the management of Institutions be now withdrawn from the duties of the Area Guardians Committee.

That the Institutions Sub-Committee be solely responsible for the complete management of the various Institutions.

That small Sub-Committees of not less than three members of the Public Assistance Committee, hereafter termed " House Committees", be appointed to manage the Institutions in each area other than the Children's Homes, which will remain under the Children's Homes Sub-Committee.

That such House Committees meet monthly at the respective Institutions and report to the Institutions Sub-Committee.

That the Area Clerks act in the capacity of Deputy to the Public Assistance Officer in respect of the House Committees for the time being.

Proposed New Institutions.

References have been made in previous reports to the proposed new Institutions at Great West Hatch, Chigwell, and Takeley, and also to the reconstruction or additions at the Stanway Institution, but no actual progress was made during the year.

Children's Homes.

The following table (XXVI) gives particulars of the Children's Homes in the Administrative County, together with the number of beds available and beds occupied at the end of December, 1931 :—

TABLE XXVI.

Area.	Address of Home.	Beds available 31st December.		Beds occupied 31st December.	
		Boys.	Girls.	Boys.	Girls.
Colchester ..	Villa Road, Stanway	24	27	22	21
	Tendring Institution Grounds ..	24	30	24	24
Braintree ..	" Friars", 31, Bradford Street, Bocking	16	15	15	12
Saffron Walden	New Street, Dunmow	11	9	11	9
Epping ..	Coopersale	24	21	23	14
South Eastern	Whitehall Road, Little Thurrock ..	—	14	—	14
Southern ..	Romford	97	71	97	67
Chelmsford ..	Writtle	32	—	31	—
	Beehive Lane, Great Baddow ..	—	24	—	19
	Tiptree	14	14	14	12

Summer Camp. In August, 1931, a Summer Camp for children from the various Children's Homes in the Administrative County was held on a site near to the Tendring Public Assistance Institution which is only five or six miles from the sea. Approximately 120 selected children from Homes attended the Camp and were accommodated in tents with a marquee for dining room purposes. Communications have been received from the Medical Officers of the Children's Homes concerned in which the unanimous opinion was expressed that all the children had greatly benefited from their stay in the Camp.

Isolation Accommodation. Enquiries have been made into the accommodation available in the Children's Homes, particularly as to the floor space and cubic air space per child. In addition, consideration was given to the provision in different parts of the County of suitable isolation accommodation for cases of non-notifiable infectious diseases, *e.g.*, Whooping Cough, Measles and Chickenpox. In several of the Homes an attempt is made to achieve isolation by setting aside one particular room for this purpose, but it is not recommended that prolonged isolation should be provided in this manner at Children's Homes, but preferably that provision might be made in conjunction with certain selected Public Assistance Institutions to which the affected children could be transferred from the Children's Homes or Nurseries.

It is estimated that the amount of isolation accommodation required would be approximately 45 beds, whilst if the Committee thought it desirable to provide for direct admissions of similar cases from parents' homes this number would have to be increased. The subject is still receiving careful consideration by the Children's Homes Sub-Committee.

Improvements and Alterations. The following is a list of the improvements and alterations undertaken by the Public Assistance Committee at the various Children's Homes during the year :—

Stanway	..	Renovations at a cost of £280.
Braintree	..	Structural improvements at a cost of £268.
Maldon	..	Purchase and adaptations to The Gables at a cost of approximately £1,900.
Writtle	..	Renovations and improvements at a cost of £198.
Billericay	..	Purchase and adaptation to Foxcroft at a cost of £2,600.

Boarded-out Children.

At the end of 1931 the Public Assistance Committee were responsible for 151 boarded-out children, who are supervised in some areas by voluntary visitors and in others by part-time salaried officials.

With the further development of the Health Visiting staff (part of whose duties now include Infant Life Protection work under the Children Act, 1908), and improved travelling facilities, there is no reason why suitable arrangements could not be made between the Public Health and Public Assistance Committees for the Health Visitors to undertake eventually the supervision of these boarded-out children, if necessary, in conjunction with voluntary visitors.

Medical Staff.

(a) INSTITUTIONS. Particulars of the Medical Officers of the various Institutions are given on pages 74—80

(b) DISTRICT MEDICAL OFFICERS AND PUBLIC VACCINATORS. There are 131 District Medical Officers and Public Vaccinators in the Administrative County. As changes are continually taking place there is no point in giving the full list in this report.

Co-operation with Medical Staff.

