ADMINISTRATIVE COUNTY OF ESSEX.

REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR 1937

WILLIAM A. BULLOUGH, M.Sc., M.B., D.P.H.
COUNTY MEDICAL OFFICER OF HEALTH.

CHELMSFORD:
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PUBLIC HEALTH AND HOUSING COMMITTEE.

Chairman—ALDERMAN A. M. MATHEWS.

Vice-Chairman—ALDERMAN F. D. SMITH.

Aldermen—

P. Astins, A. Brooks, A. L. Clarke, C. W. Daines, A. W. Green, H. de Havilland, A. Porter, Col. Gilbertson Smith, Mrs. B. W. Williams.

Councillors—

J. R. Adams, Mrs. C. B. Alderton, J. H. Cæsar-Gordon, C. W. Clark, Mrs. C. Custerson, W. J. Day, Mrs. L. F. Evans, J. W. Mathews, J. C. Mead, J. C. Menhinick, E. Meredith, H. F. Pash, F. J. Romanes, E. Smith, Mrs. M. Sorensen, G. J. Wetton, Dr. R. A. Woodhouse and E. G. Wright.

MEDICAL AND NURSING SERVICES JOINT SUB-COMMITTEE.

Representatives of the Public Health and Housing Committee.

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Representatives of the Education Committee.

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P. Astins, A. Brooks, A. L. Clarke, H. de Havilland, A. M. Mathews (Chairman), A. Porter, F. D. Smith, Col. Gilbertson Smith.

Councillors—

J. R. Adams, Mrs. C. B. Alderton, C. W. Clark, Mrs. C. Custerson, W. J. Day, A. W. Green, J. W. Mathews, J. C. Mead, J. C. Menhinick, E. Meredith, H. F. Pash, Dr. R. A. Woodhouse.

PREFACE.

To the Chairman and Members of the Essex County Council.

I have the honour to submit to you my nineteenth Annual Report for the Administrative County of Essex for the year 1937. This is the 48th Annual Report which has been issued.

The population as estimated by the Registrar-General at mid-year 1937 was 1,377,700, being an estimated increase of 33,240.

Again there was an increase in the number of births, 19,991 for 1937, as compared with 19,516 for 1936. This was reflected in a slightly increased birth-rate, 14.5 in 1937 and 14.4 in 1936, the comparative rates for England and Wales being 14.9 and 14.8 respectively. The lowest rate (9.9) in the Administrative County was in the Clacton-on-Sea District and the highest (19.1) was again in the Hornchurch Urban District. In the Boroughs of Maldon and Saffron Walden, the Urban Districts of Brightlingsea, Clacton-on-Sea, Frinton & Walton, Halstead, West Mersea and Wivenhoe and the Rural Districts of Dunmow, Halstead, Maldon and Saffron Walden, the birth-rates were lower than the death-rates.

An increase is again recorded in the number of deaths from 13,369 in 1936 to 13,956 in 1937, the rates being 9.9 in 1936 and 10.1 in 1937. Comparative rates for England and Wales also showed an increase from 12.1 to 12.4. Heart Disease (3,488) and Cancer (2,056) are again the highest figures recorded in the Causes of Death Table on page 120.

The number of deaths of infants under one year of age per 1,000 births decreased from 954 (rate 49) in 1936 to 810 (rate 46) in 1937, the rates for England and Wales being 59 and 58 respectively. The highest rate (131) was again in the Urban District of Canvey Island, the lowest (12) being in the Urban District of Wivenhoe.

Table XXVII on page 121 records the notifications of Infectious Disease received from the Sanitary Districts in the Administrative County. Again, not a single case of Smallpox was notified, and there was a further reduction in the total number of notifications of cases of infectious disease from 8,083 in 1936 to 7,889 in 1937. There was, however, an increase in the number of cases of pneumonia.

There was an increase of 71 in the number of licences to produce designated milks, the figures now being Tuberculin Tested Milk 65 and Accredited Milk 800. The year 1937 was an experimental one owing to the Methylene Blue Reduction Test superseding the Bacteria Count from 1st January, 1937. Criticisms of the new test, which is simple and gives quick results, were received. Licensees missed the numerical feature of the bacteria count which they claimed had been a helpful guide to the cowmen and them-

selves. A Special Report is incorporated, dealing with water supplies to licensed farms, from which it will be seen that everything possible has been done to secure improved supplies.

Information regarding the excellent schemes for the provision of piped water supplies by the Rural District Councils, except the Halstead Rural District Council, is given on pages 48 to 53. Approximately 552 miles of additional water mains have been or will be laid under the various schemes. 83 per cent. of the Parishes in the Rural Districts will have at least the nucleus of a piped water supply, and this percentage would have been much higher if the comprehensive scheme for the Halstead Rural Area had not been abandoned on economical grounds.

The first whole-time Venereal Diseases Officer was appointed and Dr. J. M. Elliott took up duty on 1st October, 1937. Development in the services in several directions has already taken place.

For the first time a Section is included dealing with Air Raid Precautions—see page 73. It is satisfactory to note that considerable progress has been made in the preparation of local schemes.

Intensive housing surveys in some of the Rural Districts are nearing completion and every effort is being made to cope with the difficult task of securing that all the houses for the working classes shall be fit in all respects for human habitation. Some extent of the work involved throughout the County will be realised from the fact that 32,752 houses which were inspected, needed 94,120 visits by Sanitary Inspectors.

Reference on page 61 is made to the National Health Campaign and to the steps which were taken in Essex to assist in bringing to the notice of the general public the many facilities for advice and treatment which are provided for their benefit.

Pages 62 to 68 fully set out the position in regard to the provision of hospital services, including the progress made in (*a*) negotiations with Voluntary Hospitals, and (*b*) acquisition of sites, erection and establishment of new hospitals, &c. Only brief reference is made this year to the Oldchurch County Hospital as the Medical Superintendent is issuing a separate Report with regard to this Hospital.

Reference is made to the attention given by the County Council to the question of improving the conditions of service of nurses in regard to hours of duty, salaries, holidays and general amenities. The Essex scheme for the training of assistant nurses for chronic patients is also referred to in this section of the Report.

Part III gives details of the Maternity and Child Welfare Schemes and includes also the work of the Council's Midwifery Scheme, details of which were given in the Report for 1936. The Scheme has operated from 1st July, 1937, and has so far proved satisfactory.

The death-rate from Pulmonary Tuberculosis in 1937 was 0.44 per 1,000, a very low record, comparing favourably with 0.52 for England and Wales as a whole. During the year the number of beds occupied has risen from 704 to 782, while the waiting list

remains stationary. Returns on investment in Public Health are not immediate, but I have no doubt that the community will be repaid manifold in the future by the effect of increased segregation of this infection. There is continuous and satisfactory development of the Tuberculosis Dispensary Service.

I have great pleasure in recording my appreciation of the confidence and support given to me by the Chairmen and Members of the Public Health and Public Assistance Committees. To all the Medical Officers of Health, and other officials of the Local Sanitary Authorities, to the Medical, Dental, Nursing, Inspectorial 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 loyal support.

W. A. BULLOUGH,
County Medical Officer.

PUBLIC HEALTH DEPARTMENT,
COUNTY HALL,
CHELMSFORD.

2nd September, 1938.

STAFF.

(1st April, 1938).

County Medical Officer, School Medical Officer and Chief Tuberculosis Officer.

W. A. Bullough, M.Sc., M.B., Ch.B., D.P.H.

Deputy County Medical Officer.

T. P. Puddicombe, D.S.O., M.B., B.S., M.R.C.S., L.R.C.P., D.P.H.

Assistant County Medical Officers—Central Staff.

W. L. Yell, M.D., D.P.H., Senior Assistant County Medical Officer.
J. L. Miller Wood, M.R.C.S., L.R.C.P., D.P.H., M.M.S.A., First Assistant County Medical Officer.
G. G. Stewart, M.R.C.S., L.R.C.P., D.P.H., Assistant County Medical Officer.

Specialist Staff.

(*a*) **Whole-time.**

G. A. Jamieson, M.B., B.S., D.O.M.S., Ophthalmic Surgeon.
J. M. Elliott, M.B., Ch.B., Venereal Diseases Medical Officer.

(*b*) **Part-time.**

Sir Henry J. Gauvain, M.C., M.A., M.D., F.R.C.S., Consulting Surgeon—Surgical Tuberculosis.
W. Burton Wood, M.A., M.D., M.R.C.P., D.P.H., Consulting Physician, Diseases of the Chest.
Mather Cordiner, M.B., Ch.B., D.M.R.E., Radiologist, Oldchurch County Hospital.
G. Franklin Wood, M.A., M.B., B.Ch., D.M.R.E., Radiologist—Sanatoria.
Hamilton Bailey, F.R.C.S., Consulting Surgeon, Oldchurch County Hospital.
R. W. Reid, M.S., F.R.C.S., Surgeon, Black Notley Sanatorium.
Arthur Burrows, M.D., M.R.C.P., D.M.R.E., Skin and Radium Specialist.
W. S. O'Loughlin, M.D., M.C.O.G., Gynaecologist and Obstetrician.
Everard Williams, F.C.O.G., M.R.C.S., M.R.C.P., Gynaecologist and Obstetrician.
Hamblen Thomas, F.R.C.S., Ear, Nose and Throat Specialist.
T. Collyer Summers, F.R.C.S., Consulting Ophthalmologist, Oldchurch County Hospital.
B. Whitchurch Howell, F.R.C.S., Orthopaedic Surgeon.
E. V. Suckling, M.B., B.S., M.R.C.S., L.R.C.P., D.P.H., Bacteriologist for Essex.
Kenneth Shirley Smith, M.D., F.R.C.P., B.Sc., General Consulting Physician, Oldchurch County Hospital.
F. E. Camps, M.D., M.R.C.S., L.R.C.P., Consultant Physician and Pathologist.
C. H. Fagge, M.A., B.M., Visiting Anaesthetist, Black Notley Sanatorium.
Alan Brews, F.R.C.S., Obstetric Consultant, Black Notley Sanatorium.

Whole-time Medical Staff, Oldchurch County Hospital, Romford.

E. Miles, M.B., Ch.B., D.P.H., Resident Medical Superintendent.
F. N. Foster, F.R.C.S., Non-resident Deputy Medical Superintendent.
E. B. Whittingham, F.R.C.S., Assistant Resident Surgeon.
A. Garland, M.D., B.S., D.P.H., Non-resident Assistant M.O.
D. Stephens, M.R.C.S., L.R.C.P., Non-resident Assistant M.O.
S. F. Marshall, M.D., B.S., M.R.C.S., L.R.C.P., Non-resident Assistant M.O. and Pathologist.
Eileen Whapham, M.B., B.S., Resident Assistant M.O.
Ronald Stewart, M.B., Ch.B., Resident Assistant M.O.
Francis R. Berridge, M.R.C.S., L.R.C.P., D.M.R., Resident Assistant Radiologist.
James G. Murdoch, M.B., Ch.B., Assistant Medical Officer and Resident Anaesthetist.
T. B. Gordon, M.B., Ch.B., Junior Resident Medical Officer for 12 months.
J. D. Watt, M.B., Ch.B., Junior Resident Medical Officer for 12 months.
J. L. M. Whitbread, M.D., M.C.P.S., Resident Assistant Medical Officer, Out-patient Department.

Whole-time Medical Staff, Black Notley Sanatorium.

M. C. Wilkinson, M.B., B.S., M.R.C.S., L.R.C.P., Medical Superintendent.
R. C. Cohen, M.D., D.P.H., Assistant Medical Officer.
Doris B. Clay, M.B., B.S., Junior Assistant Medical Officer.
J. H. Dixon, B.A., M.R.C.S., L.R.C.P., M.B., B.Ch., Junior Assistant Medical Officer.

Assistant County Medical Officers who are also Local Medical Officers of Health.

Name.	Qualifications.	Duties.
W. H. Alderton	M.C., M.R.C.S., L.R.C.P., D.P.H.	M.O.H., T.O., S.M.I., C.W.O.
B. Fraser Beatson	M.R.C.S., L.R.C.P., D.P.H., D.T.M. & H.	M.O.H., S.M.I.
W. T. G. Boul	M.D., D.P.H.	M.O.H., T.O., S.M.I.
C. B. Huss	M.B., B.S., M.R.C.S., L.R.C.P., D.P.H.	Deputy M.O.H. and Assistant C.M.O.
Enid L. Weatherhead	M.B., B.S., M.Sc.	Assistant M.O.H. and Assistant C.M.O.
L. S. Fry	B.A., M.D., D.P.H.	M.O.H., T.O. (including M.O., High Beech Sanatorium).
J. Hatton	M.D., D.P.H.	M.O.H., T.O.
N. S. R. Lorraine	M.D., D.P.H., F.R.S. (Edin.)	M.O.H., T.O., S.M.I., C.W.O.
W. A. Milne	M.B., Ch.B., D.P.H.	M.O.H., T.O., S.M.I., C.W.O.
J. Ramsbottom	M.B., Ch.B., D.P.H.	M.O.H., T.O., S.M.I., C.W.O.
J. S. Ranson	M.R.C.S., L.R.C.P., D.P.H.	M.O.H., T.O., S.M.I., C.W.O.
S. R. Richardson	B.A., M.D., D.P.H.	M.O.H., T.O., S.M.I., C.W.O.

Medical Officers of Health undertaking some duties part-time for the County Council.

Name.	Qualifications.	District.
W. F. Corfield	M.D., D.P.H.	Colchester.
C. E. E. Herington	M.B., B.S., D.P.H.	Dagenham.
J. B. Samson	M.D., D.P.H.	Romford.

Whole-time Assistant County Medical Officers.

Name.	Qualifications.	Duties.
Kathleen M. Bodkin	M.R.C.S., L.R.C.P., D.P.H.	S.M.I. and C.W.O.
F. G. Brown	B.A., M.B., B.Ch., B.A.O., D.P.H.	T.O. (including M.O., Harold Court Sanatorium).
Marjorie L. Campbell	B.A., M.B., B.Ch., B.A.O., D.P.H.	S.M.I. and C.W.O.
J. G. Currid	M.A., M.B., Ch.B., D.P.H.	T.O.
Rachel A. Elliott	M.D., D.P.H.	S.M.I. and C.W.O.
E. L. Ewan	M.B., Ch.B., D.P.H.	S.M.I.
V. Feldman	M.D., M.R.C.S., M.R.C.P., D.P.H.	S.M.I. and C.W.O.
A. R. Forbes	M.B., Ch.B., D.P.H.	S.M.I.
A. R. Graham	M.B., Ch.B., D.P.H.	S.M.I. and C.W.O.
J. Graham	M.A., M.B., Ch.B.	S.M.I.
R. D. Gray	M.B., Ch.B.	S.M.I.
Esther P. Jones	M.R.C.S., L.R.C.P.	S.M.I. and C.W.O.
Greta Lowe	M.B., Ch.B., D.T M. & H.	S.M.I. and C.W.O.
T. L. Ormerod	M.A., M.B., B.Ch.	T.O.
Eleanor Patterson	M.B., B.S., B.Hy., D.P.H.	S.M.I. and C.W.O.
H. Ramsay	M.B., B.S., M.R.C.S., L.R.C.P.	T.O.
Mary D. Rankine	M.B., Ch.B., D.P.H., M.M.S.A.	S.M.I. and C.W.O.
J. E. Stokes	M.A., M.D., D.P.H.	T.O.
Mary Sutcliffe	M.A., M.R.C.S., L.R.C.P., B.Ch., D.P.H.	S.M.I. and C.W.O.

Medical Practitioners performing duties for County Council (part-time), S.M.I., C.W.O. or V.D.

G. O. Barber, I. M. Bell, L. M. Billingham, W. N. Booth, C. R. Dykes, W. F. Erskine, Mary E. Fox, H. J. Garland, Sybil D. Goodwill, Gwenedd Hugh-Jones, Alice Mackenzie, Lily Mackinnon, J. G. Madden, J. T. Moffat, F. A. M. Nelson, Evelyn Pirrie, Jemima B. Ratcliffe, G. F. Rees Jones, P. T. Spencer Phillips, Margaret Turner, H. A. Watney, C. A. Weller, J. T. Whitley.

Matrons of County Sanatoria and Hospitals.

M. Ruck, R.R.C.	Black Notley Sanatorium.
S. B. Loosley	Harold Court Sanatorium.
A. Roberts	High Beech Sanatorium.
E. M. McArthur	Oldchurch County Hospital.
E. Ward	Brookfield Orthopaedic Hospital.

Technical Staff.

County Health Inspector—

A. Marsh, F.R. San. I. and Cert. Insp. of Meat and other Foods.

Assistant County Health Inspectors—

R. H. Wigmore, M.S.I.A. and Cert. Insp. of Meat and other Foods.
L. Y. Whittingham, A.R. San. I. and Cert. Insp. of Meat and other Foods.

Orthopaedic Masseuses.

County Orthopaedic Masseuse—

M. Scott, Teachers Dip., Ed. Gym., R.S.I., C.S.M.M.G., M.E.

District Orthopaedic Masseuses—

M. Haydon, C.S.M.M.G. and M.E.
M. E. Wells, C.S.M.M.G. and M.E.

Part-time Orthopaedic Masseuses—

D. Parsons, C.S.M.M.G. (By arrangement with B.R.C.S.).
D. Dawson, C.S.M.M.G., M.E., L.E.T.

Health Visitors, School and Tuberculosis Nurses.

Chief Health Nurse—

D. M. Landon, S.R.N., S.C.M., Cert. R.S.I. (Also County Superintendent, Essex County Nursing Association).

Assistant Chief Health Nurses—

E. A. Davieson, S.R.N., S.C.N., Cert. R.S.I.
C. G. Teale, S.R.N., S C.M., Cert. R.S.I.
} (Also Asst. County Superintendents, Essex County Nursing Association).

Relief Health Visitor—

G. M. White, S.R.N., S.C.M., Cert. R.S.I,

Health Visitors, &c.—*continued.*

(a) Whole-Time County Council.

Centre.	Name.	Qualifications.	Duties undertaken. T.B.	S.N.	C.W.
Saffron Walden	Woodman, E. M.	S.R.N., S.C.M.	Yes	Yes	Yes
Halstead	Starr, G. M.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
,,	Jossaume, J.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
Lexden & Winstree	Meachen, N. V.	S.R.N., S.C.M.	,,	,,	,,
,,	Jackson, M. J.	S.R.N., S.C.M.	,,	,,	,,
Tendring	Steele, R. M.	S.R.N., S.C.M.	,,	,,	,,
,,	Wallace, A. C. G.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
,,	Croll, M.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
Saffron Walden	Chittenden, A. E.	S.R.N., S.C.M.	,,	,,	,,
Dunmow	Francis, N. M.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
,,	Ives, D. M.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
Braintree	Dickson, M. W.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
,,	Humfress, J. K.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
,,	Watson, H. J.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
Epping	Myers, S. J.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
,,	Cooper, D. G.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
Ongar ..	Mann, R. L.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
Chelmsford	Wenborn, J. K.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
,,	Green, K. M.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
,,	Haryott, G. A.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
Maldon	Derry, A. M.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
,,	Smith, V. E.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
,,	Bond, D. E.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
Chingford	Waterhouse, M.	King's College Cert. and Bd. of Ed. Cert.	,,	,,	,,
,,	Turner, V. M.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
,,	Griffiths, V. H.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
Waltham Abbey	Owen, C. A.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
Woodford	Waterhouse, K.	S.C.M., Children's Cert.	,,	,,	No
Buckhurst Hill	Glover, E.	S.R.N., S.C.M., R.S.I.	,,	,,	Yes
Romford	Newby, A. E.	S.R.N.	,,	,,	No
,,	Champion, G. F.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	Yes
Hornchurch	Threadkell, H.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
,,	Knox, E. A.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
,,	Robinson, V. M.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
,,	Land, L. B.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
Brentwood	Hughes, M. A.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
,,	Hillyer, I. G.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
Billericay	Baillie I. K.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
,,	Shepherd, M. A.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
,,	Trillwood, E. K.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
Orsett ..	Wall, A. D.	S.R.N.	,,	,,	No
Rochford	Smith, E. M.	S.R.N., S.C.M.	,,	,,	Yes
Benfleet	Richardson, P. M.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
Rayleigh	Cassidy, M.	S.R.N., S.C.M.	,,	,,	,,
Canvey Island	Knight, M. K.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,

(b) Whole-time Tuberculosis Nurses.

Barking	Sansom, R.	S.R.N.	Yes	No.	No
,,	Westcott, H. M.	S.R.N.	,,	,,	,,
Dagenham	Richards, E. F.	Board of Education (1923) Cert. S.C.M.	,,	,,	,,

Health Visitors, &c.—*continued.*

(b) Whole-time Tuberculosis Nurses—*continued.*

Centre.	Name.	Qualifications.	Duties undertaken. T.B.	S.N.	C.W.
Dagenham	Alder, B.	S.R.N., S.C.M.	Yes	No	No
Ilford	Stewart, D. B.	S.R.N., S.C.M.	,,	,,	,,
,,	Bowman, T. E.	S.C.M. & Nursing Cert.	,,	,,	,,
Leyton	Griffin, M. W.	Board of Education (1923) Cert. S.C.M., R.S.I.	,,	,,	,,
,,	Lamborn, E. S.	S.R.N., S.C.M., R.S.I.	,,	,,	,,
,,	Cunningham J.	S.R.N., S.C.M.	,,	,,	,,
Romford	Purves, D.	Sanatorium Training	,,	,,	,,
,,	Krogman, L. M.	S.R.N., S.C.M.	,,	,,	,,
Walthamstow	Brightman, A. C.	Children's Cert.	,,	,,	,,
,,	Ames, A.	S.R.N., S.C.M.	,,	,,	,,
,,	Ellis, S.	S.R.N., Tuberculosis Cert.	,,	,,	,,

(c) Whole-time School Nurses.

Dagenham	Lunn, E. L.	S.R.N.	No	Yes	No
,,	Thurtle, E.	S.R.N., S.C.M.	,,	,,	,,
,,	Murphy, E. M.	S.R.N., S.C.M.	,,	,,	,,
,,	Jewell, J. M.	S.R.N., S.C.M.	,,	,,	,,
,,	Jefferson, G. L.	S.R.N.	,,	,,	,,
,,	Jewell, I. M.	S.R.N., Children's Cert.	,,	,,	,,
,,	Brimblecombe, A. C.	S.R.N., S.C.M.	,,	,,	,,
,,	Charles, J.	S.R.N., S.C.M.	,,	,,	,,
Romford	Morgan, E. J.	S.R.N., S.C.M.	,,	,,	,,
,,	Harwood, N. C.	S.R.N., Home Nursing Cert.	,,	,,	,,

(d) Whole-time, but only giving part-time to County Council.

Thurrock	Allcorn, R. E.	H.V.'s Diploma, 1920	Yes	Yes	No
,,	Gibson, I.	H.V.'s Diploma	,,	,,	,,
,,	Polley, A.	S.R.N., S.C.M.	,,	,,	,,
,,	Miller, E. C. P.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
,,	Chandler, E. M.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
,,	Marshall, E. M.	S.R.N., S.C.M.	,,	,,	,,
,,	Darrell, E.	S.R.N., S.C.M., H.V. Cert.	,,	,,	,,
,,	King, E. M.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
Wanstead	Clarke, H.	S.R.N., S.C.M., Cert. R.S.I.	,,	,,	,,
Colchester	Rickard, M. E.	S.R.N., S.C.M., Cert. R.S.I.	,,	No	,,

(e) Probationer Health Visitor.

Hornchurch	Hay, E. J.	S.R.N., S.C.M.	Yes	Yes	Yes

(f) Council Midwives.

Billericay	Price, M. E.	S.C.M., First Aid Cert.	—	—	Yes
,,	Calcott, K.	S.C.M.	—	—	,,
Braintree	Fenwick, A. H.	S.C.M., Home Nursing and First Aid Certs.	—	—	,,
Chigwell	Bartter, R. S.	S.C.M. and R.S.I.	—	—	,,
,,	Quill, G. H.	S.C.M.	—	—	,,
,,	Jones, G. D.	S.R.N., S.C.M.	—	—	,,

Health Visitors, &c.—*continued.*

(f) Council Midwives—*continued.*

Centre.	Name.	Qualifications.	Duties undertaken. T.B.	S.N.	C.W.
Chingford	.. Stenning, P. M.	.. S.C.M., Home Nursing and First Aid Certs.	—	—	Yes
Hornchurch	.. Child, E. F.	.. S.R.N., S.C.M.	—	—	,,
,,	.. Gayne, S. E.	.. S.C.M., Home Nursing and First Aid Certs.	—	—	,,
,,	.. Healey, S.	.. S.C.M., Surgical and Medical Cert. of G.N.C., C.M.B. Teacher's Cert.	—	—	,,
,,	.. Fisher, G.	.. S.C.M., Home Nursing and First Aid Certs.	—	—	,,
,,	.. Willis, W. B.	.. S.C.M., Mental Nursing Cert.	—	—	,,
,,	.. Barrett, D.	.. S.R.N., S.C.M.	—	—	,,
Emergency Midwives—					
	Ward, D.	.. S.C.M.	—	—	,,
	Finch, E. K.	.. S.C.M., Home Nursing and First Aid Certs.	—	—	,,
	Wilson, G.	.. S.C.M., First Aid Cert. ..	—	—	,,

Dental Staff.

(a) Senior Dental Surgeon. (Whole-time).

Name.	Qualifications.	District.
Donaldson, S. K.	.. L.D.S., R.F.P.S.	.. Chelmsford, Maldon, &c.

(b) District Dental Surgeons. (Whole-time).

Roberts, A. S.	.. L.D.S., R.C.S.	.. Dagenham.
Hendry, A. W.	.. L.D.S., R.C.S.	.. Lexden & Winstree and Tendring.
Davis, D. T.	.. L.D.S., R.C.S.	.. Hornchurch.
James, N. A.	.. L.D.S., R.C.S.	.. Braintree and Saffron Walden, &c.
Hurley, D. W.	.. L.D.S., R.F.P.S.	.. Thurrock.
O'Callaghan, J.	.. L.D.S., R.C.S.	.. Dagenham.
Chase, R. ..	.. L.D.S., R.C.S.	.. Woodford & Chingford.
Connelly, B.	.. L.D.S., R.C.S.	.. Romford.
Edgar, J. ..	.. L.D.S., F.R.P.S.	.. Braintree, &c.
Maxwell, R.	.. L.D.S., R.C.S.	.. Dagenham.
Oldale, A. G.	.. L.D.S., R.C.S.	.. Thurrock, &c.
Smart, J. ..	.. L.D.S., R.C.S.	.. Epping, &c.
Wilson, H. B.	.. L.D.S., R.F.P.S.	.. Romford.
Wilson, Miss J. M.	.. L.D.S., R.C.S.	.. Romford & Dagenham.

(c) Dental Practitioner performing part-time duties for the County Council.

Lewis, D. F.

(d) Whole-time Dental Attendants.

Carter, E. D., Devine, P., Stratford, M. R., Dallison, R., Wittich, D., Martin, V. L. M., Luck, L. A., Lloyd, E. L., Gall, E. E., Jones, E., Nichols, L. M., Polley, L., Wills, M., Bowman, M. H., Makings, F.

Clerical Staff.

(a) Clerical Assistant .. .. L. Hey.

(b) Departmental Clerks .. H. J. Allsupp.
S. G. Clarke.

(c) Class I. Clerks .. .. P. T. Burdon.
P. H. Moth.
J. W. Hurst.

(d) Central Office.

Male Clerks.

S. R. Shilton.
A. C. Guymer.
R. H. Dennison.
R. Porter.
E. Rich.
M. W. Stock.
R. W. Pye.
R. C. Harris.
T. R. Hicks.
L. Saich.
J. T. Hitching.
R. Haywood.
L. A. E. Osbon.
G. L. Tomkins.

Female Clerks.

N. M. Chaplin.
I. M. Thomas.
Q. Nice.

Shorthand-Typists.

E. H. Scott.
P. C. Dewbury.
J. M. Wells.
M. J. Gosling.
L. Brown.
K. Bloxham.
G. J. England.
D. W. Last.
F. Speer.
N. Crozier.
E. J. Runcorn.

(e) Dispensary Clerks.

Male.

A. E. Thornton.
L. M. E. Lamb.

Shorthand-Typists.

M. Bamberry.
R. Carrington.
P. E. Cork.
D. Goodwin.

PART I.

ACREAGE AND POPULATION.

The area of the Administrative County as revised under Section 46 of the Local Government Act, 1929, is shown in the following table, which also sets out particulars of the Registrar-General's estimated population for the year 1937, compared with the census figures of 1931. The table gives as in previous years, the number of persons per acre, number of inhabited houses, number of families or separate occupiers, etc., and the rateable value :—

	Revised Areas.			No. of Persons per acre. (Calculated on 1931 Census).	No. of Acres per person.	No. of inhabited houses (Census 1931).	No. of families or separate Occupiers (Census 1931).	Registrar-General's Estimate, Normal Population, 1937.	Rateable value, 1st April, 1937.
	Acres. Census 1931.	Population. Census 1921.	Population. Census 1931.					Population.	
Municipal Boroughs (11)	63,028	528,344	627,691	9.96	0.10	139,077	162,208	705,716	£9,448,281.
Urban Districts (21)	193,954	213,925	376,634	1.94	0.51	89,498	92,917	478,284	
Rural Districts (12)	702,482	170,246	184,679	0.26	3.80	49,898	50,425	193,700	
	959,464	912,515	1,189,004	1.2	0.80	278,473	305,550	1,377,700	

The product of a 1d. rate is estimated at £37,138.

SOCIAL CONDITIONS.

With its estimated population of 1,377,700, Essex is now one of the largest administrative counties in England and Wales. As a result of its proximity to London the southern half of the county is largely residential and industrial, but the northern half is mainly agricultural. The chief industries are engineering (electrical, wireless and agricultural), beet sugar, cement and brickmaking, breweries, asbestos, boot and shoemaking and the manufacture of artificial silk and motor cars.

Essex has not been affected to any great extent by unemployment, in fact, during 1937 there has been an improvement in those parts of the county where unemployment existed.

VITAL STATISTICS.

The total number of births, still-births, deaths at all ages, etc., is set out in Table XXV, in Part V of the Report. The chief vital statistics of the Administrative County compared with those for England and Wales during 1937, are set out below :—

	Essex.		England and Wales.	
	1933-1937.	1937.	1933-1937.	1937.
Birth-rate per 1,000 population	14·4	14·5	14·7	14·9
Death-rate ,, ,, ...	9·9	10·1	12·1	12·4
Infant mortality rate per 1,000 births	47	46	59	58
Still-births, rate per 1,000 total live and still-births	35	34	40*	Not available.

*Period 1933-1936.

NOTIFICATION OF INFECTIOUS DISEASES.

A summary of the notification of infectious diseases in the various Sanitary Districts during 1937 is set out in Table XXVII. on page 121. The table shows that 7,889 persons were notified to be suffering from infectious disease, compared with 8,083 in 1936. This reduction is due to the continued decrease in the number of cases of diphtheria and scarlet fever.

Scarlet Fever. The number of cases notified was 3,302 in 1937, as against 3,521 in 1936, the number of deaths being 6 and 15 respectively for these two years.

Diphtheria. There was a further decrease to 1,258 cases, as compared with 1,421 in 1936. The deaths again show a decline, the number being 60, as compared with 73 in 1936.

Enteric Fever. One hundred and forty-five cases were notified during the year whereas the number recorded during 1936 was 72. The deaths, however, remained the same as in 1936, namely, 10. This increase was chiefly confined to the seven Local Sanitary areas in the extra-metropolitan district, where 110 cases were notified.

Small Pox. No case of Small Pox occurred during 1937.

CANCER.

Facilities for investigation and operative treatment of Cancer continue to be available at the Oldchurch County Hospital at Romford, as also are the services of the Specialist there, Dr. Arthur Burrows, in connection with radio therapy and treatment by radium emanation. No special cancer clinics or tumour clinics have been established in the area. In view of this and the fact that no organised services are provided in the County by Regional Radium Centres or Voluntary Hospitals, the tendency is to refer cancer patients either to the Oldchurch County Hospital or to Radium Centres in London.

At the time of writing, the possibilities of establishing a radium and deep X-Ray therapy unit at the Oldchurch County Hospital to serve the whole of the County are being explored in conjunction with officers of the Ministry of Health.

During the year 1937, 404 patients suffering from various forms of cancer were admitted to hospitals and institutions belonging to the County Council. Table I on page 18a gives an analysis of these cases.

The number of deaths occurring in the County from cancer and malignant disease, during the year 1937 is shown in the table below. The death rate per 1,000 of the population increased from 1.44 in 1936 to 1.49 in the year under review :—

	Age Period.											
	0—	1—	2—	5—	15—	25—	35—	45—	55—	65—	75—	Total.
Boroughs and Urban Districts	1	—	3	5	7	19	97	255	446	527	320	1680
Rural Districts ..	—	—	1	1	—	2	17	37	85	127	106	376
Total for Administrative County ..	1	—	4	6	7	21	114	292	531	654	426	2056

VENEREAL DISEASE.

The County Council continues to participate in the London & Home Counties Scheme whereby Essex patients attend for advice and treatment at many of the larger London Hospitals. Clinics are also available at the following :—

Chelmsford & Essex Hospital.
Essex County Hospital, Colchester.
East Suffolk & Ipswich Hospital.
Borough Sanatorium, Southend.
Ad hoc Clinic, Gravesend.
Prince of Wales Hospital, Tottenham.

Travelling Facilities for Patients.

During the financial year ended 31st March, 1938, fares of necessitous patients to and from the nearest Clinics were paid by the County Council at a cost of £249 5s. 6d.

Incidence.

Table II on page 19 shows the attendance of Essex patients at the various Clinics, from which it will be seen that the total attendances decreased from 67,092 to 63,786, while the number of bed days increased from 3,155 to 3,785, and the total number of Essex patients treated for the first time increased from 1,532 to 1,591.

V.D. Medical Officer.

On 1st October, 1937, Lieut.-Col. J. M. Elliott, M.B., commenced duty as a whole-time V.D. Medical Officer for the Administrative County of Essex, this new appointment having been approved by the Council in 1937.

Oldchurch V.D. Clinic.

Owing to the rearmament programme and the resulting shortage of steel, work was held up on the construction of the new Clinic at the Oldchurch County Hospital, Romford, and the hope that it would be open by the end of 1937 was not realised. It is expected that the Clinic will be ready by September, 1938.

TABLE I.

Statement of Cancer Patients for 1937.

Sites.	I. Patients admitted after previous advice or treatment at another hospital providing radiation as well as operative treatment. Total Number 137 :—		II. Patients admitted after previous advice or treatment at another hospital providing operative but not radiation treatment. Total Number 53 :—				III. Patients admitted without previous advice or treatment at another Hospital. Total Number 216 :—		
	(a)	(b)	Treated at that Hospital.		Not treated at that Hospital.		(a)	(b) Numbers referred for advice and/or treatment to :—	
	Numbers treated at that Hospital.	Numbers not treated at that Hospital.	(a) Numbers retained in Council's Hospital.	(b) Numbers referred for advice and/or treatment to a Hospital providing radiation treatment.*	(a) Numbers retained in Council's Hospital.	(b) Numbers referred for advice and/or treatment to a Hospital providing radiation treatment.*	Numbers retained in Council's Hospital.	(i) Hospital providing operative treatment.	(ii) Hospital providing radiation as well as operative treatment.*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Uterus	12	—	2	—	4	—	24	—	—
Tongue and Mouth ..	15	—	—	—	—	—	8	—	—
Breast	20	—	6	—	7	—	26	—	—
Lip	—	—	—	—	—	—	1	1	—
Skin	—	—	—	—	—	—	6	1	—
Larynx	2	2	—	—	—	—	9	1	—
Bladder	17	—	—	—	6	—	11	—	—
Rectum	18	—	1	—	2	—	14	—	—
Other sites	49	2	12	4	9	—	112	—	2
Total	133	4	21	4	28	—	211	3	2

*Those cases in which the radio-therapist gave advice or treatment within the Council's hospitals are included in the (b) columns of II. and III., but are excluded from the (a) columns.

TABLE II.

TREATMENT OF VENEREAL DISEASE, YEAR 1937.

Treatment Centre.	Patients from all Areas. Total No. treated for first time.	ESSEX PATIENTS							
		Total Number treated for first time suffering from					Total No. of Attendances of Essex Patients.	In-patient Days.	Hostels.
		Syphilis.	Soft Chancre.	Gonorrhœa.	Not V.D.	Total.			In-patient days.
London Hospitals	25,825	105	5	463	643	1,216	54,974	3,581	2,412
St. Bartholomew's, London... ...	966	2	—	5	4	11	70	—	—
Chelmsford	51	19	—	17	15	51	616	—	—
Colchester	139	22	—	40	69	131	4,042	187	—
Ipswich	223	3	—	4	4	11	167	17	—
Southend	245	7	—	18	21	46	895	—	—
Gravesend	260	9	—	36	33	78	1,151	—	—
Tottenham	504	7	1	18	21	47	1,871	—	—
Total for 1937...	28,213	174	6	601	810	1,591	63,786	3,785	2,412
Total for 1936...	28,447	157	14	540	821	1,532	67,092	3,155	1,117
,, 1935...	30,727	181	23	612	769	1,585	76,307	2,750	1,466
,, 1934...	30,719	245	19	731	644	1,639	72,442	2,663	1,419
,, 1933...	31,116	303	20	774	613	1,710	63,368	3,491	1,307
,, 1932...	29,935	274	13	693	659	1,639	53,444	2,288	2,173
,, 1931...	27,970	281	30	580	564	1,455	45,007	2,245	2,416

Medical Officers' Sessions.

(*a*) Pending the opening of the Oldchurch V.D. Clinic, a modified session was commenced in January, 1938, in the Out-Patients' Department of the Oldchurch County Hospital, and the number of cases already attending shows once again the necessity for a V.D. Clinic in this densely populated and growing area.

(*b*) In February, 1938, with the approval of the Chelmsford & Essex Hospital, an evening session conducted by the County V.D. Officer, was started in connection with the V.D. Clinic which is held at the hospital.

(*c*) Arrangements have been made whereby mothers and children can be referred from one of the Maternity and Child Welfare Centres to a special clinic associated with the Hornchurch Treatment Centre without having to attend the V.D. Clinic.

Propaganda.

(*a*) LECTURES. On 31st January, 1938, a lecture on Venereal Diseases was given by Dr. Drummond Shiels, of the British Social Hygiene Council at a mass meeting held in the Shire Hall, Chelmsford, and was attended by a mixed audience of over 400, the hall being filled to capacity. After the lecture a cinema film was shown.

A similar lecture was given by the County V.D. Officer in the Town Hall, Colchester, on 28th March, 1938, to an audience of over 500. At both meetings the Chair was taken by Alderman C. W. Daines, J.P., Chairman of the Sanitary and Health Sub-Committee, and from the number of questions asked after each lecture there appeared to be an awakening of interest in the public mind with regard to this social problem.

Addresses were also given at the Health Exhibition in Romford, at the annual meeting of the Federation of Essex Women's Institutes, in Chelmsford and at the annual meeting of the Essex Branch of the Women Public Health Officers' Association at Epping.

