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County Borough of Southend-on-Sea

ANNUAL REPORT

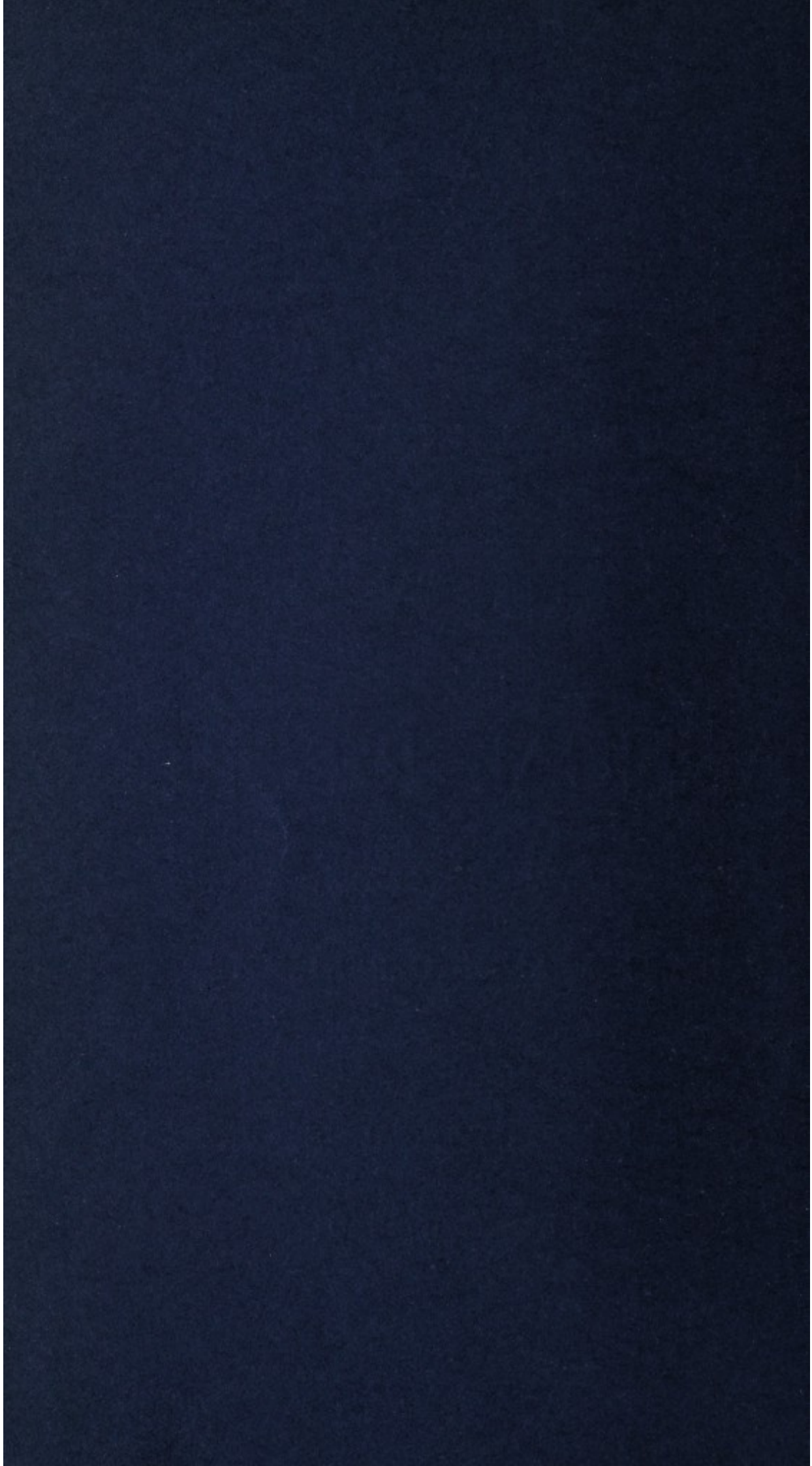
ON THE WORK OF THE

PUBLIC HEALTH DEPARTMENT

AND

THE SCHOOL MEDICAL SERVICE

For the Year 1946





County Borough of Southend-on-Sea

ANNUAL REPORT

ON THE WORK OF THE

PUBLIC HEALTH DEPARTMENT

AND

THE SCHOOL MEDICAL SERVICE

FOR THE YEAR 1946

COUNTY BOROUGH OF SOUTHEND-ON-SEA
HEALTH COMMITTEE

NOVEMBER 1946—NOVEMBER 1947

His Worship the Mayor (Mr. Alderman S. F. Johnson, J.P.)
 —*Chairman*)

Mr. Alderman W. H. Calvert (*Vice-Chairman*)

Mr. Alderman J. J. Sullivan

Mr. Councillor W. Bray

Mrs. Councillor M. Broom

Mr. Councillor F. Cause

Mr. Councillor B. S. Clarke, M.P.S.

Mr. Councillor J. T. Fowler, J.P.

Mr. Councillor L. J. Griffin

Mrs. Councillor M. E. Harvey

Mrs. Councillor E. L. Oxley

H. W. Cooper, Esq., J.P.

Mrs. J. A. Francis

Dr. L. Gordon Hopkins, J.P.

SANITARY COMMITTEE

NOVEMBER 1946—NOVEMBER 1947

Mr. Alderman W. J. Perrett (*Chairman*)

Mr. Councillor H. W. Pinchbeck, F.R.I.C.S., F.A.I.
 (*Vice-Chairman*)

Mr. Councillor H. J. Anderson

Mr. Councillor S. H. J. Bates

Mr. Councillor B. S. Clarke, M.P.S.

Mr. Councillor J. W. Dorling

Mr. Councillor F. G. Feather

Mr. Councillor A. E. Hill

Mrs. Councillor E. L. Oxley

Mr. Councillor W. J. Ridd

MATERNITY AND CHILD WELFARE COMMITTEE

NOVEMBER 1946—NOVEMBER 1947

Mrs. Councillor M. Broom (*Chairman*)Mrs. Councillor M. E. Harvey (*Vice-Chairman*)

This Committee consists of the Council members of the Health Committee together with 3 co-opted members, viz:—

Dr. L. Gordon Hopkins, J.P.

Mrs. A. E. Jarvis

Miss M. E. Reay, C.B.E.

THE COMMITTEE FOR THE CARE OF THE MENTALLY DEFECTIVE

NOVEMBER 1946—NOVEMBER 1947

Mr. Councillor F. Cause (*Chairman*)Mr. Councillor L. D. Griffin (*Vice-Chairman*)

This Committee consists of the Council members of the Health Committee together with 3 co-opted members, viz:—

Miss A. Delf, B.A.

H. W. Cooper, Esq., J.P.

Dr. L. Gordon Hopkins, J.P.

COMMITTEE UNDER THE BLIND PERSONS ACT

NOVEMBER 1946—NOVEMBER 1947

Mr. Councillor B. S. Clarke, M.P.S. (*Chairman*)Mr. Councillor W. Bray (*Vice-Chairman*)

This Committee consists of the Council members of the Health Committee and Mr. Councillor G. R. Croxall, together with 3 co-opted members, viz:—

C. W. Beale, Esq., J.P.

Mrs. J. A. Francis

Mrs. A. E. Jarvis

ANNUAL REPORT

I have the honour to present a report on the work of the Public Health Department during 1946, compiled in accordance with Ministry of Health Circular 13/47.

The restoration, at least numerically, of our population went on apace, the Registrar-General's estimate of the mid-1946 population being 134,900 compared with 107,990 a year previously. The best local estimate of the population at the end of the year was 142,000.

The number of live births registered was 2,878, the highest in the history of the County Borough, and the birth rate 21.33 per 1,000 residents, as compared with 21.2 in 1920, when a similar post war rise was recorded. The death rate was 12.68 per 1,000 residents as compared with 14.39 in the previous year.

The infant mortality rate was 31.97 per 1,000 live births, a record low figure. The maternal mortality also reached a record low figure of 0.68.

The most dramatic incident of the year was the introduction of confluent smallpox from an undetermined source, and in all the circumstances, which are fully described in the body of the report, we were fortunate in the rapid success of our counter measures.

Attention is drawn to the development and progress of the department under the control of the Chief Sanitary Inspector where, with inspired leadership new records have been made and new standards achieved.

It would be tedious and unprofitable to dilate upon the difficulties of the year, for they were common to all who serve the community in times of rapid social and economic change, but it is only proper to pay tribute to the willingness and constancy of the staff who have responded so well and so loyally to every heavy demand made upon them.

To them, and to the unfailing support of the Committees whom I serve, the successes of the year are due, and to them I tender my sincere thanks.

J. STEVENSON LOGAN,

Medical Officer of Health.

VITAL STATISTICS, 1946.

POPULATION—

Census 1931 (prior to the Extension of the Borough on 1st October, 1933)	...	...	...	...	...	120,093
At mid-year, 1946, as estimated by Registrar General						134,900
At mid-year, 1939, as estimated by Registrar General						137,800

LIVE BIRTHS—

	<i>Male</i>	<i>Female</i>	<i>Total</i>
Number of legitimate births	1378	1297	265
Number of illegitimate births	114	89	23
	<hr/>	<hr/>	<hr/>
Total Births	1492	1386	288
	<hr/>	<hr/>	<hr/>
Birth rate per 1,000 Residents ... ..	...	...	21.8
Illegitimate Birth Rate per 1,000 Residents	...	...	1.0

STILL BIRTHS—

	<i>Male</i>	<i>Female</i>	<i>Total</i>
Number of legitimate still births	34	25	9
Number of illegitimate still births	2	2	4

DEATHS—

	<i>Male</i>	<i>Female</i>	<i>Total</i>
Number of deaths	813	898	171
Death Rate per 1,000 ... ..	...	...	12.8
Percentage of total deaths occurring in Public Institutions	...	...	44.1

Deaths from pregnancy and parturition—

Women dying in, or in consequence of, child birth—

	<i>No.</i>	<i>Rate per 1,000 Births (Live and Still)</i>
From Sepsis	—	.00
From other causes	2	.68
	<hr/>	<hr/>
Total	2	.68

INFANT MORTALITY RATE—

All infants per 1,000 live births	31.7
Legitimate infants per 1,000 legitimate live births	31.7
Illegitimate infants per 1,000 illegitimate live births	34.8

ZYMOTIC DEATHS—

No. of deaths from—

Measles	—
Whooping Cough	1
Diarrhoea and Enteritis (under 2 years of age)	4
Scarlet Fever	—
Diphtheria	—
Smallpox	2
Typhoid Fever	—
	<hr/>
Total Zymotic Deaths	7
	<hr/>
Zymotic Death Rate per 1,000 population ... ..	.5

The following table, based on that issued by the Registrar General is given for comparison:—

	<i>Annual Rate per</i>		<i>Deaths under</i>
	<i>1,000 living</i>	<i>Deaths from</i>		one year to
	<i>Live Births</i>	<i>all causes</i>	<i>1,000 births</i>
England and Wales	19.1	11.5	43
126 County Boroughs and great towns	22.2	12.7	46
148 Smaller Towns	21.3	11.7	37
London	21.5	12.7	41
Southend-on-Sea	21.3	12.7	32

Maternal Mortality Rate per 1,000 total births (live and still):

	<i>England and Wales</i>		<i>Southend</i>
Puerperal Sepsis31	—
Other causes	1.12	.68
Total	1.43	.68

STAFF OF THE PUBLIC HEALTH DEPARTMENT.

WHOLE-TIME.

At the Municipal Health Centre:—

James Stevenson Logan, M.B., Ch.B., D.P.H. Medical Officer of Health; School Medical Officer.

John Conway Preston, M.R.C.S. (Eng.), L.R.C.P. (Lond.), D.P.H. Deputy Medical Officer of Health; Deputy School Medical Officer; Assistant Medical Officer, Venereal Diseases Clinic.

Eleanor C. Thistlethwaite, M.B., Ch.B. Assistant Medical Officer of Health; Assistant School Medical Officer; Assistant Medical Officer, Venereal Diseases Clinic. (deceased 6.6.46).

John Greenhalgh, M.B., B.S. (Lond.), M.R.C.S. (Eng.), L.R.C.P., D.A. Assistant Medical Officer of Health; Assistant School Medical Officer; Assistant Medical Officer, Venereal Diseases Clinic, appointed to permanent staff 8.10.46.

Edgar Cress Austen, L.D.S., R.C.S. (Eng.) Senior School Dental Surgeon.

William P. Jones, L.D.S., R.C.S. (Eng.) Assistant School Dental Surgeon. Resigned 2.5.46.

Alexander T. Craig, L.D.S., R.C.S. (Eng.) Assistant School Dental Surgeon, appointed 1.11.46.

Medical Superintendents of Hospitals :—

Samuel Cieman, M.R.C.S. (Eng.), L.R.C.P. (Lond.) Medical Superintendent, Municipal Hospital; Medical Officer of the Public Assistance Institution.

Andrew Barnett Christie, M.A., M.D., Ch.B., D.P.H. Medical Superintendent, Borough Sanatorium for Infectious Diseases. Resigned 23.9.46.

Eric Harral Tomlin, M.D., Ch.B., D.P.H. Medical Superintendent, Borough Sanatorium for Infectious Diseases, appointed 23.10.46.

2. PART-TIME.

At the Municipal Health Centre :—

Robert A. N. McMath, M.D., Ch.B. Clinical Tuberculosis Officer. (Dr. McMath is a District Tuberculosis Officer in the service of the Essex County Council, and as a temporary measure his services are shared with the Authority).

Mrs. Flora Bridge, M.B., B.S., F.R.C.S. Resident Obstetric Officer, Southend Municipal Hospital; also Medical Officer at the Southend, Leigh and Shoeburyness Ante-Natal Clinics, and Medical Supervisor of Midwives.

Ralph Norman, M.D. (Lond.) Medical Officer, Southend Infant Centre; Southend Ante-Natal Clinic and Shoeburyness Infant Clinic.

Joan Lydia Lush, M.B., B.Sc., B.S., M.R.C.S. (Eng.), L.R.C.P. (Lond.) Medical Officer, Southchurch Infant Centre.

Charles Alfred Garside Cato, M.R.C.S. (Eng.), L.R.C.P. (Lond.) Medical Officer, Leigh Infant Clinic.

NURSING STAFF.

Health Visitors and School Nurses :

Miss K. M. Burnett, (A), (B).

Miss V. M. Crump (B), (C).

Miss M. Butcher, (A), (B), (C).

Mrs. V. H. Groves, (A), (B), (C).

Miss M. N. Withams, (A), (B), (C).

Miss A. E. E. Penfold, (A), (B), (C).

Miss D. E. Stevens, (A), (B), (C).

Miss P. Bulwer, (A), (B), (C), appointed to permanent staff 12.2.46.

Miss G. M. John (A), (B), (C).

Miss A. M. Turret, (A), (B), (C).

Tuberculosis Health Visitor :

Mrs. E. E. Rowden, (A).

Municipal Midwives :

- Mrs. A. L. Blackwell (B).
 Miss E. A. Burnett, (B).
 Mrs. F. D. Etherington, (B).
 Mrs. C. M. Eggleston (B).
 Miss A. M. Kerswell, (B).
 Miss E. E. Powell, (B).
 Miss W. M. Randall, (A), (B).
 Mrs. W. M. Levey, (A), (B), resigned 14.9.46.
 Mrs. C. M. Robb (A), (B), appointed temp. 1.5.46.
 resigned 31.8.46.
 Miss J. Williams (A), (B), appointed 7.10.46.
 A — State Registered Nurse.
 B — State Certified Midwife.
 C — Certificated Health Visitor.

Chief Sanitary Inspector :

Mr. R. A. Drake.

Deputy Chief Sanitary Inspector :

Mr. J. H. Lott

Assistant Sanitary Inspectors :

- Mr. J. W. Clarke (retired 19.12.46)
 Mr. D. J. Legg.
 Mr. A. C. Arnold.
 Mr. E. A. Smith,
 Mr. R. E. Williams
 Mr. H. Field appointed 15.8.46.
 Mr. P. Sanders appointed 2.9.46.

Home Visitor to the Blind :

Miss N. G. Westby, Certificated Home Teacher.

Mental Deficiency Officer :

Miss M. A. Brock.

Chief Clerk :

Mr. Ernest A. Beasant.

TAFF—PUBLIC HEALTH DEPARTMENT.

It is with great regret that I record the sudden death on 6.6.46 of Dr. Cecily E. Thistlethwaite, assistant medical officer of health and assistant school medical officer since 1st March, 1943.

Dr. J. Greenhalgh, temporary assistant medical officer since 5th May was appointed to the permanent staff on 8th October.

Dr. Andrew B. Christie, medical superintendent of the Borough sanatorium since 8th September, 1939, resigned on 23rd September and being appointed medical superintendent of Fazakerley Hospital, Liverpool. He was succeeded by Dr. Eric H. Tomlin, who took up his duties on the 22nd October.

Mr. William P. Jones, assistant school dental surgeon, resigned on May 2nd upon appointment to a similar position with the Oxfordshire County Council. Mr. Alexander T. Craig was appointed to succeed him and joined the staff on 1st November.

Mr. J. W. Clark, assistant sanitary inspector, who had been in the service of the Authority since December 1917, retired on pension on 19th December.

Mr. H. Field (15.8.46) and Mr. P. Sanders (2.9.46) were appointed assistant sanitary inspectors.

Mrs. W. M. Levey and Mrs. C. M. Robb, temporary municipal midwives, resigned their appointments on 14th September and 3rd August respectively, Miss J. Williams being appointed municipal midwife on 7.10.46.

On 13th November, Mrs. Goddard, clinic attendant, was seconded as supervisor of home and domestic helps.

Miss M. A. Brock began duty as mental deficiency officer on 23.9.46, Miss P. Cork as tuberculosis dispensary clerk on 1.8.46, and Miss B. K. Peach as senior typist on 26.8.46.

Three members of the clerical staff, Messrs. L. E. G. Parsons, L. G. Andrews and A. L. Mactavish, returned to duty after War Service on 11.2.46, 1.3.46 and 18.3.46, respectively.

LABORATORY FACILITIES.

A fully equipped pathological laboratory with a full time senior assistant pathologist has been opened in the Southend Municipal Hospital under the general direction of Dr. J. O. Oliver who is also Director of Pathology, Southend General Hospital. Dr. D. C. Caswell, the assistant pathologist, is responsible for carrying out the post mortem examinations at the Hospital and also undertakes necessary work for H.M. Coroner in the district. There is also a small bacteriological laboratory at the Borough Sanatorium for infectious diseases where routine examination of throat swabs is carried out, other specimens from suspected cases of infectious disease being examined at the Southend Municipal Hospital laboratory. At the present time the laboratory of the Southend Municipal Hospital, in addition to the routine pathological work of the Hospital undertakes all the serological examinations in regard to venereal diseases for the County Borough (including the General Hospital) as well as such public health investigations as are required on samples of water, ice cream, foodstuffs, etc.

These arrangements, fully operative from the beginning of the year, have been most satisfactory and the work of the Municipal Hospital laboratory has increased even more rapidly than was expected, the present level of work being in excess of 100,000 E.M. units per annum. Full use has been made of Dr. Oliver's experience in connection with the investigation of various epidemiological problems and the writer and his colleagues are much indebted for his assistance.

Towards the end of the year the Health Committee announced their willingness to provide premises for the Public Health Laboratory service and plans for a Public Health Laboratory as part of the national service directed by Professor Wilson are now well in hand. It is understood Dr. Oliver will be responsible for this laboratory until such time as the national service is able to provide a full-time director.