Close co-operation with the Medical Officers of Institutions and District Medical Officers was maintained throughout the year. Assistance was rendered wherever possible by arranging the transfer of patients from one Institution to another.

Among the chief items dealt with were the following :—

(i) EXTRA MEDICAL FEES. A new scale of extra medical fees was drawn up and approved by the Committee who decided that the scale should apply to all District Medical Officers irrespective of whether or not they are transferred Officers, and accordingly new contracts are being arranged.

(ii) **SUPPLY OF DRUGS.** The general principle of whether drugs should be supplied by the County Council or by the individual District Medical Officers as part of their contracts was considered. With certain exceptions it was thought better that doctors, especially in the country districts, should supply their own drugs.

(iii) **CIRCULARS.** During the year the following circulars have been issued to the Medical Officers indicated :—

(a) *Institution Medical Officers.* (i) Arrangements for admission of maternity patients from autonomous Child Welfare Areas. Also regarding ante-natal examinations of patients admitted. (ii) Waking hours of patients. (iii) X-Ray examinations. (iv) House Committees' reports. (v) Bedsores. (vi) Public Assistance (Casual Poor) Order, 1931.

(b) *District Medical Officers.* (i) Admission of patients to Hospital for special treatment. (ii) X-Ray examinations. (iii) Consultants. (iv) Laboratory facilities.

Legislation.

PUBLIC ASSISTANCE (CASUAL POOR) ORDER, 1931.

This Order (with the exception of Article 7) came into operation on the 1st April, 1931, and amended the Public Assistance Order, 1930, in regard to the administration of relief to the casual poor. The main object of the Order was to give effect to the recommendations of the Departmental Committee on the Relief of the Casual Poor, which include (*inter alia*) (i) medical examination of casuals in the wards on one day per month, (ii) appropriate arrangements at each ward for bathing and disinfection, (iii) improvements in the dietary. In this County careful consideration has been given to the casual wards and many improvements carried out. Arrangements were also made with the Medical Officers of the eleven Institutions so that medical examination of all casuals in the wards is carried out on the third Tuesday in each month. Co-operation has been achieved with the Counties of Suffolk and Norfolk so as to avoid the same casuals being examined in each month.

TABLE XXIX
NOTIFICATIONS OF INFECTIOUS DISEASE AND ATTACK RATES, 1931.
(Figures obtained from the Weekly Notification Returns.)