(*b*) POSTERS. In addition to the notices displayed in the lavatories of all stations on the L. & N.E. Railway, 200 notices of a newer and more legible type have been purchased and are being distributed to Medical Officers of Health for posting in public lavatories, and in certain factories with the approval of the Management and Works Committees concerned.

VACCINATION.

During the year ended 31st December, 1936 (the latest period for which complete information is available), the Vaccination Officers' returns summarised in Table III show that 17,499 births were registered. Of these, 5,683 were successfully vaccinated, and in 9,343 instances a statutory declaration of conscientious objection was made. Of the remaining 2,473 births, 637 removed to places unknown ; 437 removed to districts of other Vaccination Officers who were duly notified ; in 147 cases vaccination was postponed by medical certificate ; 61 proved insusceptible of vaccination, and 644 died un-vaccinated. At the end of the year 547 births remained which had not been entered in the vaccination register or temporarily accounted for in the report book.

With regard to the number of persons successfully vaccinated and re-vaccinated at the cost of the rates by Public Vaccinators and Medical Officers of Poor Law Insti-

TABLE III.

Guardians Committee Areas.	No. of Births in "Birth List Sheets" registered 1st Jan. to 31st Dec., 1936.	No. of these Births entered by 31.1.38 in Cols. I, II, IV and V of the "Vaccination Register" (Birth List Sheets), viz. :—					No. of Births which on 31.1.38 remained unentered in the "Vaccination Register" on account of :—			No. of these Births remaining 31.1.38 neither entered in the "Vaccination Register" nor temporarily accounted for in "Report Book."	No. of Certificates of successful Primary Vaccination of Children under 14 received during 1937.	No. of Statutory Declarations of Conscientious objection received by V. O. during 1937.
		Col. I. Successfully vaccinated.	Col. II. Insusceptible of vaccination.	Col. II. Had Small-pox.	Col. IV. No. of Statutory Declarations.	Col. V. Died unvaccinated.	Postponement by medical certificate.	Removal to Districts the Vaccination Officer of which have been apprised.	Removal to places unknown and cases not found.			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Braintree ..	672	217	8	—	412	19	1	9	6	—	282	249
Chelmsford ..	1,857	674	14	—	960	45	8	42	49	65	766	976
Colchester ..	1,922	677	7	—	1,045	75	6	35	53	24	777	1,164
Epping ..	545	254	5	—	227	16	5	19	18	1	272	242
Saffron Walden	441	245	4	—	159	11	7	4	8	3	270	166
Southern ..	6,558	2,087	7	—	3,384	269	65	165	286	295	2,844	3,507
South Eastern ..	1,922	482	5	—	1,083	78	13	101	55	105	490	1,044
South Western ..	3,582	1,047	11	—	2,073	131	42	62	162	54	1,511	2,054
	17,499	5,683	61	—	9,343	644	147	437	637	547	7,212	9,402

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

tutions, the Clerk of the County Council has kindly forwarded to me the following information in respect to the year ended 30th September, 1937 :—

Numbers of successful Primary Vaccinations of persons :—

(*a*) Under 1 year of age	4,840
(*b*) 1 year and upwards	544
(*c*) Total..	5,384
Number of successful re-vaccinations, *i.e.*, successful vaccinations of persons who have been successfully vaccinated at some previous time..	255

ISOLATION HOSPITALS.

Table IV on page 22a shows the number of beds provided on the basis of 2,000 cubic feet per bed, the number of patients treated, and the cost per patient per week at each of the fifteen Isolation Hospitals which receive grants from the Essex County Council. Such grants are at the rate of £5 per annum per bed provided out of loan, plus £10 per annum in respect to each ambulance maintained by a Hospital in an efficient condition. In addition, grants at the rate of £2 10s. 0d. per bed, per annum, provided out of revenue were paid in respect to the hospitals at Colchester (40 beds), Dunmow (4 beds), Halstead (4 beds), and Orsett (48 beds).

There was again a decrease in the number of patients treated in hospital, the figure falling from 4,505 in 1935-36 to 4,430 in 1936-37. Consequently, the average cost per patient increased from £29 3s. 3d. in 1935-36 to £31 15s. 10d.

As stated in the Report for 1935, the County Council's Scheme under Section 63 of the Local Government Act, 1929, approved by the Minister of Health in June, 1935, provided for reducing the number of Hospital Authorities and Joint Hospital Boards from twenty to ten, so far as infectious diseases other than Smallpox were concerned. In eight out of the ten areas, provision has been or is being made in accordance with the Scheme. In the remaining two areas, Nos. 3 and 4, effect has not yet been given to the Scheme.

The general position in regard to Area No. 3 (Braintree, etc.) is under consideration. In respect to Area No. 4 (Chelmsford and Maldon), the Ministry of Health held a Public Inquiry on 15th July, 1937, and decided to accede to the application for a Provisional Order to revoke the Maldon Joint Hospital Order, 1901, and amend the Chelmsford Joint Hospital Order, 1902. A High Court action thereon is pending.

Under the Scheme the Essex County Council is now an authority for providing accommodation for the treatment of cases of Smallpox occurring in the Administrative County, exclusive of the Borough of Colchester. By an agreement between the Essex County Council and the Corporation of Colchester, a Smallpox Hospital with 24 beds has been provided, adjacent to the Isolation Hospital situated in Mill Road, Mile End, Colchester.

The Essex County Council also had an informal agreement with the London County Council under which the latter would receive Essex patients into their smallpox hospital so long as sufficient accommodation was available.

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, 1937

	Billericay.	Braintree.	Chelmsford.	Clacton.	Colchester.	Dunmow.	Halstead.	Ilford.	Maldon.	Rochford.	Romford.	Saffron Walden.	Thurrock.	Walthamstow.	Waltham Joint.	TOTAL.
Number for purpose of Grant ...	30	14	21	17	58	8	16	150	10	12	141	16	48	81	80	702
Grant from County Council ...	£170	£80	£115	£85	£300	£50	£90	£760	£60	£70	£725	£90	£270	£425	£420	£3710
Cases treated during year :—																
Diphtheria	38	11	4	6	71	4	13	109	20	49	582	...	48	101	70	1126
Scarlet Fever	160	51	158	34	102	6	15	250	15	95	726	45	218	287	172	2334
Typhoid		...	4	...	4	...	1	30	2	...	...	...	4	2	7	54
Other Diseases	43	6	20	5	*150	3	43	*232	8	...	221	10	93	*69	13	916
Total number of cases treated ...	241	68	186	45	327	13	72	621	45	144	1529	55	363	459	262	4430
Bed-Days	6717	3332	4545	2070	15196	333	1507	32442	1273	5340	55650	1531	11324	14568	8998	164636
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.	£ s. d.
Repayment of Loans... ...	423 11 1	...	101 4 0	...	419 2 11	...	64 0 0	3801 9 5	39 19 8	40 1 8	4364 10 10	162 19 9	560 16 3	558 12 5	1798 12 3	12435 0 3
Interest on loan	385 7 9	...	11 16 4	...	259 15 2	...	27 3 7	3032 14 7	8 2 6	18 9 0	5560 7 2	62 5 5	830 10 7	530 10 5	2280 6 9	13167 9 2
Total ... £	808 18 10	...	113 0 4	...	678 18 1	...	91 3 7	6854 4 0	48 2 2	58 10 8	10024 18 0	225 5 2	1491 6 10	1089 2 10	4078 19 0	25542 9 6
Structural Repairs	131 17 7	98 18 9	175 1 5	87 6 6	132 5 0	...	51 11 0	4683 8 1	45 17 8	76 1 1	1367 3 5	39 16 7	275 6 2	1186 18 10	836 10 10	9378 2 11
Food (Patients and Staff) ..	1966 17 9	521 18 11	424 17 9	358 3 3	1230 9 9	178 4 8	229 3 8	4582 11 3	264 8 8	731 0 11	5850 0 2	196 9 4	2379 4 8	3674 3 0	892 16 8	23420 10 5
Estab. and Patients' Expenses ...	1896 14 9	1397 14 4	1844 1 11	820 3 5	6012 10 2	589 18 8	1620 16 4	18338 17 9	1286 14 4	1332 0 3	21358 1 0	833 17 0	4067 1 0	12328 3 4	8751 1 2	82497 15 5
Maintenance... ...	3933 10 1	2018 12 0	2444 1 1	1265 13 2	7375 4 11	768 3 4	1901 11 0	27604 17 1	1597 0 8	2139 2 3	28765 4 7	1090 2 11	6721 11 10	17189 5 2	10489 8 8	115296 8 9
Overhead Charges ...	808 18 10	...	113 0 4	...	678 18 1	...	91 3 7	6854 4 0	48 2 2	58 10 8	10024 18 0	225 5 2	1491 6 10	1089 2 10	4078 19 0	25542 9 6
Total ... £	4744 8 11	2018 12 0	2557 1 5	1265 13 2	8054 3 0	768 3 4	1992 14 7	34459 1 1	1645 2 10	2197 12 11	38790 2 7	1315 8 1	8212 18 8	18275 8 0	14559 7 8	140838 18 3
Cost per patient per week £	4 18 11	4 4 9	5 18 9	4 5 7	3 14 2	16 2 11	9 5 1	7 8 7	9 0 11	2 17 7	4 17 7	6 0 3	5 1 5	8 18 1	11 6 6	5 19 9
,, ,, Food, Struct. and Estab. Ex. £	4 2 1	4 4 9	3 15 3	4 5 7	3 7 11	16 2 11	8 16 8	5 19 2	8 15 8	2 16 1	3 12 4	4 19 8	4 3 0	8 7 6	8 3 1	4 18 1
Cost per case treated, 1936-37 £	19 13 9	29 13 8	13 15 0	28 2 6	24 12 8	59 1 10	27 13 6	55 9 1	36 11 2	15 5 3	25 7 5	23 18 4	22 12 6	39 16 5	55 11 5	31 15 10
,, ,, year 1935-36 £	22 19 0	45 8 10	9 0 8	33 11 9	20 16 0	18 14 2	44 12 8	49 8 10	24 5 0	23 9 4	26 10 8	5 4 4	33 7 10	28 16 7	42 8 7	29 3 3

* Includes Tuberculosis cases treated under the County Council scheme.

EXAMINATION OF BACTERIOLOGICAL SPECIMENS.

Dr. E. V. Suckling has kindly supplied the following report on the work undertaken during the year 1937 :—

The total number of specimens examined during 1937 was 32,107, which is an increase of 3,950 compared with the number received in the previous year.

For convenience of description the specimens can be divided into the following four main groups :—

A.	*Samples of Water and Sewage Effluent.*	
	Total number	688
B.	*Samples of Milk, Ice Cream and Foods.*	
	Total number	1,231
C.	*Pathological Specimens.*	
	Received from Infectious Diseases Hospitals and Sanatoria, Medical Officers of Health and Medical Practitioners. Total number ..	28,785
D.	*Pathological Specimens.*	
	Received from County Hospitals and Public Assistance Institutions. Total number ..	1,403

Group A. Samples of Water and Sewage Effluent.

The samples of this Group consisted of the following :—

(1) Samples of Drinking Water	373
(2) Samples of Sewage Effluent, Trade Wastes and River Water	255
(3) Samples of Swimming Bath Water ..	60
	688

The number of samples in this group shows an increase of 85 over that of 1936.

All samples of water were submitted to chemical analysis and bacteriological examination.

Samples of Sewage Effluent and Trade Waste, however, were examined chemically only, except in special cases.

The samples indicated that the Public Water Supplies of the County maintain a satisfactory standard of purity.

Sewage Effluents and Trade Wastes discharged into watercourses are required to comply with two prescribed standards, *i.e.*, :—

(*a*) Suspended Matter not to exceed 2.1 grains per gallon.

(*b*) Impurity Figure not to exceed 10.0 grains per gallon.

On this basis the samples examined can be classified as follows :—

Satisfactory	61%
Unsatisfactory	25%
Borderline (*i.e.*, failing either standard by a small margin)	14%

This can be regarded as a satisfactory result and shows an improvement compared with the position last year, when 34% of the samples proved unsatisfactory.

Group B. Samples of Milk, Ice-Cream and Foods.

1,022 samples of Milk were examined bacteriologically compared with 808 samples in 1936. They consisted of :—

(1) Ordinary or Ungraded Milk	591
(2) Graded Milk	431

Ordinary Raw Milk.

The examinations to which these samples were submitted consisted of :—

(*a*) Enumeration of total bacteria.
(*b*) Coliform Test.
(*c*) Methylene Blue Test.

according to requirements.

The standards aimed at in the case of these samples were bacterial count not to exceed 200,000 per c.c. and absence of coliform bacteria in 0.01 c.c., and in 125 cases, the methylene blue test was carried out in place of the estimation of the bacterial count.

The results obtained were :—

Satisfactory	368 = 62%
Unsatisfactory	223 = 38%

This is regarded as a good result in view of the high standard aimed at for ordinary milk samples.

Graded Milk.

Graded Milks and their required standards are as follows :—

Pasteurised Milk ..	Must not contain more than 100,000 bacteria per c.c.
Tuberculin Tested (Pasteurised) Milk ..	Must not contain more than 30,000 bacteria per c.c.
Accredited Milk *Tuberculin Tested Milk*	Must comply with the prescribed Methylene Blue Test and must not contain coliform bacteria in 1/100th c.c.

The results of the examinations of the samples of Graded Milk were as follows :—

Pasteurised Milk. Total number 174.

Satisfactory	171 = 98.2%
Unsatisfactory	3 = 1.8%

TABLE V.

Shewing Number and Type of Public Health Specimens examined by the Bacteriologist for Essex—Year 1937.

Sanitary Districts.	Diphtheria.	Sputa.	Typhoid.	Ringworm.	General.	Milk and Ice Cream.	Water.	Sewage.	Total Specimens examined.	Virulence Tests for Diphtheria and Tubercle.
Urban—										
Barking B. ...	†1369	‡265	26	...	49	88	11	..	1808	2
Benfleet	102	25	...	..	1	66	2	...	196	...
Billericay	†627	50	7	3	96	21	4	...	808	...
Braintree & Bocking ...	58	91	9	2	46	8	7	...	221	...
Brentwood ..	307	303	9	...	80	147	8	3	857	...
Brightlingsea ...	1	1	...	..	2	...	...	...	4	...
Burnham-on-Crouch ...	8	8	1	..	3	...	11	...	31	...
Canvey Island ...	22	11	2	..	7	...	...	...	42	...
Chelmsford B. ...	99	‡121	2	1	33	7	...	...	263	...
Chigwell ...	61	49	6	...	31	7	2	...	156	..
Chingford	†281	317	92	1	73	..	4	...	768	1
Clacton-on-Sea ...	47	‡31	...	...	4	56	...	...	138	..
Colchester B. ..	†124	‡260	16	4	30	2	...	...	436	5
Dagenham ..	432	‡408	32	20	46	97	...	...	1035	2
Epping ..	†103	‡68	8	1	45	8	2	1	236	...
Frinton & Walton ...	13	19		...	6	24	6	..	68	...
Halstead ...	†24	‡30	7	2	3	...	...	...	66	..
Harwich B. ...	53	‡52	2	...	14	...	3	...	124	...
Hornchurch ...	245	‡2423	1	...	50	57	1	...	2777	...
Ilford B. ...	†424	‡789	221	1	6613	114	25	12	8199	7
Leyton B. ..	†1689	‡541	44	5	119	...	..	...	2398	2
Maldon B. ...	†68	‡26	13	1	108	10	4	..	230	...
Rayleigh ..	28	13	3	...	1	23	1	...	69	...
Romford B. ...	†229	‡450	13	13	77	72	11	...	865	3
Saffron Walden B. ...	16	‡21	...	...	18	...	...	...	55	...
Thurrock	†909	‡258	27	23	68	68	3	...	1356	3
Waltham Holy Cross...	†366	5	40		52	..	...	...	463	...
Walthamstow B. ...	137	‡1059	127	15	1345	36	8	...	2727	3
Wanstead & Woodford B. ...	397	‡151	11	...	56	90	...	...	705	...
West Mersea ...	30	2	..	...	4	2	...	...	38	...
Witham	18	45	2	...	13	7	7	...	92	...
Wivenhoe	8	...	...	...	.	...	1	...	9	...
										...
Total ...	8295	7892	721	92	9093	1010	121	16	27240	28
Rural—										
Braintree ...	†271	‡1561	4	...	358	...	21	...	2215	20
Chelmsford ...	†44	52	...	...	9	...	16	..	121	...
Dunmow ...	83	31	...	...	17	74	29	4	238	2
Epping... ..	53	24	...	..	12	38	2	9	138	...
Halstead ...	32	36	4	2	13	...	11	...	98	...
Lexden & Winstree ...	39	9	...	...	3	12	30	1	94	...
Maldon ..	7	8	...	...	3	2	1	...	21	...
Ongar	29	17	3	...	36	44	7	...	136	...
Rochford ...	†230	38	1	...	4	...	1	...	274	...
Saffron Walden ...	21	18	1	...	3	7	1	...	51	...
Tendring	25	16	...	1	18	2	20	...	82	...
Totals— Rural ...	834	1810	13	3	476	179	139	14	3468	22
Urban ...	8295	7892	721	92	9093	1010	121	16	27240	28
Adminis. County ...	9129	9702	734	95	9569	1189	260	30	30708	50
Specimens of Urine L.G. & O.O. Sup. Scheme ...									430	
									31138	

Note—The above figures do not include specimens submitted from the Oldchurch County Hospital, Romford, see page 30.

† Includes specimens taken at Isolation Hospital in district.

‡ " " Sanatoria or Dispensary.

Tuberculin Tested (Pasteurised) Milk. Total 5.

Satisfactory	5	=100%
Unsatisfactory	0	= 0%

Accredited and Tuberculin Tested Milk. Total 246.

Satisfactory	191	= 77.6%
Unsatisfactory	55	= 22.4%

Ice Cream. Total number 205.

205 samples of Ice-cream were examined, and based on the standard that the bacterial count should not exceed 100,000 per c.c., 28 or 13.6% were unsatisfactory.

In addition, 5 samples of milk and 1 sample of cream were specially examined for bacteria of the typhoid-paratyphoid-salmonella-dysentery groups, and one batch of bottles were submitted to the laboratory for tests for sterility in order to confirm the efficacy of cleansing.

The results proved satisfactory in all cases.

Other Foods.

One sample of Oysters was examined bacteriologically and proved to be clean.

One sample of bread was examined bacteriologically with special reference to the presence of typhoid-paratyphoid bacteria, but with negative results, and one sample of canned fish was examined in connection with suspected food-poisoning, but this proved sterile.

Group C. Pathological Specimens.

The total number of Pathological Specimens in this Group was 28,785, but a number were submitted to various different examinations, as outlined below :—

(1) *Swabs from Throat, Nose, Ear, &c.* 15,992

These specimens are mostly submitted in connection with Diphtheria and Scarlet Fever and are examined culturally for Klebs Loeffleur's Bacilli or Haemolytic Streptococci, and microscopically for the organisms of Vincent's Angina, &c., as required.

(*a*) Swabs examined culturally for Diphtheria Bacilli only 9,175

Many of these were also examined directly by microscopical method.

712 or 7.7% of these swabs gave positive results.

Animal Inoculation Tests for Virulence were carried out on 49 cultures, of which 26 proved virulent.

(*b*) Swabs submitted to general bacteriological examination, microscopical and cultural 7,100

These specimens consisted of the following :—

(1) Throat Swabs	2,290
(2) Nose Swabs	2,730
(3) Ears, Eyes, Skin, &c., Swabs	376
(4) Breast Swabs	1,547
(5) Unlabelled	257

The majority of these specimens were sent primarily for examination for Streptococci and Staphylococci. Streptococci, when found, were differentiated into Haemolytic and Non-Haemolytic strains.

(2) *Specimens in connection with Puerperal Fever* .. 108

In addition to many swabs from Throat, Nose, Breast, &c., included under Paragraph 1, 108 specimens were examined, including vaginal and cervical swabs, &c.

These specimens were submitted to the following examinations :—

(*a*) Microscopical Examination.
(*b*) Bacteriological Examination—Cultural.
(*c*) Classification of Streptococci, when found, into Haemolytic and Non-Haemolytic Groups.

(3) *Specimens of Sputum* 9,030

The total number of specimens of sputum examined was 9,030, as follows :—

(*a*) Specimens examined microscopically for Tubercle Bacilli	8,990
(*b*) Specimens submitted to general microscopical and bacteriological examination ..	40

All specimens of sputum are examined by concentration methods before a negative result for Tubercle Bacilli is given and 2,892 or 32% gave positive results.

(4) *Specimens of Pus* 203

The total number of specimens under this heading was 203, and the examinations to which they were submitted were as follows :—

(*a*) General Microscopical Examination ..	199
(*b*) Microscopical Examination for T.B. ..	182
(*c*) Bacteriological Examination, Cultural ..	199
(*d*) Animal Inoculation Tests for T.B.	5

(5) *Specimens of Urine* 1,463

The examinations to which the specimens were submitted were as follows :—

(*a*) Chemical Analysis	1,191
(*b*) General Microscopical Examination ..	1,204
(*c*) Microscopical Examination for Tubercle Bacilli	892
(*d*) Bacteriological Examination, Cultural ..	499
(*e*) Animal Inoculation Tests for Tubercle Bacilli ..	26
(*f*) Animal Inoculation Tests for Pregnancy ..	2

Of the 892 specimens examined for Tubercle Bacilli, 77 or 8.6% gave positive results and the majority of these were from patients under treatment for Tuberculosis in the County Sanatoria.

11 of the 26 specimens submitted to animal inoculation tests for Tubercle Bacilli gave positive results.

114 of the specimens examined culturally were especially submitted for examination for Typhoid-Paratyphoid Bacilli and two showed the presence of Paratyphoid Bacilli.

(6) *Specimens of Fæces* 713

The total number of specimens was 713, which were examined as follows :—

(*a*) General Microscopical Examination for abnormal constituents, cells, parasites, ova ..	42
(*b*) Microscopical Examination for Tubercle Bacilli	84
(*c*) Bacteriological Examination, Cultural ..	663
(*d*) Occult Blood Reaction	14
(*e*) Triboulet's Reaction	30

Of the 663 specimens examined culturally, 639 were submitted for examination for typhoid-paratyphoid-dysentery bacilli, and 19 were found to contain paratyphoid bacilli. 122 contained dysentery bacilli (Sonne).

(7) *Specimens of Cerebro-Spinal and Other Body Fluids* .. 172

The total number of specimens was 172, consisting of the following :—

(1) *Cerebro-Spinal Fluid*		73
(*a*) Cytological Examination ..	72	
(*b*) Chemical Examinations ..	64	
(*c*) Microscopical Examination for Tubercle Bacilli	63	
(*d*) Bacteriological Examination, Cultural	72	
(2) *Pleural Fluids*		88
(*a*) Cytological Examinations ..	88	
(*b*) Chemical Examination ..	0	
(*c*) Microscopical Examination for Tubercle Bacilli	88	
(*d*) Bacteriological Examination, Cultural	88	

(3) *Other Fluids* 11

These consisted of specimens of fluid from abdomen, joints, &c., and were examined as follows :—

(*a*) Cytological Examinations	11
(*b*) Microscopical Examination for Tubercle Bacilli	11
(*c*) Bacteriological Examination, Cultural ..	11

Animal inoculation tests for Tubercle Bacilli were carried out on 1 specimen of pleural fluid and 1 specimen of joint fluid.

(8) *Specimens of Blood* 899

The total number of specimens of blood was 899, and the various examinations required were as follows :—

(*a*) Cultural Examination		46
(*b*) Agglutination Reactions		414
(1) Typhoid-Paratyphoid Group	393	
(2) Melitensis Group ..	22	
(3) Dysentery Group ..	20	
(*c*) Blood Films for Differential Cell Counts ..		81
(*d*) Blood Films for Malarial Parasites ..		4
(*e*) Estimation of Blood Sugar		75
(*f*) Estimation of Blood Urea		279
(*g*) Estimation of Blood Calcium		1

(9) *Specimens of Hair and Skin Scrapings* 95

The number of specimens examined was 95, of which 29 or 30.5% showed the presence of Ringworm Fungus.

(10) *Specimens of Tissue.*

The number of specimens of tissue examined histologically was 35. Slides of the sections were supplied on several occasions by request.

(11) *Preparation of Autogenous Vaccines.*

Five autogenous vaccines were prepared from bacteria isolated from specimens of pus.

(12) *Animal Inoculation Tests.*

The total number of specimens under this heading was 82, which consisted of the following :—

(*a*) Virulence Tests for Diphtheria Bacilli ..	49
(*b*) Urine for Tubercle Bacilli	26
(*c*) Pleural and other Fluids for Tubercle Bacilli	2
(*d*) Pus for Tubercle Bacilli	5

Group D. Specimens from Oldchurch County Hospital and Public Assistance Institutions.

The total number of specimens in this Group was 1,403, an increase of 269 compared with 1936.

These specimens were distributed as follows :—

Oldchurch County Hospital	414
Public Assistance Institutions	989

The character of these specimens and the examinations to which they were submitted were as follows :—

(1) *Specimens of Blood*		49
(*a*) Estimation of Blood Sugar ..	2	
(*b*) Estimation of Blood Urea ..	12	
(*c*) Blood Cell Counts	6	
(*d*) Blood Culture	5	
(*e*) Agglutination Reactions	24	
(1) Typhoid-Paratyphoid Group : 6		
(2) Melitensis Group : 1		
(3) Dysentery Group : 17		
(2) *Specimens of Fæces*		117
(*a*) General Microscopical Examination ..	13	
(*b*) Microscopical Examination for Tubercle Bacilli	51	
(*c*) Bacteriological Examination, Cultural	80	
(*d*) Occult Blood Reaction	19	
(*e*) Triboulet's Reaction	16	
(*f*) Fat Estimation	3	
(3) *Specimens of Urine*		377
(*a*) General Microscopical Examination ..	266	
(*b*) Microscopical Examination for Tubercle Bacilli	106	
(*c*) Chemical Analysis	266	
(*d*) Bacteriological Examination, Cultural	68	
(*e*) Zondek-Ascheim Tests for Pregnancy ..	111	
(*f*) Animal Inoculation Tests for Tubercle Bacilli	1	
(4) *Specimens of Cerebro-Spinal Fluid*		22
(*a*) Cytological Examination	22	
(*b*) Chemical Analysis	22	
(*c*) Microscopical Examination for Tubercle Bacilli	22	
(*d*) Bacteriological Examination, Cultural	22	

(5) *Specimens of Pleural and other Body Fluids* ..		27
(*a*) Cytological Examination ..	27	
(*b*) Microscopical Examination for Tubercle Bacilli	26	
(*c*) Bacteriological Examination, Cultural	27	
(*d*) Animal Inoculation Test for Tubercle Bacilli	8	
(6) *Specimens of Pus*		25
(*a*) General Microscopical Examination ..	24	
(*b*) Microscopical Examination for Tubercle Bacilli	24	
(*c*) Bacteriological Examination, Cultural	24	
(7) *Specimens of Sputum*		452
(*a*) Microscopical Examination for Tubercle Bacilli	452	
(*b*) General Microscopical Examination ..	60	
(*c*) Bacteriological Examination, Cultural	60	
(8) *Swabs from Throat, Nose and Ear*		220
(*a*) Cultural Examination for Diphtheria Bacilli	214	
(*b*) General Microscopical Examination ..	2	
(*c*) General Bacteriological Examination ..	18	
(*d*) Animal Inoculation Tests for K.L.B. Virulence	14	
(9) *Specimens of Uterine and Urethral Discharges* ..		12
(*a*) General Microscopical Examination ..	12	
(*b*) Microscopical Examination for Tubercle Bacilli	11	
(*c*) Bacteriological Examination, Cultural	12	
(10) *Specimens of Hair and Skin Scrapings*		1
This specimen was examined microscopically for Ringworm Fungus.		
(11) *Specimens of Tissue*		76
Histological Examinations for Malignant Disease, Tuberculosis, &c., were carried out on these specimens.		
(12) *Animal Inoculation Tests*		134
(*a*) Zondek-Ascheim Tests for Pregnancy..	111	
(*b*) Virulence Tests for K.L.B. Virulence..	14	
(*c*) Body Fluids for Tubercle Bacilli ..	9	

It is evident that increasing advantage is being taken of the County Laboratory facilities and the extent of this is shown in the following Table, in which the figures have been summarised in their respective Groups for 1936 and 1937 respectively :—

	1936.	1937.
Group A.		
Samples of Water, Sewage Effluents and Swimming Bath Waters ..	603 ..	688
Group B.		
Samples of Milk, Ice-Cream and other Foods	1,010 ..	1,231
Group C.		
Pathological Specimens from Medical Officers of Health, Medical Practitioners, &c.	25,410 ..	28,785
Group D.		
Pathological Specimens from Oldchurch Hospital and Public Assistance Institutions	1,134 ..	1,403
Total	28,157 ..	32,107

The increase in the total number of specimens during the year is therefore 3,950, or approximately 14%.

Other laboratories are also utilised by the County Council in the direction indicated below :—

East Anglian Institute of Agriculture for the bacteriological examination of samples of milk obtained under the Milk (Special Designations) Order, 1936.

Dr. A. Leslie Sheather, Wroxton, Chorleywood, Herts, for the biological examination of samples of milk obtained from all the licensed and non-licensed farms in the Administrative County.

Dr. S. Roodhouse Gloyne, City of London Hospital, Victoria Park, E.2, for the bacteriological and biological examination of samples of milk obtained at or during delivery to schools under the Milk-in-Schools Scheme.

Chelmsford and Essex Hospital, Chelmsford, for the examination of specimens in connection with cases of puerperal fever and scarlet fever.

Oldchurch County Hospital, Romford, for the examination of routine specimens from patients at the hospital.

Black Notley Sanatorium for the examination of routine specimens from patients at the Sanatorium.

LOCAL GOVERNMENT ACTS, 1929 and 1933.

SECTION 57 (1929). Full details of the County Scheme for making contributions to District Councils were given in the Report for 1934. Schemes for water supplies and sewerage and sewage disposal were submitted by the undermentioned Local Sanitary Authorities; the grants shown below were approved, or the Schemes were regarded as suitable for grant purposes under the Section 57 Scheme :—

Sanitary District.	Parish.	Purpose.	Grant.
Dunmow R. ..	Comprehensive Scheme	Water Supply ..	*Increased from £12,000 to £12,650.
Dunmow R. ..	Hatfield Broad Oak, Great & Little Hallingbury	Water Supply ..	*Reduced from £1,300 to £1,150.
Maldon R. ..	Dengie Hundred	Water Supply ..	*Reduced from £4,000 to £3,750.
Tendring R. ..	Lawford ..	Sewerage and sewage disposal. Cost £940	Eligible for Scheme.

*These amendments were in accordance with the decision of the Minister of Health to amend the grant promised by him under the Rural Water Supplies Act, 1934.

GRANTS MADE FOR 1937-38. The County Council made the following grants in accordance with the provisions of the Section 57 Scheme in respect of the financial year 1937-38 :—

Rural District.	Amount of Grant. £
Braintree	3,345
Dunmow	2,556
Halstead	354
Saffron Walden	1,998

AMENDMENT OF SECTION 57 SCHEME. At the request of the Essex branch of the Rural District Councils' Association a discussion took place with representatives of that Association upon the question of the amendment of some of the conditions in the Section 57 Scheme. Subsequently, the County Council agreed that the Scheme be amended by the substitution of the following clause for the existing Clause 3 of the Scheme relating to minimum charges for water supplies :—

> "The charges for water supplies must be adequate and shall be subject "to approval by the County Council. If the minimum tariff imposed by a "Rural District Council is less than 12½ per cent. on Rateable Value for "domestic supplies, and less than 1/6 per thousand gallons for measured "supplies respectively, the County Council shall take into account for the "purpose of calculating any grant payable under the Scheme the additional "income which would have been produced had the charges in force been not "less than those mentioned above."

Arising out of the same conference, the County Council approved of the following recommendation :—

> " That representations be made to the Ministry of Health in support of " the action taken by the Rural District Councils in the County in petitioning " the Minister of Health to introduce legislation to provide for Exchequer " Contributions in aid of Sewerage and Sewage Disposal Schemes in the same " manner that contributions were made in aid of Water Schemes under the " Rural Water Supplies Act, 1934."

HOUSING.

Table VI on page 34a gives particulars of the work carried out under the Public Health and Housing Acts by the Local Sanitary Authorities during the year 1937. The principal items included in that table are compared below with the figures for the year 1936 :—

	1936.	1937.
No. of new houses erected	14,316 ..	15,273
No. of houses inspected for housing defects	36,974 ..	32,752
No. of inspections made for the purpose ..	91,231 ..	94,120
No. of houses found to be totally unfit for human habitation	2,067 ..	1,436
No. of houses found not to be in all respects reasonably fit for human habitation ..	15,011 ..	15,550
No. of houses rendered fit in consequence of informal action	12,078 ..	12,390

Rural Districts. The Housing Act, 1936, which came into force on 31st July, 1936, is an Act to consolidate the Housing Acts, 1925 to 1935, and certain other enactments relating to housing. The special provisions as to Rural Districts are contained in Sections 88 and 89, which replace Sections 32 and 33 of the Housing Act, 1930. In those special provisions a definite duty is placed upon the Council of every County " as ' respects each rural district within the County, to have constant regard to the housing ' conditions of persons of the working classes, the extent to which overcrowding or other ' unsatisfactory conditions exist and the sufficiency of the steps which the Council of ' the district have taken, or are proposing to take, to remedy those conditions and to ' provide further housing accommodation."

To assist the County Council in carrying out that duty, each Rural District Council furnished their sixth return (for the year 1936) in regard to housing conditions of persons of the working classes. A summary of these returns is given in Table VII on page 34b, and the totals are compared with last year's figures in the following table :—

	1935.	1936.
No. of totally unfit houses on 31st December ..	563 ..	1,639
No. of houses demolished during year ..	141 ..	163
No. of partially unfit houses on 31st December ..	1,261 ..	2,501
No. of houses rendered habitable during year ..	1,330 ..	1,413

TABLE VI.

SHOWING PARTICULARS OF WORK CARRIED OUT BY LOCAL SANITARY AUTHORITIES UNDER THE PUBLIC HEALTH AND HOUSING ACTS DURING THE YEAR 1937.

Sanitary District.	New Houses Erected During 1937.				Inspection of Dwelling Houses during the Year.						No. of defective Dwelling Houses rendered fit in consequence of informal action by the Local Authority or their Officers.	Action under Statutory Powers.										Housing Act, 1936—Overcrowding.				
	Total.	By			(a) Total No. inspected for Housing Defects under Public Health or Housing Acts.	(b) No. of Inspections made for the purpose.	(c) No. of Dwelling-Houses (including cellars) which were inspected and recorded under Housing Consolidated Regs., 1925.	(d) No. of Inspections made for the purpose.	(e) No. found to be in a state so dangerous or injurious to health as to be unfit for human habitation.	(f) No. (excluding those referred to under (e)) found not to be in all respects reasonably fit for human habitation.		Proceedings under Sections 9, 10 and 16 of the Housing Act, 1936.			Proceedings under Public Health Acts.			Proceedings under Sections 11 & 13 of Housing Act, 1936.		Proceedings under Section 12 of Housing Act, 1936.						
		The Local Authority	Other Local Authorities	Other Bodies or Persons.								No. of Dwelling Houses in respect of which Notices were served requiring Repairs.	No. of Dwelling Houses which were rendered fit after service of formal Notices. By Owners.	No. of Dwelling Houses which were rendered fit after service of formal Notices. By Local Authority in default of Owners.	No. of Dwelling Houses in which defects were remedied after service of formal Notice. By Owners.	No. of Dwelling Houses in which defects were remedied after service of formal Notice. By Local Authority in default of Owners.	No. of Dwelling Houses in respect of which Demolition Orders were made.	No. of Dwelling Houses demolished in pursuance of Demolition Orders.	No. of separate Tenements or Underground Rooms in respect of which Closing Orders were made.	No. of separate Tenements or Underground Rooms in respect of which Closing Orders were determined, the Tenement or Room having been rendered fit.	No. of Dwellings Overcrowded at the end of the year.	No. of families dwelling therein.	No. of persons dwelling therein.	No. of new cases of overcrowding reported during the year.	No. of cases of overcrowding relieved during the year.
URBAN.																										
Barking B.	413	107	79	227	3696	10644	981	2177	60	2349	1608	151	156	5	278	272	9	..	11	..	..	199	199	1408	49	156
Benfleet	344	..	..	344	281	562	119	239	4	129	75	3	2	..	10	8	..	1	2	..	..	2	2	19	2	1
Billericay	407	6	..	401	919	1729	260	595	26	234	4	130	65	..	336	267	..	7	7	..	..	63	64	455½	32	107
Braintree & Bocking	192	18	..	174	223	223	176	176	143	62	15	4	1	..	5	3	..	5	11	..	..	25	26	201	1	3
Brentwood	223	12	..	211	299	1105	32	147	12	60	55	9	7	..	3	3	..	8	13	..	..	27	28	179	6	19
Bridgemarsh	19	..	..	19	53	53	44	44	1	38	37	..	..	..	3	5	..	1	..	..	..	4	4	33	..	..
Burnham-on-Crouch	29	6	..	23	110	140	..	..	2	30	30	..	..	..	..	..	..	2	2	..	..	2	2	18	..	1
Canvey Island	169	..	..	169	61	132	33	91	1	25	34	2	10	1	..	..	..	..	2	..	..	3	3	14	7	13
Chelmsford B.	401	..	..	401	387	1736	124	545	54	170	159	..	..	..	..	..	..	..	..	..	..	54	65	395	6	31
Chingford	622	..	..	622	125	632	44	296	..	123	122	1	1	..	..	..	..	..	1	..	..	56	56	196	..	5
Chingford	917	..	..	917	1221	2421	101	442	..	318	284	2	1	1	1	2	..	..	..	..	..	5	5	35½	1	6
Clacton-on-Sea	349	..	..	349	653	1613	111	329	2	205	81	..	..	..	2	2	..	8	7	..	..	74	74	522	4	62
Colchester B.	319	43	..	276	1311	5536	416	3570	43	831	674	37	46	..	32	34	2	61	47	..	..	509	509	3434	194	493
Dagenham	1316	210	..	1106	1786	2962	1309	2569	8	381	362	1	1	..	17	18	..	10	9	2	..	6	6	39½	..	4
Epping	21	..	..	21	17	65	8	8	..	17	17	10	10	..	..	..	..	..	..	..	..	..	..	..	..	3
Frinton & Walton	64	..	..	64	183	311	46	51	11	79	47	..	..	..	4	4	..	..	1	..	..	29	30	182	11	4
Halstead	32	16	..	16	223	1259	37	37	18	142	39	97	92	..	..	..	..	18	23	..	..	34	34	230½	..	..
Hawkwell B.	58	6	..	52	20	42	..	..	7	20	20	..	..	..	..	..	..	6	3*	..	..	49	50	415	7	29
Hornchurch	2170	2	4	2164	777	2172	261	689	25	479	342	..	..	..	49	35	..	15	11	1	..	76	76	538½	36	83
Ilford B.	1907	..	..	1907	1389	4546	354	2212	9	779	710	244	206	2	23	39*	..	..	..	..	..	251	262	1828	22	329
Leyton B.	44	..	..	44	3489	13982	1079	4202	..	1777	1609	..	..	..	111	101	..	19	27	..	1	15	16	97	..	1
Maldon B.	Plats 176			Plats 176																		2	2	15	3	9
Mayleigh	35	..	1	34	287	646	152	321	10	92	68	24	20	2	17	16	..	10	9	..	..	34	34	255	5	19
Romford B.	99	..	..	99	107	155	34	110	3	51	34	8	4	1	6	..	2	2	3	..	..	34	34	710	1	1
Saffron Walden B.	1481	..	..	1481	833	2550	112	289	6	552	495	..	..	..	11	10	..	10	7	1	..	67	73	397	10	54
Tiptree	34	34	..	..	345	401	45	63	1	19	5	..	..	..	..	..	..	1	1	..	..	20	20	144	1	8
Waltham Holy Cross	375	57	..	518	1800	5160	398	1657	..	996	677	13	9	..	77	27	..	16	5	..	..	273	273	2197	121	443
Walthamstow B.	53	..	..	53	193	332	90	221	6	72	82	6	3	..	6	6	..	1	1	..	..	18	18	127½	3	15
Wanstead and Woodford B.	859	130	..	86	3536	12410	764	2666	10	2412	2342	64	55	5	18	18	..	1	1	..	..	2	2	14	..	1
West Mersea	900			Plats 143								42	34	..	19	1	14	..	..	..	..	..	..	..	..	4
Witham	27	..	..	900	1179	5891	652	3668	..	498	795	..	..	..	..	..	..	..	..	..	..	1	1	7	..	1
Wivenhoe	27	6	..	27	65	97	37	57	..	23	23	..	8	..	..	..	..	2	20	1	..					
Urban Total	21	..	..	21	81	81	81	81	53	28	7	..	..	..	..	..	..	..	..	..	..					
	11	..	..	11	236	258	..	..	5	8	18															
	13784	653	84	13047	26826	81267	7830	27563	518	13009	11110	848	750	17	1030	865	27	204	224	5	1	1946	1973	14112	541	1913
RURAL.																										
Braintree	59	..	..	59	1143	1182	1143	1182	308	537	54	2	..	..	4	4	..	80	35	..	..	19	19	146	6	7
Chelmsford	415	67	..	348	391	1092	189	690	36	140	89	..	..	..	46	49	..	9	14	..	..	56	56	371	2	47
Dunmow	126	72	..	54	724	745	724	724	212	462	19	..	..	..	..	..	..	97	15	..	..	65	65	466	1	17
Epping	136	54	..	82	489	1866	415	1731	5	341	330	..	..	..	..	..	..	4	13	..	..	15	15	130	..	6
Halstead	115	8	..	107	353	622	140	353	36	123	90	..	..	..	..	..	..	10	13	..	..	16	15	112	..	18
Lexden and Winstree	78	1	..	77	1960	3954	240	2305	71	290	269	7	5	..	7	4	..	20	2	..	..	48	48	374	16	12
Maldon	56	..	2	54	603	1224	339	1108	25	169	123	4	4	..	1	1	..	23	24	..	..	26	26	197	5	20
Ongar	97	45	..	52	281	473	257	390	24	117	120	20	8	1	..	..	..	3	..	..	..	50	50	334	4	20
Rochford	209	38	..	171	173	357	56	68	11	81	51	13	16	..	12	8	..	10	10	..	..	18	18	123½	10	31
Saffron Walden	38	..	..	38	359	399	350	399	155	108	102	..	..	..	..	..	..	..	7	..	..	73	73	504	1	8
Tendring	160	..	..	160	450	840	450	840	37	163	32	..	..	..	..	..	..	37	27	..	..	52	52	385	5	27
Rural Total	1489	285	2	1202	6926	12853	4461	9810	918	2641	1280	46	33	1	80	63	..	293	179	..	..	437	437	3241½	50	219
Rural & Urban Total	13784	653	84	13047	26826	81267	7830	27563	518	13009	11110	848	750	17	1030	865	27	204	224	5	1	1946	1973	14112	541	1913
Total for Administrative County	16273	938	86	14249	32752	94120	12291	37173	1436	15550	12390	894	783	18	1110	928	27	497	403	5	1	2383	2410	17353½	591	2132

*Includes compliances during 1937 of Notices served in 1936.

