

AC 44116) PURFLEET

PURFLEET
URBAN DISTRICT COUNCIL

ANNUAL REPORT

OF THE

Medical Officer of Health

INCLUDING THE REPORT OF THE

Sanitary Inspector

For the Year 1933.

GRAYS.

John Higgins, Printing Contractor.

1934

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PUBLIC HEALTH OFFICERS OF THE
LOCAL AUTHORITY.

Medical Officer of Health.

W. T. G. BOUL, M.D., Ch.B. (Vict.), D.P.H.

Deputy Medical Officer of Health:

CYRUS IVE, M.B., B.S., D.P.H.
(Resigned 31/12/33).

K. N. MAWSON, M.B., Ch.B., D.P.H.
(Appointed 1/1/34.)

Sanitary Inspector:

L. CULLISS,

Certificate Royal Sanitary Institute and Smoke Inspector, Certified Meat Inspector, and Officer under the Rats and Mice Destruction Act, 1919.

Chief Clerk:

R. C. GILBERT.

Clerical Assistant:

Miss P. SMITHSON.

The Medical Officer of Health is also Medical Officer of Health to the adjoining Urban Districts of Grays, Tilbury and the surrounding Rural District of Orsett, and School Medical Inspector and District Tuberculosis Officer for these districts.

The Deputy Medical Officer of Health is also Deputy Medical Officer of Health to the same districts, and School Medical Inspector and District Tuberculosis Officer to these districts under the Essex County Council.

PUBLIC HEALTH DEPARTMENT,
 QUARRY HILL,
 GRAYS, ESSEX.

January, 1934.

To the Chairman and Members of the Purfleet
 Urban District Council.

Mr. Chairman, Gentlemen,

I have the honour to submit to you my Fifth Annual Report upon the Health and Sanitary Circumstances of the Purfleet Urban District. In accordance with the instructions of the Ministry of Health this is a short Report.

Vital Statistics.—The Birth Rate at 18.2 compares favourably with that for England and Wales (14.4). Similar remarks apply to the Death Rate (10.0) against the national figures of 12.3, but the Infantile Mortality Rate has increased slightly, from 41.6 to 50.0 against the national rate of 64.0.

There is very little calling for comment at the present time. The public health standards of the Urban District are remarkably high, and in the past five years a considerable amount of unsatisfactory house property has been repaired or demolished.

Purfleet has always been unusually free from infectious disease, especially when one remembers the large daily influx of workers from all parts. It is very gratifying to report once again upon the pleasing co-operation existing between the Department and the various firms in the District. I have found the officials of the local industries always willing, without exception, to help me in any matters affecting the common welfare.

I should like, also, to thank the members of the Council for their support, and especially for the sympathetic manner in which my representations have been received. To my colleagues in other departments, and

to the local medical practitioners, I take this opportunity of expressing my appreciation for their past help and co-operation.

I am, Gentlemen,

Your obedient servant,

W. T. G. BOUL, M.D., C.H.B., D.P.H.,

Medical Officer of Health.

STATISTICS AND SOCIAL CONDITIONS OF THE AREA.

The Urban District of Purfleet stands upon the northern bank of the Thames, about fifteen miles from London. It comprises the parishes of Purfleet, West Thurrock, Aveley and South Ockendon, the two former being industrial and the latter agricultural areas. A certain amount of shipping trade is carried on with the factories on the river bank, while chalk quarrying and cement-making form part of the principal industries.

The rainfall is light and the climate equable, but heavy mists are frequent from autumn to spring, making the district unsuitable for people with rheumatic tendencies.

The chief occupations of the inhabitants are :—

- (1) Employment in Cement Factories, Quarries, Oil Works, Margarine Factories, Board Mills, &c.
- (2) Agricultural.
- (3) Transport Work.
- (4) Tradesmen and Clerical.

There is no evidence to suggest that any particular occupation exercises a deleterious effect upon the general health of the district.

Area ...	....	....	8,899 acres
Population (Registrar-General's estimate) 1933			8,807
Number of Inhabited Houses at 31/12/33	....		2,189
Rateable Value ....	....		£56,420
Sum represented by Penny Rate	....		£225

VITAL STATISTICS.

Live Births.	Male	Female	Total
Legitimate ....	.... 94	60	154 }
Illegitimate	.... 6	—	6 }

Birth Rate per 1,000 of the estimated resident population 18.2

	Male	Female	Total
Stillbirths .... .	.... 1	1	2
Rate per 1,000 (live and stillbirths) births			12.3

	Male	Female	Total
Deaths ....	.... 51	37	88
Death Rate per 1000 of estimated resident population			10.0

Deaths from Puerperal causes—	Deaths	Rate per 1,000 total (live and still) Births
Puerperal Sepsis	Nil	Nil
Other Puerperal causes	„	„
	—	—
	Nil	Nil
	—	—

DEATH RATE OF INFANTS UNDER 1 YEAR:—

All Infants per 1,000 live births	....	50.0
Legitimate Infants per 1000 legitimate live births		51.9
Illegitimate Infants per 1,000 illegitimate live births		Nil

DEATHS FROM—

Measles (all ages) ...	....	....	Nil
Whooping Cough (all ages) ....		....	Nil
Diarrhoea (under 2 years) ....		....	Nil

The principal causes of death were:—

Cancer 14	Pneumonia	11
Heart Disease 13	Tuberculosis	10

Approximately 43% of the total deaths occurred in persons over the age of 65 years.

The following tables have been supplied by the Registrar-General, with the exception of the line marked * in Table No 2.

TABLE 1. CIVILIANS ONLY. CAUSES OF DEATH IN PURFLEET U.D., 1933.

