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Walthamstow Urban District Council.

REPORT

BY

THE MEDICAL OFFICER OF HEALTH

ON THE

SANITARY CONDITION AND VITAL STATISTICS


AND

REPORT OF THE SANITARY INSPECTOR,

FOR THE YEAR 1906.

Walthamstow :

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TO THE CHAIRMAN AND MEMBERS
OF THE
Walthamstow Urban District Council.

GENTLEMEN,

I beg to present to you my Ninth Annual Report upon the Public Health and general Sanitary circumstances of your District.

The year has been one of slightly increased birth and death rates, increased prevalence of Scarlet Fever, Diphtheria, Diarrhoea, Measles and Whooping Cough.

Our Birth-rate is slightly greater than 1905, but shows a considerable diminution compared with the previous ten years, and is considerably higher than that of the country as a whole.

The Death-rate, 11·9, or, allowing for corrections, 12·5, is at least 3 per 1000 less than that of England and Wales, or the "76 Great Towns," and considering other features, a highly satisfactory one.

Owing to the prolonged summer heat and other conditions referred to in the body of the Report, the deaths from Diarrhoea were much increased compared with the previous year.

Joined to this was a widespread Scarlet Fever incidence in this and neighbouring districts, with a mortality far exceeding what is usual.

Diphtheria again, with a slightly increased number of cases, caused double the number of deaths compared with 1905, and an epidemic of Measles and Whooping Cough during the months of February, March and April helped to swell the number of deaths which go to form the Zymotic Death-rate.

This rate in consequence is 2·54 per 1,000 of the population compared with 1·69 for the previous year, and 2·24 for the "76 Great Towns," and 1·73 for England and Wales.

The total number of Infectious Diseases notified exceeded that of 1905 by 65, but owing to increase of population the Infectious Sickness rates are alike for both years, and lower than the average for previous years.

One pleasing feature in connection with the Infectious Fevers is the reduction of cases of Typhoid. Only 33 persons suffered from this disease during the year compared with an average of 86 in previous years.

To make comparisons more easy with other portions of the kingdom the following Table serves:—

Birth-rate, Death-rate and Analysis of Mortality in the year 1906.

Cols.	ANNUAL RATE PER 1,000 LIVING.										Deaths under one year to 1,000 Births.
	Births.	Deaths.	Principal Epidemic Diseases Cols. 4-10.	Small-Pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.	Diarrhoea.	
	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
England and Wales .	27.0	15.4	1.73	0.00	0.27	0.10	0.17	0.23	0.09	0.87	133
76 Great Towns .	27.9	15.9	2.24	0.00	0.40	0.12	0.19	0.28	0.09	1.16	145
142 Smaller Towns .	26.5	14.5	1.71	0.00	0.22	0.09	0.17	0.20	0.09	0.94	138
England and Wales less the 218 Towns. }	26.3	15.1	1.18	0.00	0.14	0.08	0.16	0.19	0.09	0.52	116
Walthamstow ..	29.6	11.9	2.54	0.00	0.32	0.17	0.44	0.14	0.06	1.07	129.7

It will be noticed that our Scarlet Fever and Diphtheria rates, especially Diphtheria, are much higher than the "76 Great Towns," and our Diarrhoeal deaths, while less than places similarly situated, are considerably greater than the country as a whole

The deaths from Diphtheria were mainly due to unusual severity of type, rather than to undue prevalence of disease, and a special report on the number of deaths in the second quarter of the year was furnished.

The deaths of children per 1,000 born were considerably in excess of 1905, and with this and the foregoing diseases I have dealt, under their proper headings.

Although far from coming up to an ideal standard, or one that could with care be attained, our Infantile Death-rate (129·7) compares very favourably with the country as a whole (133), the "76 Great Towns" (145), and the "142 Smaller Towns" (138).

Since my appointment in July as full time Officer, other changes have taken place in the Staffing of the Department devoted to Public Health, and the office accommodation greatly improved.

The appointment of an additional Sanitary Inspector will enable Mr. West to carry out his duties more fully, and the provision of a competent Clerk ensures that the various registers and office books are kept properly posted.

The amount of time occupied in seeing workmen belonging to the Council and reporting on them, and in the work of the Education Committee in giving certificates, examining children, writing reports concerning teachers and their classes, make a large inroad on the working hours of the day, and leaves but a small amount of time for that systematic visiting prescribed in the duties laid down for all Medical Officers of Health.