91

SANITARY DISTRICTS.	Estimated Population 1931.	SCARLET FEVER.		DIPHTHERIA.		ENTERIC FEVER.		PUERPERAL FEVER.	PUERPERAL PYREXIA.	ERYSIPELAS.	OPHTHALMIA NEONATORUM.	TUBERCULOSIS, RESPIRATORY.		OTHER TUBERCULAR DISEASES.		PNEUMONIA.		ENCEPHALITIS LEPTOMENINGEA.	ACUTE POLIO-MYELITIS.	SMALL-POX.	VARICEL- LUS.	TOTAL.
		No.	Per 1,000.	No.	Per 1,000.	No.	Per 1,000.	No.	No.	No.	Per 1,000.	No.	Per 1,000.	No.	Per 1,000.	No.	No.	No.	No.	No.	No.	
URBAN.																						
BARKING B.	51830	170	3.3	247	4.8	3	0.06	3	8	28	0.5	17	69	1.3	29	0.6	118	2.3	1	5	304	1002
BENNETT	12070	24	2.0	22	1.8	1	0.08		1	2	0.2		10	0.8	7	0.6	2	0.2			69	69
BENNETT	3947	38	9.6	5	0.6				1	2	0.3		9	1.0	2	0.2	3	0.3				92
BRIGHTLINGHRA	8817	19	2.8	15	2.2	5	0.7	1	2	4	0.6		4	0.9	2	0.5	3	0.4				54
BURNHAM HILL	4050	8	2.0	1	0.2					1	0.2		4	1.0	2	0.5	13	3.2				29
BURNHAM ON-CROUCH	3417	5	1.5	3	0.9					2	0.4		5	0.9	4	0.7	5	0.9				28
CANNEY ISLAND	3262	9	2.8	9	2.8					1	0.1		4	1.2	5	1.5	18	5.5				61
CHICHESTER	26730	66	2.5	26	1.0			3	5	2	0.3		21	0.8	6	0.2	9	0.3	1		2	148
CHICHESTER	22180	116	5.2	22	1.0	4	0.2		2	5	0.2		20	1.0	6	0.3	12	0.5				193
CHICHESTER	14990	22	1.5	7	0.5				7	6	0.3		20	1.3	4	0.3	13	0.9			20	32
CHICHESTER	45090	142	3.1	35	0.8	4	0.1		4	3	0.2		24	1.2	17	0.4	74	1.6	1			210
DAGENHAM	90750	433	4.8	214	2.4					8	0.2	12	120	1.3	42	0.5	132	1.5	1		71	10
EFFING	4870	20	4.1	6	1.2	234	48.1			2	1.0		10	2.1	2	0.4	17	3.5				10
EFFING	1911	2	1.0							1	0.3		2	1.0								17
EFFING	18290	31	1.7	41	2.2	1	0.05		3	5	0.3		12	1.0	10	0.5	25	1.4			5	10
EFFING	5862	2	0.3										7	1.2	1	0.2					4	140
EFFING	11800	13	1.1	49	4.2								10	0.8	6	0.5	6	0.5				10
EFFING	28310	54	1.9	51	1.8	2	0.07	1	2	6	0.2		32	1.1	10	0.3	6	0.2				88
EFFING	132150	226	1.7	201	1.5	8	0.06	13	14	57	0.4	11	149	1.1	39	0.3	107	0.8	1			105
EFFING	126600	391	2.3	235	1.8	9	0.07	9	23	66	0.5	13	131	1.0	31	0.2	112	0.9	2		3	18
EFFING	7336	3	0.4	1	0.1	14	1.9			1	0.2		2	0.2	1	0.1	3	0.4			28	1380
EFFING	6545	15	2.4	2	0.3	2	0.3			3	0.5		7	1.1	3	0.5	7	1.1			1	20
EFFING	8505	12	1.4	13	1.5				1	2	0.2		1	0.1	3	0.4	1	0.2				57
EFFING	6257	4	0.6	6	1.0				1	2	0.2	2	7	1.2	4	0.5	3	0.4				42
EFFING	35870	83	2.3	70	2.0			2		2	0.3		5	0.8	2	0.3	1	0.2				1
EFFING	6114	4	0.7	2	0.3				2	0.1			46	1.3	8	0.2	7	0.2				28