Causes of Death.		Male.	Female
	51	...	37
ALL CAUSES	
1 Typhoid and Paratyphoid fevers	...	—	—
2 Measles	—	—
3 Scarlet fever	—	—
4 Whooping cough	...	—	—
5 Diphtheria	—	—
6 Influenza	3	3
7 Encephalitis lethargica	—	1
8 Cerebro-spinal fever	—	—
9 Tuberculosis of respiratory system	...	6	3
10 Other tuberculous diseases	...	—	1
11 Syphilis	—	—
12 General Paralysis of the insane, tabes dorsalis	—	—	—
13 Cancer, malignant disease	...	6	8
14 Diabetes	—	1
15 Cerebral haemorrhage, &c.	...	3	2
16 Heart disease	7	6
17 Aneurism	—	—
18 Other circulatory diseases	...	1	2
19 Bronchitis	1	—
20 Pneumonia (all forms)	9	2
21 Other respiratory diseases	...	—	—
22 Peptic Ulcer	—	—
23 Diarrhoea, &c. (under 2 years)	...	—	—
24 Appendicitis	—	—
25 Cirrhosis of liver	—	—
26 Other diseases of liver, &c.	...	—	—
27 Other digestive diseases	3	—
28 Acute and chronic nephritis	...	—	1
29 Puerperal sepsis	—	—
30 Other puerperal causes	—	—
31 Congenital debility, premature birth, malformations, &c.	4	2
32 Senility	1	3
33 Suicide	2	—
34 Other violence	2	1
35 Other defined diseases	3	1
36 Causes ill-defined or unknown	...	—	—
Special Causes (included in No. 35 above)			
Small-pox	—	—
Poliomyelitis	—	—
Polioencephalitis	—	—
Deaths of Infants under 1 year	{ Total ... Legitimate ... Illegitimate ...	6 6 —	2 2 —
LIVE BIRTHS ...	{ Total ... Legitimate ... Illegitimate ...	100 94 6	60 60 —
STILLBIRTHS ...	{ Total ... Legitimate ... (Illegitimate ...	1 1 —	1 1 —

POPULATION 8,807.

BIRTH-RATES, DEATH-RATES, AND ANALYSIS OF MORTALITY DURING 1933.

(PROVISIONAL FIGURES).

(The Mortality Rates for England and Wales refer to the whole population, but for London and the towns to civilians only).

	RATE PER 1,000 TOTAL POPULA- TION.		ANNUAL DEATH-RATE PER 1,000 POPULATION.										RATE PER 1,000 BIRTHS.		PERCENTAGE OF TOTAL DEATHS		
	All Causes	Five Births.	All Causes	Enteric Fever	Small-pox	Measles	Scarlet Fever	Whooping Cough	Diphtheria	Influenza	Violence	Deaths under Year (under Two years)	Certified Practitioners	Cases Inquest	Certified by Coroner	No Inquest after P.M.	Uncertified Deaths
England and Wales ...	14.4	0.62	12.3	0.01	0.00	0.05	0.02	0.05	0.06	0.57	0.54	7.1	64	90.9	6.3	1.9	0.9
118 County Boroughs and Great Towns, including London ...	14.4	0.67	12.2	0.00	0.00	0.06	0.02	0.06	0.08	0.55	0.49	9.4	67	91.0	6.0	2.5	0.5
132 Smaller Towns (Estimated Resident Populations, 25,000-50,000 at Census 1932) ...	14.5	0.63	11.0	0.00	0.00	0.04	0.02	0.04	0.04	0.53	0.44	4.9	56	91.7	5.8	1.5	1.0
London	13.2	0.45	12.2	0.00	0.00	0.02	0.02	0.08	0.08	0.51	0.58	11.6	59	88.3	6.3	5.4	0.0
*Purfleet	18.2	0.23	10.0	0.00	0.00	0.00	0.00	0.00	0.68	0.57	0.0	50	92.7	5.6	1.1	0.6	

CAUSES OF, AND AGES AT DEATH DURING 1933.

COMPARISON OF VARIOUS STATISTICS.

	1930	1931	1932	1933
Population ....	....9683	8511	8725	8807
Number of Births	.... 155	189	168	160
Birth Rate ...	.... 16·0	22·2	19·2	18·2
Death Rate....	.... 7·5	10·7	9·6	10·0
Infantile Mortality Rate	45·1	79·3	41·6	50·0

GENERAL PROVISION OF HEALTH SERVICES FOR THE AREA.

1. (i.) PUBLIC HEALTH OFFICERS OF THE AUTHORITY.

The Public Health Officers of the Local Authority are enumerated at the commencement of my Report.

(ii.) (a) LABORATORY FACILITIES.

The Essex Counties Public Health Laboratories, Queen Victoria Street, London, E.C. 4, undertake the examination of all bacteriological and pathological specimens.

Specimen.	No. Examined.
Diphtheria	.... 34
Sputa	.... 10
Total	44

(b) AMBULANCE FACILITIES. (1) *Infectious Disease.*

Three Motor Ambulances are maintained at the Isolation Hospital and are available immediately upon application at any hour, day or night.

1922, Ford 20 h.p. 1930, Austin 20 h.p.

1932, Morris 20 h.p. (This is kept solely for the use of Smallpox cases).

(2) *Non-Infectious and Accident Cases.*

The St. John Ambulance Brigade, Grays Division, maintain two Motor Ambulances and various hand vehicles.

1928, Austin 20 h.p. 1930, Ford 23 h.p.

The hire charges are very moderate, and I am indebted to C. Simons, Esq., for the following details of work during 1933 :—

	Cases.	Miles.
Road accidents	.... 82	1,151
Sick removals	.... 975	19,438

MATERNITY CASES.

These are removed where necessary by the local St. John Ambulance Brigade vehicle.

(c) NURSING IN THE HOME.