AMBULANCE FACILITIES.

These remained unchanged during the year.

NURSING IN THE HOME.

A district nursing service is provided by the Southend General Hospital Board of Management, in all areas of the Borough with the exception of Thorpe Bay and Shoeburyness. The Council made a grant of £412 10s. 0d. towards the salaries of the six nurses employed on this work. This service has continued to be of the utmost value.

The following information has kindly been supplied by the Secretary and House Governor of the Southend General Hospital.

No. of patients visited in their homes during 1946 ...	589
Total No. of visits made by District Nurses during 1946 ...	27,894

CLINICS AND TREATMENT CENTRES.

1. *Infant Clinics.*—These were held at 2.15 p.m. as under:—

Shoeburyness:

Caulfield Road School. Doctor's Clinic 1st and 3rd Fridays.
Health Visitor's Clinic on other Fridays.

Leigh-on-Sea:

70, Burnham Road. Mondays and Thursdays.

Southend-on-Sea: (Southend and Southchurch):

Municipal Health Centre. Mondays, Tuesdays, Thursdays
and Fridays.

Eastwood:

Eastwood Schools 2nd and 4th Fridays—Health Visitor's
Clinic.

National Dried Milk and Vitamin preparations supplied by the Ministry of Food, as well as proprietary brands of dried milk, were on sale at all infant welfare sessions.

Particulars of attendances are:—

	Southend	South- church	Leigh	Shoebury- ness	East- wood	Total
No. of sessions held	104	101	101	51	24	381
No. of individuals who attended and who at end of year were—						
Under 1 ...	711	559	447	115	76	1908
Aged 1 to 5 ...	745	686	724	169	110	2434
Totals	1456	1245	1171	284	186	4342

Total attendances of—

Infants	6422	5854	5810	1732	747	20.5
Children 1 to 5	1498	1243	1715	346	254	5.6

No. of children aged 1
to 5 subjected to
routine medical
inspections ...

397	463	544	73	—	1.7
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Packets of National Dried Milk distributed totalled 13,816 of which 23 were supplied at the expense of the Council.

Vitamin Preparations :—	Cod Liver Oil ...	8,287
	Fruit Juice, Orange	52,859
	Vitamin Tablets ...	1,941

INFANT WELFARE CENTRES.

There were no changes in organisation during the year. The number of individual children under the age of one year who attended was 1908, an increase of 415 on last year and we can, therefore, assure that approximately 66% of all the children born in the Borough were brought to the clinics during their first year of life as compared with 71% in 1945.

The attendances of children in the 2—5 year age group continue to be disappointing, the total number of routine medical inspections remaining practically the same, at 1477, and this in spite of the larger numbers which have yearly entered this age group since 1945.

The present preoccupations of the mothers and the health visiting staff alike leave inadequate time and energy for this group, who tend to become forgotten children and for whom much more could be done if the present resources allowed.

ANTE-NATAL CLINICS.

The pressure on the ante-natal clinics continued to provide a serious administrative problem and it was necessary to hold five clinics weekly at Southend and to provide a session at Leigh each week instead of one a fortnight. The monthly clinic at Shoeburyness continued to be adequate to the needs of that area.

Every woman booked to enter the Southend Municipal Hospital for her confinement attends the resident obstetric officer at the 36th week of pregnancy, and earlier if there are medical indications. As far as possible, the routine ante-natal supervision of hospital patients attending the clinics is performed by the resident obstetric officer.

Pupils from the Part I training school for midwives at the Southend Municipal Hospital attend at the Council's ante-natal clinics under the direction of the superintendent midwife.

The total number of individual mothers attending at the Council's clinics was 2,471, the total number of attendances being 11,047 an increase of 3,879 on the previous year.

An ante-natal clinic was held weekly at the Southend General Hospital, the patients attending thereat being eligible for admission to the Southend Municipal Hospital, as the obstetric beds at the Southend General Hospital remained closed.

Attendances at the Council's clinics were as follows:—

	Southend	Leigh	Shoebury- ness	Totals
Number of sessions held	258	48	12	318
Number of individual expectant mothers ...	1,851	474	146	2,471
Number of attendances of expectant mothers	8,583	2,040	424	11,047

VENEREAL DISEASES TREATMENT CENTRE.

The following is the return for 1946, (Service cases excluded):—

	Syphilis		Gonorrhoea		Conditions other than Venereal		Totals	
	M'ls.	F'ls.	M'ls.	F'ls.	M'ls.	F'ls.	M'ls.	F'ls.
Number under treatment on January 1st	48	89	24	41	12	26	84	156
Number returned after cessation of attendance in previous years	3	5	1	10	—	—	4	15
Number dealt with for first time:—								
(a) who had not previously attended any Centre ...	27	23	79	31	309	195	415	249
(b) who had attended other Centres	41	12	38	1	12	1	91	14
Total number under treatment during 1946	119	129	142	83	333	222	594	434
Number discharged after completion of treatment and tests for cure	3	2	40	26	276	181	319	209
Number refused to attend before completion of treatment	1	1	1	—	—	—	2	1
Number of cases under treatment or observation which died	—	1	—	—	—	—	—	1
Number refused to attend after completion of treatment but before final tests for cure	1	6	11	6	—	—	12	12
Number transferred to other Centres	19	7	7	4	15	8	41	19
Number under treatment on December 31st, 1946	95	112	83	47	42	33	220	192

No cases of soft chancre came under review.

Clinic attendance of civilians were :—

	Clinic Attendances		Intermediate Attendances	
	M.	F.	M.	F.
Syphilis	955	1,020	4	—
Soft Chancre	—	—	—	—
Gonorrhoea	762	363	134	—
Other Patients	1286	640	655	10
Totals	3,003	2,023	793	21

The following are the civilian totals for previous years :—

New Patients suffering	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946
From Syphilis	31	22	40	34	21	24	40	23	29	33	52	54
„ Gonorrhoea	129	88	107	127	83	61	78	82	73	60	112	110
„ Soft Chancre	3	4	1	—	—	—	—	—	—	—	—	—
Total Attendances	6221	5991	8564	9768	9472	2846	3319	3345	5185	4387	4431	4431

The number of new patients suffering from syphilis (50), and gonorrhoea (110), is practically the same as last year but there is a marked change in sex incidence. Women provided 62% of the new cases of syphilis in 1945, and only 46% in 1946; of the new gonorrhoea cases, women formed 65% in 1945 and only 28% in 1946. The 1946 experience therefore represents a return to the pre-war conditions for, in 1938 women formed 38% of the new syphilis cases and 14% of the new gonorrhoea cases. When account is taken of the fact that selective national service still removes a large number of males during a period when venereal infections are not uncommon it seems legitimate to infer that, in Southend-on-Sea at least, venereal diseases now tend to conform to the pre-war distribution pattern.

An interesting feature is the growth of the work of the clinic. The total number of patients under treatment was 1,028 as compared with 545 in 1938, but the incidence of new venereal infections (see table) was not markedly different in the two years.

The so called “non-venereal” cases have become much more important both numerically and clinically; in 1938 one male out of every four new patients came into this category, while last year they constituted more than half the new patients. Similarly, whereas there were two “non-venereal” women patients to every “venereal” case, there are now four such patients.

This shift is largely attributable to the widespread incidence of non-specific urethritis in the male and of related infections in the female, reported in recent years as occurring both in members of the Forces serving abroad and in the civil population at home. These conditions, although communicated in the same way as syphilis

gonorrhoea and soft chancre, are classified, for statistical purposes, "non venereal." They have assumed an importance unknown in former years, not only because of their increased incidence, but by reason of the fact that the infecting organism proves in many cases to be relatively insusceptible to chemotherapy, so that an infection which used to be regarded as less serious than gonorrhoea is now frequently the more difficult to cure. Since the introduction of the sulphphonamides and penicillin the number of cases of gonorrhoea requiring irrigation has diminished markedly, and the continuance of daily irrigation sessions at the clinic has been necessary chiefly on account of these "non-specific" infections.

Defence (General) Regulations—Regulation 33B.—During the year 1945 no contacts were notified once on Form 1, and another authority reported that a patient who had twice been cited on Form 1 had moved to this area. All the notifications related to women suffering from gonorrhoea; two contacts were traced and persuaded to undertake treatment; the other could not be found, there being no reason to believe that she had left the Borough.

ADOPTION OF CHILDREN (REGULATION) ACT, 1939.

This act came into operation on June 1st, 1943. The department continued to make enquiries on behalf of registered adoption societies and to assist them wherever possible.

The following is the statistical information relating to the working of the Act during the year:—

- | | |
|---|------|
| (a) Number of persons who gave notice under Section 7 (3) during the year | 25 |
| (b) Total number of children in respect of whom notice was given under Section 7 (3) during the year | 25 |
| (c) Number of children notified under Section 7 (3):— | |
| (i) under supervision at the end of the year | 11 |
| (ii) who died during the year | — |
| (iii) on whom inquests were held during the year — | |
| (d) Particulars of any proceedings taken during the year:— | Nil. |

HOSPITALS.

Hospitals Advisory Committee.

The Southend Hospitals Advisory Committee held its first meeting on November 26th, 1945, and its second in February, 1946. There was abundant good will and general agreement that consultations between the governing body of the Southend General Hospital and the Health Committee would become increasingly necessary.

The Town Council, while wishing to continue appointing the same consulting specialist staff as the Southend General Hospital nevertheless felt that they should have a proper voice in the making of future appointments, and difficulties were experienced in evolving a method of procedure and a form of advertisement equally in consonance with the traditions and practice of both hospitals.

Ultimately, it was suggested that the Medical Officer of Health and two independent assessors should sit with the Medical Staff Committee of the Southend General Hospital, so as to be in a position to advise the Council about any recommendations which the Medical Staff Committee might make to the Board of Management of the Southend General Hospital concerning staff appointments likely to be of common interest.

The Advisory Committee agreed to defer further examination of proposals to set up a joint Service of Pathology in view of likely developments under the National Health Service Bill, and made recommendations in regard to the age of retirement of visiting staffs, the appointments of a Consultant Physician for Diseases of Children, a Consultant Obstetric and Gynaecological Surgeon, and a Physician in charge of the Department of Physical Medicine. At the end of the year the members of the Committee had reason to be gratified with the progress made, and confirmed in their views as to the growing importance of the part which the Advisory Committee would play.

The Nuffield Provincial Hospitals Trust.

Essex Hospitals Joint Advisory Council.

By the end of 1945 the Advisory Council had set up two sub-committees with terms of reference as under:—

- (a) to consider the implications of the Surveyor's Report and to advise on the problems involved;
- (b) to consider future policy and to make recommendations in regard to the establishment of, and the organisation for, a comprehensive cancer scheme for the geographical county of Essex with a view to the Council submitting its recommendations for a comprehensive scheme to the local authorities concerned.

The Survey Sub-Committee, basing their procedure on the assumption that all the hospitals of Essex would be in a single region, began the laborious and involved task of reviewing the developments which had taken place since the publication of the Hospital Survey in April, 1945, both as regards the distribution of hospital beds and special services.

The Cancer Sub-Committee appointed a small panel (your Medical Officer of Health being a member), to prepare an interim scheme for Essex, and by the end of the year the Sub-Committee had prepared a report for submission to the Joint Advisory Council.

SOUTHEND GENERAL HOSPITAL.

The following details are furnished by the courtesy of Mr. John W. Williams, Secretary and House Governor:

With the re-opening of the Eleanor Hobbs Ward in October 1946, the whole of the Hospital was again in commission, and a total of 229 beds were available. In-patients numbered 5,394, an increase

1,208 over the preceding year. There was a total of 25,873 new patient attendances, 948 more than the previous year, and the total attendances numbered 74,702. During the year the visiting specialist staff was strengthened by the appointment of a Physician in Charge of Diseases of Children, a Surgeon, an Assistant Surgeon, a Gynaecological and Obstetric Surgeon, Physician for Diseases of the skin, and an additional specialist Anaesthetist. The Neurological Surgeon resumed attendance at the Hospital.

WALTHAMSTON MUNICIPAL HOSPITAL.

Accommodation.

The opening of the 60-bed Chest Block was the outstanding event of the year. The building, completed in 1940 and never occupied by patients, sustained a direct hit from a H.E. bomb on 9th March, 1941, and the portion containing the lift and other services was partially demolished. In August, 1945, the Chairman, Alderman S. F. Johnson, P., attended at the Ministry of Health to press the urgent need for reinstatement, following which it seemed likely that approval to the work would be obtained. The destruction caused in London and the Home Counties by the enemy's pilotless missiles was such, however, as to necessitate a drastic reduction in the programme for the reinstatement of war damage, and it was only with great difficulty that serious postponement of the scheme was avoided.

During the years which had elapsed since the building was designed, advances in the treatment of diseases of the chest had taken place, particularly in the surgical field. It was apparent that to use the block solely for patients under investigation or those unsuitable for Sanatorium treatment was unjustifiable, even if it had been possible, and so it was decided to plan for utilising the building for a wider range of chest cases. The Committee were advised that certain structural modifications, such as the installation of additional hand basins, the provision of oxygen and suction points to each bed head and an office for the Supervisor, were necessary, which work the Council approved.

The work would not have been accomplished had it not been for the energy and resolution of the Chairman, Alderman S. F. Johnson, who saw clearly the urgent needs of our tuberculosis patients, and the unfailing support afforded him by his Committee. It was, therefore, with particular pleasure we learned of the Council's decision to name the unit the "S. F. Johnson Block," and so to associate permanently with the hospital the name of one to whom, from 1930 onwards, it owes so much.

Each floor accommodates 30 patients, the upper floor being allocated to women and the lower floor to men. The patients' rooms are designed so as to afford the maximum of light and air and no room accommodates more than 4 patients. There are 6 single bedrooms on each floor, each with individual hand basins. There are oxygen and suction points to serve each patient in addition to the usual comprehensive bedhead service outlets. Each floor is liberally provided with lounge and dining room space and a full complement of toilet, ciliary and technical services and offices. There is also a mechan-

ised sputum mug sterilising room and a room fitted as a small hand laundry. Every facility has been provided to enable the staff to observe the recognised protective technique against communicable diseases.

On October 29th, 32 female cases of pulmonary tuberculosis were transferred from Milton Ward to the upper floor of the S. F. Johnson Block, and on November 19th, 24 male cases of pulmonary tuberculosis were transferred from Westborough Ward to the ground floor of the S. F. Johnson Block. Needless to say, the patients were highly delighted with the change.

Only 35 beds on the ground floors of Rayleigh and Southchurch Wards which are allocated for mental cases are staffed. When it becomes possible to occupy the upper floors, thus utilising the full complement of 69 beds, further classification of the cases admitted thereto will be practicable.

The total complement of beds provided for general sick, maternity, tuberculosis and mental cases on the 31st December, 1946, excluding bassinets in the Maternity Unit, was 464, of which number 42 were occupied. The beds, of which 184 are located in the new buildings, are classified as follows:—

General	...	...	...	...	279
Maternity (excluding cots)	...	...	...	...	90
Tuberculosis	...	...	...	...	60
Mental	...	...	...	...	35
				Total	464

II. GENERAL WORK OF THE HOSPITAL.

The total number of admissions (including infants born in the hospital) was 7,823 as compared with 6,914 in 1945.

The inability to obtain the necessary nursing and auxiliary staff prevented the occupation of any of the three evacuated general wards and led to the unavoidable erection of a varying number of extra beds during the course of the year. The limited general ward accommodation and the difficulties encountered in disposing of the elderly convalescents, either by returning them to their homes or transferring them to Connaught House, resulted in an expanding list of patients awaiting admission.

The average weekly admission rate was 151.02 whilst in the previous year the corresponding figure was 131.04, an increase which reflects the rapidity of turnover despite the increasing ratio of elderly patients whose disposal constitutes an ever present problem in times of housing difficulties and over-crowded institutional accommodation.

The average daily number of beds occupied during the year was 509, the figure for the previous year being 454. The maximum number of beds occupied on any one day during the year was 524 on 27th

March, 1946, the total bed complement then being 464. The minimum number of beds occupied was 389 on 16th October, 1946, the total bed complement being unchanged.

I. MATERNITY DEPARTMENT.

The number of maternity cases admitted for treatment during the year was 2251, compared with 1570 in the previous year.

The number of women confined in the hospital during the year was 1839, the corresponding figure for 1945 being 1,376, an increase of 463 or 33.6%.

The number of live births during the year was 1841 of which 1578 were wholly breast fed on leaving the hospital, e.g. 85.7%. 53 caesarean sections were performed during 1946 without any maternal mortality.

The unprecedented influx of maternity patients, particularly during the summer months, necessitated the erection of extra beds in East 1 and East 2 Wards, the occupation of infants' accommodation in Thorpe Ward by mothers and the use of rooms in Balmoral Ward ordinarily occupied by gynaecological cases, as overflow accommodation. The highest number of maternity cases and infants accommodated on any day was 107 mothers and 84 infants (191) on 14th June, 1946. As many as 12 deliveries in 24 hours took place on a number of occasions during the year. From these figures, it will be appreciated that the staff, both trained and in training, whether in the delivery rooms, the lying-in wards or the nurseries, worked under great pressure for very long periods during the year.

After a careful examination of the results obtained in certain maternity units, it was decided to adopt a policy of early ambulation for mothers who had had a normal confinement. Our experience has been too brief to state our conclusions, but so far the results are very promising and the mothers are most enthusiastic.

II. STATISTICAL TABLES AND ANALYSES.

Remaining in Hospital on 31st December,					
1944	...	...	...	...	450
Admitted	...	...	...	...	6,032
Born alive in Hospital	...	...	...	...	1,841
Discharged	...	...	...	...	7,103
Died	...	...	...	...	732
Patients treated to a conclusion during					
the year	...	...	...	...	7,624
Remaining in Hospital on 31st December,					
1945	...	...	...	...	488
<i>Classification of patients treated to a conclusion :</i>					
Children under 16	...	...	...	...	2,395
Men	...	...	...	...	1,353
Women	...	...	...	...	3,876
Total					7,624

An analysis of the hospital mortality return for 1946 reveals the fact that excluding infants under 10 days old, there is a progressive increase in the number of deaths especially in the ages over 60, while the number of deaths in those whose age is in excess of 59 is more than 6 times that of the 50-59 age group. 67.5% of the total number of deaths during the year are accounted for by cases over the age of 59.

The following figures serve as a reliable index to the amount of investigation and treatment carried out at the hospital during 1946 and are compared with the corresponding figures in 1945. :—

	1946	1945
Total number of operations performed in the Operating Theatre	1,803	1,400
Total number of all forms of Physio-therapeutic treatment given	13,098	9,800
Total number of Electro-cardiographic examinations	57	30
Total number of pathological specimens examined, of which 15,731 were examined at the Municipal Hospital	16,778	12,100
Total number of patients suffering from cancer admitted for treatment	199	200
Total number of patients engaged in Occupational Therapy	745	600
Total number of Blood Transfusions	312	300
Total number of Post-mortem examinations on bodies of patients who died in hospital	197	200
<i>Averages for the Year :</i>		
Beds—Daily complement	464	464
Beds—Average daily number occupied	509	464
Average daily percentage of available beds occupied	109.7	100
Admissions—Average daily number	21.6	18
Stay—Average length in days per patient	23	18
Maximum number of beds occupied (on 27th March, 1946)	524	464
	(24.11.4)	
Minimum number of beds occupied (on 16th October, 1946)	389	300
	(1.1.4)	

OTHER DEPARTMENTS.