The Report of Mr. West, the Chief of the Sanitary Staff, shows how much has been done under his supervision, and how onerous and various the duties entrusted to him.

To him and his staff I am much indebted for their cordial support, always willingly given, in all investigations of infectious diseases and other matters pertaining to the Public Health.

Mr. Jones, of the Education Department, has greatly helped me in many ways, and I am especially indebted to him for his prompt information concerning the illness of school children.

I beg to remain, Gentlemen,

Your obedient Servant,

J. J. CLARKE.

SANITARY AREA.

POSITION AND LOCALITY.

The Sanitary District of Walthamstow has an area of 4,355 acres, and is divided into five Wards for administrative purposes.

It lies between the River Lea and Epping Forest from the west to the east, extending from Leyton on its south to Chingford on the north.

The sub-soil is mainly gravel, the London clay showing itself in various parts on the surface, notably at Church Hill and portions of the Hoe Street and Northern Wards adjoining.

The district has two small streams—the Ching and the Dagenham Brook. The former enters the district at Highams Park, and winds its very sluggish course through Hale End and Chapel End to the River Lea. The latter, the Dagenham Brook, is the outlet for the drainage of the District, and having received the effluent from the Sewage Farm, winds its course through the neighbouring parish of Leyton and joins the River Lea near Temple Mills. Neither stream at any point is used for drinking purposes.

The whole district has a duplicate system of sewers, and practically every house water-closet accommodation. The drinking water is supplied by the Metropolitan Water Board, formerly East London Water Company, and is practically constant. The amount used per head per day is about 30 to 35 gallons.

The five Wards into which the district is divided are:—St. James Street, varying from 18 to 54 feet above ordnance datum; High Street, 21 to 60 feet; Hoe Street, 50 to 140 feet; Wood Street, 50 to 170 feet; and the Northern Ward, 25 to 220 feet.

The Sewage Farm, about 182 acres in extent, is situated in the St. James Street Ward, and the reservoirs of the Metropolitan Water Board, about 367 acres in extent, are in the High Street and Northern Wards.

POPULATION.

A correct estimate of population is necessary if reliance is to be placed on the various figures in this Report, and the farther we get from Census year (1901), the greater is the probable error in estimating.

Did the Bye-laws stipulate that no new house could be inhabited without a certificate from the Surveyor or Medical Officer of Health, the major difficulty would be removed, for once a correct enumeration was made, as in Census year, the only further data necessary would be the number of new houses erected and the total number empty.

The latter is given yearly by the Education Authority and the Overseers; the former is now *estimated* on the number of plans passed for houses to be erected.

The total number of persons per house, 5·9, remains pretty constant, as in Census years 1881, 1891, and 1901.

That the estimate for 1906 is made fairly accurate I have no doubt, and for that purpose a good deal of time and trouble have been expended.

The Registrar-General, assuming that our rate of increase in population since 1901 was similar to the period 1891—1901, estimates our 1906 mid-year population as 121,334.

I accept this estimate as correct for the purpose of making all rates, as the populations of the various towns throughout the country are estimated on a similar basis, and thus a standard for comparison is established.

That our population may be somewhat greater I have no doubt; certainly it is not less, and therefore the death-rates may be accepted as not under stated.

According to the custom established by the late School Board, the Education Authority makes a yearly census for school purposes, and Mr. Jones, the Superintendent of Attendance Officers, has kindly furnished me with the following tabular statement. The figures for the two previous years are given for comparative purposes.

As may be seen from the figures, accuracy of enumeration cannot be claimed, but from them a fair inference established, especially as the figures are given as for April.

The following is the return :—

TABLE I.

Number of Houses in the Parish of Walthamstow arranged in Wards, as given to Education Committee.

	ST. JAMES STREET WARD.			HIGH STREET WARD.			HOE STREET WARD.			WOOD STREET WARD.			NORTHERN WARD.		
	No. of Occupied Houses.	No. Empty.	No. in Construction.	No. of Occupied Houses.	No. Empty.	No. in Construction.	No. of Occupied Houses.	Number Empty.	No. in Construction.	No. of Occupied Houses.	No. Empty.	No. in Construction.	No. of Occupied Houses.	No. Empty.	No. in Construction.
1906	4089	337	1	3666	161	—	4527	283	38	2925	200	5	6008	768	108
1905	4114	362	2	3504	240	12	4284	294	10	2864	249	16	5541	803	271
1904	4139	228	31	3555	131	30	4324	254	36	2994	262	13	5151	726	255

Total houses occupied, 21,215. Population, 125,168.