(a) *General.*—There has been no alteration in the arrangements. Four District Nursing Associations, one in each Ward, serve the area. Their work is co-ordinated with that of the County Council, from whom they receive an annual grant. The 48th Nursing Division, St. John Ambulance Brigade, have also carried out some excellent work, which may be divided into the following :—

Motor Ambulance duties ....	....	905
Hospital Home Comforts Committee....	....	445
Orthopædic Clinic	....	259
Miscellaneous, including night duty ....	....	1119

The Division comprises a Lady Superintendent, two Lady Ambulance Officers, and a number of Ambulance Sisters.

The Hospital Home Comforts Committee, now in its eighth year of existence, continues to supply articles for use in the sick room at very nominal charges. The Medical Officer of Health is Chairman, and Sub-centres exist at Purfleet, Aveley, West Thurrock and South Ockendon. During 1933 the following articles were issued :—

Bedpans	-	168	Hot-water bottles	-	19
Bed-rests	-	84	Bed cradles	-	17
Air rings	-	77	Bronchitis kettles	-	17
Air beds	-	42	Douche pans	-	15
Crutches	-	58	Enema syringes	-	10
Urine bottles	-	28	Feeding cups	-	9
Waterproof sheets		28	Invalid chairs	-	28
Air pillows	-	27	Miscellaneous	-	30

Year.	Grays Depot.		Sub- Depots.		Total.	
1929	374	....	188	....	562
1930	380	....	249	....	629
1931	383	....	309	....	692
1932	407	....	240	....	647
1933	352	....	305	....	657

The Committee maintain a Register of experienced nurses, persons with nursing experience, and domestic helpers willing to attend cases of illness. Applicants for such help are placed in touch with suitable persons from the Register. This innovation has proved so popular that it has been found necessary to increase the number of persons available for such duty.

ESSEX COUNTY COUNCIL
SCHOOL MEDICAL DEPARTMENT

*Annual Report of the School Medical Inspector for the
Orsett District for the year ending 31st December, 1933.*

1933 was a year of steady progress in all branches of School Medical Work. One school remained un-inspected at the close of the year owing to alterations in the personnel of the department, but arrangements have been made for it to receive priority early in 1934. The accommodation in the schools of the area totals 12,593 places, the number on the registers, 11,736, and the average daily attendance 10,449. Some of the infants' schools suffered from epidemics of measles and chicken-pox, and Aveley school was closed for five days in January, 1933, owing to influenza. In no other instance was closure deemed necessary.

STAFF.

Dr. Maude Bennett resigned in May, after many years of good service, and was succeeded by Dr. A. R. Park. Owing to the unfortunate illness of Dr. Ive it was found impossible to complete the full programme of inspections for a few weeks, but with the kind co-operation of Dr. F. A. Nelson, the arrears which otherwise would have accrued were not permitted to become too big. Dr. C. Ive resigned upon the 31st December, and will be succeeded by Dr. K. N. Mawson.

CLINICS.

Three years ago only two Clinics existed for the entire area, i.e., in Grays and Tilbury. Since that time Clinics have been provided at Laindon for children in the Langdon Hills area, and at Stanford-le-Hope for patients in the eastern part of the district. I am pleased to report that further extensions are now being

considered in the form of premises at Aveley, to serve the Purfleet and Aveley areas. This is a step in the right direction. People in the outlying parts have the same right to the facilities of the School Medical Service as those in Grays or Tilbury, but many of them cannot afford to pay travelling expenses frequently to the latter. When, however, the matter is settled every area will be served by properly equipped Clinics.

SPECIAL BRANCHES OF SCHOOL MEDICAL WORK.

These include the Open-Air School, the Sight-Saving (Myope) Class, and the Special School for mentally retarded children. In the light of modern activities they may all be regarded as indispensable, and detailed reports upon their work will be found in this Report.

TONSILS AND ADENOIDS CLINICS.

Number of cases operated upon :—

1930	....	....	92
1931	....	....	151
1932	....	....	210
1933	....	...	81

In addition letters of recommendation for treatment in cases of necessity were issued to approximately 27 families. Once more I thank Drs. Barrow and Hawes, and the staff of the Seamen's Hospital, Tilbury, for their kind assistance throughout the year.

The decrease in the number of applications for operation coincided with the pronouncement of the Chief Medical Officer to the Board of Education upon the lack of necessity in many instances for this operation, which undoubtedly had great influence upon public opinion. Needless to say, no child is recommended for operation unless it is definitely in need of such treatment.

SIGHT SAVING (MYOPE) CLASS.

This is situated in Quarry Hill School, Grays, and the following is a record of its work during 1933:

		Boys.	Girls.
No. on register at 1st Jan., 1933	....	10	6
„ admitted during the year	....	2	6
„ discharged „ „ „	....	5	2
„ on register at 31/12/33 „	....	7	10

Reasons for Discharge.

Attained school-leaving age	....	4	—
Left the district	....	1	1
Transferred to special school	....	—	1

Classification of Visional Defects.

High Myopia	....	....	3	3
Myopic Astigmatism	....	....	3	1
High Myopia, Astigmatism and Nystagmus	....	....	1	0
Congenital Cataract	....	....	1	—
Congenital dislocation of both lenses			—	2
Myopia and Strabismus	....	....	—	1
Mixed Astigmatism, Strabismus and Corneal Opacities	....	....	—	1
Cataract	....	....	1	—
Hypermetropia	....	....	—	1

The usefulness of the Class for this type of child is beyond dispute, and credit is due to the teacher in charge for her interest in each individual case. The Class has been equipped with special pens and ink giving extra bold writing to facilitate reading, together with text-books printed in very large clear type. These are of American origin, and I have to repeat my comment of two years ago, that it is regrettable that English publishers do not appear to cater for this branch of the educational system.

SCHOOL SPRAY BATHS.

These have been in constant use, especially at Tilbury, where the attendances have shown a large increase over 1932.