1. A most important landmark in the hospital's development is the adaptation, furnishing and equipping of the ground floor of the old Canewdon Block as a pathological department. Later, an air raid shelter at the rear of the block was converted for use as an animal house.

2. The new Westinghouse Flurodex D. 500 H.A. diagnostic unit and the combined motor-driven X-ray couch and tilting table, after undergoing final tests, were put into operation. X-ray films of the best definition and clarity of detail are being produced to the complete satisfaction of both the consulting and resident staffs.

STAFF.

1. Agreement was reached with the visiting specialist staff as to the terms and conditions of their association with the work of the hospital. Wherever practicable, they are retained as part-timers, and remunerated by annual salary. The Council has recognised a medical staff committee, and various matters, including the relationship between the visiting staff and the medical superintendent, have been clarified.

2. Mr. Gordon Ungley, F.R.C.S., was appointed as Consulting Surgeon to the Municipal Hospital and began his weekly sessions from October, 1946.

3. Mr. B. J. Sanger, F.R.C.S., Surgical Officer, was called up for 18 months service with the R.A.F. in November 1946, his place being taken temporarily by Mr. Raymond Bridge, F.R.C.S., on his demobilisation after active service.

4. By arrangement with the Dean of the London Hospital Medical School, two students are attached to the Maternity Unit as from February, 1946, for practical midwifery training.

5. Ex-service medical officers continue to be appointed to the hospital, as supernumerary assistant medical officers under the Ministry of Health scheme for post-graduate education.

I. SPECIAL EQUIPMENT.

1. A short-wave diathermy apparatus was received and has proved a most valuable addition to the therapeutic equipment of the Department of Physical Medicine.

2. A Hermon-Taylor flexible gastroscope was obtained and its usefulness has been frequently demonstrated in the investigation of the diagnosis of gastric pathology.

II. PROFESSIONAL.

The nucleus of a medical reference library has been established and is proving most useful to the resident medical staff. Monthly clinical meetings to which the general practitioners of the area are

invited, were commenced in October, 1946. They are very popular, well attended and provide a useful and congenial forum for both the local practitioners and the resident staff.

I am indebted to Dr. J. O. Oliver, Director of Pathology, for the following note:—

Pathological Laboratories replacing the existing "side room" were ready for occupation early in February, 1946, when a senior qualified technician was appointed. March 31st, represented the commencement of work on an appreciable scale in the new laboratories and during the remaining nine months 55,500 units of pathological work, calculated on the E.M.S. scale, were carried out.

Additional work amounting to 4,700 units was sent out to other laboratories. The work carried out at Rochford in 1946 is conveniently grouped as follows:—

a. Biochemical investigations	14,214 units
b. Serological investigations ... (from June 1946)	5,572 ,,
c. Bacteriological investigations	16,830 ,,
d. Haematological investigations	13,228 ,,
e. Post mortem examinations (from September, 1946)	920 ,,
f. Unclassified investigations ...	4,736 ,,
Total ...	<u>55,500</u> ,,

An assistant pathologist took up full duties on August 1, 1946, and progress then became more satisfactory in every way. Constant liaison with the clinical staff was possible for the first time, and all post mortem examinations could be carried out by a pathologist.

The section for serological work was opened in June, 1946, owing to the urgent need to find alternative arrangements on the retirement of Dr. Arthur Davis of Greenwich who had previously undertaken all this work for the County Borough.

During this first year routine examinations of ice cream and shell fish were undertaken, whilst a certain amount of other public health bacteriology, such as daily water samples, was commenced. Even at the end of the year the rising volume of work in the laboratory showed no sign of abating and in consequence considerable pressure was evident on the limited staff available and the comparatively limited accommodation provided was already overtaxed.

BOROUGH SANATORIUM FOR INFECTIOUS DISEASES.

STAFF.

1. Dr. A. B. Christie, Medical Superintendent, left in September 1946, having been appointed Medical Superintendent to the Fazakery

fectious Diseases Hospital, Liverpool. He was succeeded in October by Dr. E. H. Tomlin.

2. The consultant staff paid eight visits during the year at the request of the Medical Superintendent.

3. Nursing Staff during the year were available only in sufficient numbers to deal with the hospital's intake. It was not possible to engage a sufficiently large staff to deal with any possible expansion of the hospital. Response to advertisements, especially for trained staff, was poor. There was not, however, any shortage of nursing staff sufficient to entail overtime working.

4. In March, 1946, the General Nursing Council refused to renew their provisional recognition of the hospital as a training school for nurses on the ground that there was an inadequate daily total of beds occupied. This is yet another example of the serious repercussions of the evacuation of our hospitals in 1940 and emphasises a fact often overlooked by "planners," that institutions possess an organic life which can be modified but slowly if growth and development are not to be arrested and the whole organism become mutilated.

5. No difficulties were experienced from shortage of domestic staff, a fact which speaks well for living and working conditions, and for the administrative arrangements and supervision of the Matron.

Accommodation, Works, Services, etc.

1. During the year the sluices and lavatories in King Ward were replanned, extended, and modernised. The Mortuary was replanned and modernised, and a new entrance to the main kitchen block was built. New main gates to the hospital were also installed.

2. The general labour shortage did not allow more than a minimum of essential repairs, renovations and maintenance.

Clinical Statistics.

These have been summarised in a main statistical table which differs from that of previous years in two particulars.

Firstly an attempt has been made to give some idea in the main table of the "break-down" of cases previously listed as "other diseases." A further break-down of these cases is indicated in Table

Secondly, the average stay in hospital for various diseases is shown in the main table and not under a scattered number of headings as in the pre-war years. This has been done to facilitate year to year comparison.

MAIN STATISTICAL TABLE.

TABLE I.

Diseases	Remaining 31.12.45	Admitted	Discharged	Deaths	Remaining 31.12.46	Average stay day
Scarlet Fever	11	108	109	—	10	28
Dysentery & Diarrhoea	1	38	34	1	4	13
Measles	—	26	26	—	—	13
Whooping Cough ...	1	12	12	1	—	23
Diphtheria	7	12	19	—	—	54
Enteric Fever	—	2	1	—	1	63
*Smallpox	—	4	3	1	—	3
			(transfers)	(after transfer)		
Chickenpox	—	5	2	—	3	23
Mumps	—	6	6	—	—	10
Rubella	—	1	1	—	—	22
Cerebro-spinal Fever	—	3	2	1	—	22
Poliomyelitis	—	5	3	1	1	23
Infective Hepatitis	—	2	1	1	—	9
Glandular Fever ...	—	2	2	—	—	20
Influenza	—	1	1	—	—	6
Ophthalmia Neonatorum	—	2	2	—	—	3
Venereal diseases (treatment)	—	5	5	—	—	16
Venereal diseases (L.P.)	—	24	24	—	—	1
Upper Respiratory Infections Group ...	—	22	22	—	—	11
Chest Diseases Group ...	—	4	4	—	—	22
Nervous Diseases Group	—	6	5	1	—	28
Skin Diseases Group ...	—	10	10	—	—	12
Unclassified	—	17	15	—	2	13
N.A.D.	—	19	13	—	6	10
Total	20	336	322	7	27	—

There has been a fall in the total number of cases admitted, 33 as against 480 in 1945. A small factor contributing to this is that in March, 1946, Penicillin oil preparations became available and enabled syphilis cases to be treated with Penicillin as out-patients. Admissions for Penicillin treatment of syphilis dropped from 31 in 1945 to 3 in 1946.

ANNUAL TREND OF ADMISSIONS.

TABLE II.

	1943	1944	1945	1946
Scarlet Fever	240	146	166	108
Diphtheria	16	6	11	12
Measles	40	2	56	26
Dysentery & Diarrhoea Group	1	102	74	38
Upper Resp. Infections Group	22	19	29	22
Skin Diseases Group ...	25	15	7	10
Venereal Diseases	2	16	56	29
TOTAL ADMISSIONS ...	425	409	480	336

* Admitted to Smallpox Hospital, Sutton Road.

It will be seen that a reduced number of patients suffering from the notifiable infectious diseases was admitted, and there was also a reduction in the number of patients admitted who were found not to be suffering from a notifiable infectious disease.

It is thought that the standards of criteria for admission were such as in the previous years. This being so the two possible factors which explain the drop remain:—

- (a) A reduction in diseases requiring hospitalisation.
- (b) Better general practitioner facilities for home treatment due to the release of Services Medical Officers.

Statistical Notes and Comments on Various Diseases, Including Deaths.
Scarlet Fever.

- (a) A mild type again prevailed. Even so the value of routine anti-serum treatment on admission is shown by the following analysis of 106 of the 109 cases discharged.

	Cases with A.S.S. on admission	Cases with no specific treatment on admission
Stay in hospital over 21 days ...	14	33
Stay in hospital 30 days or more	4	18
Need for late general specific treatment	4	14
Titus Media	2	7
Apyrexia of 100° after first week ...	3	13
Total Cases	36	70

- (b) No return cases occurred from patients discharged.

Dysentery and Diarrhoea.

- (a) Causal organism on 34 patients discharged—11 *B. Sonnei*, 1 *B. Aertrycke*, 22 unidentified.
- (b) Analyses of unidentified cases:—
 - Infants under 1 year ... 9 cases, 7 mild and apyrexial, 1 death.
 - Toddlers 2—3 4 mild apyrexial cases.
 - School children ... 1 mild apyrexial case.
 - Adults 11 cases, 9 of which were females and all mild and apyrexial except one.
- (c) The death occurred in a child aged 2 months on her 6th day in hospital.
- (d) In view of mild nature of most cases no comment is made on the value of specific treatment.

3. *Measles.*

- (a) Of 26 patients discharged, 5 had been admitted for treatment of complications and 21 because of absence of adequate home nursing and isolation.
- (b) Five cases were modified measles following protection by convalescent serum, and in no case was there constitutional upset. Among 5 cases of similar age admitted for domestic reasons there was mild constitutional upset lasting 4 days as assessed by time for a return of T, P and R. rates to normal level.

4. *Whooping Cough.*

- (a) Of discharged cases 9 were uncomplicated, 2 had pneumonia and 1 had meningismus at the time of admission. Recovery uneventful.
- (b) One case, a mental defective of 1 year 10 months, admitted with pneumonia and minor convulsions, died on the fourth day in hospital. A hyperpyrexia suggestive of pontine haemorrhage preceded death.

5. *Diphtheria.*

- (a) Clinical types of discharged cases—nasal 1, laryngeal 1, bacteriological 3, mild faucial 7, moderate faucial 7.
- (b) Bacteriology—2 cases typed, both gravis.
- (c) Age and immunisation state—of the 14 faucial diphtheria cases 10 were in adults and 3 in non-immunised children. One case of mild faucial diphtheria occurred in a child aged 5 said to have been immunised at one year old.
- (d) Antitoxin dosage was high—an average of 70,000 units per case of faucial diphtheria. Of the 14 cases, three showed extra systoles and one a palatal paresis.

6. *Smallpox.*

The four cases were known contacts admitted to the smallpox hospital for observation. All were transferred to Colchester Isolation Hospital on diagnosis. One subsequently died.

7. *Chicken Pox.*

One case is of interest in having initially shown a herpes zoster which infected two other children. A full chicken pox rash developed six days later.

8. *Cerebro-spinal Fever.*

Death occurred in a woman aged 60, comatose and disease was established on admission. Treatment with sulphathiazole 2 grammes 4 hourly and daily intra-thecal penicillin (10-20,000 units) was unavailing and death occurred on the fourth day in hospital.

Poliomyelitis.

- (a) One case died of respiratory paralysis after 6 hours in hospital and seven days from onset of the disease.
- (b) Of the three cases discharged, two showed an upper limb paralysis and were transferred to the Municipal Hospital. The third showed no paresis.
- (c) Months of admission were March, July, October and November. The case remaining at the year end was admitted in December and discharged home with a very mild paresis of the lower limbs.

Glandular Fever.

Both cases were women, ages 20 and 22, admitted March and July.

One case had 14 days' progressive fever with nasal catarrh, sweating, vomiting, jaundice and cervical adenitis developing late. The other presented as a cervical adenitis with subsequent tonsillitis and exudate resembling diphtheria. Both recovered rapidly after admission.

Infective hepatitis.

Death occurred in a woman of 49, with a rheumatic myocarditis. It would seem the jaundice precipitated death from heart failure, but this is not the primary cause.

Venereal diseases.

Admissions were for intensive penicillin treatment (3 cases), for suspected arsenic intolerance (1 case), for post L.P. headache (1 case) and for lumbar puncture (24 cases).

Other diseases.

- (a) One death occurred due to tuberculous meningitis.
- (b) Break-down of cases discharged according to diagnosis is as follows :—

Upper Respiratory Tract Infections.

Vincent's Angina 5, Tonsillitis 7, Nasal infection 3, Cervical adenitis 3, Laryngitis 3, Otitis Media 1.

Lower Respiratory Tract Diseases Group.

Bronchopneumonia 2, Primary atypical pneumonia 1, Pleurisy 1.

Central Nervous Diseases Group.

Sub-arachnoid haemorrhage 2, Lymphocytic Meningitis 2, Tuberculous Meningitis 1, Meningismus 1,

Skin Diseases Group.

Scabies 4, Pemphigus 2, Toxic Erythema 2, Idiopathic Purpura 1, Eczema 1.

Unclassified Group.

Effects of Sun (2), generalised septicaemia (2) and of P.U.O. (1). One each avitaminosis, streptococcal carrier, osteomyelitis, alveolar abscess, feeding disorder, abscess of arm, pink disease, dentition.

14. *N.A.D. Cases.*

Of the 13 cases discharged, 8 were admitted as breast feeding mothers, 2 as smallpox contacts for surveillance, 2 as scarlet fever suspects and one as a whooping cough suspect.

E. H. TOMLIN

Medical Superintendent.

SUPPLY OF INSULIN.

The arrangements continued to work satisfactorily. During the year insulin was supplied at the Southend General Hospital on behalf of the Corporation to 17 patients at a total cost of £74 19s. 10d., towards which the patients contributed £5 14s. 6d., a net cost to the Corporation of £69 5s. 4d.

MIDWIFERY SERVICE.

Notices of intention to practice were received from 22 midwives including eleven whole-time municipal domiciliary midwives. Private midwives attended 4 patients as midwives and 291 as maternity nurses.

No cases of serious infringement of the rules of the C.M.B. came to notice.

Payment for Medical Aid for Midwives.

Medical Aid was summoned on 108 occasions, or in 17.5 per cent of cases attended by midwives. A total of £121 19s. 6d. was paid to medical practitioners, of which £73 18s. 6d. was refunded by patients.

MUNICIPAL MIDWIVES.

The total of fees paid for services of municipal midwives as £1,669 14s. 0d. and £12 17s. 0d. was written off as irrecoverable. No charge was made in 14 cases and attendance in three cases as authorised at reduced fees of £1 15s. 0d., £1 5s. 0d., and £1 10s. 0d. respectively.

The numbers of cases attended by them were :—

	Cases attended as Midwives		Cases attended as Maternity Nurses	
	Labours	Miscarriages	Labours	Miscarriages
Cases booked by Municipal Midwives and delivered by them	599	1	189	1
Cases where no ar- rangement for con- finement had been made and Municipal Midwives were sum- moned in an emer- gency	12	1	10	—
Totals ...	611	2	199	1

Number of visits paid : ante-natal 7,335, morning nursings 10,590, evening nursings 2,548, total 20,473.

Maternal Mortality.

Two deaths associated with gestation occurred, representing a maternal mortality of 0.68 per 1,000 total births. The earliest mention of a maternal mortality rate in an annual report of the Medical Officer of Health occurs in 1926, and it is some indication of the progress made in your maternity services since then to note that for the first time it is possible to record a rate of less than 1 per 1,000.

As will be seen from the particulars of these unfortunate patients, given below, neither death appears, in the present stage of our knowledge, to have been preventable.

- 1) Primipara, aged 21. Uneventful pregnancy until routine ante-natal supervision revealed a rise in blood pressure to 150/100 from the previously observed reading of 130/70. Admitted to hospital following day; surgical induction of labour five days later, medical treatment having failed to make any improvement. Manual removal of both placentae following twin birth. Next morning the patient was suddenly taken ill with collapse into unconsciousness. Poor response to resuscitation measures was followed by failure of urinary excretion; the patient succumbed a day later. Post-mortem examination showed the cause of death to be liver atrophy and pre-eclamptic toxæmia.
- 2) Multipara, aged 38. This was patient's seventh pregnancy. She was admitted to hospital in the 30th week of pregnancy, having suffered first from pain and swelling of the left leg, and when this subsided, pain and swelling in the right leg. Death occurred suddenly fourteen days after admission. Post-mortem examination showed thrombosis of both femoral veins, the right common iliac veins, and organised clot filling the pulmonary artery. The patient was debilitated and had a gross iron deficiency anaemia.

Year	Rate		Total
	From Sepsis	Other Causes	
1945	0.95	0.95	1.90
1944	—	1.09	1.09
1943	0.75	2.99	3.74
1942	1.69	3.38	5.07
1941	2.10	5.21	7.31
1940	1.94	1.94	3.88
1939	—	1.25	1.25
1938	—	2.56	2.56
1937	0.62	3.74	4.36
1936	—	1.18	1.18

PUERPERAL PYREXIA.

There were six notifications of puerperal pyrexia; two patients were transferred to the Southend Municipal Hospital; all six recovered. There were no special features to record.

SUPPLY OF SHEETS TO EXPECTANT MOTHERS.

The arrangements under Ministry of Health Circular 154/44 were continued during the year and on the certificates of state certified midwives priority dockets for 2,363 sheets were issued to 822 expectant mothers who arranged for their confinements to take place at the homes.

UNMARRIED MOTHERS.

Accommodation for unmarried mothers was provided at the expense of the Council in the following Homes:—

“ St. Monica ” Diocesan Shelter	13
Chelmsford Diocesan Moral Welfare Association (Walthamstow Branch)	1
Diocesan Maternity Home, Coggeshall	3
The Hornsey Deanery Association, Beacon Lodge, 25, Eastern Road, N.2.	1
Brocket Hall Maternity Home, Welwyn	1
“ St. Pelagia's ” Home, London	1

MINISTRY OF HEALTH CIRCULAR 2866.

The events leading to the formation of the enlarged Council of the Southend-on-Sea Branch of the Chelmsford Diocesan Moral Welfare Association, were narrated in the previous report.

The first meeting was held on July 8th, 1946. Meanwhile the work of the St. Monica Diocesan Shelter was continued in full co-operation and consultation with the officers of this department. During the financial year 1946-7 the Council made a grant of £460 2s. 7d. and maintenance payments amounting to £228 11s. 0d.

NURSING HOMES.

No new nursing homes were registered, but one, "The Meteor" re-opened, and another "The Retreat" closed during 1946.

Number of Homes	Number of Beds provided for :		
	Maternity	Other	Total
Homes first registered during year ... Nil	—	—	—
Homes on register at end of year :			
Leigh	—	10	10
Meteor (re-opened in 1946)	12	—	12
Belvedere	—	2	2
Highlands	3	—	3
4	15	12	27

The number of Inspections made during the year was 5.

WORK OF HEALTH VISITORS.