*Demolished voluntarily.

TABLE VII.

HOUSING ACT, 1930.

SUMMARY OF RETURNS RECEIVED FROM COUNCILS OF RURAL DISTRICTS IN REGARD TO HOUSING CONDITIONS OF PERSONS OF THE WORKING CLASSES—1937.

Rural District.	Totally Unfit Houses.							Partially Unfit Houses.							Overcrowded Houses Known to Exist.			Provision of New Houses.				
	On 31st December, 1935.		Found during Year ended 31st December, 1936.		No. demolished during period 1st January to 31st December, 1936.	No. on 31st December, 1936.		On 31st December, 1935.		Found during year ended 31st December, 1936.		Rendered habitable during year ended 31st December, 1936.	No. on 31st December, 1936.		No. found by Survey under Housing Act, 1935.	No. remedied during 1936.	No. remaining on 31st December, 1936.	No. erected during year ended 31st December, 1936.	Estimated No. of houses required during year ending 31st March, 1938, to meet		Total No. of houses approved by Ministry but not completed.	Total No. of houses contemplated for erection in year ending 31st March, 1938, but not yet approved by Ministry.
	Occupied.	Unoccupied.	Occupied.	Unoccupied.		Occupied.	Unoccupied.	Occupied.	Unoccupied.	Occupied.	Unoccupied.		Occupied.	Unoccupied.					Overcrowding.	Normal expansion.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Braintree	71	32	466	48	18	537	62	311		443		182 (a)	572		34	14	20	88	—	—	—	146 (b)
Chelmsford	59	11	21	1	18	66	6	87	—	97	—	114	70	—	104	3	101	28	56	448	152	352
Dunmow	112	16	416	6	2	509	39	322	—	510	—	37	795	—	87	6	81	22	46	—	78	210
Epping	3	19	5	—	2	—	23	165	—	285	—	227	223	—	69	48	21	34	(c)		76	20
Halstead	32	48	40	30	20 (d)	59	52	70	6	140	18	93	164	10	47	14	33	—	33	26	53	—
Lexden & Winstree ..	3	21	17	5	20	13	16	122	14	341	4	275	291	5	58	14	44	—	22	120 (e)	—	—
Maldon	19	8	46	21	24 (f)	42	28	13	2	67	4	57	25	4	65	30	35	56	35	53	—	88
Rochford	23	29	7	6	29	23	13	50	6	28	5	44	33	8	59	20	39	—	—	50	38	—
Saffron Walden	23	19	40	1	4	53	14	38	1	90	—	129	—	—	114	34	80	8	80	8	—	88
Tendring	8	9	9	6	5	8	15	—	—	200 (h)	—	88	—	113 (h)	85	11	74	303 (i)	—	—	—	—
Ongar	59	23	—	—	23	59	11	80	—	351	12	165	209	9	83	—	83	64	38	56	49	24 (g)
*Totals	412	235	1,067	124	163	1,360	279	1,287		2,595		1,413	2,501		805	194	631	603	310	761	446	928

*Subject to the following notes :—

(a) 30 houses included in total where repairs were permitted after notices for demolition orders had been served or demolition orders made.
(b) The 146 houses have been before the Ministry of Health since November, 1936. Nothing is yet sanctioned beyond 3 sites. Correspondence with the Ministry of Health has been continuous since such date.
(c) The Council has constant regard to the sufficiency of houses and is always ready to erect further houses as the need arises, if private enterprise fails to meet the need. It is impossible to make anything like an accurate estimate.
(d) 10 houses demolished and 10 houses in respect of which undertakings were given.
(e) The District Council's Public Health Committee are of opinion that private enterprise will meet the needs of the District so far as the total number of unfit and overcrowded houses is concerned.
(f) 2 houses used for other purposes than dwellings, 11 houses demolished, and the remaining 11 houses re-conditioned.
(g) Estimated number.
(h) Estimated numbers.
(i) Includes 30 Council cottages and 74 Land Settlement houses.

Estimated No. of houses required :—	On 31-3-37.	On 31-3-38.
(*a*) To meet overcrowding	335 ..	310
(*b*) To meet normal expansion	452 ..	761
No. of proposed new houses :—		
(*a*) Approved by Ministry of Health ..	168 ..	446
(*b*) Not yet approved by Ministry of Health	635 ..	928

HOUSING (RURAL WORKERS) ACT, 1926-1931.

The information given below has been kindly supplied by the County Land Agent.

During the year 1937, 245 Forms of Application were received applying for Grants in respect of 491 cottages.

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

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. ..	40 ..	77 ..	45 ..	4,390
Chelmsford R. ..	38 ..	72 ..	11 ..	1,100
Dunmow R. ..	27 ..	57 ..	21 ..	1,996
Epping R. ..	2 ..	2 ..	— ..	—
Halstead R. ..	17 ..	28 ..	14 ..	1,336
Lexden & Winstree R.	15 ..	23 ..	10 ..	989
Maldon R. ..	18 ..	29 ..	7 ..	614
Ongar R. ..	15 ..	35 ..	21 ..	2,100
Rochford R. ..	15 ..	37 ..	22 ..	2,187
Saffron Walden R. ..	22 ..	48 ..	16 ..	1,590
Tendring R. ..	18 ..	37 ..	9 ..	900
Braintree & Bocking U.	1 ..	3 ..	3 ..	300
Billericay U. ..	2 ..	3 ..	1 ..	100
Epping U. ..	3 ..	7 ..	6 ..	600
Frinton & Walton U.	3 ..	7 ..	— ..	—
Thurrock U. ..	2 ..	6 ..	— ..	—
Witham U. ..	7 ..	20 ..	4 ..	400
	245 ..	491 ..	190 ..	£18,602

Of the cottages included in the above applications, 190 were approved for grants, 32 were not approved, 15 were withdrawn, and 254 were under consideration at the end of the year. The total number of cottages approved for reconditioning under the Act in Essex up to 31st December, 1937, is 927. The total amount of Grants is £85,563, and it is estimated that the expenditure made in addition by the owners themselves exceeded £82,458.

Particulars of three typical cases of cottages reconstructed or improved by Grants made by the County Council during 1937 are set out hereunder :—

(1) *Parish of Hatfield Broad Oak.*

Three timber-built plaster and thatched cottages, situate on the south side of the Chelmsford Road, Hatfield Heath :—

Lean-tos at back and wash house at end raised. New sculleries, food stores, staircases, partitions, windows, doors and w.c.'s provided. New flues formed for fireplaces. Concrete paving at back of cottages.

Grant made to owner—£260.
Estimated total expenditure—£390.

(2) *Parish of Beauchamp Roding.*

Detached timber-built, part weatherboarded, part plastered and tiled cottage :—

Roof stripped and re-tiled. Tops of chimneys re-built and one new chimney. External walls plastered, new food store, cupboards, windows, doors, range, stoves, copper and sink provided. Floors renewed.

Grant made to owner—£100.
Estimated total expenditure—£240 16s. 0d.

(3) *Parish of Kelvedon.*

Two semi-detached part brick, part timber-built, chiefly tiled and part slated cottages, situate on Felix Hall Road, Kelvedon :—

Roof stripped, re-tiled and slated. Back portion heightened to form two new bedrooms. New bedroom flue formed and one staircase. New windows, doors, floors, food stores, sinks, stoves, range and e.c.'s provided. The whole of the external plastering renewed.

Grant made to owner—£200.
Estimated total expenditure—£425.

MILK SUPPLY.

Veterinary Inspection of Dairy Herds.

A whole-time veterinary service, consisting of one Chief Veterinary Officer, one Senior Assistant Veterinary Officer and seven Assistant District Veterinary Officers, was employed throughout the year.

In November and December, five Assistant District Veterinary Officers were released at the request of the Ministry of Agriculture and Fisheries to assist the Ministry in dealing with the outbreaks of Foot-and-Mouth Disease. During those two months also, all routine examinations of dairy herds in Essex by the Veterinary Officers were stopped. Otherwise, the scheme for the inspection three times yearly of dairy herds producing ordinary raw milk was continued as shown below. The total number of herds in the County is 1,880 :—

Quarter ended.	No. of Herds Inspected.	No. of Animals Inspected. In milk.	Not in milk.	Total.
31st March	1,463	26,520	6,731	33,251
30th June	1,155	24,552	3,917	28,469
30th September	1,265	23,343	4,499	27,842
31st December	555	12,635	5,067	17,702
Totals	4,438	87,050	20,214	107,264

Under the Milk and Dairies Order, 1926, it is unlawful for the owner of cows suffering from certain specified diseased conditions to sell milk from such cows or to use it in the manufacture of products for human consumption. These diseased conditions are non-tubercular and are not notifiable, and it can be confidently asserted that none of these conditions would have come to light or to the knowledge of the County Council were it not for the periodical visits to farms by the veterinary staff.

These diseased conditions, and the number of cows found to be suffering therefrom during the period under review are tabulated below, together with comparative figures for the previous year, the table being compiled from reports by the Chief Veterinary Officer :—

	1936.	1937.
Giving tuberculous milk	6	14
Emaciation due to tuberculosis	33	31
Tuberculosis of the udder	147	150
Acute inflammation of the udder	13	—
Acute mastitis	286	174
Actinomycosis of the udder	—	—
Anthrax	—	—
Foot-and-Mouth disease	—	—
Suppuration of the udder	32	15
Comatose condition	—	2
Septic condition of uterus	42	14
Any infection of the udder or teats which may convey disease	275	494
	834	894

Notices were served by the Chief Veterinary Officer upon the respective owners (1) restricting the sale of milk from the affected animal, and (2) requiring the removal of such animal from the herd. As regards (1), the Medical Officers of Health concerned were notified.

Milk and Dairies (Consolidation) Act, 1915.

Biological Examinations. Samples of milk were obtained and submitted to biological examination with the results indicated below :—

Taken by.	Results. No. found to contain Tubercle Bacilli.	No. free from Tubercle Bacilli.	Total.
Assistant District Veterinary Officers at farms	75 (5.2%)*	1,356	1,431
Weights and Measures Inspectors :—			
(*a*) At Public Assistance Institutions, Sanatoria, &c.	3 (10.3%)	26	29
(*b*) At or near Schools under Milk-in-Schools Scheme	22 (4.2%)†	498	520
Totals ..	100 (5.0%)	1,880	1,980

*The percentage for 1936 was 4.61.
†The percentage for 1936 was 4.4.

In regard to the samples containing tubercle bacilli, particulars were sent to the Chief Veterinary Officer, who promptly carried out investigations under the Act, and took appropriate action under the Tuberculosis Order, 1925.

SECTION 4. During the year, 20 notifications were received from Medical Officers of Health under Section 4 of the Milk and Dairies (Consolidation) Act, 1915, to the effect that the biological examination of samples of milk from 20 farms within the Administrative County of Essex had revealed the presence of tubercle bacilli. Particulars were transmitted to the Chief Veterinary Officer, who arranged for the usual inspections of the herds at the farms where the milk in question was produced, and who has kindly supplied the following results :—

	Section 4 Inquiries.
Animals responsible for infection dealt with under the Tuberculosis Order, 1925	11
Infection apparently due to animals sold between date sample taken and Veterinary Officer's examination of herd ..	4
No animal found to be responsible for infection	3*
Investigations proceeding	2
	20

*In these cases the samples were not taken direct from the farms, but from the retailers' premises.

Milk and Dairies Order, 1926.

Increasing use was made by the local Sanitary Authorities of the laboratory facilities for the bacteriological examination of samples of milk, with the results indicated below :—

Quarter ended.	No. of Samples Satisfactory.	Unsatisfactory.	Total.
31st March ..	165	3 (1.7%)	168
30th June ..	201	53 (20.8%)	254
30th September..	183	143 (43.8%)	326
31st December ..	177	59 (25.0%)	236
Totals ..	726	258 (35.5%)	984

It will be seen that during the warm months of the September quarter nearly half the samples obtained could not be regarded as satisfactory.

Milk (Special Designations) Order, 1936.

LICENCES. During the year, the following licences were granted :—

Kind.	No.	
*Tuberculin Tested Milk	65	(46)
†Accredited	800	(748)
	865	(794)

* 19 of the Licensees were also licensed to bottle Tuberculin Tested Milk.
† 54 of the Licensees were also licensed to bottle Accredited Milk.

The figures in brackets in the above Table are for the year 1936.

Every farm from which an application for a licence has been received is inspected jointly by one of the County Health Inspectors and the appropriate local Sanitary Inspector, when agreement is reached as to the improvements, if any, which are required.

The Milk Special Sub-Committee has adopted the practice of not granting a licence until a certificate is received from the Local Sanitary Authority to the effect that they are satisfied that the premises comply with the Milk and Dairies Order, 1926.

TUBERCULIN TESTED MILK AND ACCREDITED MILK. Surprise visits were paid to farms which were licensed to produce Tuberculin Tested Milk and Accredited Milk by the County Health Inspectors, when samples of milk were obtained. Routine samples were also obtained by the Assistant District Veterinary Officers, and the Weights and Measures Inspectors obtained samples from central depots and in course of delivery. All these samples, with a few exceptions, were submitted to the Methylene Blue Reduction Test only, with the following results :—

(a) *Tuberculin Tested Milk.*

Quarter ended.	No. of Samples taken.	No. Satisfactory.	No. unsatisfactory.
March 31st ..	30	28	2 (6.6%)
June 30th ..	95	76	19 (20.0%)
September 30th..	71	48	23 (32.4%)
December 31st ..	38	36	2 (5.3%)
Totals ..	234	188	46 (19.7%)

(b) *Accredited Milk.*

Quarter ended.	No. of Samples taken.	No. Satisfactory.	No. unsatisfactory.	
March 31st	976	930	46 (4.7%)	
June 30th	1,018	877	141 (13.9%)	
September 30th	1,257	756	501 (39.9%)	
December 31st	763	704	59 (7.7%)	
Totals (1937)	4,014	3,267	747 (18.6%)	
Totals (1936)	2,882	2,370	512 (17.7%)	(Bacteria Count).

The reduced number of samples taken in the December quarter was due to the outbreaks of Foot-and-Mouth Disease, when routine visits to farms were stopped.

It will be seen that the highest percentage of unsatisfactory samples occurred during the two summer quarters, when more care is needed in methods of milk production if satisfactory results are to be maintained.

After the first unsatisfactory sample, a letter of caution is sent to the farmer and a further sample is obtained. After the second consecutive unsatisfactory sample, a stronger letter of caution is sent and the farmer is advised to consult the Principal of the East Anglian Institute of Agriculture. Most farmers readily avail themselves of these free advisory facilities. After the third consecutive unsatisfactory sample, particulars are submitted to the next meeting of the Milk Special Sub-Committee, who interviewed several farmers during the year.

1937 was regarded as an experimental year, in view of the new test (Methylene Blue Reduction Test) which superseded the Bacteria Count from 1st January, 1937. There were many criticisms of this simple and quick test, contending that it was unfair to the producer, which led the Committee to instruct the Bacteriologist at the East Anglian Institute of Agriculture to undertake and report upon certain research work. The report included the following conclusions :—

"(1) The present accredited standard is shown to be more severe than the old Grade A standard.

(2) The greater severity of the new test is due to the small sample bottles containing milk being kept at atmospheric temperature for 12 or 18 hours. Of the 28 samples in Chart 4, judged satisfactorily by the keeping quality test, an approximately correct statement is given by the Methylene Blue Test on iced samples and also by the plate count on iced samples, but both these tests give a wrong conclusion on samples held for 18 hours at atmospheric temperature. Icing of all samples is advocated.

(3) The change from the plate count to the Methylene Blue Test does not, in itself, significantly alter the standard.

(4) It is desirable to use a number of different tests for grading milks. No single bacteriological test in use at present gives all the information

needed. The Methylene Blue Test on iced samples could be used as a "weeding out" test and supplemented by a Keeping Quality Test on samples which fail. The Methylene Blue standard *might* then be raised slightly, but only those samples which fail both the Methylene Blue and the Keeping Quality Tests should be definitely condemned."

A copy of the above-mentioned report was forwarded to the Ministry of Health and County Councils Association. Members of the Milk Special Sub-Committee subsequently attended at the Ministry of Health and discussed the position generally. Later, the Ministry issued a statement which, with their approval, was published in the Essex Farmers' Journal. The following extracts have been taken from that statement :—

"The Ministry are not prepared to admit that the Methylene Blue Reduction Test or the instructions relating to the treatment of samples before examination, are too severe.

"In the opinion of the Ministry, no difficulty should be experienced by producers in securing that samples of milk from their farms, taken during the winter months, comply with the Methylene Blue Reduction Test carried out in accordance with the Order and the instructions. Difficulty would, however, be experienced in the summer months if correct methods and care were not employed.

"With regard to the period which must elapse under the Order before the Methylene Blue Test is applied to unbottled milk, it is understood that the intention of the Regulations is to secure that the milk, when delivered to the consumer, shall comply with a certain bacteriological standard, which is a convenient measure of the care which has been taken in its production and distribution . . . .

"In the opinion of the Ministry, in order to secure, throughout the year, samples of the requisite degree of cleanliness, adequate equipment, such as the steam steriliser, is necessary. A steam steriliser cannot be specifically insisted upon under the Order, but its absence may make it impossible to comply with the bacteriological requirements of the Order and so imperil the producer's licence. A producer will find the provision of proper equipment essential to the production of milk to the requisite degree of cleanliness during the summer months.

"In regard to the question of the cleansing of churns before use by a producer licensed under the Order, notwithstanding the requirement which the Milk and Dairies Order, 1926, places upon milk purchasers to cleanse churns and receptacles, the obligation rests on the producer of complying with the bacteriological standard prescribed by the Order. As the Milk (Special Designations) Order, 1936, authorises samples to be taken before the churns or other containers are opened by the dealer, it is in the producer's own interest, in order that his licence should not be jeopardised, to cleanse adequately and sterilise the churns."

In all these circumstances, the Committee did not revoke any licence during the year owing to unsatisfactory samples, but interviewed several farmers and instructed

the Clerk of the County Council to forward cautionary letters to those farmers from whom unsatisfactory results had been obtained. In one instance, where the farmer, who was also a dealer, failed to mark the cows and keep a register of the herd, and where there were other unsatisfactory features, the Committee decided to revoke the licence. The farmer appealed to the Ministry of Health, and the licence lapsed before the appeal could be heard. The Committee's refusal to grant a licence for the year 1938 was upheld by the Ministry of Health.

WATER SUPPLIES AT LICENSED FARMS. Two special reports were submitted to the Milk Special Sub-Committee dealing with water supplies at licensed farms in Borough, Urban and Rural Districts. Reference was made to the requirements of the Milk and Dairies Order, 1926, that " all registered premises shall be provided with a supply of water suitable and sufficient for the requirements of this Order " and " every receptacle used for the storage or conveyance of water shall be emptied and " cleansed from time to time as often as may be necessary."

Valuable assistance was rendered by the local Sanitary Inspectors who supervised all necessary improvements to private supplies where required.

The conclusions of these two special reports were as follows :—

(a) *Borough and Urban Districts.*

Every tank in which water is stored at all the licensed farms is now provided with a tightly fitting cover, and where necessary, has been cleaned out. Also, all necessary improvements to shallow wells have been carried out.

In the following table are given figures comparing the position in respect to the water supplies found at the primary inspections with the conditions obtaining at the time of this report :—

	Position.	
	At primary Inspection.	At present.
Public mains	180 ..	182
Private deep boreholes	7 ..	7
Shallow wells	36 ..	28
Other sources, *e.g.*, springs, brooks, rivers and ponds	19 ..	15
Total	242 ..	232

Of the above-mentioned 232 sources of supply, there are at the present time 14 farms with water supplies which I am not yet in a position to certify as satisfactory, namely :—

Source.	No. of Farms.
Shallow wells	7
Springs	4
Brooks	2
River	1
Total	14

In 4 cases further improvements are being carried out, in 5 cases (including the supplies from brooks and river), efforts are being made to connect to public mains, and in 5 cases, existing sources have been improved and protected as no alternative source is available. In each of the last-named cases, the farmer has been asked to give an undertaking to obtain a better supply of water if and when it becomes available within a reasonable distance.

(b) *Rural Districts.*

Every tank in which water is stored at all the licensed farms is now provided with a tightly fitting cover, and where necessary has been cleaned out. Also, all necessary improvements to shallow wells and springs have been carried out.

In the following table are given figures comparing the position in respect of the water supplies found at the primary inspections with the present conditions :—

	Position.	
	At primary Inspection.	At present.
Public mains	248 ..	258
Private deep boreholes	22 ..	23
Shallow wells	233 ..	199
Other sources, *e.g.*, springs, brooks, rivers and ponds	122 ..	107
	625 ..	587

Of the above-mentioned 587 sources of supply, there are at the present time 72 supplies which I am not yet in a position to certify as satisfactory, namely :—

Source.	No. of Supplies.
Shallow wells	41
Springs	17
Brooks	5
Ponds	2
Rain water	5
Rivers	2
	72

In the case of the 58 unsatisfactory shallow wells and springs, all possible improvements have been or are being carried out, and where possible efforts are being made to connect to the public mains. In many cases further improvements and the taking of further samples are in hand.

Of the remaining 14 unsatisfactory cases (*i.e.*, supplies from brooks, ponds, rivers and rainwater) one supply is only used when the existing satisfactory supply fails, and in the other cases undertakings have been received to connect to the public mains when they are available.

Further improvements have taken place since these reports were issued, and the comprehensive schemes of water supply provided or adopted by nearly all the Rural District Councils have enabled or will enable many farms to obtain water from public mains.

Conference with Rural District Councils. A conference between members of the Public Health and Housing Committee and representatives of the Rural District Councils in Essex was held at Essex House on 18th February, 1937. It arose from the suggestion contained in a letter, dated 26th March, 1935, from the Rural District Councils Association to the effect that "a conference should be 'arranged to agree a standard as to premises, *i.e.*, construction, ventilation, lighting, 'standings, cubic capacity, &c., and any standard agreed on should form the minimum 'requirements for all premises where milk graded or ungraded is produced."

It was decided that the Essex Branch of the Sanitary Inspectors' Association should be asked to consider these matters and submit a report. It was also agreed that the results of the examination of all samples of milk obtained by the County Council's Inspectors should be transmitted regularly to the local Medical Officers of Health and local Sanitary Inspectors.

Milk-in-Schools Scheme.

This Scheme has been readily accepted by, and received the full co-operation of practically all the Head Teachers, upon whose willing help the success of the Scheme must depend. As a result of these efforts, the following numbers participate in the Scheme :—

(*a*) Number of schools under the Milk Marketing Board Scheme, 498, an increase of 15. Number of children participating, 43,384, an increase of 5,022.

(*b*) Number of schools not necessarily under the Milk Marketing Board Scheme, 95. Number of children participating, 4,167.

(*c*) Number of schools not participating in the Milk-in-Schools scheme 20

Number of children attending thereat 1,245

The County Medical Officer, after consulting the local Medical Officers of Health, issued during the year 151 certificates approving of the source and quality of the milk supplied. On 31st December, 1937, there were 535 certificates in operation under the scheme.

During the year samples of milk, as delivered to schools under the Milk-in-Schools Scheme, were obtained and examined, with the following results :—

(a) *Biological Examination.* Number of samples examined 573, of which 53 gave inconclusive results. 22 samples (4.2%) were found to contain tubercle bacilli, the percentage for 1936 being 4.4. For economical reasons, pasteurised milk was not submitted to biological examination this year. Prompt action was taken by the Chief Veterinary Officer

with a view to eliminating from the herds concerned any cow which was found to be excreting tubercle bacilli in the milk.

(b) *Bacteria Count.* Since 1st January, 1937, in accordance with the Milk (Special Designations) Order, 1936, Pasteurised Milks only are submitted to the Bacteria Count, the standard for which is that the milk shall be found to contain not more than 100,000 bacteria per millilitre. Number of samples of Pasteurised Milk examined 247, of which 20 (8.5%) failed to comply with the standard. In each of the unsatisfactory cases, representations were made to the Local Medical Officer of Health concerned, and further samples were obtained, with satisfactory results.

(c) *Methylene Blue Reduction Test.* All samples of milk, other than Pasteurised Milk, have since 1st January, 1937, been submitted to the Methylene Blue Reduction Test, which is a test prescribed for Tuberculin Tested Milk and Accredited Milk by the Milk (Special Designations) Order, 1936. Number of samples examined 455, of which 66 (14.5%) failed to comply with the standard laid down in the before-mentioned Order. In each of the unsatisfactory cases, representations were made to the Local Medical Officer of Health concerned, and further samples were obtained, with satisfactory results.

(d) *Coliform Bacteria Test.* 440 of the 455 samples referred to in (c) above were also submitted to the Coliform Bacteria Test for Tuberculin Tested Milk and Accredited Milk by the Milk (Special Designations) Order, 1936. 48 (10.9%) failed to comply with the standard laid down in that Order. In each of the unsatisfactory cases, representations were made to the Local Medical Officer of Health concerned, and further samples were obtained, with satisfactory results.

(e) *Chemical Test.* The following paragraph has been extracted from the Annual Report of the County Analyst :—

> "Among the numerous samples taken from deliveries to 'schools or public institutions, only four were found to be watered, 'three to a comparatively small extent only (2 to 5 per cent.), but 'in one case to the extent of as much as 17 per cent. of added 'water. Sixty-three of the samples of milk delivered to schools 'or institutions which showed no evidence of added water were 'deficient in milk fat in proportions ranging up to over 40 per 'cent. of the quantity indicated in the Sale of Milk Regulations.
>
> "Deducting 67 samples from the 910 samples of milk delivered 'to schools or institutions, the 843 remaining samples were all in 'conformity with the regulations inasmuch as that they contained 'not less than 3 per cent. of milk fat, but among these samples 'there were 93 in which the percentage of fat was less than 3.25, 'which was understood to be the minimum percentage required 'in the contracts under which the milk was supplied."

FOOD AND DRUGS.

The Administrative County is divided into two districts for the sampling of Food and Drugs, namely, Eastern and Western Districts. The following statistical information relating to this work has been kindly furnished by the County Analyst Dr. Bernard Dyer, 17, Great Tower Street, London, E.C. (Telephone No. Royal 6608), and relates to the year 1st December, 1936, to 30th November, 1937 :—

Samples taken from Vendors.	Samples Analysed.	Samples Unsatisfactory.	Percentage of Unsatisfactory Samples.
Eastern District of the County ..	2256 ..	122 ..	5.4 (7.1)
Western District of the County	2583 ..	81 ..	3.1 (1.8)
Borough of Barking ..	1 ..	1	4.8 (9.0)
Borough of Ilford ..	6 ..	—	
Borough of Walthamstow ..	81 ..	4	
Borough of Wanstead and Woodford	26 ..	—	
Chingford U.D.	10 ..	—	
Dagenham U.D.	1 ..	1	
	4964 ..	209 ..	4.2 (4.3)
" Appeal to Cow " milk samples :—			
Eastern District of the County	37		
Western District of the County	9		
Borough of Walthamstow ..	2		
	—		
	48		
Samples taken from Schools or Institutions :—			
Eastern District of the County ..	653 ..	56 ..	8.6
Western District of the County ..	257 ..	11 ..	4.3
	910 ..	67 ..	7.4
Total	5922 ..	276 ..	—

The figures in brackets refer to the year 1936.

The above table shows that during 1937 the number of unsatisfactory samples examined decreased slightly, the percentage being 4.2 per cent. compared with 4.3 per cent. in 1936.

The following are interesting extracts from the Annual Report of Dr. Bernard Dyer, the County Analyst :—

> " Milk. The 138 unsatisfactory samples of milk taken from vendors (or occasionally on delivery to vendors) included 69 samples containing added water.....Sixty-nine other samples showed deficiencies in fat.
>
> Cooking Fats or Lard Substitutes. Six samples of cooking fats sold as lard substitutes or under fancy names or descriptions suggesting an affinity to lard were found to contain from 7 to 9 per cent. of water.

SAUSAGES. Six samples of sausages sold without notice of preservation were found to contain sulphur dioxide in quantities varying from 50 parts to 300 parts per million, being, however, in no case beyond the limit allowable when due notice is given of the presence of preservative. One of these samples, containing 290 parts per million of sulphur dioxide, was, despite this, unfit for food, having an offensive smell indicating either that the sausages themselves were stale or that the meat from which they had been made had not been fresh.

CHOCOLATE CONFECTIONS. Forty-one samples were analysed of confections bearing the name of 'chocolate', such as 'Chocolate Roll', 'Chocolate-covered Roll', 'Chocolate Swiss Roll', 'Chocolate Sponge' or 'Chocolate Sandwich'. Of these samples eleven yielded no evidence of the presence of the essential constituent of chocolate, namely, cocoa, although in most cases they were stained brown and sometimes flavoured in such a way as to indicate the presence of chocolate.

GROUND ALMONDS. Out of 109 samples of ground almonds six were found to consist of or to contain ground arachis (peanut) kernels or other nuts than almonds, while one sample purchased as 'ground almond substitute' was found to consist of oatmeal, this, however, being no doubt due to an error in serving the article.

VINEGAR. Twenty samples of vinegar were found to be unsatisfactory. Five of these, sold as 'malt vinegar', were of full strength, but were improperly described as 'malt vinegar' inasmuch as they consisted of artificial vinegar. Three samples of real malt vinegar were deficient in strength to the extent of 5 per cent., 7½ per cent. and 27 per cent. of the minimum quantity proper to any form of vinegar. Another sample, improperly described as 'malt vinegar', was found to be deficient in strength to the extent of 7 per cent. Three samples sold as 'table vinegar', were of full strength but consisted of artificial vinegar; one sample sold as 'spirit vinegar' was 10 per cent. deficient in strength; four samples frankly sold as 'wood vinegar' showed deficiencies ranging from 24 to 40 per cent. of acetic acid content; while three other samples sold simply as 'vinegar', showed deficiencies of 6, 25 and 33 per cent. respectively."

METEOROLOGY.

Table VIII is compiled from information kindly supplied each month by the East Anglian Institute of Agriculture, Chelmsford, from records kept at the County Meteorological Station at Chelmsford.

The year 1937 proved to be a third consecutive wet year, the total rainfall being 28.22 inches. For 1936 it was 25.17 inches, and for 1935 it was 27.32 inches. February was the wettest month, and once again August was the driest month.

This year the highest maximum temperature (88°) was reached in August, the next highest being 83° in July.

TABLE VIII.

OBSERVATIONS FROM THE COUNTY METEOROLOGICAL STATION AT CHELMSFORD.

1937.	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	39.0	39.0	46.0	35.0	54	6th	26	30th	23	3.77
February	42.0	41.0	48.5	37.0	54	3rd & 19th	29	24th	22	3.83
March	39.1	37.4	45.7	32.8	59	20th	25	23rd	16	2.49
April	47.6	45.6	55	41.4	52.8	22nd	29	1st	16	2.77
May	55.5	52.4	63.5	46.8	79	25th	39	6th	14	2.54
June	60.7	57.0	69.4	49.6	81	11th	42	21st	11	2.3
July	63.6	61	71.3	53.9	83	3rd	44	31st	10	1.73
August	64.0	61	75.3	54.7	88	7th	45	16th	4	0.71
September	58.5	55.6	67.4	48.1	80	7th	38	21st & 23rd	15	1.28
October	52.0	50.2	60.0	46.5	68	2nd	32	18th	17	1.21
November	40.9	40.4	48.2	33.9	58	2nd & 3rd	23	21st	13	1.93
December	37.0	36.6	41.9	32.7	53	23rd	22	15th & 20th	27	3.66
TOTAL—										
Year 1937	..	..	..	..	..	..	..	..	..	28.22
" 1936	..	..	..	..	..	..	..	..	..	25.17

WATER SUPPLIES.

During the year three Rural District Councils made application to the Ministry of Health for sanction to borrow sums of money, a gross total of £55,600, for works of water supply. Public Inquiries were held on the dates shown in the following table :—

Date of Inquiry.	Local Sanitary Authority.	Loan required.	Purpose.
1937.		£	
May 6th ..	Braintree R.	36,000	Water Supply—Parishes of Great Coggeshall, Little Coggeshall, Feering, Kelvedon, Stisted, Pattiswick, Bradwell, Cressing, Black Notley and White Notley.
Dec. 10th ..	Halstead R. ..	1,500	Water Supply—Parish of Bures Hamlet.
Dec. 15th ..	Saffron Walden R. ..	18,100	Water Supply.
		£55,600	

GAUGING OF RIVERS. Negotiations were continued with the Essex Rivers Catchment Board and with the Ouse Catchment Board regarding the gauging of rivers with the following results :—

Essex Rivers Catchment Board. The County Council agreed to contribute, in pursuance of Section 33 of the Land Drainage Act, 1930, towards the cost of the installation by the Essex Rivers Catchment Board of a gauging station on the River Colne at a total estimated cost of £1,648 16s. 4d.

Ouse Catchment Board. The Engineer to the Ouse Catchment Board has been interviewed, when the County Council's objects were explained. The Engineer has promised to prepare a report for presentation to the Ouse Catchment Board.

Consulting Engineer. The County Council considered it desirable to authorise the County Medical Officer of Health to engage the services of Mr. J. Mackworth Wood, Consulting Engineer, in connection with consultations relative to the proposed gauging of certain rivers within the Administrative County.

SCHEMES. In September, 1937, a Special Report was presented to a Sub-Committee of the Public Health and Housing Committee, showing that in 1934 the County Council, on the recommendation of the Public Health and Housing Committee, appointed Mr. J. Mackworth Wood, M.Inst.C.E., Consulting Engineer, to carry out a detailed survey of the water supplies in the Rural Districts in the Administrative County. In a report, dated September, 1934, Mr. Mackworth Wood published the results of this survey and gave details of the water supply, if any, provided in every parish in each Rural District.

Meanwhile, in view of the shortage of water supplies due to the drought in the years 1933 and 1934, several Rural District Councils began the preparation of schemes to provide further piped water supplies. To encourage and assist Rural District Councils in this direction, the Minister of Health obtained power under the Rural Water Supplies Act, 1934, to make contributions towards expenditure incurred by Local Authorities in providing or improving supplies of water in rural localities. For that purpose the Minister set aside the sum of £1,000,000. Experience proved that the amounts of grants allocated to the Rural District Councils expressed as percentages of the estimated cost of the schemes, decreased as the sum of £1,000,000 became exhausted. In one instance, namely, in the Halstead Rural District, the Rural Council delayed submitting their comprehensive scheme, estimated to cost £134,000 ; therefore, the Minister was only able to promise a very small grant, namely, £3,000, and consequently the Rural District Council abandoned the scheme. The County Council undertook to contribute grants at least equivalent to those promised by the Ministry of Health.