EFFING	5985	19	3.2	4	0.7				1	3	0.5		4	0.7								2
EFFING	16740	28	1.7	77	4.6	2	0.1		1	1	0.2		3	0.5	1	0.2	5	0.9				14
EFFING	7013	63	9.0	8	1.1	3	0.4	3		3	1	1	27	1.6	6	0.4	10	0.6				132
EFFING	134420	456	3.4	330	2.5	38	0.3	9	30	61	0.4	7	148	1.1	45	0.3	209	1.6	1			32
EFFING	2801	1	0.3						30	1			1									33
EFFING	19260	34	1.8	9	0.5	3	0.2			6	0.3		10	0.5	11	0.6	5	1.7			68	1317
EFFING	1987	10	5.0						1				4	2.0	1	0.5	25	1.3			55	2718
EFFING	4357	3	0.7	2	0.5					1			5	1.1	1	0.2	4	0.9				1
EFFING	2174	9	4.1					1		3	1.4		3	1.4	1	0.5						16
EFFING	24200	72	3.0	54	2.2	2	0.08	1	3	6	0.2		25	1.0	8	0.3	22	0.9				19
	917000	2528	2.8	1768	1.9	335	0.4	63	117	327	0.4	71	1027	1.1	313	0.3	988	1.1	10	7	184	3771
RURAL.																						
BELCHAMP	3947	4	1.0	1	0.3			1					5	1.3	2	0.5						13
BELCHAMP	30730	133	3.3	28	1.0	3	0.07	1	8	6	0.2		27	0.9	22	0.5	28	0.7	3		52	336
BELCHAMP	21620	85	3.9	25	1.2	1	0.05		4	6	0.3		17	0.7	9	0.4	16	0.7				161
BELCHAMP	2289	4	1.8							2	0.4		3	1.3	2	0.9	1	0.4				11
BELCHAMP	28550	83	2.9	5	0.2	1	0.04	3	2	5	0.2	1	19	0.7	10	0.4	9	0.3	1		7	146
BELCHAMP	15700	30	1.9	2	0.1			4	8	2	0.1		11	0.7	11	0.6	15	1.0				161
BELCHAMP	17300	18	1.0	11	0.6	20	1.16	1	4	6	0.3	1	16	0.9	7	0.4	16	1.0				169
BELCHAMP	9738	4	0.4					1	1	1	0.1		8	0.8	2	0.2	3	0.3			10	95
BELCHAMP	18870	47	2.5	12	0.6	2	0.11	1	4	6	0.3		24	1.3	9	0.5	13	0.7				118
BELCHAMP	16080	24	1.5	3	0.2	2	0.12			3	0.2		12	0.7	3	0.2	7	0.4				51
BELCHAMP	11020	23	2.0	3	0.2			1	2	5	0.4		5	0.4	7	0.6	7	0.6				55
BELCHAMP	20460	27	1.3	17	0.8			1	4	4	0.2		22	1.1	10	0.5	22	1.1	2		1	109
BELCHAMP	16040	30	1.8	37	2.2	5	0.3	1	3	7	0.4	1	6	0.4	3	0.2	12	0.7			1	169
BELCHAMP	15040	19	1.3	11	0.7	2	0.13		1	4	0.3		14	0.9	4	0.3	5	0.3	1			104
BELCHAMP	9622	8	0.8							4	0.4		2	0.9	7	0.7	3	0.3				31
BELCHAMP	6919			2	0.1	2	0.2			3			2	1.0	1	0.1						12
BELCHAMP	23860	61	2.6	29	1.2	1	0.04	1	6	3	0.1	2	15	0.6	10	0.4	46	1.9				1
	278100	600	2.2	196	0.7	39	0.14	17	39	58	0.2	9	228	0.8	108	0.4	153	0.7	8		11	175
TOT. BORO'S & URBAN DISTRICTS	917000	2528	2.8	1768	1.9	335	0.37						228	0.8	108	0.4	153	0.7	8		11	175
TOTAL RURAL DISTRICTS	278100	600	2.2	196	0.7	39	0.14	17	39	58	0.2	9	228	0.8	108	0.4	153	0.7	8		11	175
TOTAL FOR ADMIN. COUNTY	1195100	3128	2.6	1964	1.6	374	0.31	80	156	385	0.3	80	1255	1.0	421	0.4	1181	1.0	18	7	190	3836