No. of infants noted for visiting (including new arrivals from other towns)	3,025
„ infants visited for the first time	2,732
„ infants visited	3,632
„ visits to infants under one year	8,471
„ children visited between 1 to 5 years	5,342
„ visits to children between 1 year and 5 years of age	9,338
„ expectant mothers visited for first time	1,953
„ expectant mothers visited	2,061
„ visits to expectant mothers	3,756

The number of visits showed the following increases on the previous year :—

Visits to expectant mothers	1,128
„ „ children under 1 year	171

There was an establishment of 10 Health Visitors at the end of the year. The Health Visitors are also employed as School Nurses, and the establishment represents the services of 5 whole-time officers. Taking into account, that since 1938, when the establishment was 12 Health Visitors and School Nurses, they have been relieved of responsibilities in respect of tuberculosis and mental deficiency, it can be said that the staff is now numerically the same as

we had in 1938. Then, however, the Health Visitors visited 1,36 infants, as compared with 2,732 in 1946. To these infants they made 8,471 visits as compared with 6,348 in 1938, and paid 1,953 expectant mothers a total of 3,756 visits, whereas in 1938, 547 expectant mothers received 1,229 visits.

The effect of the increased birth rate has, of course, been that the Health Visitor has been able to pay slightly less attention to each baby born during the year, and very much less attention to those born earlier. Nevertheless, there has been an absolute increase in the volume of the work, which reflects the highest credit on the staff.

INFANT MORTALITY.

There were 92 deaths of infants under the age of one year, a rate of 31.97 per 1,000 live births, being a reduction of 25% on last year's rate of 42.17, and a new low record, the next best being 34 per 1,000 in 1937. The rate for illegitimate births, 34.48, was not significantly greater than that for legitimate births, namely 31.77.

Infants' deaths, classified according to age, were as follows:—

First week of life ...	...	...	...	55
Weeks 2—4 (inclusive) ...	...	...	...	7
Months 1—3	„	...	...	16
„ 3—6	„	...	...	6
„ 6—9	„	...	...	5
„ 9—12	„	...	...	3

92

The greatest proportionate saving of infant life occurred after the age of six months, when only 14 babies died. If last year's rate for this period of life had been maintained there would have been 30 deaths, so the rate has been halved. The period 1—3 months was however, less favourable, 16 deaths occurring as against 9 last year. After making a correction for the different number of births, the comparable figure for 1946 would have been 12.

The causes of death in the first week of life were:—

Prematurity ...	...	...	...	21
Congenital defects ...	...	...	...	8
Atelectasis ...	...	...	...	12
Birth Injury ...	...	...	...	4
Maternal toxæmia ...	...	...	...	1
Inattention at birth ...	...	...	...	1
Blood conditions ...	...	...	...	3
Pneumonia ...	...	...	...	5

55

Prematurity, maternal toxæmia, and congenital deformities were again noted as being contributory factors, particularly in the atelectasis group. Of the 55 deaths, 46 occurred in various hospitals and 4 were of infants of less than 28 weeks gestation.

INFANT LIFE PROTECTION.

No. on Register on December 31st, 1946.

Foster Mothers	58
Foster Children	74
No. of Reception Notices received	86
„ Notices of Death	—
„ Notices of Removal of Children	84
„ Notices re removal of Foster Mothers :—	
(a) To other addresses inside the Borough	2
(b) To other addresses outside the Borough	—
„ visits paid by Health Visitors	436

Boarded-out Children. Public Assistance (Boarding Out) Order, 1946.

No. of foster mothers on December 31st, 1946	14
„ children	15
„ visits paid by Health Visitors	145
„ of deaths of Foster Children	—

GUARANTEED PAYMENTS TO FOSTER MOTHERS.

Details of this Scheme are set out in the report for 1944. Two children were boarded out under the Scheme during the year.

SANITARY CIRCUMSTANCES OF THE AREA.

Water.

The water supply was described in detail in the report for 1944. The supply is satisfactory in quality and quantity; with the exception of a few houses still served by shallow wells it is completely piped and has no plumbo salvent action. The chemical and bacteriological characteristics remain unchanged and all public supplies are chlorinated.

SANITARY INSPECTION OF THE BOROUGH.

COMPLAINTS.

During the year 3,217 complaints were received and investigated. They are analysed below :—

General housing defects	1,136
Blocked drainage systems	353
Overcrowding	307
Defective floors	297
Defective roofs	248
Defective drainage systems	171
Dirty conditions of houses or rooms	129
Animals improperly kept	115
Deposits of refuse on vacant land and back passages, etc.	96
Absence of or defective dust bins	84
Non-removal of domestic refuse	49
Defective water service pipes	41
In respect of food or food premises	41
Sanitary conveniences in Factories	24

Insect pests	...	...	...	...	...	...	18
Caravans	...	...	...	...	...	...	7
Dirty milk bottles	...	...	...	...	...	...	6
Absence of secondary means of access to houses	...	...	...	...	...	...	5
Fly nuisances	...	...	...	...	...	...	3
Smoke nuisances	...	...	...	...	...	...	3
Miscellaneous	...	...	...	...	...	...	84

The difficulties experienced during the year to secure the prompt repair to dwelling-houses, mainly caused by the shortage of material and labour, the deterioration of houses due to the lack of maintenance during the period of the war, and the increase in the overcrowding of properties which has accentuated disrepair, have contributed to the number of complaints received being nearly 200% higher than in 1938.

The majority of the complaints regarding animals being improperly kept were found to refer to dogs being kept in first floor flats and being confined indoors during the day time whilst their owners were at work, becoming a source of nuisance to the occupants of the ground floor accommodation.

The miscellaneous complaints included such matters as nuisance from the crowing of cockerels, absence of fences to gardens, overgrown trees and a number of frivolous complaints which could not be dealt with under the Public Health or Housing Acts, but each case was investigated and endeavours made to deal with the matters complained of.

2. VISITS OF INSPECTION MADE DURING THE DETECTION AND ABATEMENT OF NUISANCES :—

General housing defects	...	...	...	...	...	8,691
Defective drainage systems	...	...	...	...	...	1,625
Blocked drainage systems	...	...	...	...	...	949
Overcrowding	...	...	...	...	...	627
Absence of or defective dust bins	...	...	...	...	...	331
Deposits of refuse on vacant land or back passages	...	...	...	...	...	314
Animals improperly kept	...	...	...	...	...	241
To factories	...	...	...	...	...	157
Caravans	...	...	...	...	...	64
Fly nuisances	...	...	...	...	...	28
Miscellaneous	...	...	...	...	...	360

3. ABATEMENT OF NUISANCES.

Number of premises where nuisances were found to exist 2,216

Abated—

After service of informal notices	...	...	987
After service of statutory notices	...	...	38
Without notice	...	...	648
			— 1,673

Outstanding on 31st December, 1946, but being dealt with 543

Proceedings were instituted in four cases in which the owners had failed to comply with the requirements of abatement notices. In two instances as the work was done before the date of the hearing, the summonses were withdrawn, and in the other two, the nuisance orders which were made secured compliance.

i. HOUSING.

a) *Unfit Houses.*

Eight houses scheduled in 1939 as requiring action to ensure demolition, are still occupied and provided they are maintained in a reasonable condition, it is not proposed to recommend the making of demolition orders whilst the present housing shortage persists.

b) *Repairs to Houses.*

Repairs to houses have been secured by action pursuant to the Public Health Act, and the Housing Act has not been invoked. Acute difficulty has been experienced in securing even the essential repairs to property because of the priority as regards labour and materials being given to the erection of new houses. It is to be hoped that conditions will improve in the near future as there are considerable arrears of repairs to be carried out.

Because of shortage of slates, the roofs to some terrace properties have been patched repeatedly, which is not only uneconomical, but unworkmanlike because it is almost impossible to keep them weather-tight.

There has been a considerable increase in the number of floors affected with dry rot; this is no doubt due to houses being left unoccupied during the war years developing defects to the water service pipes and sustaining severe damage to floors, etc., before the leakage of water was detected.

c) *Overcrowding.*

As will be seen under the heading of complaints, 307 complaints were received from families alleging overcrowded conditions. All of these complaints were carefully investigated and where it was found that serious overcrowding or other conditions inimical to health existed, representations were made to the Housing Committee for the rehousing of the families.

It is a matter of grave concern to all who are in daily contact with families living under the mental, physical and moral hardships inseparable from overcrowding, that the rehousing programme everywhere lags behind real housing needs. It is not everyone who has the strength of character to triumph over these domestic difficulties which are so insidious in their attack on standards of conduct and so quickly blight the promise of so many marriages. Still less are these conditions conducive to the rehabilitation of families who fail to reach elementary levels of cleanliness and hygiene.

(d) *Service Department Camps.*

During the year a new housing problem had to be faced when 52 huts on three unoccupied Army Camps were occupied by 114 adult and 45 children. The complete absence of sanitary accommodation and essential amenities at one camp of five huts caused such hardship that the "squatters" all returned to the accommodation formerly occupied by them within a few days.

The other two camps offered somewhat better facilities in the way of water supply and sanitary accommodation but it was so apparent that the communal use of the existing water closets, etc. was likely to prove unsatisfactory, and it became necessary to install sinks, water supply, cooking ranges and partitions in each of the huts. Additional water closets were provided in one camp whilst at the other where lack of an adequate drainage system prevented the installation of water closets, a chemical closet was provided to each of the huts, the Corporation undertaking the frequent emptying and cleansing of the pails.

Even with the provision of these amenities, the huts constitute a very sub-standard housing accommodation, more especially when the families comprise young children, and in spite of the difficulties which will arise in rehousing these families, many of whom have no claim on the Borough, it is hoped that more suitable accommodation will be found for them as soon as possible.

5. **FILTHY AND VERMINOUS HOMES.**

The number of cases requiring to be investigated under this heading was 129 and shows an increase of 42 over the number dealt with during the previous year, 715 visits being made for this purpose. The provisions of Sections 83 and 84 of the Public Health Act, 1936, were invoked in six cases after informal action had failed to bring about an improvement in the conditions.

A high proportion of the persons dealt with were aged folk, many of whom were living alone and were unable owing to some physical or mental infirmity properly to care for themselves.

Attempts were made to secure the cleansing of their accommodation and to restore them to a reasonable standard of life, but only in one instance was complete success achieved and then it was only due to the unremitting perseverance and kindness of a stranger than the woman, who for a number of years had been living in squalor and loneliness, is now spending her remaining days in cleanliness, comfort and a friendly atmosphere.

The majority of the people who have to be dealt with persistently refuse to accept institutional care, even for a short while, or the help of relatives or friends to assist them, and appear to be quite content to live alone in their squalid and horrible surroundings.

The Department treated 248 rooms for vermin infestation.

6. HOUSEBOATS.

The use of the houseboats moored in Leigh Creek as improvised dwellings continues. Some of the boats have become very dilapidated and must be most unsuitable for human habitation even during the summer season.

7. CAMPING SITES.

One camping site was operating under licence by the Council during the year; it was well maintained and the conditions of the licence were closely observed.

The occupier of the camping site has agreed to erect a block of sanitary conveniences to comprise twenty-one water closets and a urinal which will be a big improvement on the chemical closets originally provided.

The existence of controlled camping sites in the Borough is most necessary as is proved by the large number of families who avail themselves year after year of the facilities offered, and when persons are found to be camping on plots of vacant land in built up areas they can often be persuaded to move to a camping site where water supply and sanitary conveniences are readily available.

8. RAT DESTRUCTION.

319 complaints were received during the year, in dealing with which 789 visits were made.

9. PARTICULARS OF :

(a) Enquiries re:—					
Notifiable Diseases	...	...	...	...	897
Smallpox contacts	...	...	...	...	1,429
Other contacts	...	...	...	...	47
Inspections under the Scabies Order, 1941	...	...	...	...	24
(b) Other visits or inspections:—					
Smoke observations	...	...	...	...	68
Marine Store Dealers	...	...	...	...	38
Piggeries	...	...	...	...	134
Enquiries made in respect of Pharmacy & Poisons Act	...	...	...	...	84
Supervision of persons under the Mental Deficiency Acts	...	...	...	...	192

INSPECTION AND SUPERVISION OF FOOD.

A. MILK SUPPLY.

The 11 cowsheds situated within the Borough continued to be maintained in a most satisfactory condition. 302 inspections were made of the cowsheds during the year.

Four of the dairy farmers are licensed by the Council to produce Accredited Milk and one to produce Tuberculin Tested Milk. All the milk from these herds is retailed to local dairymen.

Only six complaints were received by the department about the delivery of milk to householders in dirty bottles, and having regard to the large number of bottles dealt with during the year their standard of cleanliness can be regarded as highly satisfactory.

Licences were issued by the Council pursuant to the Milk (Special Designations) Orders as follows:—

	<i>No. of Premises Licensed</i>
To produce Tuberculin Tested Milk	1
To produce Accredited Milk	4
To pasteurise milk	4
To distribute Tuberculin Tested Milk	12
To bottle Tuberculin Tested Milk	1

In addition, one dairy is operating a pasteurising plant and all milk supplied from this dairy is heat treated, but as a licence has not been issued by the Council in respect of the plant the milk is not retailed under the designation "Pasteurised."

During the year 204 samples of milk were submitted for bacteriological examination and the following table shows the results of these examinations:—

	<i>No. of samples</i>	<i>Passed</i>	<i>Failed</i>	<i>Remarks on unsatisfactory samples</i>
Pasteurised	73	65	8	Milk reported to be under-treated due to defective plant.
Heat Treated	33	26	7	Samples obtained from dairyman who was operating Heat Treatment plant but milk was not being retailed as Heat Treated.
Sterilised	26	26	—	—
Tuberculin Tested	50	36	14	Samples were from milk produced and bottled on farms situated outside the Borough.
Accredited	22	22	—	—
	<hr/> 204	<hr/> 175	<hr/> 29	

Twenty-two samples of milk were submitted for biological examination for the presence of Tubercle Bacilli and all were reported to be negative.

B. MEAT.

1. Slaughterhouses.

The Ministry of Food's slaughterhouse at which animals intended for human food within the Borough are slaughtered, is situated within the area of an adjoining Urban Authority and the arrangement whereby the Council's five qualified Meat and Food Inspectors assist the Inspector of the Urban Authority in carrying out post mortem inspec-

ion of the carcasses, continues to work satisfactorily and ensures that all home killed meat coming into the Borough from this source is subjected without delay to an efficient examination before being deposited in the retailers' shops.

The centralisation of slaughtering has much to commend it, but if it is to prove satisfactory, it will be necessary for considerable improvement to be made in the present method of transportation and handling of the carcasses between the slaughterhouse and the shops.

B. Slaughter of Animals Act.

Six applications were received for the renewal of licences to slaughter animals in slaughterhouses, all of which were renewed.

C. Public Health (Meat) Regulations.

The following table shows the carcasses inspected and condemned during the year at the Ministry of Food slaughterhouses:—

	Cattle excluding Cows	Cows	Calves	Sheep and Lambs	Pigs
Number killed	1808	1010	416	3706	1039
Number inspected	1808	1010	416	3706	1039
All diseases except tuberculosis					
Whole carcasses condemned	7	4	—	4	3
Carcasses of which some part or organ was condemned ...	283	155	3	91	9
Percentage of the number in- spected affected with disease other than tuberculosis ...	16.0	15.9	0.7	2.6	1.2
Tuberculosis only—					
Whole carcasses condemned	7	42	1	—	6
Carcasses of which some part or organ was condemned	134	322	5	—	37
Percentage of the number in- spected affected with tuber- culosis	7.8	36.5	1.7	—	4.1

C. UNSOUND FOOD.

In addition to the carcasses, etc., condemned at the slaughterhouse, the undermentioned foodstuffs were surrendered as being unfit for human consumption during the year:—

Canned goods 12,604 tins

Fresh food—

 Vegetables and fruit 6 tons, 18 cwts.

 Fish 471 stone

 Meat 3745 lbs.

Miscellaneous 1,208 lbs.

D. INSPECTION OF FOOD PREMISES.

Considerable attention has been given to the supervision of food premises but the greatly increased number of complaints received regarding public health matters prevented the Department doing all it hoped to do in this matter.

Number of visits of inspection made to:—

Restaurants, Cafes, etc.	...	...	...	573
Butchers' premises	...	...	...	452
Provision Shops	...	...	...	279
Fish Shops	...	...	...	189
Bakehouses	...	...	...	124
Provision Warehouses	...	...	...	76
Greengrocers	...	...	...	53
Other food premises	...	...	...	204

Ice Cream Premises.

The Food and Drugs Act, 1938, requires the registration of premises intended for the manufacture, storage or sale of ice cream but the embargo which was placed on the manufacture of this commodity early in the war, effectively prevented any action until the Ministry of Food again permitted production.

In preparation for the 1946 season a great deal of attention was paid in the early months of the year to the premises upon which ice cream is manufactured, and some surprising facts about the size and finance of the interests involved, came to light.

The need for improved methods in handling and storage was impressed on executives and managers alike. The reconstruction of some of the premises which alone could result in completely satisfactory conditions being obtained, could not always be effected however, owing to the reluctance of the Ministry of Food to authorise the issue of the necessary building licences. In spite of the checks and hindrances inseparable from the conditions of to-day, a promising start was made in securing improved hygienic conditions and methods in this important industry.

E. FOOD AND DRUGS ACT, 1938.

During the year, 203 samples were submitted for analysis by the Public Analyst, 178 being formal and 25 informal samples. One private sample was also submitted.

The samples consisted of:

	<i>Nature of Sample</i>	<i>Formal</i>	<i>Informal</i>
Milk	40	7
Butter	29	1
Margarine	23	—
Vinegar	20	1
Lard	12	—
Cooking fats	13	—
Sausages	6	4
Groceries including meat and fish pastes, flavouring essences, etc.	33	10
Alcoholic drinks	1	1
Non-alcoholic drinks	1	—
Patent medicines	—	1
		178	25

Of the samples analysed, 12 were reported to be not genuine, details of which, and the action taken in regard thereto, are as follows :—

Sample No.	Formal or Informal	Article	Adulteration or other irregularity	Action taken
8202	F.	Butter	0.5% Excess water	Cautioned.
8254	F.	Milk	15.0% Deficient in milk fat	Milk found to be as given by the cow, supported by appeal to cow—see samples Nos. 2808 and 2809.
2808	F.	Milk	16.7% Deficient in fat	Appeal to Cow samples—referred to the County Council
8261	F.	Milk	0.8% Added water	Same vendor as No. 8266
8265	F.	Milk	1.4% ditto	Matter investigated and vendor cautioned
8266	F.	Milk	8.6% Deficient in fat & 2.3% added water	Proceedings instituted. Case proved and dismissed. Defendants ordered to pay 7 gns. costs.
8272	F.	Milk	3.6% Added water	Sample procured during investigation of sample No. 8266. No action taken.
8295	I.	Milk	0.36% Added water	Cautioned.
8296	I.	Milk	0.24% Added water	Cautioned.
8323	F.	Wood Vinegar	57.5% Deficient in Acetic Acid	Fined £5 and ordered to pay 3 guineas costs.
8363	F.	Wood Vinegar	8.8% Deficient in Acetic Acid	Fined £3 and ordered to pay 4 guineas costs.

F. PUBLIC MORTUARY.

During the year 172 bodies were received in the Public Mortuary and 90 autopsies were conducted there.

G. CONTAGIOUS DISEASES (ANIMALS) ACTS.

Tuberculosis Order, 1938. Four notifications have been received of milch cows suspected to be suffering from tuberculosis. The animals were dealt with by the veterinary Inspectors of the Ministry, being removed from the farms for slaughter, and upon post-mortem examination, two were found to be affected with "advanced tuberculosis" and two with "tuberculosis not advanced."

INFORMATION SUPPLIED BY METEOROLOGICAL OBSERVER.