According to the latest available figures, the estimated cost of schemes and amounts of grants promised or given by the Ministry of Health towards the cost of schemes for providing water supplies in rural districts in Essex are as follows :—

Rural District.	Estimated Cost. £	Amount of grant from Ministry of Health. £
Braintree R. (Northern Area)	38,000 ..	6,000
Braintree R. (South-Eastern Area) ..	37,360 ..	1,700
Chelmsford R. (Southern Area)	43,800 ..	None*
Chelmsford (Northern Area)	65,584 ..	12,325
Dunmow R. (Main Scheme)	98,119 ..	12,650
Dunmow R. (Smaller Scheme)	7,890 ..	1,150
Carried forward	290,753 ..	33,825

Rural District.	Estimated Cost.	Amount of grant from Ministry of Health.
	£	£
Brought forward	290,753 ..	33,825
Epping R.	6,126 ..	350
Halstead R.	4,325 ..	550
Lexden & Winstree R.	80,700 ..	None†
Maldon R. (Northern Area)	17,250 ..	None*
Maldon R. (Southern Area)	39,950 ..	3,950
Ongar R.	13,571 ..	3,300
Saffron Walden R.	121,050 ..	10,800
Tendring R.	2,581 ..	150
	£576,306 ..	£52,925

*Carried out without applying for financial assistance.

†Ministry of Health ruled that schemes could be carried out without financial assistance.

With the amounts promised by the Ministry of Health and at least the equivalent sums from the County Council, Rural District Councils will be helped by grants of over £100,000 in this important work.

The position so far as the provision of piped water supplies in each Rural District is concerned, is set out below. It should be noted that the reference to ' piped supplies ' in this Report does not necessarily mean that every house in the parishes in which mains have been or will be laid is or will be supplied with water from that source. In other words, water from public mains will be available for the majority of the houses in some Parishes, and for only a small proportion of the houses in other Parishes.

Braintree R. There are 23 parishes in this Rural District. In 1934, a piped supply was available in eight parishes. Two comprehensive schemes for the provision of piped water supplies have been prepared, namely, (*a*) Northern Area, and (*b*) Southern Area :—

(a) *Northern Area.* This scheme makes provision for a piped water supply for eight parishes. There has been some delay owing to the fact that the County Council was unable to approve of the original scheme. An amended scheme, which meets the County Council's objections, has now been submitted to the County Council.

(b) *Southern Area.* This approved scheme makes provision for a piped water supply for four parishes, and for augmenting or replacing the existing supply in six other parishes.

When the above-mentioned schemes have been completed, three parishes, namely, Fairstead (population 269), Faulkbourne (population 188), and Markshall (population 52), will be the only parishes in this Rural District without the nucleus of a piped water supply.

Chelmsford R. There are now 27 parishes in this Rural District. In 1934 a piped water supply was available in fourteen parishes. Five schemes for the provision

of piped water supplies have been prepared and three of these have been completed. The remaining two schemes are now in hand and when completed, a piped water supply will be available in every parish in this Rural District.

Dunmow R. There are 25 parishes in this Rural District. In 1934 a piped water supply was available in six parishes. A comprehensive scheme has been prepared, and is now in hand. When this scheme is completed, every parish in the Rural District will be provided with at least the nucleus of a piped water supply, except the parishes of Chickney, with a population of 37. and Tilty, with a population of 71.

Epping R. There are 14 parishes in this Rural District. In 1934 every parish was provided with a more or less complete piped water supply except Little Parndon (population 128), which is dependent upon shallow wells. Two schemes for extending mains in four parishes have been carried out.

Halstead R. There are 40 parishes in this Rural District. In 1934 a piped water supply was available in five parishes. Under small schemes, public mains were extended from Helions Bumpstead to Steeple Bumpstead, and the source of the existing water supply at Castle Hedingham was augmented by sinking a borehole and providing the necessary pumping plant.

A comprehensive scheme for the provision of piped supplies for most of the parishes in the Rural District, at an estimated cost of £134,000, was prepared and abandoned owing to the small amount of grant, namely, £3,000, promised by the Ministry of Health.

Thirty-four of the 40 parishes in this Rural District are left without at least the nucleus of a piped water supply.

Lexden & Winstree R. There are 34 parishes in this Rural District. In 1934 a piped water supply was available in 12 parishes.

Three comprehensive schemes have been carried out by the Rural District Council without any grant from the Ministry of Health or the County Council. All the schemes, with one exception, are more or less intercommunicating, and the whole area with the exception of the parishes of East Donyland and East Mersea could be supplied from the principal source in the Stour Valley. The only parish left without a piped water supply is the isolated parish of East Mersea (population 228).

Maldon R. There are 30 parishes in this Rural District. In 1934 a piped water supply was available in 18 parishes.

Two comprehensive water schemes have been carried out, and replacements of and extensions to existing mains have also been undertaken. Every parish in this Rural District, except the parish of Ulting, which is a scattered parish with 44 houses, is now provided with at least the nucleus of a piped water supply.

Ongar R. There are 26 parishes in this Rural District. In 1934 a partial piped water supply was available in 11 parishes.

Schemes have been carried out to provide piped supplies to four additional parishes. A comprehensive scheme for the remainder of the district was prepared, but was abandoned owing to the cost. A further comprehensive scheme is now in course of

preparation, and if this is carried out it will leave only four parishes, namely, Abbess Roding (population 169), Beauchamp Roding (population 173), Berners Roding (population 81) and Stapleford Tawney (population 192) without at least the nucleus of a piped water supply.

Rochford R. There are 14 parishes in this Rural District. In 1934 every parish had a more or less piped supply, with the exception of Havengore, which contains only three houses, accommodating 14 persons, and Paglesham, which contains only 92 houses, accommodating 301 persons.

Saffron Walden R. There are 33 parishes in this Rural District. In 1934 a partial piped water supply was available in seven parishes.

Four schemes have been approved by the Ministry of Health, and are approaching completion. Difficulty has been experienced in obtaining pumping machinery owing to the re-armament programme ; otherwise the work would already have been completed. On the completion of all these schemes, every parish in this Rural District will be provided with at least the nucleus of a piped water supply.

Tendring R. There are 24 parishes in this Rural District. In 1934 a piped water supply was available in 17 parishes.

One small scheme for extending the water mains in parishes which had piped supplies has been carried out. A comprehensive scheme for providing a piped water supply to seven parishes, at an estimated cost of £24,500, has, at the time of writing, been submitted to the County Council by the Rural District Council for consideration. If this scheme is carried out, only one parish, namely, Little Bromley (population 278) will be left without a piped supply.

Conclusion. At the time of writing this report, the position in respect to the provision of piped water supplies in each Rural District is set out in Table IX on page 53, a summary of which is given below :—

No. of parishes with piped supplies available in 1934 ..	123
No. of parishes without piped supplies available in 1934 ..	167
Total	290
No. of parishes where piped supplies will be available when all schemes are completed	241
No. of parishes left without piped supplies	49
Total	290
Estimated length of additional mains laid or to be laid under schemes since 1934	552 miles

TABLE IX.

LIST OF RURAL DISTRICTS SHOWING POSITION REGARDING THE PROVISION OF PIPED WATER SUPPLIES IN SEPTEMBER, 1937.

Rural District.	Total No. of Parishes.	No. of Parishes with piped supplies, 1934.	No. of Parishes which will have piped supplies when schemes are completed.	No. of Parishes left without piped water supplies.	Length of additional mains laid or to be laid under Schemes since 1934. (Estimated).
					Miles.
Braintree ..	23	8	20	3	56
Chelmsford ..	27	14	27	—	90
Dunmow ..	25	6	23	2	88
Epping	14	13	13	1	1
Halstead ..	40	5	6	34	6
Lexden & Winstree	34	12	33	1	92
Maldon	30	18	29	1	86
Ongar	26	11	*22	4	10
Rochford ..	14	12	12	2	—
Saffron Walden ..	33	7	33	—	100
Tendring ..	24	17	23	1	23
	290	123	241	49	552

*In this area, the scheme in hand has not yet been submitted to the County Council.

SEWAGE WORKS AND RIVERS POLLUTION.

LOANS. During the year, one Municipal Borough, one Urban District and three Rural District Councils made application to the Ministry of Health for sanction to borrow sums of money, a gross total of £318,254, for works of sewerage and sewage disposal. Public Inquiries were held on the dates shown (page 54) and the County Council was represented at all the Inquiries except those in the Clacton-on-Sea area :—

VISITS TO SEWAGE WORKS. The County Health Inspectors paid 183 visits to the Sewage Works in the Administrative County, when 196 samples were obtained. It will be seen from Table X on page 55 that 138 samples were satisfactory or on border line, and 58 or 29.6 per cent. were unsatisfactory, which is an improvement on the percentage of 38.5 for 1936. Representations were made to the Local Authorities concerned regarding the unsatisfactory samples.

Date of Inquiry.	Local Sanitary Authority.	Catchment Area.	Loan required.	Purpose.
1937. February 11th	Braintree Rural ..	Brain ..	38,600	Sewerage and sewage disposal—Cressing, Black Notley and White Notley.
March 9th ..	Wanstead & Woodford Borough	Roding ..	40,984	Sewerage and sewage disposal.
May 4th ..	Tendring Rural .	Sea	7,300	Sewerage and sewage disposal—St. Osyth.
June 8th ..	Lexden & Winstree Rural ..	Colne ..	10,100	Sewerage and sewage disposal—East Donyland.
October 8th ..	Clacton-on-Sea Urban	Sea	27,520	Sewage disposal.
November 2nd	Clacton-on-Sea Urban	Sea	48,500	Sewerage—Northern Area.
November 4th	Clacton-on-Sea Urban	Sea	145,250	Sewerage and sewage disposal—Western Area.
		Total ..	£318,254	

ESSEX COUNTY COUNCIL ACT, 1933.

Establishments for Massage and Special Treatment.

Sections 54-71 of the Essex County Council Act, 1933, regarding establishments for massage and special treatment, are in force by resolutions of the County Council, in the Boroughs of Chelmsford, Colchester, Maldon, Romford, Saffron Walden and Wanstead & Woodford, the Urban Districts of Billericay, Brentwood, Chigwell, Chingford, Clacton, Dagenham, Epping, Frinton & Walton, Hornchurch, Thurrock, and Waltham Holy Cross, and the Rural Districts of Epping and Ongar.

By Section 69, the powers and duties under this part of the Act are delegated to the Boroughs of Barking, Ilford, Leyton and Walthamstow. Conditions and restrictions to be imposed upon the exercise of the powers and duties of Part IV of the Essex County Council Act, 1933, were approved by the County Council on 6th March, 1934.

During the year ended 31st March, 1937, licences were granted to 64 applicants, authorising them to carry on establishments for massage or special treatment on the premises approved.

Refuse Dumps.

Sections 146-157 of the Essex County Council Act, 1933, in conjunction with the Third Schedule, give power for controlling the depositing of refuse in any place within the County other than the place within the County District in which the refuse is collected or assembled. In other words, it is mainly to control the dumping in Essex of refuse which has been collected in many of the London Boroughs.

TABLE X.

Showing Sewage Works, Number of Visits, and Number of Samples Taken during the Year 1937.

Catchment Area.	Sewage Works.	Sanitary District.	No. of Visits.	Samples taken. No. satisfactory or on border line.	No. unsatisfactory.	Total.
Brain ..	Braintree	Bra'tree & Bocking U.	5	2	3	5
Blackwater ..	Bocking	"	3	3	—	3
	Coggeshall	Braintree R... ..	3	3	—	3
	Kelvedon	" ..	3	3	—	3
	Silver End	Witham U.	6	3	3	6
	Witham .. .	" ..	4	3	1	4
Roding .	Abridge	Ongar R.	4	4	—	4
	Buckhurst Hill ..	Chigwell U.	4	4	—	4
	Chigwell	" ..	2	2	1	3
	Chigwell Row	" ..	5	5	—	5
	Debden Green	" ..	1	—	1	1
	Epping (Southern) ..	Epping U.	3	3	—	3
	Grange Hill	Chigwell U.	3	1	2	3
	Loughton	" .	4	—	4	4
	Moreton	Ongar R. .. .	1	1	—	1
	North Weald	Epping R. .. .	3	—	3	3
	Ongar	Ongar R.	1	1	—	1
	Theydon Bois ..	Epping R.	2	1	1	2
	Thornwood	" ..	3	3	—	3
	Wanstead	Wanst'd & Woodf'd B	4	4	—	4
	Woodford	" "	4	4	—	4
Chelmer ..	Chelmsford B. & R. Jt.	Chelmsford B. & R...	2	2	—	2
	Dunmow	Dunmow R. ..	4	4	—	4
	Felstead	" ..	—	—	—	—
	Great Waltham ..	Chelmsford R. ..	1	—	1	1
	Thaxted	Dunmow R. ..	3	3	—	3
Ter .	Hatfield Peverel ..	Braintree R. ..	—	—	—	—
Wid .. .	Billericay	Billericay U. ..	2	2	—	2
	Great Warley .. .	Brentwood U. ..	1	1	—	1
	Ingatestone	Chelmsford R. ..	2	—	2	2
	Shenfield, Hutton and Ingrave .. .	Brentwood U. ..	2	2	—	2
Colne ..	Halstead	Halstead U. ..	4	1	3	4
	Sible Hedingham ..	Halstead R. ..	2	—	2	2
	Tiptree	Lexden & Winstree R.	3	2	1	3
	Layer Breton .. .	" "	3	3	—	3
Stour .	Steeple Bumpstead .	Halstead R... ..	1	1	—	1
	St. Osyth .. .	Tendring R. ..	4	4	—	4
Ingrebourne .	Brentwood .. .	Brentwood U. ..	2	2	—	2
Beam .	Romford & Hornchurch Jt.	Romford B. and Hornchurch U.	2	4	—	4
Crouch ..	Great Burstead ..	Billericay U. ..	2	2	—	2
	Laindon	" ..	3	1	2	3
Mardyke ..	Bury Farm, Great Warley ..	Hornchurch U. ..	3	3	—	3
	South Ockendon ..	Thurrock U... ..	2	2	—	2
	Orsett .. .	"	2	2	—	2
Kirby Creek	Kirby-le-Soken .	Frinton & Walton U.	3	3	—	3
Holland Brook	Thorpe-le-Soken .	Tendring R... ..	3	3	—	3
Cam	Newport	Saffron Walden R. ..	4	4	—	4
	Saffron Walden ..	Saffron Walden B. ..	2	2	—	2
Roach ..	Rayleigh (East) ..	Rayleigh U... ..	3	2	1	3
			133	105	31	136
Other samples including private sewage works, rivers, streams, ditches, &c.			34	22	22	44
Trade effluents			16	11	5	16
Total			183	138	58	196

At the end of the year there were 13 refuse dumps in Essex which must comply with the conditions of this Act. Surprise visits are paid to these dumps from time to time, and apart from a few minor infringements, conditions were found to be satisfactory.

TOWN AND COUNTRY PLANNING.

The major subjects dealt with during the year by the Town and Country Planning Committee included the following :—

STANDING ORDERS. Developments necessitated an extension of the Committee's powers which were approved by the County Council, and except such matters as shall involve an expenditure or liability exceeding £50, the following duties are now delegated to the Committee :—

(i) Matters arising out of the Town and Country Planning Act, 1932, or otherwise relating to town and country planning.

(ii) Matters arising out of the Air Navigation Acts, 1920 and 1936.

(iii) Matters relating to playing fields and open spaces.

(iv) Matters arising out of Section 144 of the Essex County Council Act, 1933.

(v) Matters arising out of the Ancient Monuments Acts, 1913 and 1931.

(vi) Matters arising out of the National Trust Act, 1937.

TOWN PLANNING SCHEMES.

(a) *Colchester B.* The County Council approved in principle the proposal that a Planning Scheme be prepared by the North-East Essex Regional Planning Committee for the built-up areas of the Borough of Colchester which are at present excluded from the area of the Regional Planning Scheme, the cost being shared equally by the Colchester Borough and the County Council.

(b) *Road Proposals.* Approval was also given to the County Council accepting financial responsibility for certain proposed roads of future classification importance in Saffron Walden B., Witham U., Braintree & Bocking U. and Halstead U.

Retention of the road proposals in Rural Districts, for which the County Council will be the responsible authority, provided for in the planning schemes for the North-East Essex, Mid-Essex and North-West Essex Regional Planning Areas, and in other schemes which have arrived at a similarly advanced stage was approved under certain conditions.

Financial responsibility was accepted by the County Council under Town Planning Schemes in respect of widths and building lines of existing or proposed County roads in Benfleet U., Burnham-on-Crouch U., Maldon B., Clacton-on-Sea U., Waltham Holy Cross U.

LONDON "GREEN BELT" PROPOSALS. The policy of acquiring or sterilising a number of large estates approximately equidistant from London

and linking them up as far as possible with each other and with existing open spaces was continued. Recommendations to purchase or sterilise the following estates were approved :—

(a) *To be purchased.*

Hainault-Havering Sector ..	.. 500 acres.
Thorndon Park ..	.. 373 ,,
Theydon Bois Northern Link	.. { 65 ,, / 180 ,,
Epping-Hainault Link ..	.. { 16½ ,, / 55 ,,

(b) *To secure sterilisation from development.*

Epping-Hainault Link ..	.. 93¼ acres at Theydon Bois. 21 acres at Lambourne End.

Green Belt proposals or purchases in the Administrative County of Essex now include 19,772 acres.

Open Spaces. Contributions not exceeding 20 per cent. were promised by the County Council towards the cost of purchasing open spaces in Benfleet U., Chigwell U., Hornchurch U. and Thurrock U.

It was decided to purchase 344½ additional acres to extend the County Council's properties and open spaces in the Langdon Hills area.

Playing Fields and Recreation Grounds. Approval was given to making contributions to the Urban District of Chingford, and the Rural Districts of Chelmsford, Maldon and Tendring towards the cost of acquisition of playing fields, subject in each case to facilities being granted to the satisfaction of the Education Committee for the use of the grounds by children of neighbouring elementary schools for play and organised games.

Preservation of Windmills. Orders were made by the County Council under Section 17 of the Town and Country Planning Act, 1932, to the effect that the Upminster and Ramsey Windmills being buildings of special architectural or historic interest shall not be demolished without the consent of the Essex County Council.

Advisory Regional Planning Committees. The Essex County Council notified the Ministry of Health that they concurred in the proposal for the establishment of a Greater London Standing Conference on Regional Planning to replace the Greater London Regional Planning Committee, which has since been formed and a number of Meetings held.

MENTAL DEFICIENCY.

The arrangements for ascertainment, medical examination and furnishing of reports on persons suspected of mental defect have continued. The services of Dr. T. P. Puddicombe, Deputy County Medical Officer, have again been available to the

Statutory Committee for the Care of the Mentally Defective and to the Courts of Justice for investigation, examination and recommendations on cases referred as possibly mentally defective.

Dr. A. R. Forbes has, during the year, again rendered valuable assistance in this work. The table set out below and compiled from the medical reports shows that 347 persons were examined under the Mental Deficiency Acts :—

Diagnosis.	No. Examined.			*The figures given in Columns (1), (2) and (3) include the following :—							
	Males. (1)	Females. (2)	* Total. (3)	Referred by Justices for Examination. M.	F.	Total.	Epileptic	Post-Encephalitic.	Spastic Tetraplegic.	Mongols.	Dementia.
Feeble-minded ..	96	101	197	15	1	16	8	2	—	—	—
Imbeciles ..	64	29	93	—	—	—	3	—	1	14	—
Idiots ..	8	13	21	—	—	—	2	1	—	1	—
Moral Defectives	—	1	1	—	—	—	—	—	—	—	—
Not Certifiable under the Acts	19	16	35	12	4	16	—	—	—	—	2
Totals ..	187	160	347	27	5	32	13	3	1	15	2

The Essex Voluntary Association for Mental Welfare has again rendered valuable and appreciated services in connection with ascertainment and preliminary investigation of cases, boarding out, voluntary and statutory supervision, occupational centres, convalescent and other treatment, &c. As from the 1st April, 1938, the County Council resumed such of their functions as they had either delegated or assigned to this Association and took over the latter's salaried staff.

The Occupational Centres at Barking, Dagenham, Romford and Walthamstow (two—Junior and Senior Boys' Handicraft Class) have continued and preliminary arrangements were made for the establishment of a Senior Boys' Handicraft Class at Dagenham. Useful training is provided at these Centres for children of suitable grade and the mothers accordingly benefit by being relieved of the care of the children during their busy hours.

Institutional accommodation has again become limited for the number of cases needing admission, and the Committee has obtained the approval of the Minister of Health to the provision of a further two patients' villas at Turner Village, Colchester.

The need for the provision of suitable accommodation for the very young with gross mental defect is still a matter for remedy. These children are unsuitable for boarding out under guardianship and are a continual difficulty in their own homes or in unsuitable surroundings in certain Public Assistance Institutions.

At the end of 1937 the Statutory Committee was responsible for the care and control or supervision of 2,077 persons, an increase of 127 on the previous year. These afflicted persons are dealt with under the following headings :—

	Male.	Female.	Totals.
In Institutions	468 ..	347 ..	815
Under Statutory Supervision ..	633 ..	498 ..	1,131
Under Guardianship	24 ..	21 ..	45
Under Licence from Institutions ..	35 ..	51 ..	86
	1,160 ..	917 ..	2,077

Of the 2,077 defectives referred to above, 88 were placed in Institutions, 8 under Guardianship and 132 under Statutory Supervision during the year.

MENTAL TREATMENT ACT, 1930.

The previous arrangements whereby Dr. R. C. Turnbull and Dr. W. G. Masefield, Medical Superintendents of the Severalls and Brentwood Mental Hospitals, attend certain clinics to conduct Out-Patient Consultative Clinics have continued. These Clinics have again rendered valuable services to the patients and advice to the practitioners concerned.

The reports of the Consultants on the work carried out at the Clinics are as follows :—

Dr. R. C. Turnbull.

" The Clinic at the Colchester Hospital is held at 3 p.m. on Mondays and during the year 1937, 110 individual patients attended for diagnosis and treatment. The average attendance at the Clinic was eight per session.

The Clinic at the Chelmsford Hospital is held at 2.30 p.m. on Wednesdays, and during the past year 98 individual patients attended for diagnosis and treatment. The average attendance was six per session.

In addition to the patients seen at the Clinics, I have, from time to time, visited and examined cases at various Public Assistance Institutions, and at County Hospitals when required.

I am indebted to Dr. Penrose, Director of the Research Department of the Royal Eastern Counties Institution, for his continued willingness to give me assistance in dealing with mentally defective children who have been sent to the Clinics for advice."

Dr. W. G. Masefield.

" The Clinic at Oldchurch County Hospital, Romford, has been held weekly on Fridays at 2.30 p.m., and during 1937 I saw 94 men and 239 women, which included 37 male and 110 female in-patients of the Hospital.

At the Woodford Clinic (held fortnightly on first and third Tuesdays at 3 p.m.), 44 patients were seen—13 males and 31 females. I or my deputy continue to attend the Orsett Clinic as and when required, the majority of the cases being in-patients of the Public Assistance Institution."

BLIND PERSONS ACTS, 1920-1938.

Resulting from the publication of the Report on the Prevention of Blindness by the Standing Committee of the Union of Counties Association of the Blind and the Ministry's Circular No. 1621, the County Medical Officer submitted a report to the Blind Persons Act Committee in November, 1937.

With the adoption of the proposals outlined in the Report a determined effort is being made to correlate the ophthalmic services from infancy through the school years and adolescence into adult life, thus making provision for the defectively sighted, uninterruptedly, to be under the ægis of specialist ophthalmic supervision as part of the County scheme for assisting in the prevention of blindness.

Moreover, the Blind Persons Act Committee is prepared, in furthering the objects of the scheme, to arrange for the County ophthalmic services to be available for the indigent poor, to assist in the provision of spectacles where necessary, and to make arrangements for the ascertainment and treatment of persons threatened with blindness.

During the year the ophthalmic department of Oldchurch County Hospital has been used to an unprecedented extent in the treatment of surgical ophthalmic cases. Operative treatment has been given to squints, cataracts, glaucomas and, in particular, to detachments of the retina, with uniformly satisfactory results.

Mr. G. A. Jamieson, M.B., D.O.M.S., D.L.O., commenced duty on the 1st March, 1937, as whole-time Ophthalmic Specialist and as a result of the above-mentioned Report, it was agreed to appoint a further whole-time Specialist and also obtain part-time service to the extent of two sessions per week. Mr. J. H. Young, M.B., B.S., D.O.M.S., has since commenced duty as whole-time Ophthalmic Specialist on 1st June, 1938, and Mr. R. S. MacLatchy, M.R.C.S., L.R.C.P., as part-time on 25th April, 1938.

The liaison that exists between the County Ophthalmic Specialists and the London Hospital has been of inestimable benefit in referring cases under the Blind Persons Act for further consultative opinion and investigation.

Arrangements have now been made for the dental care of the blind, and applications are continually being received from patients seeking to avail themselves of the opportunity for treatment. Where the patients are not being treated by a private dental practitioner, arrangements are made for the treatment to be carried out by the County whole-time Dental Staff.

In all cases an estimate of the cost of dental treatment is obtained before permission is granted to complete the work. It is hoped that, after the scheme has been working for some time and has become generally known, these patients will automatically apply for treatment by the County Staff. This will result in considerable economy to the Committee since the supply of dentures will be at production cost.

The Home Teachers for the Blind at the end of 1937 numbered nine—females, eight, male, one.

During the year under review 413 persons were examined by specialists, and occupational training was given to 41 persons for various periods.

On the 31st March, 1938, the Blind Persons Register showed a total of 1,753 (males 867, females 886), being an increase of 89 (males 57, females 32) over the previous year. Of these 1,688 (males 821, females 867), are over 16 years of age, of whom 1,397 (males 592, females 805), are classed as unemployable.

Of the 1,397 cases recorded as unemployable, 27 were maintained in Homes for the Blind, 32 in Mental Hospitals and 77 in Poor Law Institutions.

The net increase of 89 on the Register is the result of the addition of 237 and removal of 148 names.

Of those removed from the Register, 99 have died, 43 have removed to other areas and two were re-classified as not coming within the definition of a blind person under the Act.

Cases under observation for the prevention of blindness number 602, as against 559 for the previous year, a net increase of 43, the result of the addition of 88 new cases less the removal of 45 cases from the list.

On the 1st April, 1938, a new Act came into operation, viz. the Blind Persons Act, 1938, the main features of which are as follows :—

(1) *Old Age Pensions.* The age at which a blind person becomes eligible for an Old Age Pension has been reduced from 50 to 40 years.

(2) *Domiciliary Financial Assistance.* Councils are required to take into account not only the needs of the blind person but also the needs of any dependent members of his household.

(3) *Funeral Expenses.* Councils are empowered to pay or to contribute towards the funeral expenses of a blind person or his dependants.

(4) *Assistance to be provided exclusively under the Blind Persons Act.* All assistance other than assistance in an institution or medical assistance shall be provided exclusively by virtue of the Blind Persons Act and not by way of poor relief.

PROPAGANDA.

A National Campaign to encourage the use and appreciation of the Public Health Services was launched in the early part of the year by the Ministry of Health, who invited the Central Council for Health Education to assist. It was felt that, whilst the excellence of the work achieved by these services was well known, there was no doubt that much more could be accomplished if they were fully used. Special posters, leaflets, publications, bookmarkers were offered free of charge, and every County and Local Authority was invited to co-operate in making this Campaign a success.

The Campaign commenced on 1st October, 1937, and ended on 31st March, 1938, each month being devoted to a specific subject as shown below :—

October	Introductory.
November and December	Maternity and Child Welfare.
January	School Health.
February and March	School Hygiene. Tuberculosis.

On 29th October, 1937, a Conference of Essex Medical Officers of Health was addressed by Dr. W. A. Lethem, of the Ministry of Health. It was agreed that the carrying out of this Campaign should be through and in co-operation with the Medical Officer of Health for each Sanitary District. Subsequently, full particulars of the Campaign were forwarded to each Medical Officer of Health in that portion of the County for which the County Council is the Child Welfare Authority. The following services were placed at his disposal :—Travelling health exhibition, lecturers and demonstrators and an offer was made to co-operate in any way at public meetings, parent days at schools and at child welfare centres, clinics, &c.

The Public Health and Housing Committee approved of the expenditure of £275 for displaying large posters on advertisement hoardings in the populous centres in the County, and authorised expenditure in regard to the holding of Health Exhibitions.

The following special events were arranged in connection with this campaign :—

Health Exhibitions at 17 Centres.
Health Days at 3 Urban and 3 Rural Districts.
Public meetings, with film displays at Chelmsford (2) and Colchester.

In addition to the above campaign, the customary publicity and propaganda activities have been continued throughout the year. These included Health Exhibitions at 11 Centres in the County and 34 lectures to Women's Institutes, Nursing Associations, Mothercraft Classes, &c.

PROVISION OF HOSPITAL SERVICES.

The Hospital Survey Committee, having discharged its functions of surveying the needs of the County in respect of hospital accommodation, was disbanded by the Council in July, 1937, and the whole of the activities of this Committee were taken over by the Public Health and Housing Committee. The policy outlined in the Report of the County Medical Officer for the year 1936 has been continued, but certain variations and amendments in the original schemes set out, have been made. This was to be expected, as new factors have arisen as the investigations proceeded, both as regards extension and establishment of Council Hospitals and in negotiations with the Voluntary Hospitals.

The conditions of Capital Grants to Voluntary Hospitals, set out in the Report for the year 1935, were amended by the Council on 4th January, 1938, and the revised conditions, which are intended to be regulations of general application only and subject to the individual circumstances of each case, are given below :—

(1) In each case there shall be submitted to the Council for its approval :—

(*a*) Full particulars and plans of the proposals.

(*b*) A detailed estimate of the cost of such proposals.

(*c*) Full particulars of any land and/or buildings to be acquired or used in connection with the proposals.

(*d*) The tender for the carrying out of the work.

(2) (*a*) There shall be adequate proportional representation of the County Council on the Governing Body of the hospital and upon its effective or executive Committee.

(*b*) Unless otherwise agreed, the County Medical Officer of Health or his deputy shall have a seat upon the Medical Committee of the hospital.

(3) The accounts of the hospital shall be open to inspection and audit by officers of the County Council.

(4) The Council, through their officers, shall be entitled to enter and inspect the hospital or any part thereof at all reasonable times, and all reasonable facilities shall be given to them and all reasonable information afforded to them.

(5) The Council shall be satisfied that the hospital is so discharging its functions that it performs to an adequate extent the functions of the County Council in regard to the provision of places for the reception of the sick.

(6) The County Council shall have the right of nomination to an agreed number of beds in the hospital.

(7) No contribution or loan shall be made until that portion of the cost of the acquisition of the site or of the erection or alteration of the building (as the case may be) as has been agreed to be found by the hospital, has been raised and no contract for the erection or alteration of a building shall be entered into until the County Council has approved the expenditure.

(8) The hospital shall give a charge to the County Council on the property of the hospital to secure the repayment of the capital of any loan in the event of the hospital failing at any time to comply with these regulations.

During the year conditions pertaining to Maintenance Grants have also been considered, and in January, 1938, the Council agreed that the following proposals should be adopted as a basis of any terms and conditions arranged with voluntary hospitals in connection with the making of maintenance grants by the Council :—

(1) There shall be adequate proportional representation of the County Council on the Governing Body of the hospital and upon its effective or executive Committee.

(2) The accounts of the hospital shall be open to inspection and audit by officers of the County Council.

(3) The Council, through their officers, shall be entitled to enter and inspect the hospital or any part thereof at all reasonable times, and all reasonable facilities shall be given to them and all reasonable information afforded to them.

(4) The Council shall be satisfied that the hospital is so discharging its functions that it performs to an adequate extent the functions of the County Council in regard to the provision of places for the reception of the sick.

Table XI on page 64a shows the number of beds provided and occupied during 1937 in hospitals belonging to the County Council.

As in last year's report, an up-to-date resumé of the position regarding the Council's hospitals and the Voluntary Hospitals is set out below :—

SOUTHERN AREA.

The Medical Superintendent of the Oldchurch County Hospital, Dr. E. Miles, has issued a separate report with regard to this Hospital.

The proposal to extend the Oldchurch County Hospital to 1,060 beds has received further consideration, together with the proposal to erect a hospital on the Chadwell Heath site (Crowlands). The whole question of the provision of hospital accommodation in the Southern area was revised and it was finally agreed by the Council on the 4th January, 1938, that a scheme for the extension of Oldchurch County Hospital should be proceeded with to accommodate ultimately 948 beds.

Approval was given by the County Council to the layout plan prepared by the County Architect for the development to its fullest extent of the Crowlands site to provide for the erection of a hospital with accommodation for approximately 500 children, 500 adults and a separate maternity block for approximately 120 patients. It has been agreed to proceed forthwith, as a first instalment, with the erection of 240 beds for children, 240 for adults, plus 10 casualties, with a separate maternity block for 80 patients.

The problem of meeting immediate needs owing to shortage of accommodation became more and more acute as the year 1937 drew to its close, particularly in connection with accommodation of chronic patients. The utilisation of Little Heath House and Hainault Lodge for chronic patients, totalling 100 beds, did a little to relieve the situation. A number of chronic patients have also been diverted to Public Assistance Infirmaries in other parts of the County owing to lack of accommodation in the Southern Area. Reference is made in the paragraph headed South-Western Area, to the proposals concerning the premises on the site at Hermon Hill, Wanstead, as a means of helping to meet this need.

At the time of writing, a proposal is being considered by the Public Assistance Committee to utilise certain accommodation at the new Suttons Institution for chronic patients, and also for proceeding with new blocks on this site to provide further beds for these patients.

Elsewhere in the Southern Area the following developments have occurred :—

Hainault Lodge, Chigwell Row, was opened in November, 1937, with temporary accommodation for fifty chronic patients.

TABLE XI.

TABLE SHOWING BEDS PROVIDED AND OCCUPIED FOR THE 12 MONTHS ENDED 31ST DECEMBER, 1937, IN COUNTY COUNCIL HOSPITALS.
(As shown in the Return Hosp. 6).

Area.	Institution.	Name, Address and 'Phone No. of Medical Officer.	No. of Beds available.			No. of Admissions.	No. of women confined.	Live-Births.	Still-Births.	Deaths among newly-born.	Deaths among Children under 1 year.	Maternal Deaths.	Total No. of Deaths.	No. of patients discharged.	No. of Beds occupied.			No. of operations under general anæsthetics.	No. of Abdominal Sections.
			Men. 1.	Women. 2.	Children (under 16). 3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	Average. 13.	Highest. 14.	Lowest. 15.	16.	17.
Romford	Oldchurch County Hospital	E. Miles, Oldchurch County Hospital, Romford. 'Phone No. Romford 3666.	428	352	183	9539	694	643	59	30	121	8	854	8591	840	943	754	4481	1324
Do. ..	Little Heath House, Goodmayes	Do. Do.	—	50	—	26	—	—	—	—	—	—	11	5	42	50	40	—	—
Do. ..	Hainault Lodge, Chigwell	Do. Do.	—	50	—	47	—	—	—	—	—	—	2	1	—	44	17	—	—
Woodford Green ..	Brookfield Orthopaedic Hospital, Oak Hill	Visiting M.O., Dr. A. Rogers, 24, Castle Avenue, Highams Park, E.4 'Phone No. Larkswood 1614.	—	—	30	82	—	—	—	—	—	—	—	93	28	31	19	151	—
		Totals	428	452	213	9694	694	643	59	30	121	8	867	8690	910	1068	830	4632	1324

Little Heath House, Dagenham, also provides temporary accommodation for fifty chronic patients. The premises are rented from the County Borough of West Ham.

Loxford Lane, Ilford. With regard to this site, as indicated in the previous year's report, this will not be required for building purposes for a number of years, but consideration is now being given to the works required to be undertaken on this site to make it ready for use.

King George Hospital. Little progress has been made in connection with negotiations with the King George Hospital regarding terms and conditions under which the County Council can assist in a Scheme for the extension of their hospital by about 300 beds to a total of 500 beds.

Pyrgo Park. See under heading Convalescent Hospitals on page 67.

SOUTH-WESTERN AREA.

Hermon Hill, Wanstead. The site at Hermon Hill, Wanstead, was acquired in July, 1937, for the erection of a hospital of 500 beds.

To meet the immediate needs referred to in the paragraph headed Southern Area, above, consideration was given to the question of adapting the existing premises known as the Convent of the Good Shepherd, formerly the Merchant Seamen's Hospital, to accommodate 201 beds for chronic patients. Officials of the Ministry of Health, in conference with County Council representatives, did not consider the buildings satisfactory for adaptation, except as emergency accommodation for use for a very limited number of years, and therefore suggested that as the alterations proposed did not appear to be a suitable subject for a loan, the County Council should defray the cost out of revenue. Ultimately, therefore, on 4th January, 1938, the Council agreed to proceed with the adaptation and temporary utilisation of the premises on these conditions, and it is hoped that the premises will be ready for occupation in the Autumn of 1938. It has been decided that the Hospital shall be known as the Essex County Hospital, Wanstead.

Site at Oak Hill, Walthamstow. Negotiations to acquire the site at Oak Hill, Walthamstow, owned by the Walthamstow Parochial Charities for the erection of a 500-bed hospital, capable of extension to 800 beds, proved unsuccessful, as terms satisfactory to both parties could not be agreed upon. At the time of writing, therefore, the County Council are considering an alternative site.

Connaught Hospital, Walthamstow. The Connaught Hospital, Walthamstow, have submitted a scheme for extension and alterations which will increase the number of beds by about 89. Negotiations are still proceeding with this Hospital with regard to capital and maintenance grants being made by the County Council.

Brookfield Orthopædic Hospital. This Hospital which was taken over by the County Council on the 1st December, 1936, has continued to render useful

services. Certain improvements and renovations have been carried out during the year. Further reference is made to the Hospital in Part III of this Report, (page 107) where information is given as to the number of admissions and discharges, &c.

SOUTH-EASTERN AREA.

Site on the Tilbury Arterial Road. Completion of the purchase of the site on the Tilbury Arterial Road, near Chadwell St. Mary, was completed in July, 1937, and will in due course accommodate a hospital of 250 beds, capable of extension to 500 beds, to serve the Thurrock Area. Until the Council is in a position to commence building operations on the site, the land has been let to the tenant in occupation when the purchase was completed, upon a yearly agreement.

Negotiations with Southend-on-Sea. It is estimated that by the time the present agreement with the Southend-on-Sea County Borough Council expires in 1951, at least 200 hospital beds will be required for the area of the old Rochford Hundred (which includes the Benfleet, Canvey Island and Rayleigh Urban Districts and Rochford Rural District), and that this number will increase to 250 over a period of years.

The negotiations with the County Borough Council to provide such accommodation at their Municipal Hospital at Rochford as would suffice for the whole of the area for all time have not reached the conclusion expected. In October, 1937, the Borough Council intimated that they had found it necessary to modify their views so far as the provision of accommodation in perpetuity for the Rochford Hundred was concerned, but that they were willing that their hospital should be regarded as serving for all time the Rochford Rural District in addition to the County Borough.

As a result of a Conference between representatives of the County Council and the Borough Council, discussions are now in progress with a view to the formulation of definite alternative proposals in accordance with suggestions made at that Conference.

CENTRAL AREA.

Reference is made on page 116 in the Public Assistance Section of this Report to the increased accommodation which it is proposed to provide at the Billericay and Chelmsford Public Assistance Institutions.