TABLE XXIX.
NOTIFICATIONS OF INFECTIOUS DISEASE AND ATTACK RATES, 1931.

(Figures obtained from the Weekly Notification Returns.)

91

SANITARY DISTRICTS.	Estimated Population 1931.	SCARLET FEVER.		DIPHTHERIA.		ENTERIC FEVER.		PUERPERAL FEVER.	PUERPERAL PYREXIA.	ERTSIPELAE.		OPHTHALMIA NEONATORUM.	TUBERCULOSIS, RESPIRATORY.		OTHER TUBERCULAR DISEASES.		PNEUMONIA.		ENCEPHA- LITIS LE- THARGICA.	ACUTE POLIO- MYELITIS.	SMALL- POX.	VARI- OUL.	TOTAL.
		No.	Per 1,000.	No.	Per 1,000.	No.	Per 1,000.	No.	No.	No.	Per 1,000.	No.	No.	No.	Per 1,000.	No.	Per 1,000.	No.	No.	No.	No.	No.	No.
URBAN.																							
BARKING B.	51830	170	3.3	247	4.8	3	0.06	3	8	28	0.5	17	69	1.3	29	0.6	118	2.3	...	1	5	304	1902
BENFLEET	12070	24	2.0	22	1.8	1	0.08	...	1	2	0.2	...	10	0.8	7	0.6	2	0.2	...	...	...	...	69
BRAINTREE	8947	38	4.2	5	0.6	...	...	1	2	3	0.3	...	9	1.0	2	0.2	3	0.3	...	...	...	...	...
BRIGHTLINGHEA	6886	19	2.8	15	2.2	5	0.7	1	...	4	0.6	1	6	0.9	2	0.3	3	0.4	...	...	...	...	...
BUCKHURST HILL	4050	8	2.0	1	0.2	...	...	...	...	1	0.2	...	4	1.0	2	0.5	13	3.2	...	...	...	...	63
BUCKHURST HILL	5459	11	2.0	1	0.2	...	...	...	...	2	0.4	...	5	0.9	4	0.7	5	0.9	...	...	...	...	54
CANVEY ISLAND	3417	5	1.5	3	0.9	...	...	...	...	...	...	...	4	1.2	2	0.5	13	3.2	...	...	...	...	29
CANVEY ISLAND	3262	9	2.8	9	2.8	...	...	...	...	...	...	1	4	1.2	4	0.7	5	0.9	...	...	...	...	15
CHELMSFORD B.	26720	66	2.5	26	1.0	...	...	3	5	2	0.6	...	18	0.7	5	1.5	18	5.5	...	...	...	...	61
CHELMSFORD B.	22180	116	5.2	22	1.0	...	...	4	0.2	4	0.2	2	20	1.0	6	0.2	9	0.3	1	...	...	2	148
CLACTON-ON-SEA	14990	22	1.5	7	0.5	...	...	...	...	5	0.3	...	21	0.8	6	0.2	9	0.3	...	...	...	...	193
CLACTON-ON-SEA	45660	142	3.1	35	0.8	4	0.1	1	7	3	0.3	...	52	1.2	17	0.4	74	1.6	...	...	...	...	92
COCHESTER B.	90870	433	4.8	214	2.4	...	...	...	...	11	0.2	3	20	1.3	4	0.3	12	0.5	...	...	2	...	360
DAGENHAM	4870	20	4.1	6	1.2	234	48.1	4	8	18	0.2	12	120	1.3	42	0.5	132	1.5	1	1	71	10	1099
EPFINGHAM	1911	2	1.0	...	...	...	...	2	...	1	0.2	10	2	1.0	2	0.4	17	3.5	...	...	...	...	210
EPFINGHAM	18290	31	1.7	41	2.2	1	0.05	...	...	1	0.5	10	2	1.0	2	0.4	17	3.5	...	...	...	...	560
GRAYS	5862	2	0.3	...	...	...	...	3	...	5	0.3	...	19	1.0	10	0.3	25	1.4	1	...	...	...	10
GRAYS	11800	13	1.1	49	4.2	...	...	...	...	...	...	...	7	1.2	1	0.2	...	...	...	...	4	...	140
HARWICH B.	11800	13	1.1	49	4.2	...	...	...	...	...	...	...	10	0.8	6	0.5	6	0.5	...	...	...	...	...
HARWICH B.	28310	54	1.9	51	1.8	2	0.07	...	1	1	0.1	...	32	1.1	10	0.3	6	0.2	...	...	...	...	...
ILFORD B.	132150	226	1.7	201	1.5	8	0.06	15	14	6	0.2	...	32	1.1	10	0.3	6	0.2	...	...	...	...	...
LEYTON B.	128600	301	2.3	235	1.8	9	0.07	9	23	57	0.4	11	149	1.1	39	0.3	107	0.9	1	1	3	18	848
LEYTON B.	7236	3	0.4	1	0.1	14	1.9	...	...	66	0.5	13	131	1.0	31	0.2	112	0.9	2	1	38	1380	2340
LOUGHTON	6545	15	2.3	2	0.3	2	0.3	...	...	...	...	...	7	1.1	3	0.5	7	1.1	...	...	...	...	...
MALDON B.	8265	12	1.4	13	1.5	...	...	...	...	3	0.5	...	4	0.7	1	0.2	...	...	...	...	...	...	...
MALDON B.	6267	4	0.6	6	1.0	...	...	1	...	2	0.2	2	10	1.2	4	0.5	3	0.4	...	...	...	...	...
PARFLEET	35670	83	2.3	70	2.0	...	...	2	2	3	0.3	...	5	0.8	2	0.3	1	0.2	...	...	...	...	...