In 1901 the Census returns were given in the following tabular form :—

TABLE II.

WARDS.	Houses.				Population.		
	Inhabited.	Uninhabited.		Building	Male.	Female.	Total.
		In occu- pation.	Not in occupa- tion.				
St. James Street	3,748	41	148	10	11,391	11,373	22,764
High Street	3,086	38	96	40	9,811	9,687	19,498
Hoe Street.....	3,808	34	242	59	9,975	11,124	21,099
Wood Street	2,540	29	147	62	7,381	7,827	15,208
Northern	2,901	10	466	254	8,274	8,278	16,552
Totals ...	16,083	152	1,099	425	46,832	48,289	95,121
		17,759					

During that year plans were passed for the building of 1,896 houses, and since then plans were passed as follows :—

		Houses.			Houses.
1902	...	1,186	|	1905	601
1903	...	908	|	1906	381
1904	...	974	|		

Presuming then that all houses for which plans were passed up to the end of the year 1905 were built and fit for occupation at mid-year 1906, we had in St. James Street Ward 4,238, High Street 3,376, Hoe Street 4,551, Wood Street 3,048, and in the Northern Ward 6,216 houses, or a total of 21,429.

To these must be added a proportion of those houses for which plans were passed in 1901, and that could not have come into the enumeration in March of that year.

These I assume to be at least two-thirds of the entire number passed, and will be found credited to the various Wards in Table III., page 11.

The Overseers have made for 1906 the following return of empty houses in the district:—St. James Street Ward, 384 ; High Street Ward, 180 ; Hoe Street Ward, 318 ; Wood Street Ward, 200 ; and the Northern Ward, 792 ; total, 1,874, made up as follows:—

			Shops.		Houses.		Tenements.		Total.
1906	...	...	53	...	1,540	...	281	...	1,874

The following are the numbers for the two previous years:—

			Shops.		Houses.		Tenements.		Total.
1905	...	...	75	...	1,654	...	611	...	2,340
1904	...	...	112	...	1,294	...	593	...	1,999

Assuming the 281 tenements to represent 140 houses, the total empties (1,734) for 1906 are considerably less than in the previous years 1904-5.

Taking these figures as the basis of our population—namely, 20,958 occupied houses, each having 5·9 persons, as in Census year, we arrive at a maximum population of 123,652.

The following table makes clear the foregoing, and gives the probable population in each Ward :—

TABLE III.

WARDS.	Houses fit for Occupation, 1905.	Plans passed, 1906.	Greatest possible number fit for Occupation.	Empty, June, 1906.	Occupied Mid-year, 1906.	Proportion empty in 1906.	Proportion empty at Census, 1901.	Average number per House.	Population, 1906.
St. James Street ...	4,293	—	4,293	352	3,941	1 in 12·2	1 in 21	6	23,646
High Street ...	3,449	2	3,451	166	3,283	1 in 21	1 in 24	6·3	20,682
Hoe Street... ..	4,689	43	4,732	286	4,403	1 in 16·4	1 in 15	5·5	24,212
Wood Street ...	3,085	6	3,091	175	2,910	1 in 17·6	1 in 15	6	17,460
Northern	7,176	330	7,506	754	6,422	1 in 9·5	1 in 7	5·7	36,605
Whole District ...	22,692	381	23,073	1,733	20,959	1 in 13	1 in 17	5·9	122,609

EDUCATION AUTHORITY'S FIGURES.

Houses fit for Occupation.	22,964	.....	Houses Empty.	1,749	.....	Houses Occupied.	21,215	Houses in Course of Construction.	152	.....	Population.	125,168
								Registrar-General's Estimate...				121,334

Looking at the returns of the Education Authority, and comparing them with those in the preceding table, a close approximation is found as to "houses fit for occupation," "empty houses," "houses occupied," and "total population."