Chelmsford and Essex Hospital. As was indicated in the Report for 1936, the Chelmsford and Essex Hospital authorities, early in the year, accepted the general principle of it becoming a base hospital and plans of the complete scheme of extensions have been prepared.

Meanwhile, as part of the complete scheme, the Hospital authorities are proceeding with the erection of a new ward block, to be known as the Keene Block, to accommodate 70 additional beds, and a laboratory. Negotiations are in progress with regard to the payment by the County Council of both capital and maintenance grants in return for which the County Council will have the right to use certain beds in the new block.

COLCHESTER AREA.

Park Road Site. The purchase of the Altnacealgach Estate on Park Road, Colchester, was completed during the year under review.

Part of this site, as was indicated in last year's report, will ultimately be used for the erection of a hospital supplementary to the accommodation to be provided by the Essex County Hospital authorities in co-operation with the County Council.

Essex County Hospital, Colchester. It is pleasing to be able to report that negotiations with the Colchester hospital authorities have progressed steadily throughout the year, and general agreement has now been reached regarding the regulations and conditions to be attached to the making of capital and maintenance grants. A layout plan of the ultimate accommodation (to be provided in stages) has been prepared by the hospital's Architect for consideration by the Hospital Board and the County Council.

NORTH-WESTERN AREA.

Saffron Walden Voluntary Hospital. Further conferences with representatives of the Saffron Walden Voluntary Hospital took place during 1937, and as a result the basis of the ultimate agreement between the Council and the Hospital authorities has been arrived at. Sketch plans of the extensions and adaptations of the present building have been prepared and are under consideration.

Bishops Stortford Institution. The negotiations with the Hertford County Council for the provision of additional accommodation at the Bishops Stortford Institution are still proceeding.

EPPING AREA.

Ongar War Memorial Hospital. The application for a Capital Grant to meet the cost of re-planning and re-organising the services of the Ongar War Memorial Hospital received favourable consideration during the year, but unfortunately difficulties have arisen, mainly in connection with the question of the necessary mortgage on the hospital premises. The Hospital is a charity, administered in conformity with a scheme of the Board of Charity Commissioners, who are unable to give their approval to the form of mortgage required by the Council. Several suggestions have been considered for overcoming the difficulties.

CONVALESCENT HOSPITALS.

Pyrgo Park. In October, 1937, land at Pyrgo Park belonging to the Town and Country Planning Committee was appropriated by the Public Health and Housing Committee for the purpose of erecting thereon a Convalescent Home of 200 recovery and convalescent beds. Plans of this hospital are at present receiving the consideration of the Ministry of Health.

Michaelstow Hall The purchase of Michaelstow Hall, Dovercourt, as a site for the Council's second Convalescent Hospital has now been completed. It has, however, been necessary to modify the original scheme for adapting the premises to accommodate 50 women and children, and in due course adaptations will be carried out so that the existing house may be used for the accommodation of somewhat less than 40 suitable convalescent patients. It is anticipated that the work will be completed by the Autumn of 1938.

Other Matters.

(i) Ambulance Facilities. No outstanding difficulties have arisen in connection with the County Ambulance Service, and the scheme for the reciprocal use of ambulances continues to run smoothly and to be satisfactory to both local authorities and the police, on the lines indicated in last year's report.

In order to secure greater co-ordination and control of the Council's own ambulances, arrangements have been made for a uniform type of log book to be kept in respect of each vehicle and for the entries to be submitted periodically to the County Medical Officer of Health as Chief Organiser and Controller of Ambulances.

Consideration was given to the question of augmenting the Council's own ambulance service, but it was felt that the ambulances available were sufficient to cope with emergencies under existing conditions, although the provision of extra vehicles will no doubt have to be considered in the near future in connection with Air Raid Precautions schemes.

(ii) Nursing Services. Much attention continues to be given to the question of improving the conditions of service of nurses in regard to hours of duty, salaries, promotion, pensions, social amenities and recreation. A good deal has been written on the subject, both in the public and the professional press, and an Inter-Departmental Committee has been set up by the Ministry of Health and the Board of Education to make a comprehensive enquiry into the whole subject of recruitment, training and conditions of service of the nursing profession.

During the year under review, a conference was held consisting of members of the various Committees of the Council in charge of hospitals and institutions, when a detailed report, with recommendations, was submitted by the County Medical Officer. In introducing the report, the County Medical Officer pointed out that :—

> " The question is one which affects the whole of the hospital policy which the Council have been considering since 1930, because it is not much use having good institutions unless they are staffed with an efficient team of doctors, nurses and domestic workers. It must be realised that we have entered into an entirely new world in respect to the nursing profession ; the old ideas of a vocation and a religious devotion are passing and in their place the modern girl looks for a career. Moreover, she has endless opportunities to-day, whereas fifty years ago nursing and teaching were practically the only two professions open to her.
>
> It is common knowledge that for many years past there has been a slowing down in the recruitment of nurses, and this seems to have been accen

tuated very considerably during the last year. It applies to Hospitals, Infirmaries, Sanatoria, Health Visiting and other collateral branches of the nursing profession.

In Essex a special feature has been the small number of Essex born girls who come forward for training. Whilst our first duty and responsibility is to attract a sufficient number of the right kind of nurses for our institutions, I think there is also another duty to provide an outlet for Essex girls in a profession to which many of them have a natural leaning.

Owing to the altered circumstances of the last few years, Essex is now in a position to form a nursing service of its own, and to offer a career in almost every branch of the nursing profession to those desirous of taking it up. There is the Oldchurch County Hospital, Romford, and a number of voluntary hospitals where the General Training Certificate can be secured. Again, at Oldchurch County Hospital and other places in the County, midwives receive the recognised training. At the County Training Home, Leytonstone, District Nurse-Midwives are trained, whilst at Black Notley Sanatorium Nurses are trained and given a certificate for the nursing of tuberculous patients. For the past few years a trained nurse, usually from one of our own Institutions, has been appointed as probationer Health Visitor, and after the necessary training, taken on our staff of whole-time Health Visitors. Many Fever Hospitals in Essex are recognised as training schools for fever-trained nurses. Our Mental Hospitals are similarly recognised in their own branch of the profession. Essex is, therefore, in the position, by co-operation and mutual assistance, to cover almost the entire field of nursing, both in respect of training and subsequently to offering suitable posts for the actual carrying out of the profession. If this were accomplished and duly advertised throughout the County, I believe a great many young girls at school-leaving age would be attracted to take up nursing. We are losing the great bulk of these now.

Another source of loss is where the nurse, who has already received some training and wishes to take up a specialised branch and makes application to one or other of our existing services, is not able to be assured that inside our own scheme there will be full opportunity of training and also of subsequent employment.

The shortage of nurses is worst in respect of Assistant Nurses, *i.e.*, those untrained nurses who chiefly are engaged in the Public Assistance Infirmaries for looking after the chronic and infirm patients under the supervision of trained nurses. The scheme of training Assistant Nurses at Epping and Orsett is a success, but the number in training is few, and it will be many years before we can meet our needs. In the meantime, the Council is paying exorbitant fees to the various Nurses Supply Associations for temporary Assistant Nurses."

On 5th July, 1938, the Council adopted the following recommendations, which are designed to improve the general amenities of the Nurses, both on and off duty, and to remove unnecessary restrictions on their freedom :—

(i) *Holidays.* Holidays to be granted to all grades of nurses, both trained and untrained, at the rate of 14 days for 6 months' service, to be taken as and when arranged within the year, commencing if possible with the financial year 1938-39, provided that no cash shall be paid in lieu of holidays except to nurses leaving the service.

(ii) *Hours of Duty.* The hours of duty of both day and night nurses to be reduced to 96 per fortnight, if possible within 12 months, by an increase of staff, and endeavours to be made to include lectures to probationers and trainees studying for recognised certificates in the recognised hours of duty.

(iii) *Residence and Emoluments.* Trained Nurses and approved Assistant Nurses, but not Matrons, Superintendent Nurses, Head Nurses, Probationers and Trainees to be permitted to live outside the hospital or institution at approved residences where deemed desirable, but to have most meals at the hospital, and medical attention as if living in.

A cash allowance of a maximum of 22/6d. per week, or £58 10s. 0d. a year, to be made to each nurse living out, and the total emoluments of such a nurse to be valued at an appropriate figure, the emoluments of a nurse living in to be valued at £70 per annum as heretofore.

(iv) *Salaries.* The following salary scales to be adopted from an agreed date for nurses in the Council's permanent service, viz. :—

	Living in. £ per annum.	Living out. £ per annum.
Senior Posts ..	.. Controlling Committees to make recommendations.	
Sisters ..	.. £100—£7 10s.—£130	.. £158 10s.—£7 10s. —£188 10s.
Staff Nurses ..	.. £80—£7 10s.—£95	.. £138 10s.—£7 10s. —£153 10s.
Assistant Nurses (Council trained)	.. £60—£7 10s.—£75	.. £118 10s.—£7 10s. —£133 10s.
Do.—In training	.. £50 (1st year) £55 (2nd year).	
Assistant Nurses (Untrained)	.. £50—£7 10s.—£65	.. £108 10s.—£7 10s. —£123 10s.
Probationers ..	.. £30 (1st year). £35 (2nd year). £40 (3rd year).	
Junior Assistant Nurses	.. £30—£2 10s.—£40 until category is superseded.	

(v) *Recreation Facilities.* Improved recreational facilities to be provided where necessary and suitable transport arrangements to be made to outlying hospitals and institutions to enable each nurse to have a satisfactory day out each week.

(vi) *Senior Posts.* House Committees or Management Committees to be required to ascertain if a greater proportion of senior posts can be created,

(vii) *Male Nurses.* Non-resident Male Nurses to be employed in Public Health and Public Assistance Hospitals and Institutions to a greater extent than formerly, to work under the supervision of trained ward sisters, and the following salary scales to be adopted and applied to future appointments, viz. :—

State Registered Male Nurses	£95—£5—£125 per annum, plus £58 10s. per annum in lieu of residential emoluments, together with uniform, laundry and meals when on duty valued at £26 10s. per annum.
Unregistered Male Nurses with some experience	£75—£5—£95 per annum, plus £58 10s. per annum, in lieu of residential emoluments, together with uniform, laundry and meals when on duty valued at £26 10s. per annum.

Application to be made for Oldchurch County Hospital, Romford, to be recognised as a Training School for Male Nurses (salary for Probationer Male Nurses to be £65 first year, £70 second year, £75 third year, plus £58 10s. per annum in lieu of residential emoluments, together with uniform, laundry and meals when on duty valued at £26 10s. per annum) where three or four men could be trained annually so that about nine would be in training at any one time.

(viii) *Co-operation with Schools and Post-School Courses.* The Education Committee to be approached to make known in schools the need for recruits to the nursing profession and to endeavour to frame a scheme for bridging the gap between the average school-leaving age and the age for commencing training.

(ix) *Nurses in Charge of Wards at Night.* Sisters and staff nurses in charge of wards at night, whether permanently or for not less than a month at a time to be paid extra salary at the rate of £10 per annum.

In connection with the " Essex Scheme " for training Assistant Nurses, details of which have appeared in previous reports, the Matrons of the Epping and Orsett Institutions and the Sister-Tutor are again to be congratulated upon the encouraging results achieved. The Council were again fortunate in obtaining the services of the examiner referred to in last year's report, and the following are extracts from her reports with regard to the examinations held in September, 1937, and in March, 1938.

Twelve candidates were examined and they all obtained pass marks and over :—

" In appearance the nurses were neat, clean and tidy. Their manner towards the patients was kind and attentive.

" *Papers.* I think I might say fair as a whole, although there were two very good papers. The spelling and composition were very good. The anatomy question appeared the most difficult to the candidates, but as we only expect them to know sufficient anatomy to apply treatment correctly the question was fairly well answered.

"*Bedmaking* has distinctly improved. I was pleased to see crumbs and fluff dusted out before inserting the clean sheets. The beds were neatly stripped and re-made and the patients carefully and correctly handled. The beds this time came up to the standard required for general trained nurses.

"*Application of Treatment.* All the treatment asked was known and correctly applied. Marks were lost from minor faults such as carrying dressings in hand without receiver, timorous application (which is to be preferred to being rough but might make the patient doubtful of the nurse's ability). Surgical technique was good, but nurses rather erred on the side of doing unnecessary cleaning. For instance, it should not be necessary to thoroughly wash and polish the dressing trolley to apply a surgical fomentation to a septic thumb. The dressings, &c., might be taken to the bedside on a dressing tray. A surgical fomentation after being boiled should have some of the boiling water poured over it whilst waiting in the bowl at the bedside, otherwise it is not really hot when applied.

"*Urine Testing.* Good. All tests asked were correctly made. One nurse forgot to wash after testing.

"*Bandaging.* Roller bandaging needs improving. No candidate was able to gain more than half marks in this section. Triangular bandaging not good (September, 1937). Still rather weak. Needs much more practice. Triangular bandaging fair (March, 1938)."

All candidates obtained the requisite fifty per cent. of marks and six were regarded as having passed with honours, having obtained over seventy-five per cent.

(iii) Voluntary Hospitals Commission. The Voluntary Hospitals Commission set up by the British Hospitals Association in 1935 under the chairmanship of Lord Sankey, issued their report in April, 1937. The Commission recommends the unification of the administration of voluntary hospitals on a national basis and their principal recommendations include :—

(*a*) The division of the country into Hospital Regions ;

(*b*) The formation in each region of a Voluntary Hospital Regional Council to correlate hospital work and the needs of the region ; and

(*c*) The formation of a voluntary hospitals Central Council to co-ordinate the work of the Regional Councils.

(iv) PEP Report. Another valuable contribution to hospital literature was contained in the "Report on the British Health Services" by PEP (Political and Economic Planning), which was published in December, 1937. In connection with hospitals it contains a comprehensive summary of the position in relation to the transition from Poor Law days as envisaged by the Local Government Act, 1929, and surveys the arrangements which are being made to meet the serious shortage of hospital beds which exists. The tendency for co-operation between local authorities and the voluntary hospitals is noted with approval by the compilers of the Report.

(v) Government Publications. In March, 1937, the "Departmental Committee on the Cost of Hospitals and other Public Buildings" appointed by the Ministry of

Health, issued its first Report, which dealt with the acute general hospital and included sections relating to the details of accommodation, methods of construction and engineering services. The Final Report of the Departmental Committee was issued in February, 1938.

AIR-RAID PRECAUTIONS.

General.

The Air-Raid Precautions Act, 1937, received the Royal Assent on the 22nd December, 1937. Prior to the passing of the Act, the County Council had regarded themselves merely as a co-ordinating authority, having no power to interfere with the acts of the County District Councils and accordingly had appointed a County Organiser whose duties were limited to those of co-ordination, a general supervision of those functions which the County Council proposed to carry out themselves through their own services, and the encouragement of District Councils to proceed with their own schemes.

Early in 1937 the County Council outlined their policy in connection with the general precautionary measures which should be taken in the event of air raids and these were circulated to local sanitary authorities, but as a consequence of the passing of the Air-Raid Precautions Act, the County Council's legal responsibilities were much enlarged as it cast upon them the primary responsibility for the preparation of a scheme or schemes covering the whole County.

Medical Aspects.

Even before the passing of the Act considerable attention had been given to the general question of the medical aspects of Air-Raid Precautions schemes, and during the year under review conferences and discussions took place between medical officers of the Central Office staff and local Medical Officers of Health. As a result when the Act was passed it was easy to come to a prompt decision as to the distribution of responsibilities in connection with this side of the general schemes. It has been agreed by all concerned that the County Council should be responsible for :—

(*a*) The co-ordination of the medical side of local schemes ;

(*b*) Augmentation of the County ambulance services ;

(*c*) Anti-gas training of certain personnel in County Council Hospitals ;

(*d*) Co-operation with neighbouring county and county borough councils.

and that local sanitary authorities should carry out the detailed work in connection with :—

(*a*) The provision of mobile first aid parties ;

(*c*) The establishment of first aid parties and decontamination centres ;

(*c*) The organisation of local ambulance services ;

(*d*) The recruitment and training of the personnel for these services.

Training in Anti-Gas Measures.

During the year 1937 one of the medical officers on the Central Office Staff attended the Senior Officials Course at the Civilian Anti-Gas School, Falfield, and an Assistant County Health Inspector qualified as an Instructor (C.A.G.S.). He has commenced the instruction of the male staff at the Oldchurch County Hospital in anti-gas measures. The nursing staff at the Oldchurch County Hospital is being instructed in anti-gas measures by a Home Office Medical Instructor.

At the time of writing this report considerable progress has been made with regard to the preparation of local schemes.

PART II.

TUBERCULOSIS.

Notifications.

The following tables supply the necessary statistical information relating to the work done under the County Tuberculosis Scheme during 1937, and I am indebted to Dr. W. L. Yell for the general remarks which follow the tables :—

PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1930.

(*a*) A summary of the notifications made in the Administrative County of Essex during the period 1st January, 1937, to 31st December, 1937, is given below :—

TABLE XII.

	Formal Notifications.												
	Primary Notifications of New Cases of Tuberculosis.												Total Notifications.
	Age Periods.												
	0—	1—	5—	10—	15—	20—	25—	35—	45—	55—	65—	Total (all ages)	
Pulmonary, Males ...	1	6	7	13	51	82	164	119	106	54	20	623	708
,, Females ...	—	9	12	13	63	112	179	72	34	25	15	534	619
Non-Pulmonary, Males ..	4	31	41	31	19	13	24	15	10	4	2	194	218
,, Females...	5	20	31	25	22	18	26	13	9	1	5	175	192

(*b*) The following summary shows the new cases which came to the knowledge of the Medical Officers 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	—	7	14	20	24	7	6	3	82
,, Females	1	2	—	—	2	12	19	14	4	6	4	64
Non-pulmonary, Males	—	3	5	5	3	1	4	—	—	—	—	21
,, Females	—	2	4	6	2	2	5	—	1	—	—	22

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	26	6
Death Returns { transferable deaths from Registrar-General	2	—
Posthumous Notifications	4	3
"Transfers" from other areas (other than transferable deaths)	77	26
Other Sources (Forms I and II)	37	8

TABLE XIII.

NOTIFICATION REGISTER.

	Pulmonary.			Non-pulmonary.			Total Cases.
	Males	Females	Total	Males	Females	Total	
Number of cases of Tuberculosis remaining at the 31st December, 1937, on the Registers of Notifications kept by District Medical Officers of Health in the County.	3832	3247	7079	1648	1513	3161	10,240
Number of cases removed from the Registers during the year by reason of :—							
1. Withdrawal of notification...	19	18	37	15	10	25	62
2. Recovery from the disease...	48	58	106	43	54	97	203
3. Death (all causes)	321	238	559	49	36	85	644
4. Otherwise	246	202	448	66	70	136	584

TABLE XIV.

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

Year.	Pulmonary Tuberculosis.				Non-Pulmonary Tuberculosis.				Tuberculosis (All Forms).			
	Notifications.	Rate per 1,000 Pop.	Deaths.	Rate per 1,000 Pop.	Notifications.	Rate per 1,000 Pop.	Deaths.	Rate per 1,000 Pop.	Notifications.	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	available		752	0·89	available		199	0·24	available		951	1·13
1922-26	1110	1·16	656	0·69	320	0·34	148	0·15	1430	1·50	804	0·84
1927-31	1110	1·00	710	0·64	382	0·34	141	0·13	1492	1·34	851	0·77
1932	1188	0·96	683	0·55	425	0·34	165	0·13	1613	1·30	848	0·68
1933	1262	0·99	680	0·53	453	0·35	135	0·11	1715	1·34	815	0·64
1934	1190	0·92	654	0·50	409	0·31	114	0·09	1599	1·23	768	0·59
1935	1041	0·79	604	0·46	314	0·24	113	0·08	1355	1·03	717	0·54
1936	1044	0·78	600	0·45	356	0·26	126	0·09	1400	1·04	726	0·54
1937	1157	0·84	603	0·44	369	0·27	123	0·09	1526	1·11	726	0·53

TABLE XV.

SHOWING DEATHS FROM TUBERCULOSIS REGISTERED WITH LOCAL REGISTRARS OF BIRTHS AND DEATHS IN THE ADMINISTRATIVE COUNTY DURING 1937, 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 B.	17	...	2	1	4	1	2	5	2
Benfleet	8	1	1	2	2	...	...	1	1
Billericay	16	...	3	1	2	3	...	2	5
Braintree & Bocking	7	...	1	...	...	1	...	2	3
Brentwood	6	...	2	...	1	..	1	...	2
Brightlingsea	4	...	2	...	1	...	...	...	1
Burnham-on-Crouch	2	...	...	...	...	...	1	...	1
Canvey Island	6	...	1	...	1	...	1	...	3
Chelmsford B.	4	...	...	...	...	...	1	...	3
Chigwell	5	...	...	...	1	...	1	1	2
Chingford	16	1	3	...	2	2	1	3	4
Clacton-on-Sea	14	...	...	...	3	2	3	2	4
Colchester B.	23	...	9	2	1	4	1	2	4
Dagenham	49	...	10	6	3	6	10	5	9
Epping	2	...	...	...	1	...	1	...	...
Frinton & Walton	3	..	...	1	...	...	1	...	1
Halstead	2	...	...	...	...	1	1	...	...
Harwich B.	7	...	3	2	...	...	...	...	2
Hornchurch	32	1	3	2	5	4	4	3	10
Ilford B.	46	2	10	2	5	3	5	11	8
Leyton B.	49	2	6	3	3	2	9	11	13
Maldon B.	4	...	1	...	...	...	...	...	3
Rayleigh	4	...	...	...	...	...	2	..	2
Romford	24	1	3	1	4	2	2	5	6
Saffron Walden B.	6	...	...	...	...	1	2	...	3
Thurrock	32	1	5	4	7	2	3	5	5
Waltham Holy Cross	4	...	...	...	1	...	1	...	2
Walthamstow B.	65	8	7	3	3	3	17	12	12
Wanstead & Woodford	25	1	2	3	1	3	4	2	9
West Mersea	1	...	...	...	...	1	...	...	..
Witham	2	...	...	...	1	...	...	1	...
Wivenhoe	2	...	...	...	...	...	...	..	2
Totals	487	18	74	33	52	41	74	73	122
Rural.									
Braintree	9	...	...	2	1	...	2	3	1
Chelmsford	15	3	...	1	1	2	2	2	4
Dunmow	5	1	...	...	...	1	1	...	2
Epping	6	...	...	...	...	...	1	2	3
Halstead	2	...	...	1	...	...	...	...	1
Lexden & Winstree	12	1	...	1	1	3	1	...	5
Maldon	2	...	...	...	...	...	1	...	1
Ongar	3	...	...	...	1	...	...	...	2
Rochford	9	...	..	1	...	1	...	...	7
Saffron Walden	5	...	1	1	1	...	...	1	1
Tendring	9	...	...	...	1	1	1	2	4
Totals	77	5	1	7	6	8	9	10	31
URBAN DISTRICTS	487	18	74	33	52	41	74	73	122
RURAL DISTRICTS	77	5	1	7	6	8	9	10	31
ADMINISTRATIVE COUNTY	564	23	75	40	58	49	83	83	153

New Cases and Mortality during 1937.

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

TABLE XVI.

Age Periods.	New Cases.				Deaths.			
	Pulmonary.		Non-pulmonary.		Pulmonary.		Non-pulmonary.	
	M.	F.	M.	F.	M.	F.	M.	F.
0—	1	1	4	5	1	2	5	7
1—	6	11	34	22	1	3	15	14
5—	8	12	46	35	8	1	12	7
10—	13	13	36	31				
15—	58	65	22	24	28	76	12	13
20—	96	124	14	20				
25—	184	198	28	31	78	70	7	7
35—	143	86	15	13	95	41	4	2
45—	113	38	10	10	69	25	2	1
55—	60	31	4	1	43	21	3	3
65 and upwards ..	23	19	2	5	19	22	5	4
	705	598	215	197	342	261	65	58

It is pleasant to record a new low record in the death rate from pulmonary tuberculosis (0.44 per 1,000) in the County of Essex, while the rate for non-pulmonary tuberculosis (0.09) remains as last year's, unchanged. Each case of pulmonary tuberculosis is a potential source of more tuberculosis—non-pulmonary tuberculosis does not carry with it that danger. Even if the decline in the death rate from all forms is a small one, it is one step more in a continued descent. There has been an increase in the notification rate of both pulmonary and non-pulmonary tuberculosis and it is a little difficult to foresee what this may portend. That there is a certain amount of selective immigration there can be little doubt, but if transfer notifications be taken as a guide, this has operated to a lesser extent than in 1936. Notification of all cases before death is impossible, as tuberculosis is often a terminal complication of other diseases and not infrequently is diagnosed only on post mortem examination. Nevertheless, of persons dying from it in Essex during 1937, nearly one-third died unnotified. This is far too many. As Sir Arthur McNalty has pointed out, however, the death rate is a truer guide to incidence in tuberculosis than the notification rate.

The steady improvement in the death rate is not a measure of the success of treatment (although successful treatment may have some slight influence on the incidence), but it is a measure of the success of prevention. Despite advances in the treatment of certain forms of pulmonary tuberculosis, which, in the groups found suitable for them, have increased the patient's expectation of life, the results of treatment have had no great influence on the fate of the tuberculous as a whole.

Early tuberculosis of the lungs can be treated and cured whilst years of useful life may be gained for some of those with more extensive disease, but the weak link in the chain is the late recognition of tuberculosis and this weakness may come from any or all of three directions—the public, who are the potential patients, their doctors, and the dispensary service.

There is only one way of reaching the public, and that is by advertising what the County Service has to offer in the way of expert investigation and treatment, and

making better known the essential facts regarding tuberculosis. One is forced to the conclusion that insufficient attention has been paid to this field in the past and that by picking a judicious course between the nightmare of morbid fear on the one hand and an unenlightened insouciance on the other, the patients may be educated more often to seek medical advice before irreparable damage has been wrought.

The general practitioner, as in many other social problems, occupies a key position and his co-operation is essential if patients are to be brought to the notice of the tuberculosis service at an early, curable stage. He cannot be a specialist in all branches of medicine, but a training which impresses on him the universality of this disease, its preference for adolescence, and its infectivity in middle age and senescence when it often masquerades as bronchitis, should make him alert to suspect it, and, where detection is difficult, to seek consultation. But, despite the statutory obligation to notify, he will not seek help early of a public service if it is not an efficient one. The Tuberculosis Officer must be an expert in his speciality, and a willing and courteous colleague, who has at his command facilities for investigation, particularly X-ray investigation, which the private doctor does not possess, and behind him there must be ample institutional accommodation, where the best of modern treatment is available for the patient and a lengthy waiting list does not nullify early diagnosis.

The growth of population in the post-war years in Essex has been phenomenal, but there has grown up with it a tuberculosis service of steadily increasing efficiency. Whole-time tuberculosis officers, who are specialists, carry on the dispensary services in the extra-metropolitan area with a staff of whole-time tuberculosis nurses. Full X-ray facilities are available in this densely-populated area. Surgical cases presenting difficulty in diagnosis are referred to Sir Henry Gauvain at Farringdon Dispensary and obscure pulmonary cases to Dr. Burton Wood at the London Chest Hospital, or at the Black Notley Sanatorium. I am indebted to Dr. Wood for the following account of his special clinic in London, where the discussions benefit not only the patients but the doctors who attend :—

> " The Clinic at the London Chest Hospital is held on the first and third Wednesday afternoons of each month and is attended by sanatorium superintendents and tuberculosis officers from the extra-metropolitan and Thamesside districts. Members of the Resident staff of the Hospital often attend and are always welcome and occasionally other visitors are present. The Clinic opens with a short session held in a consulting room. This is attended by patients from the Dispensaries whose personal attendance is necessary for the purpose of physical examination or some special investigation. Each case is introduced by a Tuberculosis Officer, who explains any special difficulty he may have experienced in arriving at a diagnosis or arranging a plan of treatment. When the patient has retired the case is discussed and opinions expressed. Sometimes a vote is taken on the special points at issue and a brief summing up is usually given by the physicians in charge of the clinic. When these patients have been seen the meeting adjourns to the post-graduate lecture room. Here a special multiple viewing box for X-ray films has been provided through the kindness of the Dean of the post-graduate school. Each member of the Clinic brings cases for the discussion, which is held around the viewing boxes. The dossier of each

TABLE XVII.

(a) Showing the Work of the Dispensaries during 1937.

Diagnosis.	Pulmonary.				Non-Pulmonary.				Total.				Grand Total
	Adults.		Children		Adults.		Children		Adults.		Children.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
A.—New Cases examined during the year (excluding contacts):—													
(a) Definitely tuberculous ...	428	284	16	15	47	60	84	65	475	344	100	80	999
(b) Diagnosis not completed	...	...	...	...	...	...	...	...	5	14	12	18	49
(c) Non-tuberculous ...	...	...	...	...	...	...	...	...	601	575	301	241	1718
B.—Contacts examined during the year:—													
(a) Definitely tuberculous ...	65	66	4	5	2	3	1	1	67	69	5	6	147
(b) Diagnosis not completed	...	...	...	...	...	...	...	...	1	3	9	7	20
(c) Non-tuberculous ...	...	...	...	...	...	...	...	...	178	354	233	199	964
C.—Cases written off the Dispensary Register as													
(a) Recovered	42	54	18	9	12	13	66	57	54	67	84	66	271
(b) Non-tuberculous (including any such cases previously diagnosed and entered on the Dispensary Register as tuberculous) ...	...	...	...	...	...	...	...	...	789	931	534	500	2754
D.—Number of Cases on Dispensary Register on Dec. 31st:—													
(a) Definitely tuberculous ...	2093	1675	96	95	255	312	492	387	2348	1987	588	482	5405
(b) Diagnosis not completed	...	...	...	...	...	...	...	...	6	17	21	25	69

1. Number of cases on Dispensary Register on January 1st 5420
2. Number of cases transferred from other areas and cases returned after discharge under Head 3 in previous years 416
3. Number of cases transferred to other areas, cases not desiring further assistance under the scheme, and cases "lost sight of" 774
4. Cases written off during the year as dead (all causes) 460
5. Number of attendances at the Dispensary (including contacts) .. 20502
6. Number of insured persons under domiciliary treatment on the 31st December 533
7. Number of consultations with medical practitioners:—
   (a) Personal 560
   (b) Other 3460
8. Number of visits by Tuberculosis Officers to homes (including personal consultations) 1983
9. Number of visits by Nurses or Health Visitors to Homes for Dispensary purposes 23647
10. Number of
    (a) Specimens of sputum, &c., examined 2731
    (b) X-ray examinations made in connection with Dispensary work 5453
11. Number of "recovered" cases restored to Dispensary Register and included in A (a) and A (b) above 7
12. Number of "T.B. plus" cases on Dispensary Register on December 31st ... 2361

(*b*) NUMBER OF DISPENSARIES FOR THE TREATMENT OF TUBERCULOSIS (excluding centres used only for special forms of treatment).

Provided by the Council	23
Provided by Voluntary Bodies	Nil.

(*c*) NUMBER OF BEDS AVAILABLE FOR THE TREATMENT OF TUBERCULOSIS ON THE 31ST DECEMBER IN INSTITUTIONS BELONGING TO THE COUNCIL.

Name of Institution.	For Pulmonary Cases.		For Non-Pulmonary Cases.		Total.
	Adults.	Children under 15.	Adults.	Children under 15.	
			M. F		
Black Notley	85	†15	28 †32	†42	202
Harold Court	90	...	...	...	90
High Beech	...	...	...	36	36
Epping Institution (Tuberculosis Block)	39	1	2		42
Oldchurch County Hospital ...	30	...	27	23	80
† These numbers fluctuate	according to	requirements.			
Public Assistance Institutions—					
Billericay	1	...	...	...	1
Braintree	1	...	...	...	1
Chelmsford	3	...	...	...	3
Colchester	1	...	...	...	1
Maldon	4	...	2	...	6
Orsett	4	...	...	...	4
Stanway	1	...	...	...	1
Tendring	6	...	...	...	6

patient is forthcoming so that an accurate history is available, the Tuberculosis Officer describes the clinical condition and physical signs and finally demonstrates the X-ray picture or pictures of the case. Many are problem cases on which advice is sought, others are of special interest encountered in the preceding fortnight. In this manner some thirty or forty cases are discussed. Opportunity is also taken to keep members of the clinic in touch with any special work which is being done in the hospital."

In rural Essex and where the tuberculosis work is done by the Assistant County Medical Officer, who is also the Medical Officer of Health, Dr. Yell pays monthly visits to the local clinics with a portable X-ray apparatus and his services are available for consultation with the district tuberculosis officers or private practitioners at clinics, local hospitals or patients' homes. Ambulance transport to the nearest approved X-ray centre is provided for the patient, who cannot otherwise travel there for examination. Thus, in Essex, no suspected case of tuberculosis need lack clinical and X-ray investigation and the laboratory examination of sputum for tubercle bacilli is available to all practitioners.

Any claim that finality in development has been reached would be unwise, and as the basis of the services broadens and the tendency to utilise the special knowledge of the tuberculosis officer in differential diagnosis increases, a further strengthening of the staff extending the whole-time tuberculosis appointments beyond their present confines may be necessary, together with the setting up of additional centres for X-ray examination.

But the tuberculosis problem has always bristled with difficulties and an inherent obstacle to securing all patients at an early stage is the insidious onset of some forms of tuberculosis, where the advance is so stealthy that for a long time the patient does not realise that he is being attacked. Some will shrink from fear of being told what they almost know, and procrastination will tempt those who feel the economic whip too keenly. No matter how enthusiastically the family doctor and the tuberculosis officer may join hands, human nature and this social disease ordain that for a few the verdict will always be " too late."

Despite the sustained fall in the death-rate, the number of cases on the dispensary register, which in 1936 showed an increase of 85, shows in 1937 a further increase of 54. Though this might be due to a greater proportion of the tuberculous seeking public medical treatment, it is far more likely the direct result of the continued increase of population in the County outstripping the decline in tuberculosis. In any case the consequence is that the need for institutional and other accommodation does not decline. With special methods of treatment in suitable cases, and improvement in accommodation for advanced cases the average duration of stay in hospital or sanatorium tends to lengthen. On 31st December, 1937, with an increase of 57 beds occupied in outside institutions, the waiting list stood at the same figure as it had done 12 months before.

Table XVII on page 80 relating to the work of the dispensaries shows in most items an increase over the figures for the previous year, and over all an increasing amount of work carried out by the same medical staff.

TABLE. XVIII.

(*a*) SHOWING THE EXTENT OF RESIDENTIAL TREATMENT AND OBSERVATION DURING THE YEAR 1937 IN INSTITUTIONS (OTHER THAN PUBLIC ASSISTANCE INSTITUTIONS)

		In Institutions on Jan. 1st. (1)	Admitted during the year. (2)	Discharged during the year. (3)	Died in the Institutions. (4)	In Institutions on Dec. 31st. (5)
Number of doubtfully tuberculous cases admitted for observation	Adult males	6	49	51	—	4
	Adult females	3	52	49	1	5
	Children	15	93	87	2	19
	Total	24	194	187	3	28
Number of patients suffering from pulmonary tuberculosis	Adult males	293	497	359	98	333
	Adult females	228	447	342	72	261
	Children	12	42	30	2	22
	Total	533	986	731	172	616
Number of patients suffering from non-pulmonary tuberculosis	Adult males	39	56	45	3	47
	Adult females	55	59	55	3	56
	Children	131	134	144	3	118
	Total	225	249	244	9	221
GRAND TOTAL		782	1429	1162	184	865

(*b*) Showing the Extent of Residential Treatment provided during the Year 1937 in Public Assistance Institutions.

		In Institutions on Jan. 1st. (1)	Admitted during the year. (2)	Discharged during the year. (3)	Died in the Institutions. (4)	In Institutions on Dec. 31st. (5)
Number of patients suffering from pulmonary tuberculosis	Adult males	13	50	38	13	12
	Adult females	7	26	17	7	9
	Children	—	—	—	—	—
	Total	20	76	55	20	21
Number of patients suffering from non-pulmonary tuberculosis	Adult males	1	2	2	—	1
	Adult females	2	—	1	—	1
	Children	1	—	1	—	—
	Total	4	2	4	—	2
Grand Total		24	78	59	20	23

(*c*) Showing the Results of Observation of Doubtfully Tuberculous Cases Discharged from Institutions during 1937.

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	1	3	3	10	7	16	—	2	1	2	2	14	13	14	34
Non-tuberculous ..	17	14	7	15	12	15	1	3	1	3	5	30	36	34	53
Doubtful	1	1	—	1	—	—	—	—	—	—	—	—	2	1	—
Died	—	—	—	—	1	—	—	—	2	—	—	—	—	1	2
Totals	19	18	10	26	20	31	1	5	4	5	7	44	51	50	89

TABLE XIX.

Showing the Immediate Results of Treatment of definitely Tuberculous Patients discharged from Institutions during the Year, 1937.

Classification on admission to the Institution.		Condition at time of discharge.	Duration of Residential Treatment in the Institution.															Grand Totals.
			Under 3 months but exceeding 28 days.			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 ...	23	18	3	12	12	8	10	20	7	7	6	3	52	56	21	129
		Not quiescent ...	6	9	1	8	15	2	8	14	...	4	4	...	26	42	3	71
		Died in Institution	6	2	1	...	4	...	1	2	...	2	...	...	9	8	1	18
	Class T.B. plus. Group 1.	Quiescent ...	5	8	...	6	16	...	3	11	...	1	3	...	15	38	...	53
		Not quiescent ...	2	2	...	3	13	...	3	1	...	1	7	...	9	23	...	32
		Died in Institution	1	2	...	1	...	...	1	4	...	...	...	...	3	6	...	9
	Class T.B. plus. Group 2.	Quiescent ...	13	13	1	18	23	1	19	22	...	10	13	...	60	71	2	133
		Not quiescent ...	45	19	1	46	24	..	43	27	...	17	10	...	151	80	1	232
		Died in Institution	14	12	...	13	7	..	4	13	...	12	3	...	43	35	...	78
	Class T.B. plus. Group 3.	Quiescent ..	1	1	...	1	1	...	...	...	...	1	...	...	3	2	...	5
		Not quiescent ...	4	2	...	4	4	...	4	...	...	2	...	...	14	6	...	20
		Died in Institution	9	4	...	5	3	1	5	1	...	1	1	...	20	9	1	30
Totals (pulmonary) ...			129	92	7	117	122	12	101	115	7	58	47	3	405	376	29	810
Non-Pulmonary Tuberculosis.	Bones and Joints.	Quiescent ...	4	1	4	7	2	8	4	9	5	6	7	31	21	19	48	88
		Not quiescent ...	...	1	1	1	...	...	...	...	...	3	...	...	4	1	1	6
		Died in Institution	1	...	1	1	...	...	...	...	...	...	1	...	2	1	1	4
	Abdominal.	Quiescent ...	...	...	4	1	...	4	...	4	7	...	2	3	1	6	18	25
		Not quiescent ...	2	2	...	...	1	...	...	1	1	...	...	...	2	4	1	7
		Died in Institution	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	1
	Other Organs.	Quiescent ...	1	3	7	...	3	...	2	2	3	3	...	7	6	8	17	31
		Not quiescent ...	2	1	...	3	...	...	1	1	...	...	...	1	6	2	1	9
		Died in Institution	...	...	1	...	...	...	...	...	1	...	...	...	...	...	2	2
	Peripheral Glands.	Quiescent ...	2	1	14	1	5	24	...	1	12	...	...	2	3	7	52	62
		Not quiescent ...	...	..	...	1	...	...	...	...	1	...	...	...	1	..	1	2
		Died in Institution	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Totals (non-pulmonary) ...			13	9	32	15	11	36	7	19	30	12	10	44	47	49	142	238

In the Annual Report for 1936 a fear was expressed that the enhanced accuracy and rapidity of diagnosis afforded by X-rays in pulmonary disease would lead to a neglect of examination of the sputum. The finding of tubercle bacilli in the sputum is, of course, direct evidence of the presence of tuberculous infection. The returns for 1937 show that this fear was groundless for the number of sputum examinations carried out at the Counties Public Health Laboratories is up by almost 20 per cent. The number of X-ray examinations shows a more substantial increase (27 per cent.) and there can be no doubt that this makes the service of greater value to the general medical practitioner as well as to the community. 27 per cent. is a smaller proportionate increase than last year, and may indicate that saturation point is being approached. In 1937 over 4,000 consultations with the tuberculosis officers took place. It will be realised, therefore, that the tuberculosis service is a consultative one, and must be staffed by specialist officers if it is to fulfil its functions. We are dealing with a disease notoriously difficult to diagnose in the early stages, and requiring special knowledge for its assessment. The number of consultations provided by the dispensary staff grows and is a welcome instance of increasing co-operation between the general practitioner and the public service which is so much advocated to-day.