	1931	1932	1933
Attendances at Grays Baths	2664	2989	3594
,, Tilbury Baths	4601	5611	9377

MINOR AILMENT TREATMENT CLINICS.

	Grays	Tilbury	Stanford-le-Hope
No. of individual children treated...	1931	1245	1261
	...1932	1233	2744
	...1933	1281	2171
Total attendances made ...	...1931	3332	3697
	...1932	3035	4394
	...1933	3166	4846

EYE CLINIC.

The work of this Clinic tends to increase and, as in 1932, the waiting list has frequently exceeded one hundred cases. In addition to the weekly routine Clinics many extra sessions were held, and I am indebted to Drs. C. Ive and F. A. Nelson for their efforts in this direction.

	Refractions.	Glasses Advised.
1930	.... 251	133
1931	.... 283	232
1932	.... 369	295
1933	.... 427	349

DENTAL TREATMENT.

Considerable improvements have been effected in the arrangements for the Dental Clinics. The Clinic was removed during the year from the Minor Ailment Treatment Centre at Quarry Hill, Grays, to more commodious premises at the Grays U.D.C. Welfare Centre, and for the first time the services of two surgeons have been available for a complete year.

DENTAL INSPECTIONS.

School.	Inspected.	Age Groups		Offered Treatment.
		5-10	10-14	
Stanford-le-Hope	.... 156	114	42	120
East Thurrock	.... 353	286	67	270
Stifford Mixed	.... 421	193	228	258
Coryton ....	.... 47	32	15	39
Corringham	.... 220	142	78	172
Stanford-le-Hope Infts.	59	59	—	59
East Thurrock Infants	173	173	—	106
Orsett Infants	.... 48	48	—	39
Lansdowne Road	.... 873	649	224	619
West Thurrock	.... 390	245	145	272
South Ockendon	.... 203	125	78	167
Bulphan ...	.... 62	39	23	49
West Thurrock Girls....	93	30	63	62
North Ockendon	.... 54	24	30	43
St. Chad's Infants	.... 176	176	—	110
Tilbury R.C. Junr.	.... 206	204	2	171
ditto Senr.	.... 195	33	162	108
Bridge Road	.... 220	220	—	104
Horndon-on-the Hill....	137	77	60	91
Lansdowne Road	.... 459	196	263	321
Quarry Hill	... 285	285	—	152
Aveley ....	.... 222	178	44	123
St. Chad's	.... 650	275	375	451
Bridge Road	282	84	198	187

OPEN-AIR SCHOOL.

No. of places in the School ....	....	60
,, children admitted during 1933 ....	....	49*
,, „ discharged „ „ „ ....	....	45

* Excludes 10 re-admissions.

Admissions recommended—

By School Medical Inspectors	...	32
„ Tuberculosis Officer ....	....	16
„ Hospital ....	....	1

	BOYS.	GIRLS.
Average increase in height during the year	$2\frac{1}{4}$ in.	$2\frac{1}{4}$ in.
Highest „ „ „ „ „ „	$3\frac{1}{8}$ „	3 „
Average increase in weight during the year	$4\frac{3}{4}$ lbs.	7lbs.
Highest „ „ „ „ „ „	$8\frac{3}{4}$ „	$13\frac{5}{8}$ „

As in 1932, it will be observed that the girls appear to have responded to the treatment better than the boys. In view of the waiting list for admission which always exists at this school the question of increasing the accommodation was considered during the year. Plans were prepared for the provision of 30 extra places, and it is anticipated that work on the extensions will be started in 1934.

Analysis of the records of each child's progress at the school proves beyond all doubt that the system of education, rest and nourishment set out in the curriculum is efficient and calculated to give the maximum results. I have again to refer to the valuable work of the staff of the school, especially the Head Teacher, to whose enthusiastic co-operation much of the success of the establishment is due.

CLINICS AND TREATMENT CENTRES.

ADDRESS.	Hours.	NOTES.
MATERNITY AND CHILD WELFARE : (1) Parish Room, West Thurrock (2) British School, South Ockendon	1st and 3rd Mondays at 3 p.m. Medical Officer attends every 4th Monday at 2 p.m. Health Visitor attends every 2nd Monday at 2 p.m. Alternate Tuesdays at 2.30 to 4 p.m. Alternate Fridays at 2 to 3.30 p.m.	Nos. 1 & 2 are provided by Essex County Council.
(3) Welfare Hall, Purfleet (4) Church Rooms, High Street, Aveley	Voluntary Centre. ditto.	
ANTE-NATAL CLINIC : Parish Room, West Thurrock	Second Monday at 2.15 p.m.	Provided by Essex County Council.
MINOR AILMENT TREATMENT CLINIC : Quarry Hill, Grays.	Routine treatment daily, except Tuesday, at 9 a.m. Inspection by Medical Officer, Wednesdays, 9 a.m. Fridays, 9.15 a.m., and as required.	Provided by Essex County Council, the Medical Officer of Health, as School Medical Inspector, supervising the work.
*EYE CLINIC : Quarry Hill, Grays	Mondays, Tuesdays and Thursdays, at 9.15 a.m.	
*DENTAL CLINIC : Welfare Centre, The Park, Grays	By arrangement—at intervals of about two months. Tuesday, Wednesday and Friday, 2.4 p.m.	Clinics provided jointly by Essex County Council, and Grays, Orsett, and Tilbury Councils.
ORTHOPÆDIC CLINIC—Surgeon's Clinic AFTER-CARE. Quarry Hill, Grays	Monday, 4-6 p.m. Thursdays, 10 a.m., to 12 noon.	Provided by Essex County Council.
TUBERCULOSIS DISPENSARY : 59 London Road, Grays	Men—Tuesday, 11 a.m. to 12 noon. Thursday, 5 p.m. to 6.15 p.m. Women : Tuesday, 1 p.m. to 2.15 p.m. Thursday, 3 p.m. to 4.30 p.m.	Provided by Kent County Council.
VENEREAL DISEASES : 22 Cobham Street, Gravesend, Kent		A nomination must be made to the Public Health Department.