But when we split up the district into its constituent parts a marked difference is shown between enumerated and estimated population as follows :—

Wards.	Population.		Difference.
	Enumerated.	Estimated.	
St. James Street...	24,534	23,646	888
High Street	23,095	20,682	2,413
Hoe Street	24,898	24,216	682
Wood Street	17,550	17,460	90
Northern...	34,245	36,605	2,360
	<u>124,322</u>	<u>122,609</u>	

The discrepancy in the numbers here and on page 8 is thus explained—

On page 8, every house is reckoned as containing 5·9 persons, whereas above, the houses in the various Wards are multiplied by the numbers as found existing at the Census.

Sufficient data has been given to show that the population existing mid-year 1906 was at least 121,500, and seeing that in High Street Ward the total number of plans passed has been 116 since the Census was taken, my estimate for that Ward must be much nearer to correctness than that given by the Education Authority. The difficulty in saying that the Northern Ward estimate is nearly correct is much greater, owing to the collapse in building on the Priory estate.

I assign to the various Wards for statistical and comparative purposes the following populations, believing them to be as nearly correct as possible :—

	St. James St.	High St.	Hoe St.	Wood St.	Northern.	Total.
1906	24,000	21,000	24,000	17,500	35,000	= 121,500
1905	24,000	21,000	23,500	17,000	32,000	= 117,500
1904	23,600	20,400	23,100	16,600	24,300	= 108,000
1903	23,600	20,000	22,500	16,500	23,500	= 106,000

It will be noticed that the St. James Street, High Street, Hoe Street and Wood Street Wards have grown but little, nor can they, since but little unoccupied land remains in these Wards.

As a check upon the foregoing estimates, we may compare the number of births registered in 1901 and 1906, and assuming the birth-rate to be similar in both years, we arrive at the population in each Ward, thus :—

The registered births in the various Wards were :—

In	St. James St.	High St.	Hoe St.	Wood St.	Northern.
1901	767	710	600	441	673
1906	735	734	595	465	1,065

Were the birth-rate in 1906 33·1 as in 1901, we would have :—

St. James St.	High St.	Hoe St.	Wood St.	Northern.
798	753	674	500	1,403

These assumed increased births would necessitate an increased population in the Wards of—

St. James St.	High St.	Hoe St.	Wood St.	Northern.
938	1,303	2,242	1,787	22,121

These figures, added to the estimated population of 1901, viz. :—

	St. James St.	High St.	Hoe St.	Wood St.	Northern.
	23,218	19,886	21,500	15,512	16,884
give—	24,156	21,189	23,742	17,299	39,005

figures which are similar to those already given, namely, 24,000, 21,000, 24,000, 17,500, 35,000.

The greatest and only serious discrepancy by this method is in the population arrived at for the Northern Ward.

The Education Authority's enumeration of 34,245 shows that my other estimate must be nearer the truth, and that the birth-rate assumed accounts for the discrepancy.

The following table shows how the population in 1901 was made up, according to age compared with England and Wales, and the average death-rate for the different ages throughout the country:—

TABLE IV.

	All Ages.	Under 5 years.	Over 5 and under 10.	Over 10 and under 15.	Over 15 and under 20.	Over 20 and under 25.	Over 25 and under 35.	Over 35 and under 45.	Over 45 and under 55.	Over 55 and under 65.	Over 65 and under 75.	75 years and upwards.
England and Wales	1,000	129	119	110	100	90	149	114	85	58	33	13
England and Wales (assumed).	95,131	12,271	11,320	10,464	9,513	8,561	14,174	10,844	8,086	5,517	3,139	1,236
Walthamstow.	95,131	13,916	12,608	11,079	8,786	7,768	15,810	11,969	7,069	3,721	1,710	695
Average Death-rates England and Wales.	17.7	54.7	3.85	2.25	3.4	4.7	6.3	10.65	16.75	32.7	61.8	153.6

It will be noticed that in each age group under 15 years, and in those from 25 to 45 years, Walthamstow has a larger percentage than the rest of the country, and that from 55 upwards not more than half.

The district has a preponderance of children of school age and of adult workers.

Between 45 and 55 years of age the population is as 7 to 8 compared with the country as a whole.

The character of the population is mainly working class—artisan and unskilled labourer—with the exception of portions of Wood Street

and Hoe Street Wards, that have a large sprinkling of the well-to-do clerk and small trader or manufacturer with a business in the City.

Each Ward has its quota of the shopkeeper class, and whereas there are no wealthy people, few are of the destitute and nomadic type.

The poorest portions of the district lie around St. James Street and Wood Street Stations and the older parts of the Northern Ward.