During the year ended 31st December, 1937, the cost of X-ray photographs taken by apparatus, other than that belonging to the County Council, amounted to £958.

The only notable falling off is one of 122 in the number of tuberculosis officers' visits to patients' homes, but this is primarily a duty for health visitors, so that the tuberculosis officers may be set free for consultative duties. 23,647 visits were made by these nurses during the year—an increase of 618. The only figure giving any concern is the small number of contacts examined.

Contact examination has not proved as valuable as had been hoped in the early days of the campaign, but here is the very *fons et origo mali*. How many "woeful pageants" does one see where tubercle—preventable disease—knocks again and again at the same door. Yet the ages at which it strikes are as clearly defined as the seven ages of man. Essex youth differs not at all from youth generally in this country, where all tuberculosis workers unite in complaining that the adolescent contact, whose danger is greatest, refuses medical examination, supervision and advice on which his future may depend.

The examination of the elderly so-called contact, who may be the source of infection in the household, is no less important, and often as difficult to secure.

The following record from Dr. J. G. Currid, Tuberculosis Officer in the Ilford Area, illustrates the success which may attend the persistent pursuit of contacts. Though no early case was found, the source of infection was traced and dealt with :—

> "A child, aged 10 months, died of tuberculous meningitis in a London Hospital one November, and the cause of death was confirmed by post mortem examination. The remaining members of the household were the parents, two sisters, and two lodgers of long standing."

"Both sisters were examined on 15th December, and while one, aged 17 years, showed X-ray evidence of a healed infection, the other, 13 years of age showed in the chest radiogram healed disease of juvenile type. Neither was infectious, but both had evidently been in close contact with infection."

"The parents were examined at the same time. The father was found to be 'catarrhal', but not tuberculous, and the mother, although in childhood she had had various tuberculous bony lesions, healed these many years, could be assured that she had not been infectious in the recent past, nor, it was probable, at any time."

"The first lodger, a woman aged 32 years, attended for examination on 15th January, but despite a history of winter coughs, no evidence of tuberculosis was detected. On 28th January the remaining lodger, a man of 33 years, eventually attended. He had had a variable cough and expectoration for some years, improved by periodic abstention from smoking, but denied any other symptoms. Both physical and X-ray examination showed he had signs of chronic, sluggish tuberculosis of the lungs. His sputum contained tubercle bacilli. He was quite fit for work and, on advice, removed to a household where there were no young people at risk, and was instructed in a mode of life which would make the passing of infection to others unlikely."

Only sustained unremitting effort will secure the examination of the adolescent and adult contacts, and the health visitor, more than the tuberculosis officer, plays the leading role. For this part she requires enthusiasm, tact and patience. It is necessary for her to be well informed in her subject, but above all she must have a personality, more valuable than educational attainments, and it is her duty to direct the attention of the tuberculosis officer to any special family and environmental conditions which may exist.

One examination will exclude an individual from the suspicion of harbouring the primary source of infection but, however thorough it may be, it can give assurance of health only for the immediate present. A Lancashire investigation of some years ago showed that an average period of 3½ years elapsed before secondary cases showed themselves, *i.e.*, before disease developed in the contacts. Repeated examination, therefore, is necessary, more especially as adolescence is reached. Too often, with the death of the original patient the firm link with the dispensary is broken.

Reference was made in last year's Annual Report to the need for Institutional accommodation for patients with advanced and those with chronic intermediate disease, and with this the position of contacts is intimately linked. Segregation of the advanced case is devoutly to be wished and it was noted in that Report that "70 per cent. of deaths from pulmonary tuberculosis in Essex take place at home, frequently in surroundings which make unwelcome legacy of disease all the more likely." That is still true of 1937. Doubts have been cast on the need for Sanatorium treatment of the chronic intermediate case because the ultimate clinical results as a whole are necessarily small, but the treatment is an education and many relapses are precipitated because time has dimmed the lessons of the Sanatorium, and often more serious relapses are prevented

by timely treatment. Such patients may be as dangerous as their more advanced fellows, for their very ability to get about makes the dissemination of infection easier, the observance of hygiene appears less needful, and family contact more close. The development of tuberculosis, no less than of other parasitic disease, is an indication that the immunity of the host has failed to keep pace with the infecting organisms. The prime factor in the heavy incidence of tuberculosis among contacts has been accepted as "massive infection", so universally accepted and declaimed that its meaning has become obscured and is rarely questioned. There appears no reason to doubt that often the dose is "massive" because it is repeated at short intervals, nor that the fate of household contacts may depend on the Sanatorium treatment and incidental temporary segregation of the chronic intermediate case.

(1) County Sanatoria.

(*a*) Black Notley Sanatorium. Dr. M. C. Wilkinson, Medical Superintendent of the Black Notley Sanatorium, reports as follows on the work carried out during 1937 :—

On the 7th July, 1937, the extensions of the Sanatorium were opened by the Right Hon. Sir Kingsley Wood, M.P. It will suffice to say that scarcely any department of the old Sanatorium has been left untouched and that all have been expanded to meet the additional number of patients. Not only in buildings, but in personnel, the Sanatorium services have been supplemented. It may be claimed as a result that Black Notley is an institution in which any form of tuberculosis can be treated. This is a great advantage, as modern methods of treating both the pulmonary and non-pulmonary forms of the disease are beginning to converge as more is learned of its underlying pathology, and as it becomes apparent that a patient does not suffer from tuberculosis of the lungs only, or of the hip only, but that both are a local manifestation of a generalised disease. Mention will be made in each section of new developments.

Treatment of Pulmonary Tuberculosis. (Consulting Physician : Dr. W. Burton Wood). As a result of the extended accommodation there are now available at the Sanatorium twenty-five additional beds for the treatment of young adult pulmonary tuberculosis, forty beds for the treatment of adult type pulmonary tuberculosis in females, and a maternity unit for the care of tuberculous women during and after their confinement. The latter unit consists of a separate annexe to the ward for adult women and is complete in itself with lying-in room, labour ward, sterilising room, bathroom and sanitary annexe. Hopes are entertained that the unit will serve a useful purpose for the aid of tuberculous mothers whose health might be jeopardised by confinement under less propitious circumstances. Special mention should be made of the site of the adult women's ward. These women require often certain forms of active treatment, but rest under healthy and peaceful surroundings is also important. This ward is the southernmost one in the Sanatorium, has a garden which may be regarded as private, and an uninterrupted view of beautiful country surroundings.

The work in the pulmonary wards has been carried out by Dr. Cohen under the direction of Dr. Burton Wood. Rest and treatment by artificial

pneumo thorax remain the main lines of treatment. Operations for the division of adhesions have been developed by Dr. Burton Wood as an aid to procure the successful collapse of a lung of a patient having artificial pneumothorax treatment. Twenty-two of these operations have been performed in 1937, as opposed to six in 1936. By this means the outlook of a considerable number of patients has been improved.

Particulars of treatment in the wards for pulmonary tuberculosis are as follows :—

Number of artificial pneumo thorax inductions		33
Number of artificial pneumothorax cases under treatment :—		
In-patients	91	
Out-patients	18	
	——	109
Number of refills given :—		
In-patients	1,436	
Out-patients	248	
	——	1,684
Number of cases treated by sanocrysin		18
Number of cases treated by thoracoscopies and division of pleural adhesions		22
Number of phrenic avulsions		6
Cases transferred for thoracoplasty		1

Non-pulmonary Tuberculosis. (Consulting Surgeon : Sir HENRY GAUVAIN, K.B.E.). The new extensions have included a forty bed ward for the treatment of women suffering from non-pulmonary tuberculosis. This ward is divided into cubicles, which are preferred by adult patients. In addition, the new children's block is being used as improved, though temporary, accommodation for the male adult patients suffering from non-pulmonary tuberculosis. A noteworthy feature of both these wards are the wide and weather proof verandahs, which greatly facilitate open air treatment. There are also extensions to the verandahs on to which patients may be wheeled for sun treatment. The controversy concerning the choice of method of treating tuberculous joints is now subsiding, as it is becoming recognised that constitutional treatment is essential for a cure of the disease and that in some cases stabilising operations are essential to correct mechanical defects and to prevent crippling. Full facilities for both these forms of treatment are provided at the Sanatorium. It is our good fortune at Black Notley also to have facilities for the treatment of renal, abdominal and glandular tuberculosis, as the outlook in these forms of disease is improved when treatment is undertaken under Sanatorium conditions. The methods of treating joint tuberculosis by conservative means have been long taught and practised by Sir Henry Gauvain and are now generally recognised. It is also a pleasure to acknowledge the valuable help afforded by the operative skill of Mr. R. Reid, M.S., F.R.C.S., and by his particular knowledge of renal, genital and glandular tuberculosis. Dr. Fagge has by his skill and special study of anæsthetics in tuberculous patients greatly contributed to the efficiency and safety of the surgical work.

During 1937 the operating theatre was enlarged and a new sterilising room and sluice room were added. The resulting operating theatre is a great improvement and is roomy and well lighted.

Number of Operations. (Consulting Surgeon : Mr. R. Reid, M.S., F.R.C.S.) :—

Cystoscopies	23
Excision of tuberculous glands	14
Tonsillectomy	2
Excisions of knee	2
Hip arthrodesis	2
Osteotomy of hip	4
Albee graft	2
Phrenic avulsions	6
Nephrectomy	4
Synovectomy of knee	4
Laparotomy	4
Various	16
For tuberculous abscess or sinus	32
	115

Immunisation against Diphtheria and Scarlet Fever. I am indebted to Dr. Cohen, who has carried out this work, for the following note :—

" The immunisation of children up to the age of 12 has been carried out on the same lines as in previous years. The freedom from undesirable reactions to the injections is noteworthy, and the efficiency of the immunisations was tested by the occurrence of one case of scarlet fever and the presence of a nasal carrier of diphtheria, each occurring in a children's ward. No secondary cases arose from either of these, and there were no other cases of infectious disease during the year.

One case of faucial diphtheria occurred in a probationer nurse. The source of infection was traced to the nasal carrier referred to above. The following summarises the results for the year ending April 1st, 1938 :—

	Tested on admission.	Immune.	Susceptible.	Immunised.	Discharged before final test.	Immunisation confirmed by final test.
Diphtheria Immunisation	94	34	60	57	16	38
Scarlet Fever Immunisation	91	31	60	56	17	56

X-Ray Department. (Consulting Radiologist : Dr. Franklin G. Wood). At present arrangements are being made for the installation of tomography apparatus. This is a recent development in the technique of chest radiography

The X-ray department may almost be regarded as the hub on which the wheels of the treatment of pulmonary and non-pulmonary cases revolve, as radiography has become the most accurate method of assessing the progress of each patient. Miss Slater, under the direction of Dr. Franklin Wood, has ably maintained the high standard that is necessary.

Number of patients X-rayed during the year ..	2,300
Screening examinations (approximately) ..	25 per week.

Artificial Light Treatment. (Consulting Dermatologist: Dr. A. Burrows). The artificial light treatment department has been rebuilt and considerably enlarged. There are now a changing room, two cubicles for treatment by mercury vapour lamps and one room for treatment by carbon arc lamps. An additional Kromayer lamp has also been installed. Under the direction of Dr. A. Burrows artificial light treatment is given in large doses to patients in special need of it during the winter months. It is at the end of the winter months that patients suffering from non-pulmonary tuberculosis tend to relapse or to develop complications, and artificial light therapy is used to prevent this retrogression in patients whom it threatens.

The following treatments were given during 1937 :—

General Treatments.

Carbon Arc lamps	2,559 treatments.
Mercury Vapour lamps	2,180 ,,

Local Treatments.

Infra red ray thereapy..	99 treatments.
Kromayer lamps	210 ,,

Laboratory. (Consulting Pathologist: Dr. F. Camps). During 1937 the laboratory was re-equipped, principally for the purpose of carrying out at the Sanatorium research into some of the many problems which are encountered in the treatment of tuberculosis patients. A full-time laboratory attendant has been appointed. An opportunity has thus been provided to combine laboratory and clinical investigations, which should prove fruitful. Under the direction of Dr. F. Camps a start has been made in this work: special reference may be made to an investigation into the incidence of the human and bovine strains in various forms of tuberculous disease and also to an investigation into the number of patients who suffer from tuberculous bacilluria with no symptoms of renal tuberculosis.

The following examinations were made during the year :—

Bacteriological examinations of sputum ..	95
Bacterial examinations of urine	84
Blood counts	24
Blood sedimentation rate tests	528
Various	15
	746

Out-Patient Department. During 1937 out-patient attendances were as follows :—

To see Sir Henry Gauvain	26
Dr. Burton Wood's Clinics	328
Seen by Medical Superintendent	39
Attendances for A.P. refills	201
Attendances for X-ray	553
Attendances for Light Treatment	177

Dental Treatment. Regular dental inspections and treatment have been carried out by Mr. S. K. Donaldson and Mr. J. Edgar. The importance of this work has been emphasised in previous reports.

Nursing Staff Accommodation. To meet the extra accommodation required for nursing staff a new Nurses' Home has been built. This includes a nurses' lecture room well equipped with anatomical and other models. The new Nurses' Home provides a comfortable bed-sitting room for each member of the nursing staff, with communal sitting rooms.

During 1937 a service was started by which the Sanatorium car has been made available for staff for return journeys from Braintree at certain times on two nights of the week. This experiment has met with sufficient success to warrant its extension in the future.

Splints. During 1937 a full-time splintmaker was appointed. His services have been extremely valuable in the treatment of non-pulmonary tuberculous patients. In addition to daily visits to the wards to adjust apparatus in use, he makes the celluloid splints with which the patients are discharged and the majority of stock splints in use in the wards. His work is being extended to include all forms of metal work for splints.

Articles published during the year in the Medical Press on work at the Sanatorium :—

"Tuberculosis of the Cervical Lymphatic Glands," by R. Reid, M.S.Lond., F.R.C.S., and M. C. Wilkinson, M.B.Lond.

Finally, my appreciation should be expressed for the valuable services of my colleagues.

The following accommodation is now available at this Sanatorium :—

Type of Case.	No. of beds.
Women (pulmonary)	140
,, (surgical)	40
Children (pulmonary)	32
,, (surgical)	32
Men (surgical)	28
	272

Patients Discharged from January 1st, 1937, to December 31st, 1937.
Pulmonary Adults.

	Quiescent.	Not Quiescent.	Non-Tuberculous.
Pulmonary tuberculosis—ages between 14-28 years	60	25	—
Pulmonary tuberculosis—over 28 years	15	19	—
Observation cases discharged as negative	—	—	8
Children under 14 years.			
Pulmonary tuberculosis	23	5	—
Mediastinal glands	4	—	—
Hilum tuberculosis	1	2	—
Tuberculous pleurisy	2	—	—
Pulmonary tuberculosis and T.B. elbow	1	—	—
Pulmonary tuberculosis and T.B. wrist	1	—	—
Observation cases discharged as negative	—	—	9
	107	51	17

Total .. 175

Patients Discharged from January 1st, 1937, to December 31st, 1937.
Non-Pulmonary Adults.

	Quiescent.	Not Quiescent.	Non-Tuberculous.
Adenitis	5	—	—
Tabes Mesenterica	5	2	—
Peritonitis	4	2	—
Abdomen and ulcerative colitis ..	—	1	—
Spine	9	7	—
Hip	6	1	—
Ankle	1	—	—
Sacro-iliac	1	—	—
Kidney	1	1	—
Knee	4	—	—
Wrist	1	—	—
Various	—	2	—
Mixed	9	8	—
Genito-urinary	5	5	—
Observation cases discharged as negative	—	—	9
Admitted as tuberculous diagnosis not confirmed	—	—	3
	51	29	12

Total 92

Patients Discharged from January 1st, 1937, to December 31st, 1937.
Non-Pulmonary Children.

	Quiescent.	Not Quiescent.	Non-Tuberculous.
Adenitis	6	2	—
Scrofuloderma	1	—	—
Tabes Mesenterica	9	3	—
Peritonitis	1	1	—
Enteritis	—	1	—
Spine	7	1	—
Hip	10	2	—
Elbow	1	—	—
Knee	8	—	—
Sacro-iliac	1	—	—
Various	—	1	—
Ankle	1	—	—
Renal tuberculosis	—	1	—
Cæcum	1	—	—
Observation cases discharged as negative	3	—	3
Admitted as tuberculous diagnosis not confirmed	2	—	2
	46	12	5
Total 63			

Total number of Pulmonary cases discharged	175
Total number of Non-Pulmonary cases discharged ..	155
Total number of Patients discharged	330

(*b*) Harold Court Sanatorium. Dr. F. G. Brown, Medical Superintendent of the Harold Court Sanatorium, reports as follows on the work carried out during 1937 :—

During the year two new Staff cottages were completed. These are occupied by the Chauffeur-handyman and the General Orderly. It is of considerable advantage to the Institution for these men to reside on the premises.

A system of house-telephones was installed throughout the Sanatorium, a total of nine instruments being provided ; this means of communication has proved a great boon to all members of the Staff.

A new and up-to-date apparatus for the sterilisation of sputum was installed during the year. This replaces an old steriliser which had become worn-out and obsolete.

The following table gives particulars of patients admitted and discharged during the year :—

No. of patients admitted during the year ..		.. 213
No. of patients discharged during the year as follows :—		.. 210
Discharged home after a period of treatment ..	154	
Transferred to The London Chest Hospital ..	20	
,, Ilford Sanatorium ..	11	
,, Papworth Village Settlement ..	6	
,, British Legion Village Preston Hall	4	
,, Thurrock Sanatorium ..	4	
,, Burrow Hill Sanatorium Colony	3	
,, Black Notley Sanatorium ..	2	
,, Liverpool Road Hospital ..	1	
,, Maldon Institution ..	1	
,, Oldchurch Hospital ..	1	
,, Romford Isolation Hospital ..	1	
,, Royal National Sanatorium, Ventnor	1	
Died	1	
	210	

Patients who were discharged with disease quiescent, or who had made material improvement—75 per cent.

Patients, who on discharge had either made no improvement or slight improvement only—25 per cent.

X-Ray Department. The films taken continue to be of a high standard.

Photographs taken during the year are as follows :—

In-Patients	926
Out-Patients	632
Staff	41
	1,599

This shows an increase of 243 over those taken during 1936, and of 484 over those taken in 1935.

Treatment.

Artificial pneumothorax has been carried out as follows :—

No. of patients who have received treatment ..	84
Total number of refills given	1,380
No. of cases induced at Harold Court ..	21
No. of Out-Patients	31

A feature of this treatment is the increased number of cases on which thoracoscopy and division of adhesions was performed, 13 cases having been

transferred to the London Chest Hospital for this purpose, which has, in most cases, considerably improved the degree of collapse obtained. These cases are seen by Dr. Burton Wood at the Sanatorium and, whenever possible, are admitted under his care at the Hospital; thus a close liason between Sanatorium and Hospital is maintained.

Other forms of Treatment. Three cases were transferred to the London Chest Hospital for the operation of phrenic avulsion and one for the operation of thoracoplasty.

Gold Therapy. 27 patients received this treatment, a total number of 215 injections being given.

Staff.

At the end of the year the number of ex-patients employed as nursing orderlies had been increased to five. These men continue to give satisfactory service.

(*c*) High Beech Sanatorium. Dr. L. S. Fry, Medical Officer of the High Beech Sanatorium, reports as follows on the work carried out during 1937 :—

I give below an analysis of the cases admitted during the year :—

Tuberculous	Cervical Glands	39 cases.
,,	Mesenteric Glands	5 ,,
,,	Bones and Joints	2 ,,
,,	Scrofuloderma	1 ,,
" Observation "	.. .. ..	42 ,,
		89

During the year one death from Miliary Tuberculosis occurred at the Sanatorium.

The serial Mantoux Test was carried out in 20 cases with the following results :—

Positive—14 cases.
Negative in three dilutions—15 cases.

Infectious disease. One child developed nasal diphtheria a few days after admission and was removed to the isolation hospital. No further cases occurred. There was a small outbreak of whooping cough in the young children's ward in the early part of the year, which was apparently controlled by the administration of whooping cough vaccine to susceptible contacts, and cases in the early stage of the disease.

Diphtheria Immunisation. As in previous years all children were Schick tested on admission and those giving a positive reaction immunised. A summary of the results is given below :—

Primary Schick negative.	Primary Schick plus.	2 injections Alum Toxoid and Schick negative.	2 injections Alum Toxoid and Schick plus.	Discharged before re-Schick.	Not immunised or course not completed.
17	52	15	6	7	9

During the last three months of the year a selected group of children, all Schick positive, were immunised by Jensen's combined method.

The procedure consists in giving one subcutaneous injection of 1 c.c. of purified $Al.OH_3$ Toxoid, followed in one month by three weekly instillations of 10 nasal drops (five into each nostril) of purified toxoid. Dr. O'Brien of the Wellcome Research Laboratories kindly carried out antitoxin titrations on the blood of these cases before and after immunisation. The investigation is not yet complete, but the results obtained hitherto show the excellent response evoked by the combined stimulus of subcutaneous injection and nasal instillations.

Although probably not suited for general use in clinics, the method is easily carried out in hospital and has the advantage of reducing the number of skin punctures, besides giving a very high antitoxin response.

A summary of the results obtained with this method is given below :—

Diphtheria Antitoxin response to 1 c.c. $Al.OH_3$ Toxoid (10 cases) or 0.5 c.c. Alum Toxoid (B.W. & Co.) (4 cases) + 3 Nasal Instillations of 10 drops purified Toxoid at weekly intervals.

Total cases.	Antitoxin level before treatment. Unit per c.c. 1/1000	Antitoxin level after treatment. Units per c.c. 10 units per c.c.	2 units per c.c.	1/5 unit per c.c.	1/10 unit per c.c.	1/25 unit per c.c.
14	14	1	1	1	10	1

All the cases were Schick negative after treatment.

Travelling Facilities for Patients.

An amount of £50 13s. 2d. 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.

With the increased number of patients receiving institutional treatment there is a corresponding increase in the number of patients eligible for extra nourishment under the County Scheme. During 1937 an amount of £816 4s. 11d. was expended in providing one pint of milk daily for 299 patients.

Care Associations.

Table XXII gives a summary of the work done during 1937, by the Voluntary Care Associations established in the County. Continued enthusiasm each year continues

to be displayed amongst the personnel forming these Associations, and there is no doubt that the work accomplished proves the need for the existence of such organisations.

During 1937 the Public Assistance Committee of the County Council agreed to provide such extra nourishment as the Tuberculosis Officer recommended for any family in which there was a case of tuberculosis, and where Public Assistance Relief was already being given. This concession has proved of great value to the Care Associations as it will be readily understood that a large number of patients previously assisted from the Care Associations' Funds came within this category.

Prevention of Spread of Infection.

No action was taken during the year under Section 62 of the Public Health Act, 1925, for the compulsory segregation of an infectious tuberculosis patient.

The number of shelters on loan to patients at their homes during 1937 was 81.

TABLE XX

(a) PULMONARY TUBERCULOSIS.

Table showing in summary form (a) the condition at the end of 1937 of all patients remaining on the Dispensary Register; and (b) the reasons for the removal of all cases written off the Register.

The Table is arranged according to the years in which the patients were first entered on the Dispensary Register as definite cases of pulmonary tuberculosis, and their classification at that time.

Condition at the time of the last record made during the year to which the Return relates.		Previous to 1927.					1927.					1928.				
		Class T.B. Minus.	Class T.B. Plus.				Class T.B. Minus.	Class T.B. Plus.				Class T.B. Minus.	Class T.B. Plus.			
			Group 1.	Group 2.	Group 3.	Total (Class T.B. Plus.)		Group 1.	Group 2.	Group 3.	Total (Class T.B. Plus.)		Group 1.	Group 2.	Group 3.	Total (Class T.B. Plus.)
(a) Remaining on Dispensary Register on 31st December.	Disease arrested. Adults. M.	87	17	60	8	85	8	2	9	4	15	7	7	7	...	14
	Disease arrested. Adults. F.	26	8	20	...	28	4	1	12	...	13	7	2	15	...	17
	Disease arrested. Children.	9	...	...	...	...	3	...	...	...	...	5	...	...	2	2
	Disease not arrested. Adults. M.	28	6	76	9	91	2	3	16	...	19	3	4	18	2	24
	Disease not arrested. Adults. F.	12	5	26	7	38	2	2	9	1	12	9	...	7	1	8
	Disease not arrested. Children.	3	...	1	...	1	...	...	...	...	...	...	1	...	...	1
	Condition not ascertained during the year	...	...	1	...	1	...	...	...	...	...	...	...	1	...	1
	Total on Dispensary Register at 31st December...	172	36	184	24	244	19	8	46	5	59	31	14	48	5	67
(b) Not now on Dispensary Register and reasons for removal therefrom.	Discharged as Recovered. Adults. M.	202	55	48	3	106	29	4	7	...	11	7	2	17	...	19
	Discharged as Recovered. Adults. F.	148	27	45	5	77	43	8	13	1	22	30	2	12	...	14
	Discharged as Recovered. Children.	285	6	6	...	12	11	1	1	2	4	10	1	2	...	3
	Lost sight of or otherwise removed from Dispensary Register	2035	348	500	162	1179	414	129	180	39	348	250	74	133	26	233
	Dead. Adults. M.	393	125	429	233	782	58	25	149	66	240	42	15	129	46	190
	Dead. Adults. F.	153	42	235	156	433	35	26	98	35	159	27	12	97	26	135
	Dead. Children.	20	3	14	9	26	13	...	4	2	6	...	...	3	1	4
	Total written off Dispensary Register	3283	791	1341	555	2436	603	195	448	145	788	365	104	384	109	617
GRAND TOTALS		3455	827	1525	579	2680	622	203	494	150	847	396	118	432	114	684

Condition at the time of the last record made during the year to which the Return relates.		1929.					1930.					1931.				
		Class T.B. Minus.	Class T.B. Plus.				Class T.B. Minus.	Class T.B. Plus.				Class T.B. Minus.	Class T.B. Plus.			
			Group 1.	Group 2.	Group 3.	Total (Class T.B. Plus.)		Group 1.	Group 2.	Group 3.	Total (Class T.B. Plus.)		Group 1.	Group 2.	Group 3.	Total (Class T.B. Plus.)
(a) Remaining on Dispensary Register on 31st December.	Disease arrested. Adults. M.	12	4	10	...	14	19	8	18	...	26	35	8	18	2	28
	Disease arrested. Adults. F.	7	5	11	2	18	14	4	15	...	19	26	10	28	...	38
	Disease arrested. Children.	6	1	...	...	1	4	1	1	...	2	8	1	...	...	1
	Disease not arrested. Adults. M.	3	1	17	2	20	4	2	23	2	27	8	9	35	1	45
	Disease not arrested. Adults. F.	11	1	9	1	11	4	3	17	2	22	9	2	23	2	27
	Disease not arrested. Children.	3	...	3	...	3	...	...	1	...	1	2	1	...	...	1
	Condition not ascertained during the year	...	1	1	...	2	1	...	1	...	1	2	...	1	...	1
	Total on Dispensary Register at 31st December...	42	13	51	5	69	46	18	76	4	98	106	27	100	5	141
(b) Not now on Dispensary Register and reasons for removal therefrom.	Discharged as Recovered. Adults. M.	12	1	4	...	5	11	3	10	...	13	17	1	3	...	4
	Discharged as Recovered. Adults. F.	16	2	10	1	13	7	4	14	1	19	11	...	4	...	4
	Discharged as Recovered. Children.	5	...	1	1	2	2	...	...	...	...	3	...	...	...	...
	Lost sight of or otherwise removed from Dispensary Register	239	65	132	17	214	183	48	114	12	174	206	61	125	9	195
	Dead. Adults. M.	39	24	155	42	221	77	24	136	53	213	14	6	181	28	215
	Dead. Adults. F.	30	21	106	43	170	28	26	107	20	153	27	14	128	26	168
	Dead. Children.	1	1	2	4	7	4	3	2	2	8	1	...	4	1	5
	Total written off Dispensary Register	336	117	438	107	662	312	108	383	99	581	299	82	445	64	591
GRAND TOTALS		378	130	489	112	731	359	126	459	103	679	405	109	554	69	732

Condition at the time of the last record made during the year to which the Return relates.		1932.					1933.					1934.				
		Class T.B. Minus.	Class T.B. Plus.				Class T.B. Minus.	Class T.B. Plus.				Class T.B. Minus.	Class T.B. Plus.			
			Group 1.	Group 2.	Group 3.	Total (Class T.B. Plus.)		Group 1.	Group 2.	Group 3.	Total (Class T.B. Plus.)		Group 1.	Group 2.	Group 3.	Total (Class T.B. Plus.)
(a) Remaining on Dispensary Register on 31st December.	Disease arrested. Adults. M.	40	7	26	1	34	25	10	29	...	39	43	13	29	...	42
	Disease arrested. Adults. F.	26	9	23	1	33	47	4	15	1	20	46	13	20	2	35
	Disease arrested. Children.	6	1	...	1	2	13	...	...	1	1	11	...	...	...	...
	Disease not arrested. Adults. M.	11	6	51	3	60	17	7	64	1	72	17	19	88	5	112
	Disease not arrested. Adults. F.	14	7	29	2	38	21	4	32	4	40	24	14	56	3	73
	Disease not arrested. Children.	3	...	1	...	1	4	...	2	...	2	7	1	1	...	2
	Condition not ascertained during the year	...	1	1	...	2	3	...	...	1	1	...	...	...	...	...
	Total on Dispensary Register at 31st December...	100	31	131	8	170	130	25	142	8	175	148	60	193	10	263
(b) Not now on Dispensary Register and reasons for removal therefrom.	Discharged as Recovered. Adults. M.	8	2	1	...	3	...	...	...	...	...	...	...	...	...	...
	Discharged as Recovered. Adults. F.	6	...	1	...	1	...	...	...	...	...	...	...	...	...	...
	Discharged as Recovered. Children.	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Lost sight of or otherwise removed from Dispensary Register	117	37	132	13	182	178	29	125	17	171	118	21	85	12	118
	Dead. Adults. M.	39	8	137	20	165	29	10	128	28	166	22	8	115	33	156
	Dead. Adults. F.	39	11	93	27	131	38	9	83	26	118	37	1	70	20	91
	Dead. Children.	3	...	5	1	6	...	...	2	1	3	6	...	...	2	2
	Total written off Dispensary Register	217	58	369	61	488	245	48	338	72	458	180	30	270	67	367
GRAND TOTALS		317	89	500	69	658	375	73	480	80	633	328	90	463	77	630

Condition at the time of the last record made during the year to which the Return relates.		1935.					1936.					1937.				
		Class T.B. Minus.	Class T.B. Plus.				Class T.B. Minus.	Class T.B. Plus.				Class T.B. Minus.	Class T.B. Plus.			
			Group 1.	Group 2.	Group 3.	Total (Class T.B. Plus.)		Group 1.	Group 2.	Group 3.	Total (Class T.B. Plus.)		Group 1.	Group 2.	Group 3.	Total (Class T.B. Plus.)
(a) Remaining on Dispensary Register on 31st December.	Disease arrested. Adults. M.	31	6	14	...	20	...	...	...	...	...	...	...	...	...	...
	Disease arrested. Adults. F.	22	3	10	...	13	...	...	...	...	...	...	...	...	...	...
	Disease arrested. Children.	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Disease not arrested. Adults. M.	53	18	110	8	136	149	21	141	12	174	136	38	199	16	253
	Disease not arrested. Adults. F.	30	10	87	4	101	162	29	125	2	156	156	26	158	18	202
	Disease not arrested. Children.	15	1	...	1	2	27	...	1	1	2	24	...	22	...	22
	Condition not ascertained during the year	1	...	1	...	1	2	...	1	2	3	...	...	...	...	...
	Total on Dispensary Register at 31st December...	177	38	222	13	273	333	41	277	17	335	316	64	367	26	457
(b) Not now on Dispensary Register and reasons for removal therefrom.	Discharged as Recovered. Adults. M.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Discharged as Recovered. Adults. F.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Discharged as Recovered. Children.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Lost sight of or otherwise removed from Dispensary Register	110	8	75	8	91	65	30	82	5	117	25	5	14	3	22
	Dead. Adults. M.	26	5	79	33	117	20	2	52	26	80	14	1	38	15	54
	Dead. Adults. F.	6	3	61	21	85	18	1	32	18	51	9	...	17	15	32
	Dead. Children.	1	...	...	2	2	2	...	...	...	...	1	...	...	...	...
	Total written off Dispensary Register	143	16	215	64	295	105	33	166	49	248	49	6	69	33	108
GRAND TOTALS		320	54	437	77	568	471	74	443	66	583	365	70	436	59	565

TABLE XXI.

(b) NON-PULMONARY TUBERCULOSIS.

Table showing in summary form (a) the condition at the end of 1937 of all patients remaining on the Dispensary Register and (b) the reasons for the removal of all cases written off the Register.

Condition at the time of the last annual visit during the year to which the Return relates.	Previous to 1927. Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	1927. Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	1928. Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	1929. Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.
Disease arrested. Adults. M.	20	3	1	5	39	2	...	...	...	2	3	1	...	...	4	5	1	2	...	8
Disease arrested. Adults. F.	22	1	9	1	33	7	...	1	2	10	1	1	...	...	2	1	...	3	4	8
Disease arrested. Children.	23	3	1	6	33	15	1	1	2	20	7	1	...	4	12	8	4	...	5	17
Disease not arrested. Adults. M.	6	1	9	1	17	1	...	...	...	1	...	...	2	...	2	1	...	...	...	1
Disease not arrested. Adults. F.	4	2	5	2	13	...	...	...	1	1	1	...	...	...	1	3	1	1	...	5
Disease not arrested. Children.	9	...	9	1	19	3	...	...	...	3	2	...	...	1	3	5	...	...	...	5
Condition not ascertained during the year	1	...	1	2	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total on Dispensary Register at 31st December	85	10	20	25	149	28	1	2	5	36	14	3	2	5	24	23	6	6	9	44
Transferred to Pulmonary	...	2	...	1	3	...	...	...	...	...	...	...	...	1	1	...	...	...	1	1
Discharged as recovered. Adults. M.	25	8	7	15	55	8	1	3	6	18	5	2	1	1	9	1	1	3	1	6
Discharged as recovered. Adults. F.	42	13	10	23	88	3	2	1	3	9	3	4	2	4	13	2	4	1	6	13
Discharged as recovered. Children.	125	41	26	196	388	14	10	2	46	72	17	5	2	34	58	8	13	4	38	63
Lost sight of or otherwise removed from Dispensary Register	297	148	155	456	1056	91	26	58	69	244	63	34	21	89	207	54	27	28	107	216
Dead. Adults. M.	25	8	5	4	42	...	4	1	2	7	2	...	1	2	5	6	2	2	...	10
Dead. Adults. F.	17	5	3	4	29	5	3	1	3	12	2	3	2	1	8	2	1	...	1	4
Dead. Children.	21	7	3	2	33	5	2	...	1	8	2	2	...	3	7	4	1	...	2	7
Total written off Dispensary Register	682	267	181	620	1751	127	50	27	128	332	93	50	30	134	307	79	49	38	155	321
GRAND TOTALS of (a) and (b) (excluding those transferred to Pulmonary)	767	277	201	645	1900	155	51	29	133	368	107	53	32	139	331	102	55	44	164	365

Condition at the time of the last annual visit during the year to which the Return relates.	1930. Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	1931. Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	1932. Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	1933. Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.
Disease arrested. Adults. M.	4	...	1	4	9	2	...	...	2	4	5	...	2	1	8	3	2	2	2	9
Disease arrested. Adults. F.	9	...	...	...	9	3	1	3	2	9	2	1	3	7	13	5	1	1	3	10
Disease arrested. Children.	10	...	1	14	25	21	5	1	28	55	25	6	...	74	105	13	1	7	43	64
Disease not arrested. Adults. M.	2	...	...	...	2	4	...	...	2	6	4	...	3	...	7	1	...	2	1	4
Disease not arrested. Adults. F.	2	1	1	...	4	4	1	1	...	6	3	1	3	...	7	2	2	1	...	5
Disease not arrested. Children.	9	2	...	5	16	3	...	...	2	5	8	3	1	6	18	6	...	1	4	11
Condition not ascertained during the year	...	...	...	...	...	...	...	...	...	...	2	...	...	...	2	...	1	1	...	2
Total on Dispensary Register at 31st December	36	3	3	23	65	41	7	3	36	87	53	11	8	90	162	32	12	17	54	115
Transferred to Pulmonary	...	...	...	...	...	1	...	...	...	1	1	1	1	...	3	...	2	1	...	3
Discharged as recovered. Adults. M.	4	...	3	3	10	1	1	...	2	4	1	...	...	2	3	1	...	...	...	1
Discharged as recovered. Adults. F.	1	2	3	5	11	3	2	2	1	8	1	1	1	7	10	1	2	1	4	8
Discharged as recovered. Children.	13	5	5	51	74	7	7	...	25	39	7	6	1	50	64	5	5	1	12	23
Lost sight of or otherwise removed from Dispensary Register	30	19	16	104	179	37	31	25	72	165	36	19	15	55	125	26	20	13	41	100
Dead. Adults. M.	2	...	2	1	5	3	1	2	4	10	2	1	3	...	6	1	...	3	...	4
Dead. Adults. F.	3	...	1	1	5	1	1	...	...	2	4	3	...	1	8	1	...	...	...	1
Dead. Children.	5	1	1	...	7	4	3	5	...	12	3	3	...	...	6	1	2	1	2	6
Total written off Dispensary Register	67	27	29	165	288	58	46	32	104	240	54	37	20	114	225	36	29	21	66	152
GRAND TOTALS of (a) and (b) (excluding those transferred to Pulmonary)	103	30	32	188	353	99	53	35	140	327	107	48	28	204	387	68	41	38	120	267

Condition at the time of the last annual visit during the year to which the Return relates.	1934. Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	1935. Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	1936. Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	1937. Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.
Disease arrested. Adults. M.	3	2	2	4	11	6	...	2	6	14	3	1	3	4	11	3	...	1	2	6
Disease arrested. Adults. F.	7	4	2	8	21	7	6	2	9	24	4	3	6	4	17	6	1	3	3	13
Disease arrested. Children.	12	6	3	53	74	11	4	3	27	45	6	16	1	10	33	10	2	...	16	28
Disease not arrested. Adults. M.	4	...	4	7	15	5	...	7	1	13	14	1	6	3	24	13	3	...	21	37
Disease not arrested. Adults. F.	3	2	2	5	12	5	3	4	2	14	9	1	3	4	17	11	9	10	11	41
Disease not arrested. Children.	13	1	2	16	32	13	2	10	18	43	14	8	3	18	43	11	9	2	44	66
Condition not ascertained during the year	...	...	...	...	...	1	1	...	2	4	1	2	...	3	6	...	...	...	...	...
Total on Dispensary Register at 31st December	44	16	16	94	170	50	16	28	113	207	50	32	22	90	194	52	26	24	89	191
Transferred to Pulmonary	1	1	...	1	3	...	...	1	1	2	...	...	...	...	...	...	...	...	...	...
Discharged as recovered. Adults. M.	2	...	1	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Discharged as recovered. Adults. F.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Discharged as recovered. Children.	1	1	2	17	21	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lost sight of or otherwise removed from Dispensary Register	26	11	16	36	89	28	16	22	43	109	6	4	6	19	35	3	2	1	8	14
Dead. Adults. M.	3	1	5	1	10	4	1	...	...	5	...	...	2	...	2	...	1	...	...	1
Dead. Adults. F.	...	...	1	1	2	2	1	1	...	4	1	1	1	2	5	1	...	...	...	1
Dead. Children.	...	...	1	1	2	5	...	1	2	8	2	2	1	2	7	2	1	...	...	3
Total written off Dispensary Register	32	13	20	56	121	39	18	24	45	126	9	7	10	23	49	6	4	1	8	19
GRAND TOTALS of (a) and (b) (excluding those transferred to Pulmonary)	76	29	36	150	291	89	34	52	158	333	59	39	32	113	243	58	30	25	97	210

TABLE XXII.