HOSPITALS.

There have been no changes in the Hospital services of the area.

Seamen's Hospital, Tilbury Docks.

Accommodation—Men	-	52 beds.
Women	-	24 ,,
Children	-	16 ,,

The hospital is equipped with X-ray, dental and ophthalmic apparatus, and I wish once again to record my appreciation of the co-operation extended to this Department by the staff. The Medical Officer of Health is a member of the consultant staff, and I am indebted to R. E. V. Bax, Esq., Secretary, Seamen's Hospital Society, for the following statistics relating to the work of the hospital :

Number of In-patients	-	1215
,, Out-patients	-	4278
,, Major operations	-	271
,, Minor operations	-	659

Orsett Public (Assistance) Infirmary.

Accommodation—General medical	-	103 beds.
,, surgical	-	47 ,,
Tuberculosis	-	18 ,,
Children	-	20 ,,
Maternity	-	7 ,,
Mental (observation)	5	,,

Orsett Joint Hospital Board, of which Purfleet Urban District Council is a constituent authority, maintains :

- (1) Isolation Hospital, Stifford Long Lane, Grays, 96 beds.
- (2) Smallpox Hospital, Stifford Long Lane, Grays, 22 beds.

In 1933 an operating theatre, complete with annexe, was erected and equipped at a cost of approximately £500.

The accommodation has been found adequate for the needs of the area during the year. Owing to the

proximity of the district to the metropolis, a large number of persons attend various London Hospitals. Most of the firms in the district maintain Benevolent Funds or branch groups of the Hospital Savings Association, and arrangement of treatment is a fairly simple matter.

MATERNITY AND CHILD WELFARE.

All services under this heading are administered by Essex County Council.

SANITARY CIRCUMSTANCES OF THE AREA.

1. (i) WATER.—The greater portion of the district is supplied by the South Essex Waterworks Company. The supply has been adequate and satisfactory. Laboratory reports indicate that the water is pure and stable in character, but somewhat hard, up to 26 degrees of hardness being reported. There are a few wells in the outlying parts of the area and these are subject to periodical inspection. During the year no samples were taken from these wells.

(ii.) DRAINAGE AND SEWERAGE.—The major part of the area is connected to the Thurrock, Grays and Tilbury Joint Sewerage Board's mains, the Ward of South Ockendon being almost the only portion of the district not so connected, but arrangements have been made to connect this ward at any time should circumstances necessitate such action. The Joint Sewerage Board possesses Disposal Works, complete with Sedimentation Tanks and Circular Revolving Distributors on Bacterial Beds. I am indebted to the Works Manager for the under-mentioned details :

Year.	Number of Gallons Pumped.
1929	474,081,000 gallons
1930	468,993,000 ,,
1931	461,529,500 ,,
1932	452,451,000 ,,
1933	466,862,000 ,,

The average daily flow was 1,279,074 gallons. 243 dry days were recorded at the Works, the annual rainfall being 15.06 inches.

2. RIVERS AND STREAMS.—The chief stream is the Mardyke, which rises above Bulphan and Orsett Fens, proceeds through Stifford and thence into the Urban District, forming a boundary between Aveley and West Thurrock. It receives the effluent from Aveley and Purfleet Sewage Works. Samples are taken at intervals by the Port of London Authority, but no complaints *re* pollution have been received.

3. (i.) CLOSET ACCOMMODATION.

Conversions:

Privies and Pail Closets to Cesspools	....	2
Cesspools to Sewer	....	1

(ii.) PUBLIC CLEANSING.

Public Cleansing has been, as in the past, carried out by contract and no complaint of any magnitude has reached me; indeed, I believe that the system adopted by the Council has been eminently satisfactory as well as being efficient and of low cost.

Public cleansing in the district is under the supervision of my Department, and where it is the Public Health Department which controls bye-laws in relation to nuisances and refuse disposal, and is also the responsible Department for the supervision of ashbin and ash-pit accommodation, this supervision is of very great importance.

The refuse dumps in the district are kept under supervision and rat suppression is carried out from time to time. Owing to the small amount of refuse deposited, refuse-tipping is not carried out on the lines of the complete "Bradford" system, but as far as possible, how-

ever, with the aid of occasional part-time labour, all refuse is layered and covered in accordance with modern recommendations. Indeed my Department has now to comply with its own bye-laws and I am glad to inform you that these bye-laws can be observed with a reasonable expenditure of time and energy. Controlled tipping is an asset when properly supervised by a Local Authority, as it is a means by which marshland, old gravel pits, &c., may be reclaimed for useful purposes.

During the year my Department has commenced a scheme for the reclamation of waste paper and the disposal of the same for factory purposes. Your Sanitary Inspector is to be congratulated on the work he has carried out in connection with this matter.

(iii). SANITARY INSPECTION OF THE AREA.

VISITS MADE.—DESCRIPTION.	Number.
Dwelling Houses	1692
Factories and Workshops	41
Slaughterhouses	301
Cowsheds, Dairies and Milkshops	54
Bakehouses	15
Fumigation after cases of Infectious Disease....	29
Visits to Houses where Infectious Disease occurred	56
Shops (General)	442
Fried Fish Shops	32
 Total	2662

NOTICES SERVED.

	Served.	Complied With.	Outstanding.
Informal	278	266	12
Statutory	7	7	—
	285	273	12

LIST OF WORKS EXECUTED.