RAYLEIGH	6114	4	0.7	2	0.3	...	...	...	...	3	0.1	1	46	1.3	8	0.2	7	0.2	1	1	...	...	...
ROMFORD	5985	19	3.2	4	0.7	...	...	1	3	3	0.5	...	4	0.7	1	0.2	...	...	...	...	...	...	...
ROMFORD	16740	28	1.7	77	4.6	2	0.1	...	...	1	0.2	...	3	0.5	1	0.2	5	0.9	...	...	...	...	...
SMOEDERTNES	7013	63	9.0	8	1.1	3	0.4	1	6	6	0.4	1	27	1.6	6	0.4	10	0.6	...	...	...	...	...
WALTHAM HOLY CROSS	154420	456	3.4	330	2.5	38	0.3	9	30	61	0.4	7	148	1.1	45	0.3	209	1.6	1	1	68	1317	2718
WALTHAMSTOW B.	2861	1	0.3	...	...	...	...	...	...	...	...	...	10	1.4	1	0.1	9	1.3	...	...	...	...	...
WALTON-ON-THAMES	19260	34	1.8	9	0.5	3	0.2	...	...	...	...	...	10	0.5	11	0.6	25	1.3	...	...	...	...	...
WANSTEAD	1987	10	5.0	...	...	...	...	...	...	...	...	...	4	2.0	1	0.5	...	...	...	...	...	...	...
WEST MERSEA	4357	5	0.7	2	0.5	...	...	...	...	...	...	...	3	1.1	1	0.2	4	0.9	...	...	...	...	...
WITTON	2174	9	4.1	...	...	...	...	1	...	3	1.4	...	3	1.4	1	0.2	1	0.5	...	...	...	...	...
WOODFORD	24200	72	3.0	54	2.2	2	0.08	1	3	6	0.2	...	25	1.0	8	0.3	22	0.9	...	...	...	...	...
	917000	2528	2.8	1768	1.9	335	0.4	63	117	327	0.4	71	1027	1.1	313	0.3	988	1.1	10	7	184	3771	11509
RURAL.																							
BELCHAMPE	3947	4	1.0	1	0.3	...	...	1	...	...	...	...	5	1.3	2	0.5	...	...	...	...	...	...	...
BELCHAMPE	39730	133	3.3	38	1.0	3	0.07	3	8	6	0.2	...	37	0.9	22	0.5	28	0.7	...	...	...	...	...
BRAINTREE	21620	85	3.9	25	1.2	1	0.05	...	...	1	0.4	...	12	0.7	9	0.4	16	0.7	...	...	...	...	...
BUMFORD	2289	4	1.8	...	...	...	...	...	...	3	1.3	...	3	1.3	2	0.9	1	0.4	...	...	...	...	...
CHELMSFORD	25550	83	2.9	5	0.2	1	0.04	3	2	5	0.2	1	19	0.7	10	0.4	9	0.3	...	...	...	...	...
DUNNOM	15700	30	1.9	2	0.1	1	0.04	4	3	2	0.1	...	11	0.7	10	0.4	9	0.3	...	...	...	...	...
EPFINGHAM	17300	18	1.0	11	0.6	20	1.16	4	3	5	0.3	3	11	0.7	10	0.4	15	1.0	...	...	...	...	...
EPFINGHAM	9738	4	0.4	...	...	...	...	...	...	5	0.3	1	8	0.8	2	0.2	3	0.3	...	...	...	...	...
LEDES AND WINSTREE	18870	47	2.5	12	0.6	2	0.11	1	4	1	0.1	...	24	1.3	9	0.5	13	0.7	...	...	...	...	...
MALDON	16080	24	1.5	3	0.2	2	0.12	...	...	6	0.3	...	24	1.3	9	0.5	13	0.7	...	...	...	...	...
ONGAR	11620	23	2.0	3	0.2	...	...	...	...	4	0.2	...	12	0.7	3	0.2	7	0.4	...	...	...	...	...
ORNETT	20400	27	1.3	17	0.8	...	...	1	2	4	0.2	...	22	1.1	10	0.5	22	1.1	...	...	...	...	...
ROCHFORD	16860	30	1.8	27	2.2	5	0.3	1	7	7	0.4	1	6	0.4	3	0.2	12	0.7	...	...	...	...	...
ROMFORD	15040	19	1.3	11	0.7	2	0.13	...	...	1	0.1	...	14	0.9	4	0.3	5	0.3	...	...	...	...	...
SAPFORD WALDEN	9622	8	0.8	...	...	...	...	2	1	4	0.4	1	9	0.9	7	0.7	3	0.3	...	...	...	...	...
STANSTED	6919	...	...	2	0.2	2	0.2	...	...	...	...	...	7	1.0	1	0.1	...	...	...	...	...	...	...
TENDRING	23860	61	2.6	29	1.2	1	0.04	1	6	3	0.1	2	15	0.6	10	0.4	46	1.9	...	...	...	...	...
	278100	600	2.2	196	0.7	39	0.14	17	39	58	0.2	9	228	0.8	108	0.4	153	0.7	8	...	11	65	1571
TOT. BORO'S & URBAN DISTRICTS	917000	2528	2.8	1768	1.9	335	0.37	63	117	327	0.4	71	1027	1.1	313	0.3	988	1.1	10	7	184	3771	11509
TOTAL RURAL DISTRICTS	278100	600	2.2	196	0.7	39	0.14	17	39	58	0.2	9	228	0.8	108	0.4	153	0.7	8	...	11	65	1571
TOTAL FOR ADMIN. COUNTY	1195100	3128	2.6	1964	1.6	374	0.31	80	156	385	0.3	80	1255	1.0	421	0.4	1181	1.0	18	7	195	3836	13080