TUBERCULOSIS CARE ASSOCIATIONS IN ESSEX.

(The information given in this Table is in respect to the year ended 31st March, 1938).

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.		
		£ s. d.	£ s. d.	£ s. d.		
BARKING ...	Third Monday in each month at 8 p.m.	508 0 6	449 6 7	15 18 6	70	Extra Nourishment Convalescent Holiday Treatment Clothing Fares Cash Grants
CHELMSFORD ...	Fourth Monday in each month at 7 p m.	*No. 1 a/c.* 502 2 1 **No. 2 a/c.* 125 3 8	262 15 1 123 15 0	54 0 0 10 0	42 25	Extra Nourishment Convalescent Holiday Treatment Clothing Fares, &c.
DAGENHAM ...	Third Thursday in each month at 8.15 p.m.	523 3 1	424 2 2	20 2 10	70	Extra Nourishment Clothing Surgical Appliances
GRAYS ...	Third Monday in each month at 5.30 p.m.	362 13 10	254 8 6	12 2 0	44	Extra Nourishment Convalescent Holiday Treatment Clothing Home Helps Fares, &c.
ILFORD ...	First Thursday in each month at 7.30 p.m.	744 9 7	549 7 1	23 17 10	97	Extra Nourishment Boarding-out Fees Clothing Fares, &c.
LEYTON ...	Third Friday in each month at 7.30 p.m.	897 3 10	666 16 1	55 3 8	149	Extra Nourishment Convalescent Holiday Treatment Home Helps Cash Grants
ROMFORD AND HORNCHURCH	Fourth Monday in each month at 8 p.m.	909 10 7	719 12 4	54 2 2	102	Extra Nourishment Convalescent Holiday Treatment Clothing Fares
SAFFRON WALDEN	Fourth Tuesday in each month at 2.30 p.m.	178 16 4	159 10 7	—	66	Extra Nourishment Convalescent Holiday Treatment
WALTHAMSTOW	First Monday in each month at 7 p.m.	1024 5 6	833 18 5	120 15 8	124	Extra Nourishment Convalescent Holiday Treatment Clothing Home Helps Cash Grants

* This refers to a special fund administered by the Chelmsford Tuberculosis Care Association for those areas in the County not served by a Care Association.

PART III.

MATERNITY AND CHILD WELFARE.

The Notification of Births Acts, 1907 and 1915, the Maternity and Child Welfare Act, 1918, and parts of the Children and Young Persons Acts, 1908-1932, were repealed on 1st October, 1937, and re-enacted under Part VII of the Public Health Act, 1936.

(1) County Area. During the year 1937 the County Council was responsible for administering this Part of the 1936 Act in the undermentioned 31 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, (*c*) notifications of Puerperal Pyrexia and Fever, and Maternal Deaths as given by the Registrar-General, and (*d*) notifications of Ophthalmia Neonatorum :—

TABLE XXIII.

Sanitary Districts.	Estimated Population, 1937.	No. of Births notified by		No. of Births Unnotified.	No. of Notifications of		Maternal Deaths.
		Midwives.	Doctors and Parents.		Puerperal Pyrexia and Fever.	Ophthalmia Neonatorum.	
Maldon B.	9,020	13	58	4	—	—	—
Saffron Walden B. ..	6,286	22	31	2	1	1	—
Benfleet U... ..	15,710	90	25	1	2	—	1
Billericay U. ..	34,560	304	68	4	6	1	1
Braintree & Bocking U.	14,650	101	118	9	1	—	—
Brentwood U. ..	27,300	103	113	7	5	—	1
Brightlingsea U. ..	4,222	11	30	—	—	—	—
Burnham-on-Crouch U.	3,530	33	2	—	—	1	1
Canvey Island U. ..	6,485	60	8	—	1	—	1
Chigwell U. ..	22,510	90	89	11	3	—	—
Chingford U. ..	35,970	168	113	49	7	1	—
Epping U. ..	5,770	71	53	5	4	1	—
Frinton & Walton U. ..	7,287	18	25	3	2	—	—
Halstead U. ..	5,859	25	39	4	—	—	—
Hornchurch U. ..	72,010	569	514	58	10	5	6
Rayleigh U. ..	7,501	57	15	4	—	—	—
Waltham Holy Cross U.	7,098	38	43	—	2	—	2
West Mersea U. ..	2,400	—	19	5	1	—	—
Witham U. ..	7,162	60	38	—	—	—	—
Wivenhoe U. ..	2,170	9	19	1	1	—	—
Braintree R. ..	15,660	98	79	3	2	—	—
Chelmsford R. ..	29,960	290	92	15	2	—	—
Dunmow R. ..	16,170	109	104	—	2	—	1
Epping R.	15,040	96	76	3	4	—	1
Halstead R. ..	15,620	75	87	6	2	—	—
Lexden & Winstree R.	19,840	119	84	9	3	—	—
Maldon R. ..	13,560	105	68	11	1	—	—
Ongar R.	12,590	95	97	2	1	—	—
Rochford R. ..	16,650	102	167	8	2	2	1
Saffron Walden R. ..	15,770	81	60	10	—	—	—
Tendring R. ..	22,840	297	77	6	1	1	—
Totals ..	491,200	3,309	2,411	240	66	13	16

The maternal mortality rate for the County Council's Child Welfare Area is 2.18 as compared with the rate of 2.66 for the Administrative County and 3.23 for England and Wales.

(2) Medical Staff. Particulars in regard to the Medical Staff are given on page 9.

(3) Health Visitors. Owing to the increase in the work generally one additional Health Visitor was appointed during the year to serve the district of Billericay and to perform the duties of Health Visitor, School and Tuberculosis Nurse. The services of one part-time Health Visitor were terminated.

Facilities were granted to a State Certified Midwife to train for the new Health Visitors' Certificate by being appointed as a probationer Health Visitor under the Council's Scheme.

A successful conference of Health Visitors, School and Tuberculosis Nurses, was held at the Oldchurch County Hospital, Romford, on the 12th March, 1937, at which an address was given by the Medical Superintendent of the Hospital on " The History of Health Nursing ".

On 31st December, 1937, 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)	44	Equivalent whole-time H.V. for C.W. = 19 (approx.)
Part-time	1	

N.B.—The above figures do not include the Chief Health Nurse and her two Assistants, but include the Relief Health Visitor and Probationer Health Visitor.

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

(4) Ante-Natal Clinics, Maternity and Child Welfare Centres, Weighing Centres, Toddlers' Clinics and Women's Welfare Centres. At the end of the year 1937 there were 22 Ante-Natal Clinics, 105 Child Welfare Centres, 14 Toddlers' Clinics, 9 Weighing Centres and 8 Women's Welfare Centres in the County Child Welfare Area. A new Ante-Natal Clinic was established at Rayleigh during the year and Child Welfare Centres at North Chingford (Sewardstone Road), Boreham, Harlow Common, and a Weighing Centre at Hockley. A Women's Welfare Clinic was also established at Chelmsford.

On the 29th October, 1937, the Fifth Annual Conference of representatives from each of the Voluntary Committees of Child Welfare Centres was held. Two very interesting talks were given by the Hon. Secretary of the Chingford Child Welfare Centres and the Hon. Secretary of the Braintree Child Welfare Centres, to the 110 delegates who attended. A discussion followed on various branches of the Maternity and Child Welfare Scheme.

The services of the Domestic Science Teacher, Mrs. B. G. Richardson, were continued throughout the year. The course consists of a series of ten lessons at

Child Welfare Centres, giving useful information to mothers regarding the different classes of food necessary to build up, warm and protect the body and also giving general rules for the kitchen, &c.

I am indebted to Mrs. Richardson for the following observations concerning her attendance at Centres during the year :—

> " Courses of ten Practical Demonstrations have been completed during the year at the following Child Welfare Centres :—
>
> Great Bardfield, South Woodham, Broomfield, Thaxted, Wickford, East Hanningfield, Great Yeldham, Weeley, Ingatestone, Stock, Great Wakering and Kelvedon.
>
> New courses began in July, 1937, and will be completed in 1938 at Danbury, Upminster, Braintree, Great Easton, Dedham, Fordham, Southminster, Great Tey, Rowhedge, Tiptree, Ongar, Rayleigh, Rochford, Hornchurch, Wethersfield and Hatfield Heath.
>
> The interest in the course has been increased in the Country areas by the use of an inexpensive oil cooker which has given entire satisfaction.
>
> The " Notes of Lessons ", giving recipes, hints and in some cases, simple food values, have been very helpful and distinctly popular. It would seem from the large number of " Notes " distributed that the following is the order of popularity of the Demonstrations :—
>
> (1) Jams and marmalades. From fresh and dried fruit.
> (2) Vegetables and salads, including inexpensive dressings.
> (3) Fish. Boning, stuffing, &c.
> (4) Simple supper dishes and cheese cookery.
> (5) Potted meat and fish. Beef moulds and jellies.
> (6) Suet puddings.
> (7) Soups and simple savouries.
> (8) Milk puddings, junkets, &c.
> (9) Stews.
>
> Inexpensive cakes, biscuits, and simple beverages such as barley water, beef tea, and lemonade, have been included.
>
> The small samples brought for approval and criticism clearly show that the lessons are applied in the home.
>
> In consequence of the rising prices of foodstuffs, every effort has been made to supply pleasing dishes of maximum food value at a minimum cost of time, fuel and material. The special attention paid to costing home made and ready made foods has stimulated much interest, some controversy and one hopes, will result in practical application in the home.
>
> Demonstrations at Health Exhibitions have been given at various places including Wickham Bishops, Earls Colne and Halstead, and the interest of the audience during and after the Demonstration has been most gratifying.

The splendid co-operation of the doctors, health visitors, nurses, voluntary workers and caretakers has added considerably to the value of the work, and I would like to express my sincere appreciation of most generous support in all parts of the County, thus making a great pleasure of very important work ".

(5) Combined Treatment Centres. Reference is made to Combined Treatment Centres on page 115 of this Report.

(6) Provision of Milk and Medicaments. The two schemes outlined in previous reports, for (*a*) the provision of wet milk and (*b*) medicaments through local chemists were continued.

As mentioned in the report for the year 1936, consideration has been given to Circular 1519, dated 1st April, 1937, issued by the Ministry of Health, referring to the First Report of the Advisory Committee on Nutrition, and as a result the following amendments to the Council's Scheme have been approved :—

(i) Previously it was necessary for special recommendations to be submitted to the County Medical Officer in respect of milk of be supplied to children over the age of one year. This has been amended and it is now only necessary to submit special recommendations for a supply of milk to children over the age of three years.

(ii) The County Medical Officer is now authorised to allow more than one pint of milk per person per day on the special recommendation of the Medical Officer or Health Visitor.

(iii) The milk to be provided is to be Tuberculin Tested or efficiently Pasteurised Milk if available, and if not available arrangements are to be made for the source and quality of the milk to be approved by the local Medical Officer of Health.

(iv) On 1st April, 1938, a further amendment was made whereby milk can be supplied to expectant mothers during the whole period of pregnancy instead of the last six months as previously.

(7) Dental Treatment and Dentures. The Scheme, as outlined in previous reports, was continued throughout the year. Mr. S. K. Donaldson, the Senior Dental Surgeon writes : " With the increased County Dental Staff available, it has been possible for them to give more attention to the Maternity and Child Welfare Service, and during the year 833 patients were treated by the whole-time County Dental Staff. It is hoped that in the near future the question of setting up a workshop and employing a dental mechanic for the supply of artificial teeth will be considered. In recent conversations I have had with some of the mothers they have intimated that after dental treatment their outlook on life has been completely changed for the better, and there is no doubt that it is worth while for both adults and toddlers alike ".

During the year under review a total of 1,168 patients were treated at a cost to the Council of £1,810 4s. 2d., of which £521 1s. 8d. was recovered from patients as contributions.

(8) Home Helps. One hundred and seventy-four applications were received during the year as follows :—Bardfield (1), Belchamp St. Paul (2), Belchamp Walter (1), Blackmore (2), Braintree (2), Brentwood (32), Brightlingsea (2), Bures (2), Colne Engaine (2), Doddinghurst (1), Fyfield (1), Galleywood (2), Halstead (4), Hatfield Peverel (5), Hedinghams (2), Hornchurch (69), Laindon (3), Layer-de-la-Haye (1), Maldon (2), Moreton (1), Ongar (3), Ovington (1), Pitsea (10), Rettendon (1), Shelley (1), Shenfield (1), Southminster (1), South Woodham (1), Stanford Rivers (1), Stebbing (1), Stock (4), Great Tey, (1), Thaxted (2), Tiptree (1), Walton (1), Wethersfield (1), White Colne (1), Wickham St. Pauls (2), Witham (1), Yeldham (2).

The revised Scheme for the provision of Home Helps outlined in the report for the year 1935 was continued in the Hornchurch area. Arrangements were also made for the Scheme to be brought into operation in the Brentwood area in March, 1937. Six Home Helps were employed in Hornchurch and seven in the Brentwood area.

(9) Travelling Expenses of Mothers attending Child Welfare and Weighing Centres. At the end of the year 1937 forty-nine Child Welfare and Weighing Centres were participating in the scheme, namely :—Bardfield, Bocking, Braintree, Brightlingsea, Burnham-on-Crouch, Cold Norton and Purleigh, Danbury, Debden and Wimbish, Dunmow, Earls Colne, East Hanningfield, Eastons, Epping, Felsted, Fingringhoe, Fordham, Fyfield, Goldhanger, Good Easter, Harlow, High Easter, Great Horkesley, Laindon, Layer-de-la-Haye, Leaden Roding, Mistley, Ongar, Parkeston, Rivenhall and Silver End, Rochford, Roydon, Great Sampford, Southminster, Stansted, Steeple Bumpstead, Stebbing, Stock, Stondon Massey, Takeley, Terling, Great Tey, Thaxted, Tillingham, Tollesbury, Great Wakering, Little Waltham, Wethersfield, Woodham Ferrers and Great Yeldham.

(10) Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations, 1926. During the past two years 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.	
	1936.	1937.		1936.	1937.
Puerperal Fever ..	61	*36	..	18	*17
Puerperal Pyrexia ..	179	217	..	56	49

*These figures are for the nine months ended 30th September, 1937, and as from the 1st October, 1937, when the Public Health Act, 1936, came into operation, the term Puerperal Fever was dispensed with and only the term Puerperal Pyrexia retained for notification purposes.

(i) *Obstetric Specialists.* The services referred to in the previous year's report were continued.

Mr. W. S. O'Loughlin, M.C.O.G., in addition to attending at the Ante-Natal Clinic, Oldchurch Hospital, Romford, was called in to thirteen patients in various parts of the County.

At the time of writing a number of changes are taking place in respect of the arrangements for Obstetric Specialists, and these will be given in more detail in next year's report. Mr. W. S. O'Loughlin resigned his appointment on the 30th June,

1938, and Mr. Stanley Henderson, M.C.O.G., Obstetric Specialist, commenced duty in July, 1938, on the whole-time staff of the Oldchurch County Hospital, Romford. It is anticipated that Mr. Henderson's services will be available for a certain amount of consulting work within a reasonable area of the Oldchurch County Hospital. In addition, the services of Mr. Everard Williams, M.C.O.G., have been made available in a consulting capacity for maternity patients in the County Council's Child Welfare area.

(ii) *Consulting Physician and Pathologist.* During the year the services of Dr. F. E. Camps, Pathologist at the Chelmsford and Essex Voluntary Hospital, were made available in the capacity of consulting physician and pathologist in respect of patients sent in to Public Assistance Institutions by the Public Health and Housing Committee. These included maternity patients from the County Council's Child Welfare area, and arrangements were also made for Dr. Camps' services to be available for patients either in their own homes or in other Institutions or Hospitals.

(iii) *Institutional Treatment.* During the year 1937, thirty-one patients suffering from puerperal pyrexia were admitted to Hospitals and Institutions under the Public Health Committee's arrangements at a cost of £289 13s 0d., the amount recovered from patients being £33 0s. 3d.

(iv) *Puerperal Units at St. John's Hospital, Chelmsford, and Oldchurch Hospital, Romford.* The valuable work carried out by these two special units, which was mentioned in the report for 1931, has been continued and full advantage of the facilities has been taken by the Public Health Committee, as well as by certain autonomous child welfare authorities in the County. Details of the work carried out have been received and the following is a brief summary thereof :—

Institution.	No. of patients admitted.	Duration of Stay.					Discharged.
		0—7	8—14	15—21	22—28	Over 28 days.	
Chelmsford ..	26	2	9	7	1	7	25
Romford ..	28	—	3	15	2	8	27

In spite of the valuable work carried out by the above-mentioned Special Units, it was considered, after consultation with the Ministry of Health, that the time had come when other arrangements should be made for these patients who are capable of conveying infection to others.

(v) *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.

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

The arrangements whereby Dr. F. E. Camps, Pathologist at the Chelmsford and Essex Voluntary Hospital, carried out special Hæmolysis tests, were continued.

These tests have, when necessary, included a serological typing, and continue to prove of great value in determining earlier diagnosis of puerperal sepsis, control of midwives and in tracing the source of infection. Further mention is made of this subject on page 113.

(11) Public Health (Ophthalmia Neonatorum) Regulations, 1926-1937. The Ophthalmia Neonatorum Regulations were amended from the 1st April, 1937, whereby notifications of Ophthalmia Neonatorum occurring in the County Council's Maternity and Child Welfare area are sent direct to the County Medical Officer instead of to the Medical Officer of Health for the district concerned. The aim of this arrangement is to bring cases to the notice of the Authority responsible for dealing with the condition at the earliest possible moment.

During the year ended 31st December, 1937, 56 cases of Ophthalmia Neonatorum were notified in the Administrative County.

Thirteen 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 Unimpaired.		Vision Impaired.		Total Blindness.		Deaths.
At Home.	In Hospital.	R.	L.	R.	L.	R.	L.	
6	7	13	13	—	—	—	—	—

Three patients were admitted to Hospital during the year under the County Council's arrangement for the treatment of this disease, with satisfactory results.

It is becoming quite rare for an infant to lose its sight from this cause.

(12) Prevention of Blindness. On the 6th August, 1937, the Ministry of Health issued Circular 1621, entitled "Prevention of Blindness," drawing the attention of County Councils and Local Sanitary Authorities to the report issued in 1936 by the Standing Committee on the Prevention of Blindness of the Union of Counties Associations for the Blind. The Circular was divided into sections, which included a Maternity and Child Welfare Section relating to (i) Ante-natal service; (ii) Ophthalmia Neonatorum; and (iii) Children under School Age. The County Medical Officer submitted a detailed report thereon and amongst the recommendations made, it included co-ordination of the Venereal Diseases Treatment Centres with the Maternity and Child Welfare Centres to be developed to the fullest extent. As an experiment the whole-time Venereal Diseases Medical Officer commenced attendance at the Hornchurch Child Welfare Centre in January, 1938. The above-mentioned Circular also referred to the use of prophylactics and reference is made to this on page 110.

(13) Hospital Treatment for Maternity Patients. The arrangements with certain hospitals for the admission of the following types of maternity patients were continued :—

(*a*) Complicated or difficult cases of confinement where hospital treatment is essential.

(*b*) 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 five hundred and fifty-six patients were admitted under the above schemes at a cost of £4,826 8s. 6d., the amount recovered from patients being £1,474 18s. 1d.

(14) Convalescent Treatment—Mothers and Children. The arrangements in connection with the Mabel Greville Home, Walton-on-the-Naze, were discontinued at the end of September, 1937, owing to the Home being closed, and up to that time four children were admitted under the Child Welfare Scheme. In addition, two mothers were admitted to suitable Homes for a period of convalescent treatment.

Convalescent treatment of mothers and infants still constitutes somewhat of a difficulty owing to the fact that there are few suitable Homes readily available in Essex for such cases.

(15) Treatment of Minor Ailments—Children under School Age. The scheme was continued and 129 children under school age received operative treatment during the year for Adenoids and Enlarged Tonsils, Circumcision and Hernia.

(16) Treatment of Orthopaedic Patients. Full details of the scheme for the treatment of orthopædic patients adopted by the Public Health and Education Committees were given in the Annual Report for 1927.

As far as children of school age are concerned, these are dealt with in the School Medical Officer's Annual Report, so that the following information relates only to children under school age in the County Council's Child Welfare Area :—

(a) *Number of Cases on Books.* At the end of 1937, there were approximately 198 Child Welfare patients requiring treatment, supervision or observation.

(b) *Ascertainment and Re-examination Clinics.* During 1937 Mr. Whitchurch Howell attended 64 clinic sessions for the County Council and carried out 344 examinations of County patients under school age.

(c) *Hospital Treatment.* The following figures relate to the number of Child Welfare patients who completed treatment and those who were admitted during the year 1937, as compared with 1936 :—

	Completed Treatment. 1937.	Admitted. 1937.	Completed Treatment. 1936.	Admitted. 1936.
Brookfield Orthopædic Hospital	8	10	5	6
Oldchurch County Hospital	5	3	2	5
Other Hospitals	12	10	8	11

The Orthopædic Scheme continues to provide adequate treatment and after-care.

It was found necessary to establish further After-Treatment Centres during 1937, and in April a monthly session was commenced at Chelmsford and in October at Burnham-on-Crouch and Great Wakering.

Brookfield Orthopædic Hospital.

Full use has been made of the services provided at the Brookfield Orthopædic Hospital, and during the year 82 patients were admitted, including 32 County Council

cases (10 Child Welfare and 22 Education cases). An average of 28.32 beds were occupied during the year out of a total of 30 beds provided, and 151 surgical operations were performed. Patients continue to be sent by Autonomous Child Welfare and Education Authorities. From 1st April, 1938, a whole-time Masseuse was appointed in place of two part-time Masseuses.

(d) *Orthopædic After-Treatment Clinics.* The Orthopædic After-Treatment Clinics were continued during the year and 1,408 attendances of children under school age were made.

NURSING HOMES.

On 1st October, 1937, the Public Health Act, 1936, Part VI, repealed the whole of the Nursing Homes Registration Act, 1927.

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

(*a*) Maternity Homes only	21
(*b*) Maternity and Nursing Homes	26
(*c*) Nursing Homes (including Convalescent Homes) ..	12

Routine inspections of Nursing Homes have been made at regular intervals, and midwives residing therein and who notify their intention to practise have also been inspected on the same occasion as the visit made to inspect the home.

The general conditions existing at the Homes have maintained a satisfactory standard throughout the year, and no drastic action was necessary in any instance.

Seven applications for Registration were approved during the year, and one application was refused on the grounds that the applicant was not a fit person to carry on a Nursing Home, and that the accommodation and arrangements made for staffing were inadequate.

CHILD LIFE PROTECTION.

Of all the many phases of preventive medicine, one of the most vitally important concerns the nurture and welfare of the young child. Here we have human life in its most delicate and vulnerable form, and at a stage when that tiny spark, either through ignorance or sheer neglect, may so easily be extinguished. This particularly applies to those instances where children are placed in the care of foster parents.

In all those areas for which the County Council is the Child Welfare Authority it is the Council's statutory duty to take on the "guardianship" of all such children who are fostered out for reward to persons other than their parents, relatives or legal guardians. All the Health Visitors in the County Child Welfare area are appointed Child Protection Visitors, and as a result of their reports, foster mothers are permitted, where found suitable, to accommodate on their premises an agreed number of foster children. If the environment is not suitable, the application is, of course, disallowed.

At the end of the year there were 591 registered foster children in the care of 358 foster mothers, the majority of the latter accepting only one, two, or perhaps three

children into an ordinary household where the foster child becomes for the time being "one of the family." The following table explains this in more detail :—

No. of foster mothers receiving			1 child	256
,,	,,	,,	2 children	64
,,	,,	,,	3 children	22
,,	,,	,,	4 children	8
,,	,,	,,	5 children	1
,,	,,	,,	6 children or over	7

There is no doubt that the ideal arrangement is where a foster mother accepts only a small number of foster children, and this point has frequently been endorsed by the members of the Maternity and Child Welfare Sub-Committee, who feel it is better for children to grow up in ordinary home surroundings rather than in an Institutional atmosphere such as is bound to occur in very large foster homes.

Regular visits of inspection at intervals of at least once a quarter are made by the Health Protection Visitors to each foster mother and child registered. In special cases the inspections are made at more frequent intervals, and where necessary, visits are made by members of the Central Office staff. The larger foster homes always receive additional supervision from the Central Office, and where recommended by the County Architect, fire precautionary measures are provided. Boarding Schools receiving children under the age of nine years were also inspected and in certain instances fire precautionary measures as recommended by the County Architect have been provided.

During the summer months there is always a large influx of children into the County for short term periods of a fortnight or three weeks for holidays. There is a number of Societies responsible for sending children away for summer holidays and by seeking our opinion of particular premises, we are able to co-operate with them regarding the standards to be maintained. There is still a frequent tendency to overcrowd children in holiday accommodation, it being argued that this was more than counterbalanced by the good effects of the change of air and scenery. The fallacy is obvious, however, in as much as many of these children already live in sordid slum conditions, and it is, therefore, all the more necessary to provide them with the best possible conditions during their short holiday if they are to derive the utmost benefit therefrom.

It was unnecessary to obtain any Orders during the year for the removal of children from foster parents under Section 212 of Part VII of the Public Health Act, 1936.

MIDWIFERY SERVICE.

(*a*) General. (i) Full details of the County Council's Scheme approved under the Midwives Act, 1936, are given in the report for the previous year. The Scheme commenced to operate on 1st July, 1937, and at the end of the year 16 whole-time County Council Midwives and 22 Welfare Council Midwives were appointed under the Scheme.

The following table shows the number of confinements attended by the 16 County Council and 22 Welfare Council Midwives during the period 1st July to 31st December, 1937 :—

	Midwifery.	Maternity.
16 County Council Midwives	191	99
22 Welfare Council Midwives	330	198

It is pleasing to record that no serious difficulties have arisen, largely due, no doubt, to the general approbation and support with which the provisions of the Act have been welcomed by all sections of the community.

Suffice it to say that at this stage the scheme is operating smoothly and satisfactorily, and the services of the Council Midwives are becoming increasingly well known and appreciated by expectant mothers.

Application has not so far been made to the Minister of Health requesting him to make an Order invoking Section 6 of the Act, which will ultimately deal with the eradication of the unqualified handywoman. When making such application, it is necessary to satisfy the Minister that the Council's scheme completely supplies the needs of the areas for which it is responsible.

In next year's report it will be possible to give a more detailed review of the Council's scheme for a full calendar year.

In accordance with Section 5 of the Midwives Act, 1936, 19 midwives were compulsorily retired, or surrendered their C.M.B. certificates voluntarily during the year 1937, and appropriate compensation in each case has been arranged.

(ii) Consideration was given to the Ministry of Health's Circular 1621, dated 6th August, 1937, dealing with the Prevention of Blindness, and arising out of this it was decided to adopt the use of 1 per cent. solution of Silver Nitrate as the prophylactic for instillation into the eyes of infants, instead of protargol as hitherto.

(iii) The Urban District of Dagenham made application to the Ministry of Health to become the Local Supervising Authority in the Urban District under the Midwives Acts, 1902-1936. The Minister, after consulting the County Council, complied with the application and issued the necessary Order to take effect from 1st April, 1937.

(iv) It is interesting to mention here that on 1st January, 1937, Rule E.17 (a) of the Central Midwives Board was amended whereby the lying-in period of ten days was extended to a period of fourteen days. All practising midwives were notified accordingly, and no difficulties have arisen in bringing this amended rule into operation.

(*b*) Practising Midwives. During the year under review 360 midwives notified their intention to practise in the Administrative County, excluding the Barking, Colchester, Dagenham, Ilford, Leyton and Walthamstow Midwives. Of these, 296 were actually in practice at the end of the year 1937. These midwives are classified as follows :—

Total No. of Midwives in Practice at end of year.	Trained.		L.O.S. Certificated.	
	Dep.	Indep.	Dep.	Indep.
296	209	84	1	2

The total number of live births and still births which occurred during the year 1937 in the Administrative County, excluding Barking, Colchester, Ilford, Leyton and Walthamstow Boroughs and Dagenham Urban District, was 11,116, and of these, 4,807 (43·2 per cent.) were attended by midwives in the capacity of a midwife, and 3,545 (31·8 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 1937, and it was found that 142 trained midwives and 1 *bona fide* midwife attended 10 or less cases each, 85 trained and 1 *bona fide* attended 11—20 cases each, 57 trained and 1 *bona fide* attended 21—40 cases each, 7 trained attended 41—60 cases each, and 2 trained attended 61—100 cases each.

(*c*) Handywomen. During the year 1937 no reports were received regarding cases of confinement attended by women who were not certified midwives.

(*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 :—

	1933.	1934.	1935.	1936.	1937.
Records of Medical Aid	2025	2089	1898	1954	1805
Records of Still-Births	101	102	85	82	78
Deaths of Mothers	2	1	2	4	3
Deaths of Infants	76	73	55	65	44
Artificial Feeding	61	77	66	83	71
Liability to be a source of Infection	*209	*277	*265	*238	*198
Laying-out for Burial	293	260	†78	†285	†268
Ophthalmia Neonatorum or Discharging Eyes	243	199	102	‡120	107

*These figures include all cases of High Temperature.

†The low figures for the year 1935 are accounted for owing to a variation of the rule of the Central Midwives Board in this respect which operated from the 1st October, 1934, until it was again amended on the 1st October, 1935.

‡Includes 7 cases notified as Ophthalmia Neonatorum.

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 1937 in two cases of high temperature the rules of the Central Midwives Board were not properly carried out. Warning letters were sent to the midwives concerned.

Pemphigus Neonatorum.

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

Enquiries were made into 29 suspected or actual cases occurring in Benfleet (1), Billericay (2), Brentwood (2), Canvey Island (1), Chelmsford (3), Chelmsford R. (1),

Chigwell (2), Dagenham (2), Rochford R. (2), Tendring R. (1) and Thurrock (12). Some suspected cases of Pemphigus Neonatorum in the practice of an independent midwife were investigated and the midwife was for a time suspended from midwifery practice.

Inspection Visits.

One thousand and eighty routine visits were made to midwives during the year, and of these 155 were undertaken by Assistant County Medical Officers and 925 by the Chief Health Nurse and her Assistants and the Relief Health Visitor.

Written cautions were sent to 6 midwives for minor infringements of the rules other than those referred to in the paragraph relating to Puerperal Fever and Ophthalmia Neonatorum above.

One midwife was interviewed by the County Medical Officer in regard to her attendance on an infant who subsequently died.

Doctors' Fees.

In accordance with Section 14 of the Midwives Act, 1918, during the year ended 31st December, 1937, the County Council paid the sum of £2,211 16s. 1d. as fees to medical practitioners and recovered from patients during the year the sum of £602 8s. 4d.

The following comparative table is of interest, showing (*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 :—

Year.	No. of Medical Aid Notices received from Midwives.	Percentage of Confinements attended by Midwives in which medical aid was sought.	No. of Medical Aid Notices for which Doctor's claims have been received.	Total amounts of claims. £ s. d.	Amounts recovered from patients. £ s. d.
1933	2025	34.9	1575	2,527 12 6	625 9 1
1934	2089	36.4	1628	2,174 15 6	800 13 6
1935	1898	38.9	1514	2,147 15 6	766 1 6
1936	1954	37.6	1510	2,130 15 1	648 16 4
1937	1805	44.6	1347	2,211 16 1	602 8 4

Lectures.

The Essex Midwives Association arranged a special course of Lectures in Chelmsford which was held in May and June.

Mr. Alan Brews, F.R.C.S., M.C.O.G., Honorary Assistant Obstetrician to the London Hospital, gave lectures entitled " Management of Breech Delivery ", " Ante-Natal Care ", " Toxæmia of Pregnancy ", and " Practice in Midwifery ".

The lectures were greatly appreciated by the midwives who attended the course. The County Council assisted the Association by a grant towards the lecturers' fees, travelling expenses, &c.

Essex County Nursing Association.

(*a*) General. For the year 1937 the sum of £12,906 5s. 1d. was paid by the County Council to the County Nursing Association in accordance with the agreement.

(*b*) District Nursing Associations. At the end of 1937 the number of District Nursing Associations in the Administrative County which were affiliated to the County Nursing Association and which employed 190 Nurses, was as follows :—

No. of affiliated D.N. Associations.	No. undertaking Midwifery and District Nursing.	No. performing Maternity and District Nursing duties only.
154	150	4 (2 of which undertake general nursing only).

District Nurses belonging to affiliated Associations during the year 1937 made the following visits :—Midwifery 49,927, Maternity 38,094, District General 241,271, District Tuberculosis 2,268, Health Visiting—Pre-natal 28,451, Post-natal 35,925, and Home Visits (school children) 9,027.

Of the 154 affiliated Associations, 149 participate in the County Council's Combined Nursing Scheme.

GENERAL.

(a) Notification of Puerperal Pyrexia.

With the coming into operation of the Public Health Act, 1936, on the 1st October, 1937, the term puerperal fever has been deleted and puerperal pyrexia alone has been retained for the purpose of notification. This has obviated the previous confusion which so frequently arose and led to failure to notify, for, whereas puerperal fever is an ill-defined condition, puerperal pyrexia is a technical definition involving no theory as to its causation, namely :—

> " A rise of temperature to 100.4°F for 24 hours or its recurrence within that period . . . . . ".

Modern research is increasingly pointing to the necessity for earlier and closer scrutiny of all cases of pyrexia in the puerperium. Moreover, the public generally are becoming more and more alive to certain minimal obligations to be expected from those in attendance on women in childbirth, and this is borne out by their more frequent tendency to seek redress and compensation through the Law Courts.

If, therefore, no local and non-infectious condition is obvious to account for the pyrexia, it is highly desirable that a throat and cervical swab should be obtained from the patient and examined for str. pyogenes at the earliest possible moment.

With this object in view, and as mentioned on page 105 of this report, the County Council have made arrangements whereby such swabs can be examined by Dr. F. E. Camps at the laboratory at the Chelmsford and Essex Hospital, London Road, Chelmsford. In order to save time and expedite delivery, swabs, if addressed as above to Dr. Camps, can be placed on Eastern National 'Buses travelling to Chelmsford, where they will be collected from the 'bus station by special arrangement with the Hospital.

Further information and advice regarding these facilities are available on application to the County Medical Officer, County Hall, Chelmsford (Telephone : Chelmsford 3231).

(b) Coronation Celebrations.

In order to celebrate the Coronation of Their Majesties King George VI and Queen Elizabeth the County Council allowed grants to Child Welfare Centres up to 50 per cent. of expenditure involved in any arrangements made at the Centre to mark the Coronation, provided that no grant would exceed £5 to any one Centre. This proved very popular and the majority of Centres held local functions of one kind or another and in due course applied for the grant.

(c) Nursery Schools.

Following representations from the Maternity and Child Welfare Sub-Committee that a Nursery School should be established at Laindon, the Education Committee have intimated that Tilbury and Romford have already been scheduled in their programme as suitable places for the establishment of Nursery Schools, but in view of the Sub-Committee's remarks in respect to Laindon, consideration will also in due course be given to the possibility of establishing a Nursery School there.

(d) Post-Graduate Course—Independent Midwives.

Under the County Council Scheme for certain independent practising midwives to undergo a post-graduate course in Midwifery for a period of two months at the York Road Lying-in Hospital, Lambeth, an application was received from one midwife during the year and the necessary arrangements made for her to attend the Course.

(e) National Health Campaign.

This campaign, as far as Maternity and Child Welfare is concerned, is dealt with comprehensively on page 61 of this report.

(f) Report of First Assistant C.M.O. (Dr. J. L. Miller Wood).

Ministry of Health Report on Maternal Mortality. Cmd. 5422. Arising out of the comprehensive investigation and report on Maternal Mortality published in April, 1937, the Ministry of Health issued Circular 1622, dated 7th May, 1937, calling upon Local Authorities to review their Maternity and Child Welfare Schemes in the light of certain recommendations emanating from the report.

This was accordingly acted upon, and on 2nd September, 1937, the County Medical Officer presented a report thereon with appropriate recommendations.

The chief innovation amongst these recommendations has been the introduction of the emergency obstetric unit, or so-called " flying squad " unit. By the use of such a unit the intention is to be able to bring rapidly to the bedside of a patient all those special facilities of personnel and equipment which would be available in an up-to-date maternity hospital. In other words, a complete working unit of the hospital is brought to the patient instead of bringing the patient to the hospital. Naturally it is only intended to do this in those sudden and fortunately somewhat rare instances where a journey to hospital may be definitely prejudicial to the safety of the mother's life.

For practical considerations such as distance, &c., this unit will not be able to serve the whole of the County, but it is intended to experiment with this unit in the first instance and, in the light of the experience gained, other units might be established elsewhere.