Total sunshine for year	1,659 hours 12 minutes.
Sunniest day	14 hours 30 minutes on July 8th.
Total rainfall for year ...	24.80 inches.
Wettest day of year ...	1.33 inches on August 16th.
Temperature	Maximum 85° on July 24th Minimum 21° on January 20th and February 28th
Prevailing wind for year	South West

INFECTIOUS DISEASES.

The number of cases of infectious diseases (civilian) notified during the year is shown below:—

Smallpox	5
Scarlet Fever	186
Pneumonia	165
Dysentery	41
Whooping Cough	238
Erysipelas	58
Diphtheria	13
Puerperal Pyrexia	6
Meningitis	4
Poliomyelitis	5
Polioencephalitis	1
Infective hepatitis	484
Malaria	4
Ophthalmia Neonatorum	3
Typhoid Fever	2
Food Poisoning	42
Measles	479
	1,736

The major events were the occurrence of smallpox, an unusually high incidence of infective hepatitis and rather more whooping cough than usual.

SMALLPOX.

On January 16th, the S.S. Strathmore landed a case of smallpox at Southampton. A sick berth attendant who had nursed this patient, began work on a building site at Southend-on-Sea on February 11th. That evening, his nephew, living in Thurrock, was found to be suffering from smallpox, and Dr. Boul concluded that the erstwhile sick berth attendant had infected the boy while he himself was suffering from the disease in an extremely modified form; this patient had only four pustules.

Surveillance of the workers on the site and their local contacts was instituted and no secondary cases occurred in Southend. Further cases of smallpox developed in Thurrock and a sanitary inspector engaged on disinfection work there was admitted to the Tilbury Hospital on the evening of February 27th and diagnosed the following morning as suffering from haemorrhagic smallpox. Dr. Boul reported that the laundry work from the hospital was ordinarily sent to "X" laundry in Southend, but he had taken adequate steps to disinfect all the linen which had been in contact with this patient. He further undertook to disinfect all the hospital laundry for 14 days so as to avoid infection from any secondary cases which might develop in the hospital.

Spread of smallpox by means of infected linen has been demonstrated repeatedly, and my predecessor had drawn my attention to his own experience here in 1930, so enquiry was made regarding the areas from which Southend laundries and dry cleaners ordinarily collected. We found that four laundries made house collections in the Tilbury and Thurrock area, and as cases of smallpox continued to be reported from this district, the danger of importing infection into Southend-on-Sea was apparent.

The management and staffs of the businesses concerned, readily accepted vaccination and the dislocation which some severe reactions occasioned at a time of severe staff shortage. Particular attention was paid to the vaccination of women and others handling soiled linen.

Opportunity was also taken to secure the vaccination and re-vaccination of our local public health and hospital staffs, and apart from a good deal of work occasioned by the surveillance of ship contacts, the next weeks passed uneventfully.

On the afternoon of March 28th, H.M. Coroner's Officer informed me that Dr. M. Clarke had been called to see the body of a young woman (M. P.) who had died that day, without ever having had any medical care, and that death appeared to be due to smallpox. We visited the house and there saw the body of a young woman covered with the rash of confluent smallpox, the pustules of which had begun to resolve.

The body was removed forthwith by ambulance, under the supervision of the Chief Sanitary Inspector to the Borough Sanatorium mortuary. Vaccination was immediately offered to the house contacts, four adults, all of whom were Peculiar People—a religious sect which eschews physicians—and all of them refused.

The following day Dr. Conybeare of the Ministry of Health, inspected the body, confirmed the diagnosis, and was equally unsuccessful in his efforts to persuade the contacts to accept vaccination. He also discussed various administrative aspects of the situation.

The P. family agreed to remain indoors in their terrace house we impounded their ration books, arranged to do their necessary shopping and began a rigorous search for contacts, including the milk man, postman, and the dust collectors. Arrangements for the interment were made by the department, and the body, confined by our own staff, was taken for burial by ambulance under our surveillance.

The house contacts were obviously in danger as they steadfastly refused vaccination, and on March 30th, they agreed to go into quarantine in our smallpox hospital which was specially opened for them. Nurse Burton volunteered to accompany them, and remained there until each in turn developed smallpox.

The circumstances in which the patient had been nursed constituted a grave danger of spread, for she had been ill at home for 14 days before death. There was considerable public alarm and resentment in the neighbourhood when the facts became known. House-to-house visitation in the adjoining houses and streets secured information about any suspicious illnesses and induced widespread acceptance of vaccination and re-vaccination. The local medical profession were, throughout, kept fully informed of developments. Adequate supplies of vaccine lymph were obtained and a vaccination station opened at the Borough Sanatorium.

Contacts visiting the house were very few, but presented some points of interest. An "Elder" had attended during the patient's illness for the dual purpose of issuing certificates pursuant to the National Health Insurance Acts and of affording spiritual ministrations. He visited on March 21st and again on March 24th and 25th. We have reason to believe that the dead woman had the possibility of smallpox in mind, owing to the action narrated below which we had taken in regard to the laundry where she was employed, and there can be little doubt but that this was also present in the minds of the family and their advisers. It is perhaps significant that the "Elder" is said to have refused to assist in carrying the patient downstairs from her bedroom to the "parlour." The "Elder," as yet unvaccinated, was dealt with on March 29th, receiving 3 cruciform insertions, and there can be no doubt he owes his escape, if not his life, to this measure.

A Deaconess, a middle-aged woman, had been vaccinated in infancy. She also visited the home on March 24th. She submitted to re-vaccination, 3 cruciform insertions being employed.

Another brother, H.P., aged 26, and his wife, A.P., aged 24, both unvaccinated in infancy, who lived in Hockley, had visited the house from time to time, H.P. on March 23rd and 25th, and A.P. on March 18th, 23rd, 25th, 26th, 27th and 28th. Both were vaccinated on March 29th and escaped the disease.

The dead woman was a laundry worker and had been employed at "X" Laundry, to which reference has been made earlier; this opened up several alternative theories as to the source of infection.

he might have been infected:—

- (a) by laundry from the Thurrock area ;
- (b) by a fellow worker ; (on this hypothesis infant vaccination would have modified the disease very considerably, as in the Strathmore case, and the original infection would have been via infected linen).
- (c) through private and social contacts.

My deputy, Dr. Preston, was given the tedious task of investigating the first two hypotheses, entailing a scrutiny of all the absences which had occurred among the laundry staff since the beginning of February. The task was complicated by the large number of part-time employees involved, and it was several days before he could satisfy himself that there was no likelihood of there having been an earlier missed case.

The first hypothesis was only abandoned after searching enquiry. The most rigorous and persistent questioning showed that the dead woman had never actually handled soiled linen, and the organisation and lay-out of the premises were such as to preclude any real danger from casual contact.

After much sifting of evidence, we came to the conclusion that, in spite of the time sequence (fatal case—Thurrock, February 27th—laundry despatched February 28th, our case sickens March 16th) there was no evidence to support this theory. Furthermore, no other connection between any case of smallpox occurring in the Thurrock area and the Laundry in question could be demonstrated. The Tilbury Hospital was their only customer in that district.

Patient and repeated questioning of the relatives finally uncovered the fact that M.P. had attended a social gathering of the Peculiar People at Corringham on March 2nd, but Dr. Boul was unable to demonstrate any connection between this gathering and any case of smallpox which had occurred in his area.

The victim had obviously led a very circumscribed and quiet life, her contacts being restricted to workmates and fellow sectarians. We were unable to demonstrate that she had recently been in contact with anyone who had returned from overseas, and although it seemed reasonable to connect her illness with the Thurrock outbreak, we have never been able to satisfy ourselves as to how and when she contracted the disease.

It was during these days that we had much occasion to congratulate ourselves upon the action we had taken in regard to laundry staffs. There is no evidence that the work-people ever came into contact with infection, from which vaccination or re-vaccination protected them, but in the absence of these measures, which of the public would not have blamed the laundry's connection with Tilbury? There was much public alarm and not a few people, even in these days of clothing rationing, enquired whether they should not burn their

laundry as a precaution against infection. Enquiries from intending visitors, for both day and period showed clearly what a serious effect an outbreak could have on a holiday resort.

The public who lived in the area required little persuasion to accept vaccination and re-vaccination. At the vaccination station we treated many unvaccinated children of tender age and we can be excused some cynical reflections as to the shallowness of the conscientious objections which had led a few months previously to their being deprived of this protection, and to speculate how rapidly scruples vanished when real danger threatened.

Vaccination facilities were publicised only in the Southchurch area of the town, but there was a widespread acceptance, and during the first two quarters of the year, Public Vaccinators vaccinated 68 and re-vaccinated 202, while 1,350 vaccinations and 806 re-vaccinations were carried out by the Public Health staff at the Borough Sanatorium.

If aerial infection plays any part in the dissemination of the disease, the conditions in which this patient was nursed gave ample opportunity for spread. She was accommodated first of all in an upstairs bedroom and then taken down to the front "parlour," where the whole of the family in turns took the night vigils, the men going to work the following day. When we visited the house we found rugs, carpets and blankets from the rooms occupied by the patient hanging on the clothes line, and a large rough-haired dog had the freedom of the house—sick room included.

Death occurred on the 14th day of her illness, and yet, apart from those living in the house, who without exception were attacked, everyone else escaped.

The attitude of her family was a curious mixture of helpfulness and obstruction. In many ways they were anxious to behave as good citizens, but when it came to divulging information about activities which might in any way reflect upon their religious beliefs and sect, they were stubborn and unyielding. The backbone of resistance was Mrs. W., the elderly helper, and when she herself was stricken down she hid the very food she was unable to eat, and concealed her symptoms until the constitutional disturbance overbore her.

There remain two outstanding impressions; namely, that smallpox, modified by vaccination many years earlier, can present an insoluble diagnostic problem unless the history affords a clue. Had this young woman recovered two other patients at least would have been ambulant while they were acutely infectious and considerable spread would have been likely. The other is that the element of good fortune plays its part in the arrest of these outbreaks.

I would like to take this opportunity of saying how well the Department emerged from this crisis. My Committee gave me the complete confidence; my medical colleagues, Drs. Preston and Christie, were indefatigable, commanding confidence at every juncture.

the Sanitary Inspectors, under the Chief Sanitary Inspector, Mr. Drake, did everything which could be asked of them, and my Chief Clerk, Mr. Beasant, rapidly improvised a smooth-running administrative machinery which was always adequate to handle promptly and accurately the immense amount of varied and ever-changing information, as well as organising and recording the vaccinations.

To Dr. E. T. Conybeare, of the Ministry of Health, I am indebted for much assistance and invaluable advice.

For the following clinical notes and commentary, I am indebted to Dr. A. B. Christie, Medical Superintendent of the Borough Sanatorium and Smallpox Hospital.

Case (i) M.P., aged 20 years, 9 months. Unvaccinated.

Sickened and took to bed on 16th March. The rash presented as one or two spots on the chin on 18th March, spreading to the rest of the body on the 19th March, when the parents thought she had measles. By 21st March the lesions having become vesicular, the mother now thought the illness was chickenpox; although it was later learned the father had on this day discussed with the Elder (see later) the possibility of smallpox. Death occurred on 28th March, when the face was covered by an almost complete mask of drying pustules; on the rest of the body there was a profuse, but not confluent, pustular rash. The distribution was typical.

Case (ii). G.P., mother of M.P., aged 57. Vaccinated infancy, four good scars.

The date of onset of symptoms was difficult to determine, alike because of the prostration due to grief and reaction, and because of unwillingness to admit to feeling ill. It was subsequently learned that on 29th and 30th March she had felt shivery and that on the 30th it was only by a great effort that she was able to get herself ready to enter the smallpox hospital for preventive quarantine. She was ambulant throughout this period and her prodromal illness was mild. On 31st March she was too ill to get up to attend her daughter's funeral and complained of headache, but had a normal temperature. She had one spot on the nose and two on the forehead; these looked like septic spots; the spot on the nose was conical in shape, jutting well out from the side of the nose; the summit was pustular, the base was fleshy. It corresponded very accurately with the lesion described by Ricketts and Byle as typical of smallpox modified by vaccination. In the absence of the contact history it would have been impossible to diagnose or even to suspect its nature.

On 1st April she felt well, but new spots had developed. There was a crop of herpes on the upper lip and a new pustule on the right cheek. There was a papule on the left upper arm and a pin-point palpable papule in the left palm, and a similar spot on the dorsum of the left foot; on the back, were two spots on the trunk, and one on the

left leg. One of the spots on the back was a vesiculo-pustule with a good areola. She was removed to Colchester Isolation Hospital—diagnosis modified smallpox.

Case (iii). R.P., father of M.P., aged 54. Vaccinated with good scars in infancy.

On 2nd April the patient was well. Routine examination showed one "septic" spot just below the umbilicus; it was thought it might well be a smallpox lesion, its appearance in this area being determined by the pressure from a body belt which the patient always wore. By evening the patient had developed a headache which he attributed to the heat of the sun. On the morning of the 3rd April, the temperature was 99° and the patient then said he felt he was in for a "flu cold." Three pin-point macules had now appeared just above the first spot in the body belt area. By afternoon, his temperature was 104° and he was sharply ill. On the morning of the 4th, faint macules were appearing on the forehead, the arms and the legs, and the temperature was falling. The distribution at this time was:

Forehead, about eight faint spots.

Both shoulders, a crop of three or four.

Both arms, two spots.

Hands clear.

Trunk, the four spots already described.

Back of trunk, 3 spots.

Left thigh, one spot.

Left foot dorsum, two spots.

The distribution was not typical, whether due to the modifying influence of vaccination in infancy or simply due to the early stage in which we were seeing the disease. By the 5th the rash had developed markedly and the temperature was normal. Some lesions were already in the early vesicular stage, some appeared to be abating, and many new ones were appearing. The patient was transferred to Colchester this day. Seen there on the 7th April he had a moderately profuse eruption, with a distribution that was now typical. Modification was shown by the early maturation of the rash, many lesions abating, the comparatively small number of lesions as compared with the infecting case and the absence of any marked secondary illness.

Case (iv). G.F.P., brother of M.P., aged 24. Not vaccinated in infancy.

This patient refused vaccination and denied that he had ever seen his sister after she became ill. Grave doubt was thrown on this statement by the evidence of other "contacts" and it is fairly certain that he was in intimate contact with his sister on the 24th March, helping to carry her bed downstairs on that date, and sitting up with her for part of the night.

On the 2nd April the patient finally submitted to vaccination, *five days after the first offer*. It was made very plain to him and his father that vaccination on this date would protect him from infection by his mother, but not, if his story were untrue, by his sister. On the evening of the 3rd April he had a headache, and on the 4th complained of a "thick" head and cold. Vaccination was beginning rapidly to "take" and one thought at first that it might as a result have a modifying influence on the ensuing illness. In retrospect, Dr. Conybeare, who saw the case at this stage, has suggested that what had the appearance of a very early vaccinia "take" may well have been variola, localising itself early at the site of vaccination. By the evening, the temperature was 100° and there was nausea and vomiting. On the 5th April, the condition was as before, he felt very much "under the weather" and his temperature was 100.8° . There was no rash, but he was transferred this day with his father to Colchester. The rash began to appear on the 6th. Seen on the 7th he had a rash of typical distribution and moderate density; it appeared as if maturation was being speeded up and one hoped again that this might be due to the modifying influence of vaccination.

This patient had an unrepaired hare-lip and cleft palate and Dr. Conybeare regarded this as of grave import, opening up as it did the upper respiratory tract to the danger of invasion. On the 10th April the patient's colour was somewhat changed and between the spots the tint of the skin was bluish. On the 11th, he ate a good lunch, but shortly after coughed up some blood and died.

Case (v). Mrs. J.W., aged 69. Vaccinated in infancy, 5 good scars.

Mrs. W. enters the story on 25th March when she took up residence in the affected household to help with the nursing.

She was admitted with the others for observation on 30th March and remained well till the 5th April. Her temperature this morning was 98.6 and by evening was 101.6 ; she stayed in bed and complained of "rheumatism." That evening and the following morning, 6th April, she complained of backache and looked pale and ill, and her temperature rose to over 103° . One palpable papule was noted on the left instep in the morning and in the afternoon there was a very suggestive papule on the back of the right index finger. The patient had nausea and vomiting and was sharply ill. On the 7th April, temperature had dropped to 100° and the patient looked and felt better. The papule on the instep had receded, and she now had five other spots—one papulo-vesicle right in the bend of the right elbow, one towards the right wrist and one on the right index finger, one doubtful papule on the back of the left middle finger and one papule on the back of the trunk. She was transferred on this day to Colchester, where she developed no more spots nor suffered any further illness; her blood it is understood, gave a diagnostic titre for variola antibody. This was smallpox modified 69 years after vaccination.

OTHER MATTERS OF CLINICAL INTEREST.

Vaccinal Reactions.

Several cases of illness following vaccination came to our notice. Most were simply sharp febrile illnesses occurring in cases of primary vaccination when the reaction was at its height. The Elder was perhaps the most severe of all; his illness could well have been the prodromal illness of variola and much anxiety was prevented by his admission to the sanatorium a few days before the end of the incubation period for smallpox. Mrs. H.P., sister-in-law of the dead girl, also developed a severe illness and several minute septic spots appeared on her body at the same time. She was kept in strict isolation in her home in the county area.

Several patients were seen with macular rashes at various times after vaccination, but no case gave real anxiety over its diagnosis. Local pustular reactions around the site of vaccination were especially noted in people who had themselves applied occlusive dressings, of which there are now so many examples, instead of relying on the simple lint dressing applied by the department.

A reaction, which is not recorded in most textbooks, was pain and some stiffness up the left side of the neck sometimes accompanied by palpable adenitis. Dr. Preston was of the opinion that this occurred mainly in people with high vaccination sites but I did not notice this. On two occasions, this reaction gave rise to alarming symptoms. In the first case, a boy of four, a sharp febrile illness was at its height about the twelfth day following vaccination. In the late afternoon of the twelfth day he had what appeared from the parents' description to have been a convulsion, and when I saw him in the evening he had considerable neck rigidity. On examination this rigidity was due to tenderness and spasm in the left side of the neck and I concluded that the illness was a simple vaccinal reaction, the convulsion being a not unusual feature in a sharp febrile illness at this age. The child was in normal health the following morning. The other diagnosis, which the symptoms and apparent severe rigidity at once suggested was of course, post-vaccinal encephalitis.

The second case, a somewhat older boy, presented the same symptoms, except that he had no convulsion.

Other Skin Conditions.

Several cases of chickenpox were reported at this period but none presented much difficulty in diagnosis. One case of severe impetigo in a young child raised no diagnostic qualms till it became known that he lived in the same street as our patient; one rash, due to phenobarbitone, was seen and raised no great difficulty. A profuse macular rash due to bromides presented a very good exercise in diagnosis; the general distribution was that of smallpox but the complete absence of a prodromal illness was very much against such a diagnosis and a detailed evaluation of the finer points of distribution ruled it out; for example, a large bunion on the foot was free of lesions while a concavity sheltered by the bunion was covered with spots.

Pyrexia of Unknown Origin.

The sanitary inspector who supervised the disinfection of bedding and ambulances at the sanatorium on the 30th March and for several succeeding days, did not handle any of the articles but stood by to supervise. He had been vaccinated at the end of the February and again on the 30th March, with only minimal reactions within 48 hours on both occasions.