No. of room in which defective plaster has			
been remedied			89
„ defective firegrates repaired or replaced	....		45
„ defective floors remedied	...	...	46
„ damp walls dealt with	....	....	39
„ new windows, repairs, &c.	....	....	94
„ foul walls cleansed and re-covered		....	56
„ new sinks provided	....	....	23
„ individual water services provided		...	15
„ defective roofs repaired	...	....	75
„ yards paved	....	....	5
„ premises whereat external walls were treated			22
„ „ „ eaves gutters, down-			
spouts, were repaired			42
„ privies and pailclosets abolished	...		2
„ premises converted from cesspools to sewer			1
„ sundry defects remedied	....	....	193
			—
			787

FACTORIES, WORKSHOPS AND WORKPLACES.

(a) INSPECTIONS OF FACTORIES, WORKSHOPS & WORKPLACES
including Inspections made by Sanitary Inspector.

Premises.	Number of		
	Inspections	Written Notices	Occupiers Prosecuted
Factories	16	1	—
(Including Factory Laundries)			
Workshops	12	—	—
(Including Workshop Laundries)			
Workplaces	13	—	—
(Other than Outworkers premises)			
Total	41	1	—

(b) DEFECTS FOUND
in Factories, Workshops and Workplaces.

Particulars.	Number of Defects.			Number of Offences in respect of which Prosecutions were Instituted
	Found.	Remedied	Referred to H.M. Inspector	
<i>Nuisances under the Public Health Acts —</i>				
Want of cleanliness	2	2	—	—
Want of ventilation ...	—	—	—	—
Overcrowding ...	—	—	—	—
Want of drainage of floors ..	—	—	—	—
Other nuisances ...	—	—	—	—
<i>Sanitary accommodation—</i>				
Insufficient ...	3	3	—	—
Unsuitable or Defective ...	—	—	—	—
Not separate for sexes ...	—	—	—	—
<i>Offences under Factory & Workshops Acts —</i>				
Illegal occupation of underground bakehouse (s.101). ...	—	—	—	—
Other Offences ...	—	—	—	—
[Excluding offences relating to outwork, and offences under the Sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops Transfer of Powers) Order, 1921]				
Total	5	5	—	—

(iv.) SMOKE ABATEMENT.

Complaints still continue to be received concerning the amount of grit, ash and sulphurous fumes emitted by various chimney-stacks in the Urban District, and the Public Health Committee have spent a considerable amount of time in consideration of this problem. Samples of coal and slurry have been submitted to analytical examination, but the laboratory reports have provided no clue to the remedy. Visits have been paid to similar industries in other districts and representations have been made to the local works affected. At the end of the year a deputation from the Council were very much impressed with a plant for the removal of dust from smoke of the type complained of, and further correspondence is now in progress on the matter.

(v.) TENTS, VANS, SHEDS, AND SIMILAR STRUCTURES.

South-east Essex has of late years become notorious in regard to this matter, and I am pleased to report that in the Urban District there are not to my knowledge, any permanent structures of this kind. From time to time migratory caravans make fleeting appearances in the more isolated parts, but owing to visitation by the Sanitary Inspector at frequent intervals they do not remain.

LEGISLATION IN FORCE.

Adoptive Acts, Bye-laws and Regulations relative to Public Health in force in the district.

ACTS AND SECTIONS ADOPTED.

ACTS.	SECTIONS IN FORCE.
Public Health Acts (Amendment) Act, 1890. In operation in Dec., 1930. Adopted 4th Nov., 1930.	Part III. Section 29 operative from November 15th, 1930.
Small Dwellings Acquisitions Act, 1899-1923. In operation May 21st, 1925.	Whole Acts.
Public Health Act, 1925. Adopted Sept. 8th, 1927. In operation Oct. 15th, 1927.	Part II. Secs. 13-16, 20, 23, 25-30. Part III. Secs. 36-38, 40-43. Part IV.
Private Street Works Act, 1892. Adopted 1st July, 1930. In operation 9th Aug., 1930.	Whole Act.
Public Health Acts (Amendment), Act, 1907.	Part II. Secs. 15-17, 20, 22, 23, 24, 25, 29, 30, 33. Part III. Secs. 34, 38, 43, 48, 49, 50. Part IV. Secs. 52-58. Part V. Secs. 59, 60, 62, 65, 67.
Rats and Mice Destruction Act, 1919.	By a resolution dated July 2nd, 1929, the County Council delegated their Powers under this Act to the Purfleet Urban District Council.
Bye-laws with respect to New Streets and Buildings.	These were adopted by the Council and confirmed by the Ministry of Health on the 27th May, 1930.
Bye-laws with respect to Slaughterhouses.	Adopted by the Council and confirmed by the Ministry of Health on the 27th May, 1930.
Bye-laws with respect to Nuisances.	Adopted by the Council and Confirmed by the Ministry of Health on the 26th July, 1932.

OFFENSIVE TRADES.

At the present time there are no offensive trades, although during the year under review plans were deposited for the erection of a large bacon factory. The Council are considering the adoption of bye-laws in regard to this matter.

4. SCHOOLS.

Owing to the fact that the Medical Officer of Health is also School Medical Inspector under the Essex County Council, the supervision of the school buildings and the health of the scholars is very much simplified.

HOUSING.

From time to time in my previous Annual Reports I have expressed my own views on the housing of the district, and in the present year I do not propose to elaborate on this matter. During the last few years, since, in fact, the formation of the Urban District, a very large amount of housing work has been carried out, and I think I may safely report to you that there is little or no overcrowding in the district, and that the position in regard to unfit houses is extremely satisfactory. Since the year 1929, a substantial number of houses have been closed or demolished by my Department, and with very few exceptions all the remaining properties in the district have been repaired and made fit, or are the subject of notice.

HOUSING STATISTICS.