Whether further County Council units will be required only time will show, but at the time this report is being compiled it is interesting to note that the Borough of Colchester is establishing a similar emergency unit at the Borough Maternity Home. Moreover, the Borough has extended to the County Council the opportunity of using this unit in the County Council's district surrounding the Borough. It would appear, therefore, that this arrangement will provide the facilities of a flying squad for a large area in the eastern part of the County.

(g) Miscellaneous.

The scheme was continued whereby a midwife practising in the County Child Welfare Area is allowed compensation of 10/6 in respect of each patient referred to an Ante-Natal Clinic or a Medical Practitioner where the patient is admitted to hospital as a result. Eight claims were paid during the year 1937.

In the report for the year 1933 details of the scheme were given under which the County Council pay a fee of £1 1s. 0d. for the services of an Anæsthetist called in by a medical practitioner engaged for a confinement. One claim was paid in 1937.

COMBINED MEDICAL SERVICE.

The Combined Medical Service was continued during the year, the only alteration in the scheme being in connection with the Borough of Chelmsford where, upon the resignation of Dr. J. C. Sleigh, the work was re-arranged so that the tuberculosis duties formerly undertaken by Dr. Sleigh were transferred to the Council's whole-time medical staff, and Dr. Sleigh's successor became whole-time Medical Officer of Health for the Borough.

COMBINED TREATMENT CENTRES.

During the year under review the following Combined Treatment Centres were opened :—

Centre.	Date.
Epping	19th January, 1937.
Braintree	15th September, 1937.
Rainham	15th November, 1937.
Vange	7th December, 1937.

In previous years the following Combined Treatment Centres have been opened :—

Maldon.
Laindon.
Chingford.
Hornchurch (Westland Avenue).
Waltham Abbey.
South Benfleet.
Pitsea.
Hadleigh.
Thundersley.

Other new Combined Treatment Centres in course of construction are as indicated below :—

Billericay.
Buckhurst Hill.
Burnham-on-Crouch.
Hornchurch (Abbs Cross).
Rochford.

PART IV.

PUBLIC ASSISTANCE.

General.

The status and efficiency of all branches of Public Assistance medical work continue to improve, with resultant benefits to the community.

The provision of better accommodation and more up-to-date equipment at Public Assistance Institutions has converted the old type of infirmary into highly efficient hospitals.

The experimental period of the "Free Choice Scheme" has proved that this is a sound and satisfactorily operating scheme, popular with patients and doctors alike. It is hoped that in the near future the scheme will be extended to other districts in the County.

During the year the Children's Home at Little Thurrock was closed.

Provision for the Sick in Public Assistance Institutions.

Table XXIV on page 118a shows the number of sick beds available on 31st December, 1937, in the ten County Public Assistance Institutions, together with the number of patients admitted and discharged.

Dental Treatment.

Public Assistance patients are treated by private dental practitioners, and also by whole-time members of the County dental staff, by arrangement with the Education Committee. Approximately 200 Public Assistance patients were treated by the County Dental Surgeons during the year, as compared with 356 in the year 1936.

Major Improvements carried out at Institutions during the year.

BILLERICAY. The plan for extending the St. Andrew's Hospital, foreshadowed in last year's Report, has been carried a stage further. Upon consideration of a report by the County Medical Officer, drawing attention to the considerable overcrowding in the Hospital, especially during peak periods, and the continued increase in the number of road accidents to be dealt with, it was decided to proceed with the preparation of the plans for the enlargement of the hospital from 67 to 150 beds, and to include accommodation for an X-Ray plant.

CHELMSFORD. It became apparent during the year under review that steps would have to be taken to enlarge the St. John's Hospital, particularly in connection with the accommodation for maternity patients, and steps are being taken to proceed with a proposal previously made for extending the accommodation on the second floor to provide 16 additional maternity beds.

Medical Staff—Public Assistance Institutions.

There were no changes in the Medical Staff of the various Public Assistance Institutions during the year. A list of the staff will be found in Table XXIV on page 118a.

Arrangements were made to employ from 1st April, 1937, the services of Dr. F. E. Camps, of Chelmsford, as Consulting Physician and Pathologist at St. John's Hospital, Chelmsford, and at other Public Assistance Institutions as and when required.

Children's Homes.

Below are appended details of the children's homes in the Administrative County :—

Area.	Address of Home.	Beds available 31st December, 1937. Boys.	Girls.	Beds occupied 31st December, 1937. Boys.	Girls.
Colchester	The Institution, Villa Road, Stanway	27	24	21	24
	"The Chestnuts," "The Firs," "The Limes," "The Oaks," Tendring, Nr. Weeley	28	26	24	22
Braintree	"Friars," Bradford Street, Bocking, Braintree	16	15	15	15
Saffron Walden	New Street, Dunmow	8	12	6	9
Epping	Coopersale Common, Epping	27	18	23	15
Southern	Scattered Homes Headquarters :— Harold Wood Hall, Harold Park, Romford	102	66	93	54
Chelmsford	"The Gables," High Street, Maldon	26	—	26	—
	"Foxcroft," High Street, Billericay	32	—	32	—
	"Greenbourne," Writtle	32	—	32	—

During the year the children's home at Little Thurrock was closed.

Children's Summer Camps.

Three hundred and seventy-six children from the Public Assistance homes and the Romford Homes attended the holiday camp at Tendring.

In the course of his report Dr. F. Atthill, who acted as Medical Officer of the camp, says :—

> "The children benefited by the change of air and living under canvas. Whatever the cost to the County may have been I think the money was well spent, judging by the results."

Credit is due to the camp staff, who worked hard to give the children an enjoyable holiday.

Maternity.

The maternity work undertaken at the ten County Public Assistance Institutions during the year again shows an increase as follows :—

	1936.	1937.
Total number of beds available for maternity cases ..	37	37
Total number of maternity cases confined therein ..	370	435

The Special Units at Oldchurch County Hospital and St. John's Hospital, Chelmsford, continued to deal with many of the cases of puerperal fever and puerperal pyrexia in the County.

From 1st January, 1938, however, arrangements were made to send all maternity patients suffering from puerperal sepsis and allied conditions to certain isolation hospitals having facilities for the treatment of these conditions and such patients are no longer accepted for treatment at the Oldchurch County Hospital and St. John's Hospital. This subject is also referred to on page 105.

Examination of Bacteriological Specimens.

The Public Assistance Committee's arrangement with Dr. J. F. Beale, Bacteriologist for Essex, for the examination of bacteriological specimens from Institutions was continued. Nine hundred and sixty-eight specimens were submitted during the year 1937.

Free Choice of Doctor System.

As indicated in last year's report, the Free Choice of Doctor System operating in the Great Clacton and Little Holland, Chingford and Walthamstow Medical Relief Districts was continued for a further experimental period ending 31st March, 1938. In a report upon the medical aspects of the scheme during 1937 the County Medical Officer pointed out that there were 65 medical practitioners participating in the scheme, as compared with 61 in 1936. During the year all the medical practitioners participating were visited and their records scrutinised and, from information thus gained, there is no doubt that the scheme fulfils its purpose both from the point of view of the medical practitioners and of the patients, who have the opportunity of being attended by the doctor they desire and in whom they have confidence. Only one complaint was made against an Approved Medical Practitioner during the year. The circumstances were reported by the practitioner himself and upon enquiry the grounds for complaint appeared to be non-existent.

Ancillary to the scheme in the Walthamstow District, is the employment of a nurse to carry out general nursing duties under the supervision of the Approved Medical Practitioners. During 1937 she paid an average of 70 domiciliary visits per week and in addition attended at the Relief Station to treat other patients. The services of a midwife are also provided by arrangement with the Walthamstow District Nursing Association to act as a maternity nurse.

It has now been decided to continue the scheme in the Districts referred to above on the existing terms and conditions and steps are being taken to inaugurate similar schemes in other Medical Relief Districts according to circumstances.

TABLE XXIV.

TABLE A SHOWING BEDS PROVIDED AND OCCUPIED FOR SICK, MATERNITY AND MENTAL CASES FOR THE 12 MONTHS ENDED 31ST DECEMBER, 1937, IN INSTITUTIONS BELONGING TO THE COUNTY COUNCIL.†
(As shown in the Return Hosp. 6).

Area.	Institution.	Name, Address and 'Phone No. of Medical Officer.	No. of Beds available.			No. of Admissions.	No. of women confined.	Live-Births.	Still-Births.	Deaths among newly-born.	Deaths among Children under 1 year.	Maternal Deaths.	Total No. of Deaths.	No. of patients discharged.	No. of Beds occupied.			No. of operations under general anaesthetics.	No. of Abdominal Sections.
			Men. 1.	Women. 2.	Children* (under 16). 3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	Average. 13.	Highest. 14.	Lowest. 15.	16.	17.
Colchester	Colchester ..	W. F. Payne, Sussex Lodge, Lexden Road, Colchester. 'Phone No. Colchester 2650.	74	73	8	386	25	23	2	1	4	—	119	269	112	125	103	20	10
	Stanway ..	Do. Do.	34	53	—	96	—	—	—	—	—	—	44	48	67	75	62	1	—
	Tendring ..	F. Atthill, Laurels, Great Bentley. 'Phone No. Great Bentley 11.	48	78	8	293	9	9	—	—	—	—	93	195	116	124	107	—	—
Braintree	St. Michael's Hospital, Braintree	T. W. Panter, Bradford Street, Bocking. 'Phone No. Braintree 13.	43	55	8	175	1	1	—	—	—	—	79	90	88	92	81	—	—
Saffron Walden ..	Saffron Walden ..	J. H. Bartlett, Saffron Walden. 'Phone No. Saffron Walden 27.	28	40	1	126	4	4	—	—	—	—	49	74	63	72	61	—	—
Epping	Epping	R. Evans, Elm Bank, Station Road, Epping. 'Phone No. Epping 95.	111	138	8	969	45	43	3	1	4	—	198	764	212	232	197	25	—
Southern	Gt. West Hatch, Chigwell	E. Miles, Oldchurch County Hospital, Romford, 'Phone No. Romford 3666.	—	56	—	11	—	—	—	—	—	—	—	9	54	56	54	—	—
South Eastern ..	Orsett	F. A. M. Nelson, Orsett. 'Phone No. Orsett 47.	79	135	23	1279	73	71	3	3	13	—	370	853	194	226	153	—	—
Chelmsford.. ..	St. Andrew's Hospital, Billericay	J. D. Fiddes, Rubislaw, Mount Avenue, Hutton. 'Phone No. Brentwood 110.	29	83	11	809	—	—	—	—	6	—	175	670	66	88	45	143	41
	St. John's Hospital, Chelmsford	J. T. Whitley, Thorneybrook, London Road, Chelmsford. 'Phone No. Chelmsford 2194.	51	89	13	983	272	252	24	10	16	3	142	821	136	149	128	49	17
	St. Peter's Hospital, Maldon	M. J. T. Wallis, 25, London Road, Maldon. 'Phone No. Maldon 91.	23	92	4	221	6	5	1	—	—	—	83	185	61	72	46	17	—
		Totals	520	892	84	5348	435	408	33	15	43	3	1352	3978	1169	1311	1037	255	68

†Particulars of beds in Hospitals belonging to the County Council are shown in Table XI on page 64A.
*Excluding cots in Maternity Wards.

ls occupied.		No. of operations under general anaes-thetics. 16.	No. of Abdominal Sections. 17.
hest. 4.	Lowest. 15.		
25	103	20	10
75	62	1	—
24	107	—	—
92	81	—	—
72	61	—	—
32	197	25	—
56	54	—	—
26	153	—	—
88	45	143	41
49	128	49	17
72	46	17	—
11	1037	255	68

TABLE XXV.

BIRTHS, DEATHS, ANNUAL RATES, &c., 1937.

Sanitary District	Census, 1931. Acreage.	Census, 1931. Adjusted Population.	Registrar-General's figures. Estimated Resident Population.	Registrar-General's figures. Live Births.	Registrar-General's figures. Still Births.	Registrar-General's figures. Deaths at all ages.	Registrar-General's figures. Deaths under 1 year of age.	Deaths at Various Ages (Figures supplied by Medical Officers of Health.) Under 1 year.	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 35.	35 and under 45.	45 and under 55.	55 and under 65.	65 and under 75.	75 and upwards.	Total Deaths.	Crude Annual Rates per 1,000 of Estimated Population. Birth-rate.	Death-rate.	Zymotic Death-rate.	T.B. Respiratory Death-rate.	Other Respiratory Death-rate.	Comparability Factor.	Standardised Death-rate.	Infant Mortality Rate per 1000 births.
URBAN.																											
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)
Barking B.	3,877	51,270	76,470	1,133	36	606	61	61	3	8	24	19	37	49	69	83	126	121	600	14·8	7·8	0·2	0·5	0·8	1·25	9·7	54
Benfleet	6,361	12,091	15,710	191	4	189	13	13	...	1	4	4	4	6	11	29	44	73	189	12·2	12·0	0·3	0·4	0·7	0·83	10·0	68
Billericay	29,267	27,708	34,560	452	20	410	25	25	2	3	8	10	12	18	39	51	119	123	410	13·1	11·9	0·1	0·5	1·3	0·89	10·6	55
Braintree and Bocking	6,812	15,497	14,650	213	6	171	4	4	1	3	2	1	8	11	15	28	42	56	171	14·5	11·7	0·1	0·4	1·2	0·90	10·5	19
Brentwood	18,259	23,694	27,500	297	9	249	11	11	5	5	10	9	8	8	27	31	47	88	249	10·9	9·1	0·4	0·2	0·7	0·93	8·5	37
Brightlingsea	2,852	4,147	4,222	54	...	64	1	1	...	...	2	1	...	3	3	15	16	23	64	12·8	15·2	0.5	0·9	1·7	0·66	10·0	19
Burnham-on-Crouch	5,352	3,492	3,530	47	1	43	1	1	1	...	...	...	3	1	2	11	10	14	43	13·3	12·2	0·3	1·4	1·1	0·75	9·1	21
Canvey Island	4,351	3,532	6,485	84	6	82	11	11	1	2	...	...	3	2	10	11	27	15	82	12·9	12·6	0·8	0·6	1·8	0·91	11·5	131
Chelmsford B.	4,772	27,457	30,760	428	25	272	16	16	1	3	1	6	7	9	26	45	72	86	272	14·2	8·8	...	0·1	0·9	1·00	8·8	37
Chigwell	8,971	16,338	22,510	319	11	202	8	8	1	3	2	2	10	13	24	30	58	51	202	14·2	9·0	0·1	0·4	0·8	0·96	8·6	25
Chingford	2,868	22,076	35,970	500	17	276	26	26	3	3	7	14	13	23	27	38	57	58	269	16·4	7·7	0·2	0·4	0·7	1·16	8·9	44
													16		66		169										
Clacton-on-Sea	6,470	16,737	23,420	232	11	264	9	10	2	1	1	8							273	9·9	11·3	0·1	0·5	0·5	0·84	9·5	39
Colchester B.	12,011	40,131	51,820	808	18	541	33	33	6	11	11	14	19	21	36	93	125	172	541	15·6	10·4	0·2	0·4	0·6	0·94	9·8	41
Dagenham	6,554	89,562	105,340	1,973	61	658	104	106	12	22	23	45	45	73	84	84	84	93	671	18·7	6·2	0·3	0·5	0·8	1·53	9·5	53
Epping	1,488	5,061	5,770	90	3	55	2	2	...	...	...	...	4	4	3	7	12	24	56	16·5	9·5	0·3	0·2	0·2	0·75	7·1	21
Frinton and Walton	6,293	7,324	7,287	84	1	103	5	5	...	...	...	3	6	3	12	12	28	33	102	11·5	14·1	0.1	0·4	1·5	0·83	11·7	60
Halstead	1,176	6,012	5,850	76	1	87	3	2	...	...	...	1	5	1	6	15	23	37	90	13·0	14·8	...	0·3	1·0	0·81	12·0	39
Harwich B.	1,512	12,046	12,690	188	11	144	6	6	...	...	2	1	3	5	18	28	40	43	146	14·8	11·3	...	0·5	0·9	1·04	11·7	32
Hornchurch	19,768	39,389	72,010	1,373	46	603	71	71	8	11	14	23	38	46	58	91	132	128	620	19·1	8·7	0·1	0·5	0·8	1·11	9·7	52
Ilford B.	8,425	131,061	163,000	2,263	74	1,457	95	95	16	10	29	45	60	93	134	252	341	382	1,457	13·9	8·9	0·1	0·3	0·8	1·10	9·8	42
Leyton B.	2,594	128,313	118,100	1,420	60	1,349	75	75	12	6	21	39	56	57	119	249	308	407	1,349	12·0	11·4	0·2	0·5	1·4	0·97	11·0	53
Maldon B.	4,809	8,542	9,020	101	2	169	2	2	1	...	...	4	3	2	11	14	25	45	107	11·1	12·1	0·1	0·3	0·5	0·83	10·0	20
Rayleigh	5,727	6,407	7,301	98	3	89	5	5	...	3	2	3	3	4	8	13	22	28	89	13·1	11·9	0·1	0·5	0·7	0·89	10·6	51
Romford B.	9,342	37,840	51,830	847	36	502	45	44	3	1	20	13	25	28	56	90	98	118	496	16·3	9·7	0·2	0·5	1·1	1·08	10·5	53
Saffron Walden B.	7,502	5,930	6,785	66	3	101	2	2	...	1	...	2	4	1	8	11	26	46	101	10·5	16·1	...	0·6	0·6	0·71	11·4	30
Thurrock	38,324	61,644	67,170	1,199	42	639	51	51	3	10	16	15	22	20	53	94	170	185	639	17·9	9·5	0·1	0·4	1·0	1·11	10·5	43
Waltham Holy Cross	10,958	7,092	7,858	105	3	84	5	5	...	...	1	2	2	4	9	15	24	21	83	14·8	11·8	0·1	0·4	1·6	0·97	11·4	48
Walthamstow B.	4,342	132,972	131,900	1,675	60	1,443	87	87	10	9	18	52	159		399		709		1,443	12·7	10·9	0·2	0·6	1·4	1·11	12·1	52
Wanstead and Woodford B.	3,842	43,129	53,840	720	29	522	29	29	4	6	6	14	17	25	45	88	117	171	522	13·4	9·7	0·2	0·5	0·9	0·97	9·4	40
West Mersea	3,171	2,067	2,400	24	1	55	2	2	...	...	1	1	1	1	3	5	8	12	34	10·0	14·6	...	...	1·2	0·68	9·9	83
Witham	7,329	6,751	7,162	111	8	65	2	2	...	1	1	1	3	1	3	11	19	23	65	15·5	9·1	0·1	0.3	0·3	1·01	9·2	18
Witnesse	1,493	2,193	2,170	27	...	39	3	3	...	...	...	1	...	...	3	4	11	17	39	12·4	18·0	...	0·9	0·9	0·73	13·1	12
Total	256,982	1,004,325	1,184,000	17,303	608	11,467	813	813	102	123	224	355	505	644	1,104	1,874	2,605	3,118	11,467	14·6	9·7	0·2	0·4	1·0	1·05	10·2	47
RURAL																											
Braintree	59,556	16,378	15,660	232	5	222	12	12	2	3	2	6	5	11	17	33	57	74	222	14·8	14·2	0·1	0·6	1·5	0·77	10·9	52
Chelmsford	86,506	27,836	29,960	400	12	370	17	16	1	2	9	12	7	16	18	48	106	135	370	15·4	12·3	0·1	0·4	1·2	0·85	10·4	37
Dunmow	72,487	15,320	16,170	218	12	227	6	6	3	...	5	2	13	8	15	30	59	86	227	13·5	14·0		0·3	1·5	0·79	11·1	27
Epping	34,851	13,576	15,040	232	9	187	8	3	...	1	5	4	8	6	16	20	48	64	180	15·4	12·4	0·1	0·5	1·1	0·89	11·0	34
Halstead	76,693	15,997	15,620	176	8	240	6	6	1	...	3	6	6	8	18	37	53	102	240	11·3	15·6	0·1	0·2	1·3	0·73	11·4	34
Lexden and Winstree	66,057	19,418	19,840	302	7	253	9	9	5	4	8	4	7	6	12	33	64	94	246	15·2	12·7	0·1	0·3	1·2	0·77	9·8	30
Maldon	78,307	13,348	13,560	165	12	170	3	3	2	2	1	4	2	5	14	22	46	69	170	12·2	12·5	...	0·4	1·1	0·75	9·4	18
Ongar	67,236	11,923	12,500	205	3	158	6	6	1	1	...	4	6	3	13	12	37	45	128	16·3	10·2	0·2	0·2	0·6	0·90	9·2	29
Rochford	36,089	13,965	16,650	210	7	198	18	18	1	2	3	5	9	12	9	25	57	56	197	12·6	11·9	0·4	0·4	0·7	0·79	9·4	86
Saffron Walden	78,585	15,543	15,770	164	6	198	5	5	4	...	...	5	7	4	10	24	52	77	198	10·4	12·6	0·1	0·2	1·1	0·74	9·3	30
Tendring	65,884	21,771	22,840	324	17	292	7	7	2	3	2	1	8	22	24	49	82	92	292	14·2	12·8	0·2	0·3	1·0	0·81	10·4	22
Total	702,482	184,679	193,700	2,688	98	2,489	97	97	19	19	41	50	82	96	176	309	656	944	2,489	13·9	12·8	0·1	0·4	1·1	0·89	10·2	36
Registrar-General's Figures: Total Boro' & Urban Districts	256,982	1,004,325	1,184,000	17,303	608	11,467	813	813	102	123	224	355	505	644	1,104	1,874	2,605	3,118	11,467	14·6	9·7	0·2	0·4	1·0	...	...	47
Total Rural Districts	702,482	184,679	193,700	2,688	98	2,489	97	97	19	19	41	50	82	96	176	309	656	944	2,489	13·9	12·8	0·1	0·4	1·1	...	...	36
Total Administrative County	959,464	1,189,004	1,377,700	19,991	706	13,956	910	910	121	142	265	405	587	740	1,280	2,183	3,261	4,062	13,956	14·5	10·1	0·2	0·4	1·0	...	...	46

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

TABLE XXVI.

CAUSES OF DEATH—YEAR 1937.

(Figures supplied by the Registrar-General).

Sanitary District.	Typhoid Fever, etc.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Influenza.	Encephalitis Lethargica.	Cerebro-Spinal Fever.	Respiratory Tuberculosis.	Other Tuberculosis.	Syphilis.	General Paralysis of the Insane, etc.	Cancer.	Diabetes.	Cerebral Hæmorrhage.	Heart Disease.	Aneurism.	Other Circulatory Diseases.	Bronchitis.	Pneumonia.	Other Respiratory Diseases.	Peptic Ulcer.	Diarrhœa, etc. (under 2 years.)	Appendicitis.	Cirrhosis of Liver.	Other Liver Diseases.	Other Digestive Diseases.	Nephritis.	Puerperal Sepsis.	Other Puerperal Causes.	Congenital Causes, etc.	Senility.	Suicide.	Other Violence.	Other Defined Causes.	Ill-defined Causes.	Total.	Special Causes (included in Column 35.) Polio-Encephalitis.	Poliomyelitis.	Leprosy.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)				
URBAN																																								
Barking B.	2	...	...	1	5	17	...	...	37	6	1	...	87	6	28	141	1	23	26	32	5	9	8	5	1	2	7	11	1	1	32	25	9	22	42	...	690	...	-	...
Benfleet	...	1	...	1	1	17	...	...	18	5	1	2	54	7	20	102	2	16	15	20	10	1	...	1	1	2	3	5	1	...	6	1	2	3	13	...	189	...	...	...
Billericay	...	2	...	3	6	9	...	...	6	2	...	1	23	3	20	36	1	14	3	12	2	...	1	2	1	4	13	9	...	1	10	13	3	17	36	...	410	...	...	...
Braintree & Bocking	...	1	...	...	1	6	...	...	5	5	1	2	37	8	9	64	1	9	7	19	1	1	1	5	...	1	4	6	...	...	2	11	...	2	8	...	171	...	...	...
Brentwood	...	...	...	...	1	1	...	...	4	1	1	...	11	1	3	14	1	1	...	7	...	...	...	...	...	3	4	10	...	1	8	21	2	10	6	...	249	...	...	...
Brightlingsea	1	...	...	...	2	2	...	...	5	1	1	...	6	...	5	9	...	1	4	...	...	...	...	...	...	...	1	1	...	...	...	3	...	2	4	1	64	...	...	...
Burnham-on-Crouch	...	...	...	...	...	5	...	...	4	...	...	...	12	1	4	21	...	1	...	10	2	...	2	...	1	1	...	1	...	1	2	...	...	1	2	...	43	...	...	...
Canvey Island	...	...	...	...	6	...	...	...	3	3	...	...	46	1	20	60	1	12	9	15	3	...	...	2	...	2	5	5	1	2	13	26	4	18	18	...	82	...	...	...
Chelmsford B.	...	...	...	2	1	12	...	...	8	...	1	...	37	6	15	41	...	13	10	8	1	1	1	1	...	...	6	10	...	...	4	3	2	4	24	...	272	...	...	...
Chigwell	...	...	...	1	...	8	...	...	14	5	...	...	40	5	10	68	1	9	11	9	4	3	4	4	1	...	8	2	...	...	15	...	3	13	32	...	276	...	...	...
Chingford	...	6	...	3	3	26	1	1	22	1	2	2	49	3	8	81	1	27	4	8	...	...	...	3	1	...	8	8	...	...	6	16	1	3	15	...	264	...	...	...
Clacton-on-Sea	...	2	1	4	12	9	...	...	51	10	1	...	86	8	29	150	1	27	16	11	5	2	1	3	1	2	16	20	1	2	23	8	2	27	58	2	541	...	...	...
Colchester B.	1	...	...	...	1	3	...	...	1	...	...	...	80	5	14	120	3	17	23	54	4	3	12	5	1	...	16	14	...	6	62	20	9	38	49	1	658	...	1	...
Dagenham	...	...	...	...	...	6	...	...	3	1	1	...	9	1	5	18	...	2	...	1	...	...	...	2	...	...	2	5	...	...	2	1	1	4	2	...	55	...	...	...
Epping	...	...	...	...	...	5	1	...	2	...	...	...	15	...	7	26	...	2	6	4	1	1	1	1	...	...	1	1	...	...	3	5	3	2	7	2	103	...	...	...
Feltham & Walton	...	...	1	2	3	22	...	...	6	1	...	1	24	4	7	29	...	8	6	4	2	3	...	...	...	1	3	3	...	...	3	16	...	4	3	1	87	...	...	...
Halstead	...	...	1	3	2	45	2	1	56	10	...	4	217	18	78	377	9	69	52	65	11	11	8	18	1	11	11	13	2	4	46	20	1	6	11	...	144	...	...	...
Harwich B.	1	1	...	2	7	46	3	1	55	8	2	1	196	25	96	301	4	29	66	79	19	12	8	12	4	2	37	35	4	5	55	64	6	37	55	...	624	...	1	...
Hornchurch	...	...	...	...	...	2	...	...	3	1	...	...	9	2	7	45	...	5	...	4	1	2	...	1	...	2	17	19	2	1	45	25	18	34	119	...	1,457	...	...	...
Ilford B.	...	...	...	...	1	3	...	...	4	...	...	...	21	1	2	23	2	3	...	4	1	...	...	1	1	2	3	3	...	...	1	2	2	3	1	1	1,349	...	1	...
Romford B.	...	1	1	3	3	12	2	...	26	4	1	1	73	1	26	115	...	18	9	38	9	11	4	1	1	...	4	2	...	...	1	4	3	8	8	...	109	...	...	...
Saffron Walden B.	...	...	...	...	...	4	...	...	4	1	1	...	9	3	7	27	1	6	1	3	...	...	...	4	...	...	11	11	...	1	28	19	5	25	38	...	80	...	...	...
Thurrock	...	...	3	2	29	1	...	...	29	7	2	2	81	10	40	129	4	29	25	35	4	3	2	3	1	6	11	13	1	2	29	55	9	24	47	1	559	...	...	...
Waltham Holy Cross	...	...	...	1	3	...	...	...	3	1	...	...	8	1	4	25	...	3	2	9	...	...	1	...	1	...	1	2	...	2	3	4	1	6	4	...	84	...	...	...
Walthamstow B.	...	...	1	2	4	55	2	1	80	12	2	3	220	17	91	335	10	47	70	103	16	19	15	15	6	6	38	35	4	2	38	21	14	45	116	...	1,443	1	1	...
Wanstead & Woodford B.	1	...	...	1	2	12	...	...	26	5	1	...	85	11	27	199	2	18	17	26	7	2	5	5	2	3	14	15	...	...	15	19	9	21	41	1	522	...	...	...
West Mersea	...	...	...	1	...	3	...	...	2	1	...	...	10	...	3	8	...	1	1	1	1	...	...	1	1	...	3	2	...	...	2	2	...	1	3	...	35	...	...	...
Witham	...	...	...	...	...	...	...	...	2	...	...	...	12	1	6	14	...	4	...	1	1	...	...	...	...	...	...	1	...	...	3	6	...	1	5	...	45	...	...	...
Wivenhoe	...	...	...	...	...	...	...	...	2	...	...	...	6	1	2	10	...	6	1	1	1	...	...	...	...	...	...	...	...	...	3	...	...	2	3	1	39	...	...	...
	8	14	5	33	58	382	12	4	533	101	22	20	1,680	163	654	2,335	47	452	408	615	123	89	82	97	25	49	271	272	18	34	463	452	117	439	898	12	11,467	1	4	...
RURAL.																																								
Braintree	...	1	1	...	...	8	...	...	9	...	1	...	27	8	13	50	1	19	9	12	3	3	...	1	...	2	9	5	...	...	9	12	2	4	11	2	222	...	1	1
Chelmsford	1	2	...	...	1	5	...	...	13	6	3	2	59	5	21	79	1	21	16	15	4	2	...	3	1	2	9	3	...	...	12	42	4	14	23	1	370	...	...	...
Dunmow	...	...	...	1	...	17	...	...	5	4	...	1	41	2	16	42	...	13	10	13	2	4	...	...	...	...	4	6	1	...	6	8	2	10	20	1	227	...	...	...
Epping	...	...	...	...	1	9	...	1	7	1	...	...	33	1	8	61	1	9	7	9	...	1	...	...	1	3	3	3	1	...	4	3	3	10	10	...	187	...	1	...
Halstead	...	...	...	...	...	11	...	...	3	1	...	1	28	2	25	57	...	9	4	10	7	1	1	1	...	1	3	9	...	...	2	29	1	12	22	3	244	...	1	...
Lexden & Winstree	...	1	...	1	...	3	...	...	7	5	1	...	37	2	13	86	...	14	10	10	4	3	1	2	...	1	5	10	...	...	5	8	3	6	22	...	253	...	1	...
Maldon	...	...	...	...	...	2	...	1	5	1	1	...	26	4	9	57	...	11	4	7	4	...	...	2	...	...	5	3	...	...	2	8	1	6	8	1	170	...	...	...
Ongar	...	1	...	...	1	8	...	...	3	1	...	...	18	2	11	43	...	2	1	7	...	1	6	2	1	...	3	1	...	1	4	4	1	4	12	...	128	...	...	...
Rochford	...	1	...	...	...	9	...	...	7	...	...	1	20	4	13	59	...	5	2	9	1	1	...	1	...	3	5	3	...	...	2	2	...	7	16	...	198	...	...	...
Saffron Walden	1	...	...	3	...	14	...	...	3	2	...	...	31	2	11	40	...	28	6	11	1	1	...	2	...	1	10	1	...	1	6	7	2	7	13	1	198	...	...	...
Tendring	...	...	...	...	...	...	...	...	8	1	...	1	43	5	13	85	...	19	12	10	2	3	...	2	...	1	4	5	...	...	3	10	5	5	13	1	192	...	...	...
																															4	24	4	2	25	1	292	...	...	...
Rural	2	5	1	5	2	88	...	2	70	22	6	6	376	37	153	653	3	149	81	113	28	20	8	14	2	13	37	58	2	1	57	135	28	80	182	10	2,489	...	3	1
Boro' & Urban	8	14	5	33	58	382	12	4	533	101	22	20	1,680	163	654	2,335	47	452	408	615	123	89	82	97	25	49	271	272	18	34	463	452	117	439	898	12	11,467	1	4	...
Total for Administrative County	10	19	6	38	60	470	12	6	603	123	28	26	2,056	200	807	3,488	50	601	489	728	151	109	90	111	27	62	308	330	20	35	520	607	145	519	1,080	22	13,956	1	7	1

TABLE XXVII.

NOTIFICATIONS OF INFECTIOUS DISEASE AND ATTACK RATES.

53 Weeks ended 1st January, 1938.

(Figures obtained from the Weekly Notification Returns.)

Sanitary Districts.	Estimated Population 1937.	Scarlet Fever.		Diphtheria.		Enteric Fever.		Puerperal Fever.	Puerperal Pyrexia.	Erysipelas.		Ophthalmia Neonatorum.	Pneumonia.		Encephalitis Lethargica.	Acute Poliomyelitis.	Small-pox.	Varicella.	Total
		No.	Per 1,000	No.	Per 1,000.	No.	Per 1,000	No.	No.	No.	Per 1,000.	No.	No.	Per 1,000.	No.	No.	No.	No.	No.
URBAN.																			
Barking B.	76470	253	3.31	160	2·09	17	·22	2	11	30	·39	5	104	1·36	...	5	...	4	591
Benfleet	15710	32	2.04	15	·95	...	...	1	1	3	·19	...	5	·32	...	...	...	5	62
Billericay	34560	91	2·63	33	·95	1	·03	...	6	8	·23	1	37	1·07	1	...	...	54	232
Braintree	14650	10	·68	1	·07	1	·07	...	1	...	...	...	6	·41	...	...	...	...	19
Brentwood	27300	50	1·83	75	2·75	3	·11	2	3	12	·44	...	22	·81	...	...	...	43	210
Brightlingsea	4222	9	2·13	3	·71	...	...	...	...	...	...	...	8	1·89	...	...	...	...	20
Burnham-on-Crouch	3330	...	...	...	...	...	...	...	...	1	·28	1	2	·57	...	...	...	...	4
Canvey Island	6485	17	2·62	5	·77	...	...	...	1	...	...	...	2	·31	...	...	...	...	25
Chelmsford B.	30760	90	2·92	1	·03	...	...	1	9	5	·16	...	17	·55	...	1	...	2	126
Chigwell	22310	34	1·51	6	·27	4	·18	1	2	5	·22	...	5	·22	...	...	...	1	58
Chingford	35970	63	1·75	22	·61	11	·31	...	2	11	·31	1	37	1·03	...	3	...	7	162
Clacton-on-Sea	23420	16	·68	7	·29	...	...	...	2	2	·09	2	2	1·09	...	...	...	25	56
Colchester B.	51820	72	1·39	50	·96	4	·08	3	7	13	·25	1	77	1·48	...	4	...	470	701
Dagenham	105500	406	3·85	171	1·62	15	·14	5	19	25	·24	4	126	1·19	...	2	...	14	787
Frinton & Walton	7287	3	·41	...	...	1	·17	...	4	1	·17	1	17	2·35	...	1	...	...	41
Halstead	5859	3	·51	1	·17	...	...	2	...	1	·14	...	3	·41	...	...	...	53	62
Harwich B.	12690	8	·63	6	·47	...	...	...	...	6	1·02	...	1	·17	...	...	...	15	26
Hornchurch	72010	279	3·87	54	·75	7	·10	4	6	2	·16	...	16	1·26	...	...	...	...	32
Ilford B.	163000	313	1·92	94	·58	28	·17	3	43	25	·25	5	83	1·15	...	2	...	3	468
Leyton B.	118100	319	2·70	161	1·36	17	·14	...	13	36	·22	11	212	1·30	...	4	...	89	833
Maldon B.	9020	20	2·22	2	·22	...	...	...	...	72	·61	5	128	1·08	1	12	...	36	764
Rayleigh	7501	55	7·33	4	·53	...	...	...	...	2	·22	...	2	·22	...	1	...	9	36
Romford B.	51830	240	4·63	86	1·66	11	·21	1	...	1	·13	...	2	·27	...	...	...	...	62
Saffron Walden B.	6286	8	1·27	1	·16	...	...	...	9	12	·23	2	95	1·83	1	5	...	2	464
Thurrock	67170	337	5·02	69	1·03	3	·04	...	1	3	·48	1	...	...	...	...	...	...	14
Waltham Holy Cross	7098	10	1·41	5	·70	1	·14	1	14	13	·19	4	57	·85	...	2	...	14	513
Walthamstow B.	131900	213	1·61	103	·78	11	·08	4	1	...	...	...	3	·42	...	...	...	1	22
Wanstead & Woodford B.	53840	98	1·82	48	·89	4	·07	...	34	61	·46	8	156	1·18	...	9	...	99	698
West Mersea	2400	1	·42	2	·83	1	·42	...	6	16	·30	1	68	1·23	...	3	...	4	246
Witham	7162	4	·56	1	·14	...	...	...	1	1	·42	...	1	·42	...	...	...	...	7
Wivenhoe	2170	1	·46	1	·46	...	...	1	...	1	·14	...	9	1·26	...	...	...	...	15
										1	·46	...	...	...	...	1	...	...	5
	1184000	3070	2·59	1188	1·00	140	·12	31	201	369	·31	53	1301	1·10	3	55	...	950	7361
RURAL.																			
Braintree	15660	12	·77	2	·13	...	...	...	2	3	·19	...	13	·83	...	...	...	...	32
Chelmsford	29960	51	1·70	13	·43	1	·03	...	2	5	·17	...	5	·17	...	2	...	1	80
Dunmow	16170	19	1·18	3	·19	...	...	...	2	3	·19	...	11	·68	...	...	...	...	38
Epping	15640	18	1·20	16	1·06	...	...	1	3	5	.33	...	12	·79	1	1	...	64	121
Halstead	15620	9	·58	1	·06	1	·06	1	1	4	·26	...	3	·19	...	...	...	...	20
Lexden and Winstree	19840	29	1·46	9	·45	...	...	1	2	1	·05	...	7	·35	...	1	...	...	50
Maldon	13560	14	1·03	...	...	2	·15	1	...	2	·15	...	3	·22	...	...	...	...	22
Ongar	12590	31	2·46	6	·48	1	·08	...	1	2	·16	...	12	·95	...	...	...	...	53
Rochford	16650	20	1·20	14	·84	...	...	1	1	3	·18	2	8	·48	...	1	...	3	53
Saffron Walden	15770	15	·95	1	·06	...	...	...	...	1	·06	...	3	·19	...	1	...	...	21
Tendring	22840	14	·61	5	·22	...	...	...	1	4	·17	1	12	·52	...	1	...	...	38
	193700	232	1·20	70	·36	5	·02	5	15	33	·17	3	89	·46	1	7	...	68	528
Tot. Boro's & Urban Districts	1184000	3070	2·59	1188	1·00	140	·12	31	201	369	·31	53	1301	1·10	3	55	...	950	7361
Total Rural Districts	193700	232	1·20	70	·36	5	·02	5	15	33	·17	3	89	·46	1	7	...	68	528
Total for Admin. County	1377700	3302	2·39	1258	·91	145	·11	36	216	402	·29	56	1390	1·01	4	62	...	1018	7889

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