On 12th April his temperature was 99° at the morning surveillance and by evening 100°. He complained of headache and pain in the thigh. He was admitted to the sanatorium for observation. The headache persisted for three days and the temperature fell to normal in six days, but after two days it began again to rise to between 99 and 99.8 at some time during the day and continued doing so for a week. He was discharged on 30th April.

Titration of his blood for variola antibody showed a rise from 1/10 to 1/20 between 13th and 22nd April, and Professor Downie reported that this was consistent with variola sine eruptione or with his recent vaccination. Full examination by blood count, blood culture, urine and faeces culture, agglutination tests against T.A.B. group and B.Abortus and X-ray of chest and sinuses failed to reveal any cause for the pyrexia. No diagnosis was ever finally made. But for the routine surveillance he would probably have remained at work throughout, as the few days of headache occurred during a week-end.

See also Boul, W. T. G., Corfield, W. F. (1946 *Lancet* II 284.)

SOME LESSONS.

1. MODIFIED SMALLPOX.

The extreme degree to which smallpox was modified by vaccination was impressive, and raised doubts as to whether routine surveillance of ship contacts as ordinarily carried out was really adequate. In the case of close contacts, careful surveillance by a doctor was insisted upon and clinical examination of the stripped patient was routine during the period when symptoms could be expected.

The modification which remained 57 and even 69 years after vaccination was most striking.

2. SEGREGATION OF CONTACTS.

This cannot be secured by compulsion. We were indeed fortunate that the four household contacts, mother, father, brother and a helper, agreed to quarantine and entered hospital on the 30th March. No other action taken by the department was to prove more advantageous than this, for all four subsequently developed smallpox, and what would have been a period of hectic anxiety, was transformed into a period of unhurried clinical instruction.

3. PROTECTIVE POWER OF VACCINATION.

Vaccination even five days after intimate exposure appeared in the case of one man, the Elder, to have been responsible for preventing an attack of smallpox. Attention is drawn to the immunity of the brother H.P. and his wife A.P., vaccinated on March 29th.

4. EFFICIENT VACCINATION.

Some of the men vaccinated on 12th February, after the visit of the original Thurrock case, had according to their Service pay books been vaccinated at least once during the past few years, yet many of them gave what appeared to be ordinary primary "takes," reflecting on the efficiency of their previous vaccination. One of our close contacts, the Deaconess, was revaccinated with three insertions; two gave excellent takes, the third no take at all. Had she been done with only one insertion, there would have been a 1-in-3 chance against its taking, yet she was highly susceptible to vaccination.

DIPHTHERIA.

Only 13 cases were notified and no deaths occurred from this disease.

DYSENTERY.

The total number of cases notified was 41. From 3 households a total of 6 notifications was received, these being the only instances where either a common source, or case to case infection could be established. The disease was mild and the heaviest incidence was in January—7 cases, May—9 cases, and June—6 cases.

WHOOPING COUGH.

The mortality was extremely low—1 death occurred out of 238 cases notified. The incidence was practically uniform throughout the year.

INFECTIVE HEPATITIS.

I am indebted to a personal communication from Dr. A. W. McFarlan of the Jaundice Investigation Committee for the following

NUMBER OF CASES IN FOUR WEEK PERIODS.

Year	Number of Cases												Total	
1943	12	11	72	77	96	68	40	11	21	28	11	12	4	461
1944	21	34	19	6	11	—	5	3	2	2	2	3	4	115
1945	4	5	14	9	12	24	26	15	7	10	8	9	9	152
1946	16	21	55	76	74	64	43	24	28	23	22	15	17	471

(1943 figures are for school children only)

1946 CASES INFECTED OUTSIDE THE BOROUGH INCLUDING EX-P.O.W.'s AND EX-SERVICE PERSONNEL

Outside infections ...	1	3	5	2	2	5	—	—	2	—	1	—	1
Ex-P.O.W.'s and Ex-Service personnel ...	1	2	3	4	1	1	1	—	—	—	—	—	—

NUMBER OF CASES IN AGE GROUPS

	0—	5—	10—	15+	Total
1944	2	25	41	44	112
1945	7	31	32	83	153
1946	17	77	65	319	478

PERCENTAGE OF CASES IN AGE GROUPS.

	0—	5—	10—	15+	Total
1944	1.8	22.4	36.6	39.2	100.0
1945	4.6	20.3	20.9	54.2	100.0
1946	3.6	16.1	13.6	66.7	100.0

PERCENTAGE OF SECONDARY CASES IN AGE GROUPS.

	0—	5—	10—	15+
Per cent ...	14.2	25.5	17.2	43.1
+	+	+	+	+
— S.E. ...	—5.9	—7.4	—5.9	—7.8

ATTACK RATES BASED ON REGISTRAR GENERAL'S ESTIMATE OF
MID-YEAR POPULATIONS

Attack rate at all ages	1944	0.13 per cent
	1945	0.14 " "
	1946	0.35 " "

Dr. McFarlan points out that in Southend, the epidemiological behaviour of this disease shews certain interesting features. The notifications for 1946 and 1947 show the same time distribution, a sharp rise in the 3rd four weekly period, a rapid increase and a marked falling off after the epidemic has lasted for 24 weeks. This in contrast to the experience of 1945.

The disease which in 1943 had been mainly confined to children was now demonstrably chiefly an adult condition as 319 out of 478 cases belonged to the 15+ age group, that is 66.7% as compared with 39.2% in 1944.

The attack rate was considerably higher than in previous years, being 0.35%.

TYPHOID FEVER.

Two women aged 45 and 24 were notified as suffering from typhoid fever, both recovered; the sources of infection were not discovered.

FOOD POISONING.

With few exceptions, all the notifications totalling 42, were associated with the consumption of shell fish at Shoeburyness Garrison Tattoo on August 5th, and the following account may be of interest.

On August 7th I was informed by Captain R. G. H. Hall, R.A.M.C., Officer Commanding, Military Hospital, Shoeburyness, that illness had been reported by military personnel, who

gave a history of having consumed cockles at the Shoeburyness Garrison Tattoo two days previously (August 5th).

It was apparent that if the shellfish thus implicated were the cause of the illness, there would be a number of cases among the civilian population, so the medical practitioners in the area were circularised the same day, requesting that attention should be drawn to any cases of illness associated with the consumption of cockles at the Tattoo.

The Shoeburyness Garrison Tattoo, organised in aid of the local voluntary hospital, took place in brilliantly hot weather, and attracted a large number of people. The stalls and booths were largely, if not completely, stocked and run by voluntary effort. Many of the Leigh cocklers donated shellfish for sale at the Tattoo, and their stall was open on Saturday, August 3rd and Monday, August 5th. Seven gallons were left over from the 3rd, and salted down. We were assured, however, that they were not served on the Monday, and that fresh shellfish only were sold.

The cockles were kept at the Tattoo in a large galvanised iron bath, in a strong brine solution, and there is some evidence that the cockles were not protected from the direct rays of the sun.

In all, a total of 90 cases came to notice, viz :

Army Cadets	...	...	...	...	...	9
A.T.S. Personnel	...	...	...	...	...	8
Soldiers	...	...	...	...	...	2
Civilians notified by Doctors	...	...	...	...	...	} 71
Civilians notified from other sources	...	...	...	...	...

The military patients suffered from an acute febrile state, associated with distended abdomen, marked colic, vomiting and diarrhoea which in some cases were moderately severe. Temperatures ranging between 100°F. and 102°F. were commonly recorded. The symptoms began approximately 24 hours after the ingestion of the shellfish, and lasted from 12 to 15 hours. In the civilian cases the onset was chiefly during the early morning of the 6th August, although in some the onset of symptoms was delayed until the afternoon of the following day.

While many illnesses seem to have been mild, two or three severe attacks were notified by persons who had not received any medical treatment.

From the faeces of one of the military patients an organism was isolated which had the agglutinating reactions appropriate to bacterium typhi-murium (*Aertrycke Bacillus*), but did not produce the classical sugar fermentations. Dr. Oliver, Director of Pathology at the South end Municipal Hospital finally reported the organism to be an atypical *Bacillus Aertrycke*.

Investigations were not made into the bacteriology of the civilian cases, but rigorous enquiries were made among the men employed at the cockle sheds, and specimens taken from any who had a suspicious history of diarrhoea.

From one of these, D, a rectal swab produced *B. Aertrycke*. In May, 1945, he had been treated for an acute diarrhoeal condition of some gravity, which was regarded as dysenteric, although no pathogens were at that time isolated from the faeces. His illness had been marked by severe prostration, but had, however, responded to treatment with Sulpha-guanidine.

Two other men working at the cockle sheds gave a history of recent diarrhoea. One, a man who sold cockles at the Tattoo, had symptoms on the day following, but repeated rectal swabs were negative. The other case was also fully investigated, with negative results.

Various hypotheses were examined. With few exceptions all the patients notified had eaten cockles at the Tattoo during the afternoon of August 5th, and in families attending the Tattoo, the only persons affected were those who consumed cockles. It seemed clear, therefore, that a strong case against the shellfish existed.

It will be recalled that the shellfish sold at the Tattoo were a mixed sample, being contributed by almost all the cocklers at Leigh, who also sold from their own stalls, large quantities of cockles during the Bank Holiday week-end. These cockles were obtained from the same source and handled by the same personnel; there is a complete lack of any evidence that they caused illness.

It seems likely, therefore, that the shellfish were contaminated at some point after they were collected and despatched to Shoeburyness. Bacteriological and chemical investigations were made of shellfish stored under comparable conditions, but these were completely negative. The water supply available at the Fete was above suspicion.

There is evidence that the man D actually bagged the cockles sold at the Tattoo.

It seems reasonable to assume that the causal organism was an atypical *B. Aertrycke*; the outbreak was limited to persons who ate cockles at the Tattoo. The most obvious explanation would be that the man D infected this particular batch, but on close examination this hypothesis must be treated with considerable reserve, for D also handled other cockles which gave rise to no trouble.

It may be of interest to note that in the early part of August two cases of *Aertrycke* infection, one of which proved fatal, came to light in Southend, but they could not be associated in any way with the outbreak now described.

DIPHThERIA IMMUNIZATION.

During the year 1,014 children under the age of 5 and 140 children over the age of 5 completed a full course of immunisation treatment as compared with 1,111 and 91 respectively in the previous year.

SCABIES.

Total No. of cases ascertained...	...	...	276
No. of primary cases ...	...	...	182

These figures represent a considerable improvement on recent years and there is some reason to hope that the widespread prevalence of scabies which was a natural concomitant of war conditions is at last subsiding.

The arrangements for treatment are greatly facilitated by the close co-operation which exists between the Public Health and School Medical Departments. The initial ascertainment of scabies in a family is most commonly made in the School Clinic. Thereafter a domiciliary visit is made by the Health Visitor who enquires into the conditions of other members of the family and offers facilities for examination and treatment where the patient is not already receiving medical attention. Treatment is then provided either at the School Clinic, or in the case of adults, or whole families treated as a unit, at the Borough Sanatorium.

The routine disinfection of clothing and bedding has been abandoned, with no adverse result, but in individual cases where this is considered advisable the Sanitary Inspector visits the house and arranges for articles to be collected for disinfection at the Borough Sanatorium. No charge is made to the public for this service.

In cases where difficulty is experienced in obtaining the co-operation of infected persons, the powers conferred upon the Medical Officers of Health under the Scabies Order 1941 are used. The procedure is cumbersome and time-consuming and is not employed until all the resources of persuasion have been exhausted, but in most of these cases the service of the initial notices is sufficient to ensure compliance without recourse to legal proceedings.

Only one case was brought before the Court during 1946, the case being marked "Proved and Dismissed" on the undertaking of the Defendant to comply with the Authority's requirements.

CLEANLINESS—CIRCULAR 2831.

The arrangements as set out in the Report for 1943 continued

CANCER.

The total number of Deaths attributed to Cancer was 293, the primary sites of the disease being as follows:

	<i>Males</i>	<i>Females</i>
Lips, Cheek, Mouth, Tongue, etc.	3	3
Larynx, Bronchus, Lung, Mediastinum	35	8
Oesophagus	4	3
Stomach	27	28
Small Intestine	1	—
Caecum, Colon	13	23
Rectum	4	11
Gall Bladder, Liver	4	3
Pancreas	4	5
Kidney	2	—
Bladder, Urethra	9	4

	<i>Males</i>	<i>Females</i>
Prostate	11	—
Ovary	—	14
Uterus	—	22
Breast	—	34
Brain	3	—
Eye	1	1
Bone	2	1
Thyroid Gland	—	2
Lymph Glands	2	1
Miscellaneous or not ascertained	2	3
	127	166

Only one death from malignant disease was recorded in a person under the age of 35 years, the patient being a male aged 17 years suffering from Sarcoma of the Tibia.

TUBERCULOSIS.

The Work of the Dispensary.

The work of this Department continued to increase, a total of 4,603 attendances being made as compared with 4,444 in the previous year. The number of contacts examined was 446 as compared with 248 in the previous year.

A.P. Refills.

The number of attendances for A.P. refills made at the Municipal Hospital was 2,728 as compared with 2,272 in the previous year.

The following table shows the age and sex distribution of all new cases of Tuberculosis and of all deaths from this cause during 1946 :—

Age Periods	New Cases				Deaths			
	Pulmonary		Non- Pulmonary		Pulmonary		Non- Pulmonary	
	M	F	M	F	M	F	M	F
0	—	—	—	—	—	—	—	—
1	—	—	2	—	—	—	—	—
5	5	6	7	6	—	—	1	1
15	29	42	4	5	5	4	1	1
25	34	35	2	1	5	7	1	—
35	27	21	3	1	7	6	—	1
45	23	4	—	—	12	3	1	—
55	12	3	1	1	9	3	—	—
65 and upwards	5	8	1	—	8	2	1	—
Totals	185	119	20	14	46	25	5	3

Notifications were again significantly higher than in 1938. The total of new cases of pulmonary tuberculosis was 254, this being 11 fewer than last year; males showed a decrease of 18, and females an increase of 7. Deaths totalled 71, as against 57 last year, and 70 in 1938. Non-pulmonary cases totalled 34, an increase of 2.

The number of cases of Tuberculosis remaining on the Notification Register on December 31st, was as follows:—

	Pulmonary				Non-Pulmonary				Total				Grand Total
	Adults		Children		Adults		Children		Adults		Children		
	M	F	M	F	M	F	M	F	M	F	M	F	
1946	377	306	20	23	34	15	38	30	411	321	58	53	843
1945	341	266	18	15	30	12	32	28	371	278	50	43	742
1944	259	236	11	8	23	12	24	22	282	248	35	30	595
1943	201	180	10	5	20	8	15	21	221	188	25	26	460
1942	175	144	5	2	18	6	9	13	193	150	14	15	372
1941	128	113	2	—	16	2	4	9	144	115	6	9	274
1940	104	100	1	—	9	2	—	5	113	102	1	5	221
1939	200	178	3	5	12	5	11	20	212	183	14	25	434

Note.—On the 31st December, 1938, the total number of cases on the register was 550, comprising 471 pulmonary cases (236 males and 235 females) and 79 non-pulmonary cases (40 males and 39 females).

As will be seen from the above table there was a further increase of 101 in the total number of cases on the notification register. It is however, to be noted from a succeeding table that no cases were written off as being cured, and it is pertinent to suggest that if the Tuberculosis Officer had been able to review all the cases on the register, the total would have been materially reduced. The number of children suffering from pulmonary disease was further increased by 10 to 43.

TABLE SHOWING NOTIFICATIONS OF PULMONARY
TUBERCULOSIS RECEIVED IN 1946, CLASSIFIED ACCORDING
TO AGE GROUPS.

1938		1939		1940		1941		1942		1943		1944		1945		1946	
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	1	1	1	—	—	1	—	—
1	1	2	1	2	2	1	—	3	2	2	1	1	3	6	3	5	6
11	21	15	14	12	16	10	14	22	23	17	12	26	25	31	38	29	42
12	27	11	20	10	8	20	18	18	7	6	17	15	25	35	32	34	35
17	11	14	10	8	5	18	9	16	7	14	8	22	14	25	16	27	21
15	9	16	5	8	4	12	3	13	7	9	6	16	10	24	5	23	4
8	3	11	4	9	4	6	4	10	1	10	4	13	3	23	5	12	3
2	1	3	—	1	—	—	—	1	5	4	3	14	4	9	12	5	8
66	73	72	54	50	39	67	48	83	52	63	52	108	84	153	112	135	119

TABLE SHOWING PERCENTAGE OF NOTIFICATIONS OF
PULMONARY TUBERCULOSIS RECEIVED IN EACH AGE GROUP

MALES										FEMALES							
1938	1939	1940	1941	1942	1943	1944	1945	1946	1938	1939	1940	1941	1942	1943	1944	1945	1946
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	1.6	0.9	—	—	—	—	—	—	—	1.9	—	.9	—
1.5	2.8	4	1.5	3.6	3.2	0.9	3.9	3.7	1.4	1.9	5.1	—	3.7	1.9	3.6	2.7	5.0
3.7	20.8	24	14.9	26.5	26.9	24.1	20.2	21.5	28.7	25.9	41	29.1	44.4	23.1	29.8	33.9	35.3
3.2	15.3	20	29.8	21.7	9.5	13.9	22.9	25.2	37	37	20.5	37.5	13.5	32.7	29.8	28.5	29.4
5.8	19.4	16	26.8	19.3	22.2	20.4	16.4	20.0	15.1	18.5	12.8	18.7	13.5	15.4	16.6	14.3	17.7
2.7	22.2	16	18	15.7	14.3	14.8	15.7	17.0	12.3	9.3	10.3	6.3	13.5	11.5	11.9	4.5	3.4
2.1	15.3	18	9	12	15.9	12.1	15	8.9	4.1	7.4	10.3	8.4	1.9	7.7	3.6	4.5	2.5
—	4.2	2	—	1.2	6.4	12.9	5.9	3.7	1.4	—	—	—	9.5	5.8	4.7	10.7	6.7

The only changes of note are a relatively small increase in the percentage of cases notified in the age group 25-35 years, and a corresponding decrease in notifications over the age of 55 years.

Return showing the work of the Dispensary during the year 1946:—

	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	110	91	2	5	7	4	6	6	117	95	8	11	2
(b) Diagnosis not completed	—	—	—	—	—	—	—	—	2	—	1	—	3
(c) Non-tuberculous	—	—	—	—	—	—	—	—	156	160	31	27	3
B.—CONTACTS examined during the year:—													
(a) Definitely tuberculous	2	2	2	1	—	—	1	—	2	2	3	1	8
(b) Diagnosis not completed	—	—	—	—	—	—	—	—	—	—	—	—	—
(c) Non-tuberculous	—	—	—	—	—	—	—	—	80	143	108	107	3
C.—CASES written off the Dispensary Register as:													
(a) Recovered	—	—	—	—	—	—	—	—	—	—	—	—	—
(b) Non-tuberculous (including any such cases previously diagnosed and entered on the Dispensary Register as tuberculous) ...	—	—	—	—	—	1	—	—	—	1	—	—	1
D.—NUMBER OF PERSONS on Dispensary Register on December 31st:—													
a) Definitely tuberculous	377	306	20	23	34	15	38	30	411	321	58	53	8
b) Diagnosis not completed	—	—	—	—	—	—	—	—	2	—	1	—	3

1. Number of persons on Dispensary Register on January 1st 74
2. Number of cases transferred from other areas and cases returned after discharge under Head 3 in previous years 10
3. Number of cases transferred to other areas, cases not desiring further assistance under the scheme and cases "lost sight of" 7
4. Cases written off during the year as Dead (all causes) ... 8
5. Number of attendances at—
 - (a) the Dispensary (including contacts) 4,60
 - (b) the Southend Municipal Hospital for A.P. refills 2,75
6. Number of visits by Tuberculosis Officer to Homes (including personal consultations) 6
7. Number of visits by Nurses or Health Visitors to Homes for dispensary purposes 5
8. Number of (a) Specimens of sputum, etc. examined ... 6

(b) X-ray examinations made in connection with dispensary work ... films ...	1,838
screenings	3,080

9. Number of "Recovered" cases restored to Dispensary Register and included in A (a) and A (b) above ...	1
10. Number of T.B. plus cases on Dispensary Register on 31st December	280

It is gratifying to record a further increase, from 305 to 374 in the total of non-tuberculous cases examined at the Dispensary, and the growth of contact examinations by 190 to a total of 438 cases. This shows that wider and better use is being made of the facilities for diagnosis and there is a growing awareness of the value of contact examinations. This is also reflected in the larger number of X-ray examinations which reached the formidable total of 1838, an increase of 473. A.P. Refills totalled 2,728, which is 456 more than last year.