Few industries of any moment are carried on, and none that could be said to act prejudicially on the Public Health.

Our district has been described as a lodging-house for London workers.

The following summary of the Sanitary and other data of importance are given for easy reference:—

WHOLE DISTRICT.

	Population.	Rateable Value. £.	General District Rate. per £.	Poor Rate.	Education Rate.
1881 Census ...	21,697	97,111	3/4	2/5	0/2
1891 " ...	46,346	156,959	2/9	1/9 $\frac{1}{4}$	1/4 $\frac{3}{4}$
1901 " ...	95,131	328,756	3/8	1/6 $\frac{3}{4}$	1/11 $\frac{3}{4}$
1904 Estimated ...	111,282	404,101	3/2	1/10 $\frac{3}{4}$	2/4 $\frac{1}{4}$
1905 " ...	116,300	423,241	3/10	2/4	2/7
1906 " ...	121,334	426,703	4/1	3/9	1/8
					Average for previous 10 years.
Total Births registered, 1906 ...	...	...	...	3,594	2,972
" Deaths " ...	...	...	...	1,447	1,142
Number of deaths of persons not belonging to this district ...	...	...	...	10	7
Natural increase of population ...	...	...	...	2,147	1,829
Birth-rate per 1,000 estimated population ...	...	...	...	29·6	32·37
Death-rate ...	...	...	...	11·9	12·54
Death-rate corrected for age and sex ...	...	...	...	12·58	13·25
Zymotic Death-rate ...	...	...	...	2·54	2·52
Infantile Mortality Rate ...	...	...	...	129·7	137·4
Infectious Sickness Rate ...	...	...	...	10·3	10·38
Number of persons per house ...	...	...	...	5·9	
" " " acre (exclusive of Sewage Farm and Reservoirs) ...	...	...	...	31·8	

EDUCATION COMMITTEE'S RETURNS FOR DEC., 1906.

Summary. Schools.	Capacity.		On Books.	Present.	Average.	Per- centage.	Refused Ad- mission.
	Original.	Present.					
15 Boys'...	6390	6810	7378	7045	6743·2	91·3	177
17 Girls'...	6963	7299	7603	7170	6710·8	88·2	168
21 Infants'	7781	7654	8104	7365	6888·9	85	184
7 Mixed	1816	1906	2089	1975	1877·6	89·8	88
	—	—	—	—	—	—	—
	22950	23669	25174	23555	22220·5	88·2	617
3 Special	100	100	99	93	85·9	86·7	—
	—	—	—	—	—	—	—
	23050	23769	25273	23648	22306·4	88·2	617

SUB-DISTRICTS.

TABLE V.
 WARDS.—*Acreage, Population, Density, Birth and Death Rates, etc.*

WARDS.	Acreage.	Average excluding Farm & Reservoirs.	Number of Houses, 1901.	Estimated number of Houses, Mid-year 1906.	Estimated Population, 1906.	Density.	Birth Rate, 1906.	Death Rate, 1906.	Height in feet above Sea Level.
St. James Street ...	489	307	3937	3941	24,000	78.1	30.4	12.9	18 to 54
High Street ...	660½	415½	3220	3283	21,000	50.6	35	11.7	21 to 60
Hoe Street ...	347½	347½	4084	4403	24,000	69	24.7	11	50 to 140
Wood Street ...	499	499	2716	2910	17,500	35	26.2	11.7	75 to 176
Northern... ..	2359½	2237½	3377	6422	35,000	15.6	30.2	10.8	25 to 220
Whole District ...	4355	3806	17,334	20,959	121,500	32	29.6	11.9	

BIRTHS—BIRTH-RATE.

The total number of births registered during the year was 3,594—males 1,848, females 1,746. Twenty of those (males 10, females 10) were born at the Union Workhouse or Whipp's Cross Infirmary.

Of the total births 53 were illegitimate—males 27, females 26.

In 1905 there were 3,389 births; in 1904, 3649; 1903, 3,535; 1902, 3,426; and in 1901, 3,210.

The birth-rate for 1906 is 29·6 per 1,000 of the estimated population, compared with 29·14 for 1905, and 32·37 for the preceding 10 years.

The birth-rate for England and Wales for 1906 was 27, a rate 0·2 per 1,000 below 1905, and lower than the rate in any other year on record.