1. INSPECTION OF DWELLING-HOUSES DURING THE YEAR.

(1) (a) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	305
(b) Number of inspections made for the purpose	1692

(2) (a) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under Housing Consolidated Regulations, 1925	....	24
(b) Number of Inspections made for the purpose	....	24
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	....	23
(4) Number of dwelling-houses (exclusive of those referred to under preceding sub-head) found not to be in all respects reasonably fit for human habitation	....	282
2. REMEDY OF DEFECTS DURING THE YEAR WITHOUT SERVICE OF FORMAL NOTICE.		
Number of dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers	....	266
3. ACTION UNDER STATUTORY POWERS DURING THE YEAR.		
(A) <i>Proceedings under Secs. 17, 18 & 23 of the Housing Act, 1930.</i>		
(1) Number of dwelling-houses in respect of which notices were served requiring repairs	....	5
(2) Number of dwelling-houses which were rendered fit after service of formal notices:		
(a) By Owners	....	5
(b) By Local Authority, in default of owners	....	Nil
(B) <i>Proceedings under Public Health Acts.</i>		
(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	....	2

(2) Number of dwelling-houses in which defects were remedied after service of formal notices :

(a) By Owners	....	....	2
(b) By Local Authority in default of Owners	....	....	Nil

(C) *Proceedings under Secs 19 & 21 of the Housing Act, 1930.*

(1) Number of dwelling-houses in respect of which Demolition Orders were made	....	5
(2) Number of dwelling-houses demolished in pursuance of Demolition Orders	....	Nil
Number of Representations made	....	23
Number of undertakings accepted	....	23

(D) *Proceedings under Sec. 20 of the Housing Act, 1930.*

(1) Number of separate tenements or underground rooms in respect of which closing orders were made	....	....	Nil
(2) Number of separate tenements or underground rooms in respect of which closing orders were determined, the tenement or room having been rendered fit	....	....	Nil

INSPECTION AND SUPERVISION OF FOOD.

A. MILK SUPPLY.

No. of Milk Producers Registered	....	7
," Inspections made	....	54
," Defects remedied	....	2
," Producers of Grade "A" Milk	....	1
," Dairies	....	....
," Milkshops	....	....
," Retailers of Grade "A" Milk	....	1
," , Grade "A" (T.T.) Milk	....	1

The conditions under which milk is handled in the Urban District are satisfactory. Samples were taken from various producers and retailers. See following table:

No.	Designation.	Date Sampled.	Bacterial count per c.c.	B. Coli present in c.c.
1	Ordinary	2nd March	230,000	0·01
2	„	„ „	120,000	0·1c.
3	„	17th „	26,300	Absent in 1 c.c.
4	„	„ „	17,400	„ „

Nos. 3 and 4 are of an unusually high standard of purity, indicating that the greatest care and cleanliness have been exercised during all stages of production and handling.

B. MEAT AND OTHER FOODS.

No. of Slaughterhouses Licensed	....	4
,"	Registered	.... Nil
,"	Inspections made	.... 301
,"	“Occasional Slaughter” Notices	301
		Slaughtered. Inspected.
No. of cattle	....	145 139
," sheep	....	466 403
," swine	....	435 413
		—
	Total	1046 955 or 91.3%

UNSOND FOOD SURRENDERED.

Meat	....	....	1145	lbs.
Fish	....	....	70	,,
			1215	,,

During the year my Department has made special efforts to improve the conditions existing in the food shops of the Urban District. Some difficulties were experienced, however, in regard to co-operation by shopkeepers, but in some cases suggestions met with a favourable response. Several warnings were issued during the year respecting the absence of precautions against contamination of food by flies, dust, &c.

C. ADULTERATION.

The Essex County Council is the Authority under the Food and Drugs (Adulteration) Act, 1928; the Artificial Cream Act, 1929; the Public Health (Condensed Milk) Regulations, 1923 and 1927, and the Public Health (Preservatives, &c. in Food) Regulations 1925 and 1927.

D. CHEMICAL AND BACTERIOLOGICAL EXAMINATION OF FOOD.

This is carried out at the instance of the Essex County Council by the Counties Public Health Laboratories, Queen Victoria Street, London, E.C.4.

E. NUTRITION.

Periodical articles upon diet, nourishment and general health are contributed to the local Press by the Medical Officer of Health.

**PREVALENCE OF, AND CONTROL OVER,
INFECTIOUS AND OTHER DISEASES.**

Notifiable Diseases (other than Tuberculosis) during 1933.

DISEASE.		Total Cases Notified.	Removed to Hospital	Total Deaths.
Scarlet Fever	....	32	20	—
Diphtheria	....	4*	3*	—
Pneumonia	....	7	—	7
Puerperal Pyrexia	....	2	1	—
Paratyphoid Fever	....	1	1	—
Erysipelas	....	1	—	—
Ophthalmia Neonatorum	....	1	—	—
		48	25	7

* Excludes 1 case wrongly diagnosed.

The district is remarkably free from infectious disease, especially when it is remembered that there is a large daily influx of workers from other areas.

DISINFECTION.

In the majority of cases of infectious disease the patient's bedding is removed for steam disinfection, but in the light of modern science disinfection of premises has been practically discontinued as being of no value. Steps are taken to educate the public in the value of sunlight, fresh air, and soap and water instead.

CLEANSING OF VERMINOUS PERSONS.

Infested children are dealt with at Grays School Spray Baths. No further action has been required.

INCIDENCE OF INFECTIOUS DISEASE AT
 VARIOUS AGES.