Of the 726 pulmonary cases on the register at the end of the year, 280, or 39% were sputum positive. This is a considerable reduction as compared with last year's figure of 48%, and part explanation is to be found in the fact that there are names on the register which would have been removed had the Tuberculosis Officer had an opportunity of reviewing their progress.

Institutional treatment was provided under the Council's scheme for 172 patients as under :—

PULMONARY	Adults		Children		Total
	M	F	M	F	
Municipal Hospital	51	53	—	3	107
Benenden	7	5	—	—	12
Grosvenor	9	2	—	—	11
Preston Hall	5	1	—	—	6
Papworth	3	—	—	—	3
Nayland	1	13	—	—	14
Brompton	2	2	—	—	4
King George's	2	—	—	—	2
National Children's	—	—	1	—	1
St. Michael's	1	—	—	—	1
Children's Sanatorium	—	—	1	—	1
Black Notley	1	1	—	2	4
Royal Sea Bathing	1	—	—	—	1
London Chest Hospital	1	—	—	—	1
Langdon Hills	—	—	1	—	1
Totals	84	77	3	5	169
NON-PULMONARY					
Lord Mayor Treloar Cripples' Hospital	—	—	2	—	2
Grand Total	84	77	5	5	171

Extent of Residential Treatment provided during 1946 :—

	In Insti- tutions on Jan. 1st	Admitted during the Year	Discharged during the Year	Died in Insti- tutions	In Insti- tutions on Dec. 31st
PULMONARY					
M	32	52	26	17	41
F	34	45	44	5	30
Children	2	4	3	—	3
NON-PULMONARY					
M	—	—	—	—	—
F	—	—	—	—	—
Children	2	—	—	—	2
Total	70	101	73	22	76

Once more the provision of institutional treatment constituted a major problem, our patients having to wait too long for both primary hospitalisation and sanatorium treatment proper.

Maintenance Allowances.—A total of £3,620 15s. 7d. was disbursed in allowances made pursuant to Memo. 266/T, compared to £4,343 18s. 7d. for the year 1945.

Tuberculosis After Care Committee.—The work of this Committee continued to develop, the Corporation making a grant of £250 during the financial year ended 31st March, 1947.

MAINTENANCE ALLOWANCES.

MEMO 266/T.

				<i>Maintenance Discretionary</i>	
No. of applications received	...	...	104	21	
No. of applications granted	...	...	95	16	
The total disbursements were :—				£	s. d.
Maintenance Allowances	...	...	...	3,356	4 7
Discretionary Allowances	...	...	...	136	4 0
Pocket Money for Patients in Sanatoria	...	...	...	19	0 0
Winter fuel allowances	...	...	...	109	6 0
				£3,620 15 7	

On 31.12.46, 58 persons were in receipt of maintenance allowances, amounting to £90 18s. 5d. per week in addition to which 13 of these were receiving discretionary allowances amounting to £5 10s. 9d. per week.

MENTAL DEFICIENCY ACTS.

Number on Register at end of year—Male	...	170
Female	...	151
Total	...	<u>321</u>

INSTITUTIONAL CARE, AS ON 31ST DECEMBER, 1946.

(a) <i>By Mental Deficiency Committee.</i>	Males	Females	Total
Royal Eastern Counties Institution ...	35	20	55
Besford Court	3	—	3
Royal Earlswood Institution ...	3	2	5
Hortham Colony	1	4	5
Princess Christian's Farm Colony ...	7	2	9
Stretton Hall	1	—	1
Stoke Park Colony	1	—	1
Harmston Hall	1	—	1
St. Joseph's	—	1	1
St. Theresa's	—	2	2
Royal Western Counties Institution ...	1	—	1
Mutual Sanatoria	2	—	2
Royal Fort Home	—	1	1
Howbeck Colony	4	—	4
Southend Municipal Hospital ...	4	4	8
Rochford Public Assistance Institution	4	3	7
Other Public Assistance Institutions...	—	2	2
	<u>67</u>	<u>41</u>	<u>108</u>
(b) <i>By Relatives and Others.</i>			
Royal Eastern Counties Institution ...	3	4	7
Royal Earlswood Institution ...	1	—	1
Public Assistance Institutions ...	2	5	7
	<u>6</u>	<u>9</u>	<u>15</u>

During the year 11 patients were admitted to Institutions, 4 to Certified Institutions and 7 to Southend Municipal Hospital or Rochford Public Assistance Institution, one of whom was admitted under a Place of Safety Order.

One patient was admitted under a Place of Safety Order to an Emergency Home maintained by the Provisional National Council for Mental Health. Two patients were placed in private homes at the expense of their relatives; one of these was subsequently placed under a Guardianship Order, and at the end of the year there were five male and four female patients under Guardianship.

10 patients were released on licence from Institutions; 7 patients were recalled from licence, and at the end of the year there were 7 male and 11 female patients on licence. 4 patients were discharged.

3 patients died in Certified Institutions during the year, and 2 in the Southend Municipal Hospital.

<i>Supervision on 31st December, 1946.</i>					<i>Male</i>	<i>Female</i>	<i>Total</i>
Statutory	...	...	...	...	58	55	113
Voluntary	...	...	...	...	25	28	53
					83	83	166

13 patients were supervised on behalf of other Local Authorities, 8 on licence from Institutions and 5 under Guardianship.

The most serious problem confronting the Committee continues to be the shortage of accommodation in Certified Institutions, particularly for low-grade cases; and during the past year this has been complicated by requests from other Local Authorities for the removal of no less than 7 patients maintained by the Committee in Institutions in other parts of the Country. In every case this has involved an application to the Royal Eastern Counties Institution for a vacancy which, when available, will necessarily have been granted at the expense of other urgent cases still awaiting Institutional care. Yet another factor which indirectly increases the pressure upon Institutional accommodation is the scarcity of guardians able and willing to undertake the care of suitable defectives in their own homes, a problem naturally intensified by the housing shortage and the general difficulties of living.

There have for many years been a number of defectives maintained in the Mental Observation Wards of the Municipal Hospital and in the Public Assistance Institution. In the past these were mostly patients of an age and type whose needs were adequately met by this form of Institutional care, but in recent years it has been necessary to admit to the Municipal Hospital low-grade defective children and other patients who ought to be in Certified Institutions. Not only are the patients unsuitably placed in a General Hospital, but their continued retention there is an additional source of embarrassment to the Hospital at a time of acute shortage of staff, and during the year it has not been possible to obtain even the prospect of a vacancy for any one of these low-grade patients in a Certified Institution.

During the year the Council appointed a full-time trained Mental Deficiency Officer, to undertake all the supervision and enquiry work relating to Mental Defectives in the Borough, together with certain clerical duties arising from the administration of the Acts.

The need for a Day Occupation Centre for ineducable defectives is keenly felt, and such a Centre, if established, would inevitably tend to lessen the pressure upon Institutional vacancies, since the provision of suitable occupation and discipline maintained by a capable supervisor would operate both in improving the behaviour of low-grade defectives and reducing the strain upon parents in the home.

BLIND PERSONS ACTS, 1920-38.

	<i>Males</i>	<i>Females</i>	<i>Total</i>
Number on Register on 1st January, 1946	104	146	250
Died during the year	5	14	19
Left Borough during the year	8	11	19
Removed from Register	1	—	1
Newly Registered during the year	9	10	19
Removed from other areas during the year	4	16	20
Number on Register on 31st December, 1946	103	147	250

Six blind persons were in the hostel provided by the Essex County Council and 21 were in Homes and Institutions.

Work of the Home Teacher.

A total of 1,212 visits was made to blind persons in their homes, during which 34 lessons in Braille reading and writing and Moon reading, and 40 handicraft lessons were given.

The weekly handicraft class continued successfully and at the end of the year 18 blind persons were attending to receive instruction in chair-caning, weaving, netting, string-bag making and other crafts.

Home Workers.

At the end of the year there was one home worker in receipt of augmentation of wages engaged in basket making.

Periodicals.

English and American periodicals in Braille and Moon type continued to be supplied free of charge to local blind readers.

Use of Deck Chairs on the Promenade and Cliffs.

The Council's Entertainments Committee kindly arranged for the issue of free passes to enable all blind persons who could avail themselves of the facility, to use deck chairs on the Promenade and Cliffs. This concession was much appreciated.

Wireless.

The British Wireless for the Blind Fund supplied seven wireless sets during the year, so that several obsolete sets could be replaced.

Domiciliary Assistance.

On the 1st January, 1946, 124 blind persons were receiving domiciliary assistance amounting to £161 11s. 0d. per week, and on 31st December, 119 blind persons were receiving £92 9s. 8d. per week. The total amount disbursed during the year was £7,034 9s. 9d.

DOMESTIC HELP SCHEME.

In the Report for 1945, reference was made to the unsuccessful attempt made in that year to implement the provisions of Ministry of Health Circular 179/44. In 1946, it appeared that the prospects of re-establishing the Domestic Help Scheme were not unfavourable and the Council, at its meeting in August, decided to combine the Home Help Scheme and the Domestic Help Scheme, with a view to securing unified direction and control of both.

It was decided to appoint a whole-time Supervisor, in the first place for a period of not less than 12 - 18 months, and Mrs. F. Goddard already on the staff as a Clinic Assistant, was seconded to this work. The rate of pay fixed for home and domestic helps was £3 12s. 0d. for a 48-hour week (1s. 6d. an hour), and to persons employed for less than 42 hours a week, 1s. 8d. per hour. The scheme came into operation in November, and at the end of the year four full-time and eight regular part-time women were employed. Twenty families received assistance under the scheme, the total number of hours worked being 885, at a cost of £129 0s. 2d., of which £27 2s. 3d. was recovered from the families assisted.

**ANNUAL REPORT OF THE SCHOOL MEDICAL OFFICER
FOR THE YEAR 1946**

**WELFARE AND SPECIAL SERVICES SUB-COMMITTEE
OF THE EDUCATION COMMITTEE**

NOVEMBER 1946—NOVEMBER 1947

Alderman Mrs. Leyland, M.B.E. (*Chairman*)
 Councillor E. A. Clarke (*Vice-Chairman*)
 Councillor J. W. Dorling
 Councillor H. W. Pinchbeck, F.R.I.C.S., F.A.I.
 Mr. C. W. Beale, J.P.
 Mr. E. S. Bowyer
 Miss E. O. Dowsett
 The Rev. W. W. Lawrence
 The Rev. P. C. Lee
 Dr. W. I. Moore
 Mrs. S. S. Sylvester
 Dr. P. F. R. Venables

Ex-officio :

His Worship the Mayor (Mr. Alderman S. F. Johnson, J.P.)
 The Chairman of the Education Committee (Alderman
 V. R. Tattersall, J.P.)
 The Vice-Chairman of the Education Committee (Miss M. E.
 Reay, C.B.E.)
 The Chairman of Maternity and Child Welfare Committee
 (Mrs. Councillor M. Broom).

STAFF OF THE SCHOOL MEDICAL SERVICE.

—WHOLE-TIME OFFICERS.

School Medical Officer :

J. Stevenson Logan, M.B., Ch.B., D.P.H.

Deputy School Medical Officer :

J. Conway Preston, M.R.C.S., L.R.C.P., D.P.H.

Assistant School Medical Officers :

Eleanor C. Thistlethwaite, M.B., Ch.B. Died 6th June.

John Greenhalgh, M.B., B.S., M.R.C.S., L.R.C.P., D.A.

Commenced 7th May. Temporary appointment.

Appointed to permanent staff 8th October.

One vacancy.

Senior School Dental Surgeon :

Edgar C. Austen, L.D.S., R.C.S.

Assistant School Dental Surgeon :

William P. Jones, L.D.S. Resigned 2nd May.

Alexander Thomas Craig, L.D.S., R.C.S. Commenced 1st November.

Health Visitors who also act as School Nurses :

Miss K. M. Burnett

Miss A. E. Penfold

Miss V. Crump

Miss P. Bulwer. Appointed

Miss M. Butcher

to permanent staff 12th

Mrs. V. Grove

February

Miss M. N. Withams

Miss G. M. John

Miss D. E. Stevens

Miss A. M. Turret

School Clinic Nurse :

Miss D. L. Willis

School Clinic Attendant :

Miss L. M. Marshall. Commenced 1st April.

Dental Attendants :

Mrs. R. H. Eyre

Miss I. J. Sinclair. Commenced 28th January.

Clerks :

Miss M. M. Restorick

Miss D. Fill

Miss Y. Nightingale. Resigned 13th April.

Miss B. P. Law. Commenced 23rd April.

B.—PART-TIME OFFICERS.*Ophthalmic Surgeon :*

D. D. Evans, M.D., Ch.B., D.O.M.S.

Surgeon for Operative Treatment of Tonsils and Adenoids :

C. Hamblen Thomas, F.R.C.S.

Orthopaedic Surgeon :

B. Whitechurch Howell, F.R.C.S.

Psychiatrist :

J. A. McCluskie, M.B., Ch.B., B.Sc.

Superintendent of Remedial Treatment Centre :

Vacant.

Speech Therapist :

Miss E. E. Brewitt, F.C.S.T. Resigned 31st March.

STAFF.

Dr. J. Greenbalgh joined the staff of the Public Health Department in a temporary capacity in May to assist in the supervision of smallpox contacts. He remained to participate in the work of the School Medical Service and was appointed to the permanent staff in October.

The untimely death of Dr. Eleanor Thistlethwaite in June was keenly felt not only by her colleagues but by the larger public who had learned to appreciate her sympathetic handling of the medical problems of childhood.

The work of the Department was carried on for the remainder of the year with the assistance of two temporary medical officers, Dr. H. H. Young from the 8th July to the 31st August, and Dr. O. Young from the 9th September to the end of the year.

The expanding work of the Child Guidance Clinic made it necessary in January to increase the attendances of the psychiatrist from 2 sessions per week to 4 sessions. The Clinic was without a psychiatric social worker throughout the year, there being a dearth of suitable applicants.

The appointment of Miss L. M. Marshall as school clinic attendant was a new development made necessary by the heavy demands on the school clinic nurse in the treatment of minor ailments.

Following the resignation of Miss E. E. Brewitt the work of the Speech Therapy Clinic remained in abeyance with the exception of a period of one month, from the 24th June to the 24th July, when Mrs. I. Batchelor acted as part-time temporary speech therapist.

Following the resignation of Mr. Jones in May, there was no assistant dental surgeon until Mr. Craig took up duty in November.

SCHOOL MEDICAL AND DENTAL INSPECTION

Despite the changes in medical staff there were, for the first time since 1939, two assistant medical officers available for the greater part of the year and, in consequence, 5,296 routine medical inspections were carried out, a figure which approaches the pre-war average. Of these, 1,922 were children in the second age group, the inspection of which had, of necessity, been restricted since the return of the children from evacuation. Many of these children were overdue for inspection and were in fact in their first year at a secondary school.

The revision of the code groups in Regulation 49 (2) of the Handicapped Pupils and School Health Service Regulations 1945 requires the routine inspection of children in their first and last years of attendance at a primary school, and in the last year of attendance at a secondary school.

In the case of the selective secondary schools, where the leaving age is over 15 years it has been the practice in the past to carry out

more than one examination during the period of a child's attendance at such school. Full use has always been made in these schools, of the facilities for special inspection of pupils on the request of the head teacher or parent, so that a stricter interpretation of the term "routine inspection" does not necessarily involve any restriction of facilities for medical supervision of children in the older age groups.

The findings of routine medical inspections do not indicate any marked deviation from the average. The statistics of nutrition show some variation from the previous year which is at first sight less favourable. But in fact the figures this year approximate more closely to the average of the pre-war years and it is considered that there has been no real difference in the nutrition of the children. For reasons indicated in last year's report the number of children routinely inspected during 1945 was much smaller than usual, and the statistical inferences therefore less reliable. The inspections in 1946 included a much larger proportion of the second age group, which has notoriously the least favourable nutrition as judged by clinical assessment and finally, this year's statistics are the averaged results of four different examiners, whereas in 1945 almost all the inspections were done by one Medical Officer.

The revised medical inspection record which is to be brought into use gradually as old stocks become used up, substitutes the heading "General Condition" for "Nutrition." It is interesting to reflect on the extent to which even medical practitioners can be influenced by terminology.

The attempt to assign correctly an obese child to a "nutrition class has long presented a problem to the conscientious examiner. Such a child is manifestly not undernourished, but equally he is neither "normal" nor "excellent." Under the designation "general condition" this dilemma can be resolved by the recognition of his abnormality without the production of an apparent anomaly of classification.

Despite the absence of a second dental surgeon from May until November, 7,442 children were routinely inspected by the School Dentist, a substantial increase on the figures for the previous year though less than the average for a normal year with full staff. The proportion of children, including "specials" who are found to require treatment is in the neighbourhood of 50% and shows little variation. It is satisfactory to note that the proportion of children who accept treatment shows an upward trend.

PROVISION OF MILK AND MEALS

Thirteen schools provided meals from their own canteens; the remainder received container meals from the five central kitchens.

The supply of meals during the school holidays was maintained from those schools where cooking facilities were available on the premises. The proportion of children taking school meals was 50.5%

of those on roll and 58.9% of those actually in attendance. This proportion compares favourably with many other parts of the country, but it seems strange at a time when so much is said and written about rationing difficulties, that only half the children avail themselves of the facilities for obtaining a regular mid-day meal, supplementary to the domestic ration and at very small cost.

The arrangements for the provision of milk remained as in former years. The standard ration was one third of a pint. Owing to the necessity for careful budgeting on account of restricted supplies, there is seldom much milk left unconsumed at the end of the morning. Any such surplus is distributed in the afternoon to children who are known to be delicate or necessitous.

There were again two outbreaks of illness giving rise to suspicion of food poisoning attributable to school meals. Both were fortunately mild, and limited in character; in one case one adult and nine children were affected, and in the other only three adults.

As usual in outbreaks of this character, it was not possible to assign with certainty a cause for the illness. Investigation is hampered by circumstances which are inherent in the school meals system. Unlike ordinary catering establishments, the school canteens provide one meal only per day, and for a number of persons which can be calculated in advance with considerable accuracy, with the result that there is very little food left over, and such remainders as there may be, are disposed of the same day. It is therefore exceptional to find any of the suspected ingredients available for sampling. Moreover, unlike residential schools, the persons who have consumed the meal have usually dispersed to their homes before they begin to feel ill, and it is not until some time after the morning assembly the next day when it becomes apparent that a number of persons has been affected by similar symptoms that the suspicion of food poisoning is aroused. This, together with the fact that the symptoms in most cases are mild and transient, and often not reported until enquiry is made, makes inevitable delay in instituting investigation, which further diminishes the chances of tracing the origin of the outbreak.