Our low birth-rate is not apparent but real, and due to conditions affecting the country as a whole.

We had in 1906 eight fewer births in the Hoe Street Ward than in 1901, whereas if the birth-rate remained as in that year we ought to have 74 additional.

Comparing the births in 1906 with those in 1901, we have, if we exclude the Northern Ward, actually 3 fewer births in 1906 than in 1901, although the population has, in the meantime, increased by 6,270.

This shows plainly that the decline in the birth-rate is real and not due to over-estimation of the population.

The ratio of male to female births was as 100 to 94·5.

The following table shows the births distributed over the various Wards for the four quarters of the year :—

TABLE VI.

	St. James Street.		High Street.		Hoe Street.		Wood Street.		Northern.		Workhouse.		Totals.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1st quarter ...	104	82	99	105	82	70	62	55	123	127	4	3	474	442
2nd quarter ...	105	83	95	84	74	81	55	55	161	124	3	—	493	427
3rd quarter ...	101	83	98	81	77	71	46	68	133	128	—	3	455	434
4th quarter ...	97	75	82	90	65	72	54	64	125	138	3	4	426	443
Workhouse ...	407	323	374	360	298	294	217	242	542	517	10	10	1848	1746
Totals ...	1	4	—	—	—	3	4	2	5	1	—	—	—	—
	}		}		}		}		}		}		}	
	735	734	595	465	1065	20	3,594							
Population ...	24,000	21,000	24,000	17,500	35,000	—	121,334							
Birth-rate 1906	30·4	35·0	24·7	26·2	30·2	—	29·6							
Do. 1905	29·4	30·5	25·0	25·2	32·0	—	29·14							

The birth-rates for the various wards for the past six years are as follows :—

	St. James Street.	High Street.	Hoe Street.	Wood Street.	Northern.
1906	30·4	35	24·7	26·2	30·2
1905	29	30	25·07	24·9	31·8
1904	33·3	37	27	28·1	40·6
1903	31·6	39·1	29·24	27·45	38·1
1902	33·22	36·65	29·45	30	39·55
1901	33	35·7	28	28·4	39·8

The greatest decline is shown in the Northern Ward, and increase in the High Street, compared with census year.

The latter may be due to the large provision of "Flat" dwellings in this ward and the consequent provision of self-contained dwellings for young married couples.

Since 1901 our birth-rate has declined by 3·5 compared with 1·4 per 1,000 for the country as a whole.

We could look with equanimity on lowered birth-rates if those born were all viable and of robust constitution ; but unfortunately that is not so, as we see by the number of deaths due to prematurity and failure of development.

DEATHS AND DEATH-RATES.

WHOLE DISTRICT.

During the year, 1206 deaths were registered as occurring in this district. Ten of these were of non-residents and a copy of each death return was sent to its proper locality.

The deaths of residents registered outside the district, namely, 40 at the Workhouse, 167 at the Infirmary, 44 at the Sanatorium, are now included and make a total of 1,447 deaths properly attributable to Walthamstow.

Of these 720 were males and 727 females.

From the Registrar-General's returns I notice one death was registered without a doctor's or coroner's certificate ; no such death was returned to me.

With one uncertified in 1,447 deaths there is little to complain of and shows a great improvement on last year. It is to be hoped that in future no death can be registered without the cause being properly certified for, by those duly qualified.

The registered deaths represent a rate of 11·9 per 1,000 of the estimated population and nearly 4 per 1,000 less than England and Wales. The death-rate for the "76 great towns" was 15·9; the "142 smaller towns," 14·5; and that of rural England and Wales, 15·1 per 1,000. We have had an improved death-rate of 2·6 per 1,000 on the most favoured group.

The following rates for the year 1906, taken from the quarterly returns of the Registrar General, are of interest for comparative purposes, as the localities, like our own, are situated in the Outer Ring of the Metropolitan Police District, and some are in close proximity:—

	Birth-rate.	Death-rate.
Croydon	25·6	12·9
Willesden	28·9	10·6
Hornsey	18·3	8·0
Tottenham	30·4	12·8
West Ham	30·0	14·5
East Ham.....	28·0	10·6
Leyton	28·0	11·1
Walthamstow ...	29·6	11·9

Our birth-rate is the third largest and our death-rate the fifth smallest of the districts enumerated.

Many of the places named are much more favourably placed economically than Walthamstow, but taking the birth-rate as a factor in the death-rate, no locality shows a more favourable position.