Age Groups.		Scarlet Fever.	Diphtheria.	Pneumonia.	Puerperal Pyrexia.	Paratyphoid Fever.	Erysipelas.	Ophthalmia Neonatorum.	Totals
Under 1 year	...	...	...	...	...	...	...	1	1
1—2 years	...	...	...	...	...	...	...	...	...
2—3 „	...	...	1	...	...	...	...	...	1
3—4 „	...	4	...	1	...	...	...	...	5
4—5 „	...	2	1	...	...	...	...	...	3
5—10 „	...	18	1	...	...	...	...	...	19
10—15 „	...	3	...	...	...	1	...	...	4
15—20 „	...	2	...	...	...	...	...	...	2
20—35 „	...	3	1	2	2	...	...	...	8
35—45 „	...	...	...	1	...	...	...	...	1
45—55 „	...	...	...	...	...	...	...	...	...
55—65 „	...	...	...	...	...	...	1	...	1
65 upwards	...	...	...	3	...	...	...	...	3
Totals ...		32	4	7	2	1	1	1	

PREVALENCE OF VERMIN.

Rat suppression has been carried out at the Council's refuse-dumps, but no special action has been necessary to deal with mosquitoes and similar pests.

ALLOCATION OF INFECTIOUS DISEASES TO WARDS:

Ward.	Scarlet Fever.	Diphtheria.
Aveley ....	.... 5	—
Purfleet....	.... 9	—
South Ockendon	2	1
West Thurrock	16	3

The Council have had under attention at intervals the question of adopting Diphtheria Immunisation, but in view of the uncertainty of conditions surrounding the proposed amalgamation of the Urban District with adjoining Authorities the matter has, on each occasion, been postponed. Anti-toxin is available upon application to the Public Health Department or Police Station.

PNEUMONIA.

The efficiency of notification of this disease is still only moderately satisfactory, despite constant reminders.

SMALLPOX.

No cases occurred during 1933, but a certain number of contacts of cases from other areas were kept under supervision. No primary vaccination or re-vaccinations were performed by the Medical Officer of Health under the Public Health (Smallpox Prevention) Regulations, 1917.

CANCER.

There were 14 deaths from this complaint during the year.

AGE GROUPS.

35-45 years	....	....	1
45-65 ,,	....	....	3
Over 65 years	....	....	9

PREVENTION OF BLINDNESS.

No action has been taken under Section 66 of the Public Health Act, 1925.

TUBERCULOSIS.

NEW CASES AND MORTALITY DURING 1933. LOCAL RECORDS.

Deaths.
New Cases.

Age Groups.

Pulmonary
Non-Pulmonary

M. F. M. F.

35

Under 1 year	...	...	...	...
1—5 years	...	...	...	...
5—15 "	...	...	1	...
15—25 "	...	1	...	...
25—35 "	...	1	1	2
35—45 "	...	...	1	1
45—55 "	...	...	1	...
55—65 "	...	1	1	1
65 years upwards	...	...	...	...

Total	...	3	3	3
		6	6	6

Total	...	3	3	3
		6	6	6

		10	10	10
		1	1	1

The efficiency of notification was satisfactory there being no deaths of unnotified patients.

4 Patients died within 1 month of notification.

1	"	"	"	4	"	"
1	"	"	"	5	"	"
2	"	"	"	7	"	"
1	"	"	"	9	"	"
1	"	"	"	19	"	"
1	"	"	"	22	"	"

Patients' bedding is disinfected upon death, removal or admission to Sanatorium. Crêpe paper handkerchiefs and disinfectant are available for patients upon application to the Sanitary Inspector's office. Leaflets have been compiled which set out precautions which should be taken to prevent the spread of infection in households and a copy is sent to each patient upon receipt of a primary notification.

All deaths from Tuberculous Meningitis are investigated by a Health Visitor with a view of detecting all possible cases of phthisis in the household. Should these enquiries be negative, the milk supply is investigated carefully.

PUBLIC HEALTH (PREVENTION OF TUBERCULOSIS) REGULATIONS, 1925, AND PUBLIC HEALTH ACT, 1925, SEC. 62.

No action has been taken under these headings.

VENEREAL DISEASES.

The arrangements were detailed in my Report for 1932. I wish once more to acknowledge my indebtedness to Drs. H. Nicol and R. Erskine Grey for their co-operation in regard to the treatment of Essex patients. Essex County Council offer every encouragement to patients to attend the Clinic at 22 Cobham Street, Gravesend, but there is no doubt that the somewhat complicated journey involved, especially from the out-

lying parts of the district, acts as a deterrent to many persons who would otherwise attend. The time has come, in my opinion, when the desirability of establishing a Clinic on the Essex side of the Thames should be considered.

The following is a summary of the work of the Clinic during 1933:

Total Patients Receiving Treatment:

		Male	Female	Total
Syphilis	....	217	96	313
Soft Chancre	....	14	—	14
Gonorrhœa	....	249	77	326
Non-Venereal	....	35	29	64
		515	202	717

New Patients:

Syphilis	....	58	21	79
Soft Chancre	....	12	—	12
Gonorrhœa	....	111	37	148
Non-Venereal	....	28	27	55
		209	85	294
Re-admissions	....	47	20	67
		256	105	361

New Patients by Areas:

	Kent	Essex	Other Areas	Total
Syphilis....	31	26	22	79
Soft Chancre	5	6	1	12
Gonorrhœa	93	34	21	148
Non-Venereal	34	19	2	55
	163	85	46	294

Attendances :

	Male	Female	Total
For Medical Officer	.... 3261	2019	5280
Intermediate Treatment	.... 4202	2174	6376
	_____	_____	_____
	7463	4193	11656
	_____	_____	_____

Attendances by Areas :

Kent	....	....	8380
Essex	....	....	3079
Other Areas	....	....	197
	_____	_____	_____
		11656	
	_____	_____	_____

Discharged as Cured :

	Male	Female	Total
Syphilis	.... 23	9	32
Soft Chancre	.... 10	—	10
Gonorrhœa	.... 62	27	89
Non-Venereal	.... 34	24	58
	_____	_____	_____
	129	61	190
	_____	_____	_____