From a growing experience of investigating outbreaks of this character, however, a general pattern seems to emerge. The time of onset of symptoms and the clinical character of the illness show a close parallelism in different outbreaks, and are suggestive of a toxic food poisoning rather than an infective enteritis. This is supported by the negative findings of bacteriological examination of food remnants and of rectal swabs from persons affected. Similarly, chemical analysis where this has been possible, has shown no evidence of inorganic metallic poisoning. On the other hand investigation of swabs from the noses and throats of kitchen staffs, undertaken with a view to discovering carriers of pathogenic staphylococci or other toxin producing organisms, have so far proved inconclusive. It is perhaps noteworthy that these outbreaks commonly, though not exclusively, occur in schools served with container meals from a central kitchen. In general the working conditions in the central kitchens are better

than in the existing individual school canteens, and the equipment is more modern. If the observation is of any significance at all it may be that the explanation lies in the period of time during which the food remains in the heated containers and thus provides a suitable medium for the incubation of organisms and the elaboration of toxins. This, however, would not explain how the food came to be infected in the first place.

ARRANGEMENTS FOR TREATMENT.

1. GENERAL.

The general scheme for the provision of treatment under the Education Act, 1944, was set out in last year's report. The existing arrangements were continued during 1946. Preliminary discussions took place with a view to formulating proposals for a complete scheme of free hospital treatment for children for whom the Authority is responsible and the negotiations were still in progress at the end of the year.

2. MALNUTRITION.

As from the 6th August the daily ration of $\frac{1}{3}$ pint of milk has been available to every child free of charge, in accordance with the Ministry's Circulars 96 and 119.

Free meals are provided where necessary either on medical recommendation or on evidence of economic need.

On the recommendation of the School Medical Officer the Committee supplies Cod Liver Oil and Malt or Parrish's Food free of cost.

3. MINOR AILMENTS.

As in previous years, the Inspection Clinic and Minor Ailment Treatment Centre at the Municipal Health Centre was open daily, and additional clinics were held once weekly during term time at Eastwood, Leigh and Shoeburyness.

In February, the Leigh Clinic was moved to new premises at 70, Burnham Road, provided jointly with the Maternity and Child Welfare Committee. The clinic had previously been held under difficult conditions at West Leigh School, where there is no medical inspection room, and the classrooms were urgently needed for teaching purposes. The need for adequate clinic premises in the Leigh area had long been apparent and the improved facilities at Burnham Road will meet the needs for some time to come. The present clinic occupies the ground floor of the building, leaving the first floor available for future development, possibly as a Dental Clinic, or for general purposes when it becomes necessary and possible to provide an inspection clinic and treatment centre more often than once a week. At the present time the school clinic is not held at the same time as the Infant Welfare Centre is in session, so that the same rooms can be used for both purposes.

Attendances at the inspection clinics again showed an increase from 9,460 to 9,869, and attendances for treatment from 3,646 to 3,975.

The work of the Minor Ailment Treatment Centre has shown a steady increase in recent years. This does not indicate a greater prevalence of minor ailments among school children, but is rather evidence of a greater appreciation by the public of the service provided and a greater willingness to accept skilled treatment. Moreover, modern methods of treatment often show strikingly better results in skilled hands. This is particularly true of the treatment of scabies and in consequence treatment by the clinic nurse is advised wherever possible in preference to home treatment of this disease. These considerations made necessary the institution in April of a new appointment of clinic attendant to assist the trained nurse in charge of the Treatment Centre.

4. UNCLEANLINESS AND VERMINOUS CONDITIONS.

Treatment facilities for these conditions are freely available at the School Clinic and where it is necessary to treat a whole family as a unit, arrangements can be made at the Borough Sanatorium.

There was again an increase in the total number of examinations by the school nurses, from 32,176 to 33,095. Despite this increased activity it is satisfactory to record that the number of children found to be unclean was 741 compared with 962 in 1945.

It was not necessary to institute legal proceedings in respect of uncleanliness.

The number of cases of scabies remained approximately the same as last year, 241 children were treated at the School Clinic, with a total of 497 attendances for treatment. The latter figure does not include subsequent attendances at the Inspection Clinic for observation.

The administrative procedure for dealing with children found to be verminous was revised, to conform with the requirements of the new Education Act. The powers contained in Section 87 of the Education Act, 1921, to secure the compulsory cleansing of verminous children were never invoked in Southend. It was the practice to exclude such children on the authority of the School Medical Officer, and in cases where the child was not cleansed within a reasonable time, to take proceedings against the parent under the School Attendance bye-laws. Section 54 of the Education Act, 1944, provides similar powers of compulsory cleansing. The procedure, however, is complicated and time-consuming, and the Committee were impressed with the success which has attended the former method of exclusion and persuasion with the sanction of compulsory powers in the background. The School Attendance bye-laws made under the Act of 1921 are no longer operative, and except for a strictly limited purpose the power of exclusion is now vested in the Head Teacher and not in the School Medical Officer. The Ministry's Administrative Memorandum No.

156 recognises the advantages of proceeding informally in the first instance, particularly in cases where the child has not repeatedly been found verminous and may in fact be an innocent victim. The Committee decided to reserve the use of compulsory powers for cases specifically recommended by the School Medical Officer, and to authorise as a routine procedure the service of informal notices drawing the parents' attention to the state of the child and affording them advice and opportunity for cleansing. Failure to render the child fit to be re-admitted to school within a reasonable period would entail legal proceedings under Section 39 of the Act, for failure to cause the child to attend school regularly, on the grounds that he was not absent for any unavoidable cause.

To facilitate these arrangements the Committee gave general instructions to head teachers to exclude children on the advice of the School Medical Officer.

5. SCHOOL CLINICS.

(a) *Dental Clinic.*

The facilities for treatment remained the same as in previous year and despite the difficult staff position the statistics of children treated continue to show an upward trend.

Special attention has been directed to the development of orthodontic treatment and this is shown in the figures for "Other Operations," (Table IV) which numbered 817 compared with 15 in the previous year. Orthodontic treatment consumes much more time per case than is required for extractions and fillings, and a special session once a week was devoted almost exclusively to this work.

In special cases, on the recommendation of the dental surgeon the Committee has approved arrangements for children to be treated by the Orthodontic Specialist at the London Hospital.

(b) *Eye Clinic.*

The total number of attendances at the Eye Clinic increased from 878 to 1,509 and sessions were held regularly twice a week at the School Clinic.

The arrangements for the provision of spectacles remained as described in last year's report.

(c) *Ear, Nose and Throat Clinic.*

The arrangements whereby children suffering from enlarged tonsils and adenoids are referred to the Consulting Surgeon at the Out-patient Department of the Southend General Hospital continue as in previous years.

473 children received operative treatment for tonsils and adenoid compared with 196 in 1945. This apparent large increase presents a false picture because the total number of children referred to the

E.N.T. Clinic during the year was only 315, many of whom were not recommended for operation. The explanation lies in the successful efforts made by the hospital authorities during 1946, to overcome the arrears on the waiting list. Nevertheless, there was an increase in referrals to the E.N.T. Clinic, which can be at least partly explained by the increase in the total of routine and other inspections from 3,289 to 18,362.

The importance of specialised investigation and treatment of the deaf child has received increasing attention in recent years. It is recognised that to obtain the best results from specialised education it is essential that the deaf child should start such education as early as possible. The lengthy waiting lists of Special Schools for the deaf and the difficulty of accurate diagnosis in the young child has tended to make the average age of entry to a special school later than desirable. The refinement of methods of diagnosis in expert hands, and the development of hearing aids suitable for young children have made it possible to assess a deaf child's needs at an earlier age and thus to decide upon the appropriate method of education. On the recommendation of the School Medical Officer the Committee has approved arrangements for the special investigation of individual deaf children by Dr. H. S. Hallpike, Consultant Aural Physician at the National Hospital, Queen Square, London. The writer would like to take this opportunity of expressing his gratitude for the assistance which Dr. Hallpike has given in cases which present great difficulty and where decision has such far reaching results.

1) Orthopaedic Clinic.

No change was made in the arrangements whereby the Orthopaedic clinic is held quarterly at the Southend General Hospital. Children requiring to be seen more frequently attend by special appointment at the surgeon's weekly out-patient clinic.

In-Patient Orthopaedic treatment is provided at the Southend General Hospital. Long-stay cases requiring educational provision are admitted to orthopaedic hospital schools.

Although the supply of special appliances and made-to-measure footwear can usually be facilitated on the production of a certificate from the School Medical Officer, difficulty was again experienced in obtaining ready-to-wear boots and shoes suitable for modification in accordance with the Orthopaedic Surgeon's recommendation.

2) Speech Clinic.

Following the resignation of Miss E. E. Brewitt in March, the Speech Clinic remained in abeyance. There are no other facilities for Speech Therapy nearer than London.

(f) *Child Guidance Clinic.*

The part-time Psychiatrist attends for four sessions each week. The Educational Psychologist is a full-time Officer who divides her time between the Child Guidance Clinic and her duties in the Schools. The Clinic was again without a psychiatric social worker throughout the year, such social work as was possible being undertaken by the psychologist with some assistance from the Health Visitors.

The work of the Clinic is growing and although the available sessions are fully occupied and there is a waiting list, it is apparent that the full potentialities of Child Guidance work in Southend are as yet unexploited.

The number of cases requiring residential treatment points to the need for a hostel for maladjusted children, a development which is strongly urged by the psychiatrist. At the present time cases requiring residential treatment can only be sent to boarding special schools, of which there are very few. These schools mainly cater for the long-stay cases and would thus not be a complete substitute for a hostel even if vacancies were easy to obtain.

Another much needed development is the provision of new accommodation for the Clinic itself. The present premises on the top floor of No. 20 Warrior Square are inconvenient of access and restricted in space.

By arrangement with the Essex County Council a limited number of cases from the County area have attended the Child Guidance Clinic at the request of the County Medical Officer.

The following classified statistics show the number and type of cases dealt with during the year.

TOTAL CASES REGISTERED JANUARY—DECEMBER, 1946

	<i>Girls</i>	<i>Boys</i>	<i>Total</i>
	47	80	127
<i>Sources of Referral:</i>			
Parents and relatives			26
Schools			35
Medical Officers			27
Juvenile Court			2
Probation Officers			2
Education Officer			18
Private Physicians			10
Speech Therapist			1
Other Agencies			3
Transfers from other Child Guidance Clinics			3
			<hr/> 127 <hr/>

blem for which referred :

Backwardness	3	8	11
Stealing and Lying	6	6	12
Nervousness	5	11	16
Nervous movements	1	5	6
Difficult and unmanageable	6	9	15
Temper Tantrums, Screaming Fits	3	4	7
Enuresis	3	5	8
Speech difficulties	3	4	7
Truancy and wandering	—	8	8
Unwilling to attend school	2	2	4
Sex difficulties	2	3	5
Night terrors and fears	1	1	2
Restlessness and sleeplessness	1	1	2
Asthma	—	1	1
Depression	1	—	1
Lack of concentration	2	3	5
Over activity	—	1	1
Anxiety	1	2	3
Fits	—	2	2
Hysteria	2	1	3
Skin trouble	1	—	1
Withdrawn and uncommunicative	2	1	3
Spitefulness	—	4	4
	<hr/>	<hr/>	<hr/>
	45	82	127

Range.

Below 75	4	6	10
Between 76—85	6	7	13
„ 86—95	10	16	26
„ 96—105	14	23	37
„ 106—115	6	13	19
„ 116—120	1	6	7
Above 120	3	2	5
Not able to complete testing	3	7	10
	<hr/>	<hr/>	<hr/>
	47	80	127

Range.

Under 5	4	3	7
Between 5—7	8	19	27
„ 7—10	15	26	41
„ 10—12	9	17	26
„ 12—14	8	13	21
„ 14—16	2	2	4
„ 16	1	—	1
	<hr/>	<hr/>	<hr/>
	47	80	127

NURSERY CLASSES.

The war-time nurseries at Bournemouth Park Road and Eastwood Schools were discontinued from the 1st April, when they reverted to ordinary nursery classes, open during normal school hours only.

Four nursery classes were maintained during the year, at Eastwood, the Open Air School, Bournemouth Park Road, and Thorpe Schools respectively. None of these was designed as a nursery school and in varying degree all have structural disadvantages for the purpose, chiefly in the siting of lavatories, sanitary accommodation and cloakrooms.

The health of the children in the nursery classes was well maintained and there was no repetition of the outbreaks of Sonne Dysentery which were experienced in 1944 and 1945.

SPECIAL SCHOOLS.

The premises of the Open Air School remained in use as an ordinary infants' department and nursery class and it was not found possible to re-establish the Day Open Air School.

The Day Special School for Educationally Sub-normal children was re-opened on the 30th April, with provision for 33 children between the ages of 7—14 years. Owing to difficulty in recruiting staff it was necessary to restrict the initial entry to children from 7 to 11 years.

The following Table shows the number of children maintained during the year in Residential Special Schools not provided by the Authority.

BLIND AND PARTIALLY SIGHTED.	Boys	Girls
Chorleywood College	—	2
Court Grange, Abbotskerswell	1	—
Royal London Society for Training the Blind	—	1
Royal Normal College	1	—
West of England School for the Blind ...	—	1
Dorton House School	1	—
DEAF AND PARTIALLY DEAF.		
Oak Lodge School for the Deaf	—	1
Royal School for the Deaf, Margate ...	1	1
Royal Institution for the Deaf, Derby ...	—	2
Rayner's School, Penn	1	—
Havering House, Pewsey	—	1

EDUCATIONALLY SUBNORMAL.

Beacon School, Lichfield	3	—
Kingsmead School, Herts	1	—
All Souls School, Field Heath	—	1
Besford Court	2	—
The Royal Eastern Counties Institution ...	2	—
Littleton House, Girton	2	—
Morryhull, Birmingham	—	1

PHYSICALLY DEFECTIVE.

Meath Hospital School	—	1
Etherington Hall, Speldhurst	—	1
Courtney Special School, Starcross ...	—	1
Hinwick Hall, Wellingborough	2	—
Cold Ash Children's Hospital	—	1
Heritage Craft Schools, Chailey	—	1
Victoria Home, Bournemouth	—	1
Hurst Lea, Sevenoaks	1	—
New Place, Porlock	—	1
St. Catherine's Home, Ventnor	2	—
Horsleys Green, Stokenchurch	1	—

EPILEPTICS.

Lingfield Colony	1	—
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MALADJUSTED.

Chaigeley Manor, Clitheroe	1	—
Haybrook House, Pewsey	1	—
Walton Elm, Marnhull	—	1
Red Hill School, Surrey	1	—

The shortage of accommodation in residential special schools throughout the country continues to be a serious problem. The difficulty is most acute in the case of the more serious defects such as blindness, deafness and multiple defects, in which there is no satisfactory alternative to a special school. At the end of the year a survey of handicapped pupils was in progress at the request of the Ministry of Education in order to provide information as a basis for the determination of national requirements for the future development of specialised forms of education.

TRAINING OF DISABLED PERSONS.

As part of the Ministry of Labour's scheme for the training of disabled persons, students attending approved courses of training at the Municipal College are offered facilities for medical examination and supervision by the Medical Officers of the School Health Service.

Fourteen students were examined during 1946. The object of this provision, which is on a voluntary basis, is to ensure that the course of training on which the student is engaged is suited to his particular disabilities, and where necessary to enable advice to be given as to any modifications of training which may be desirable or as to the student's progress in regard to his medical condition.

JUVENILE EMPLOYMENT.

224 boys and 15 girls were examined for the purpose of regular juvenile employment and 13 girls were examined for temporary licences for theatrical employment in Christmas pantomimes.

PRIMARY AND SECONDARY SCHOOLS.

RETURN OF MEDICAL INSPECTIONS :—YEAR ENDED 31ST DECEMBER 1946.

TABLE I.

A. ROUTINE MEDICAL INSPECTIONS.

(1) *No. of Inspections* :—

Entrants	...	...	...	...	1,695
Second Age Group	...	...	...	...	1,922
Third Age Group	...	...	...	...	1,679
					5,296

(a) *No. of other Routine Inspections* :—Nil.

B. OTHER INSPECTIONS.

No. of Special Inspections and Re-inspections : 13,066.

TABLE II.

Classification of the Nutrition of Children Inspected during the year in the Routine Age Groups.

No. of children inspected	A (Excellent)		B (Normal)		C (Slightly Sub-Normal)		D (Bad)	
	No.	%	No.	%	No.	%	No.	%
5,296	1,126	21.3	4,037	76.2	133	2.5	—	—

TABLE III.

GROUP I	—Number of Minor Ailments (excluding uncleanliness) treated or under treatment during the year	1,307
GROUP II	—Treatment of Defective Vision and Squint:	
	Errors of refraction (including squint) ...	518
	Other defect or disease of the eyes	26
	No. of children for whom spectacles were—	
	(a) Prescribed	384
	(b) Obtained	258
GROUP III	—Treatment of Defects of Nose and Throat—	
	Received operative treatment	473
	Received other forms of treatment	41

TABLE IV.

DENTAL INSPECTION AND TREATMENT.

(1)	Number of pupils inspected by the Dentist:—	
	(a) Routine age-groups	7442
	(b) Specials	1272
	(c) TOTAL (Routine and Specials)	8714
(2)	Number found to require treatment	4587
(3)	Number actually treated	4085
(4)	Attendances made by pupils for treatment ...	5380
(5)	Half-days devoted to:—	
	Inspection	54
	Treatment	681
(6)	Fillings:—	
	Permanent Teeth	1731
	Temporary Teeth	186
(7)	Extractions:—	
	Permanent Teeth	1220
	Temporary Teeth	4319
(8)	Administrations of general anaesthetics for extractions	2463
(9)	Other Operations:—	
	Permanent Teeth	817
	Temporary Teeth	—

TABLE V.

GERMINOUS CONDITIONS.

(i)	Total number of examinations of pupils in the Schools by School Nurses or other authorised persons	33,095
(ii)	Number of individual pupils found unclean ...	741

TABLE III

TABLE III
 Treatment of Defects of Vision and Refraction (including squint)

Received other forms of treatment	475
Received operative treatment	475
Total	950

TABLE IV
 Treatment of Defects of Vision and Refraction (including squint)

Received other forms of treatment	475
Received operative treatment	475
Total	950

TOTAL INSPECTION AND TREATMENT

(1) Number of pupils inspected by the Dentist:	7442
(a) Routine age-groups	1272
(b) Specials	6170
(c) TOTAL (Routine and Specials)	7442
(2) Number found to require treatment	4987
(3) Number actually treated	4985
(4) Attention made by pupils for treatment	5280
(5) Half-days devoted to:	
Inspection	54
Treatment	681
(6) Fillings:	
Permanent Teeth	1781
Temporary Teeth	186
(7) Extractions:	
Permanent Teeth	1220
Temporary Teeth	4319
(8) Administrations of general anaesthetics for extractions	2403
(9) Other Operations:	
Permanent Teeth	817
Temporary Teeth	...

TABLE V

TOTAL NUMBER OF EXAMINATIONS OF PUPILS IN THE SCHOOLS BY SCHOOL NURSES OR OTHER AUTHORIZED PERSONNEL

Number of individual pupils found unclean	741
Total number of examinations of pupils in the schools by school nurses or other authorized personnel	83,095