One death was registered in every 83·8 of the population, compared with 1 in 93 in 1905, 1 in 81·2 in 1904, 1 in 90 in 1903, 1 in 87 in 1902, and 1 in 75 in 1901.

The ratio of male to female deaths was 99 to 100.

DEATHS.

ACCORDING TO WARDS.

The deaths registered in the various wards are known, but the populations are assumed and believed to be correct.

The death-rates, therefore, have no true value if the populations are inaccurate.

As the estimates are made on similar lines to previous years, they are of interest for comparative purposes.

It will also be remembered in this connection that there is a large floating population—persons here to-day and away to-morrow—in portions of James Street and Wood Street Wards, and to a greater extent than formerly in the Northern and portions of the High Street Wards.

		St. James Street.	High Street.	Hoe Street.	Wood Street.	Northern.	Total.
Population,	1906	24,000	21,000	24,000	17,500	35,000	121,500
No. of Deaths,	"	317	247	273	212	398	1,447
Death-rate,	"	12·9	11·7	11·0	11·7	10·8	—
No. of Deaths,	1905	305	240	232	173	299	1,249
Death-rate,	"	12·7	11·4	9·8	10·2	9·3	—
No. of Deaths,	1904	327	246	246	184	327	1,330
Death-rate,	"	13·85	12·0	10·6	11·08	13·45	—
Death-rate,	"	15·03	12·82	11·5	12·05	15·27	—

The death-rates in St. James Street and High Street Wards are practically the same as in 1905, those of the other Wards 1 per 1,000 greater.

Judged by the rates prevailing Census year, when the populations of the constituent parts of the district were known, the low death-rate in the Northern Ward would seem to be due to an over-estimated population.

In 1901 the Northern Ward had a death-rate of 15·27; this year it has had a death-rate of 10·8.

I do not, however, think that the figures obtained are due to over-estimation in 1906, but rather due to the actual lowered birth-rate (as seen from page 19) and its natural consequences.

A high birth-rate in a working-class population usually connotes early marriages, hand-fed babies, and inimical ante-natal conditions, and with prolonged and great summer heat added, Diarrhœa deaths in infants soon swell the death-rate.

In 1905 the Northern Ward had but 19 deaths from Diarrhœa; this year 43 deaths, or one-ninth of the total.

Were the deaths from Diarrhœa alike in both years, the rate for 1906 would be 9·8, or 1 per 1,000 less than recorded.

The low death-rate in Hoe Street Ward is also in part due to its low birth-rate, and in consequence its low mortality from Diarrhoea.

With like populations in St. James Street and Hoe Street Wards, the former has had 735 births, the latter 595; the former 33 deaths from Diarrhoea, the latter 14, the same number as Wood Street Ward with only 205 births.

The following figures, giving the total births and deaths and the deaths of children under 5 years of age from Zymotic or preventable diseases, are interesting as showing the influence of good social conditions in reduction of death-rate:—

	St. James Street.	High Street.	Hoe Street.	Wood Street.	North- ern.
Births... ..	735	734	595	465	1,065
Deaths—Total * ...	310	245	264	205	375
Death-rate	12·9	11·7	11	11·7	10·8
Deaths under 5 years from					
Zymotic diseases	61	39	25	29	82
Percentage of deaths... ..	19·6	15·9	9·5	14·1	21·8

The high percentage of deaths in James Street, High Street, and the Northern Wards compared with Hoe Street is very marked.

INQUESTS.

During the year 119 inquests were held, compared with 99 in 1905, 104 in the previous year, 94 in 1903, 86 in 1902, and 105 in 1901.

The cause of death as certified may be set out as follows:—

Natural causes	49
Accident or negligence	32
Alcoholic causes	6
Overlaying	11
Suicide	5
Want of proper attention at birth	3
Convulsions	5
Tetanus resulting from injury	1
Improper feeding... ..	2
Pneumonia and neglect	1
Accidental suffocation	1
Impaction of nutshell in larynx	1
Drowned in a bath	1
Found drowned	1

The following table gives the number of births and deaths, their rates, the Zymotic death-rate, Infantile Mortality rate, and natural increase of population for the past fifteen years, and the average for the preceding ten years compared with 1905:—

TABLE VII.

Year.	Births.	Deaths.	B. Rate.	D. Rate.	Zymotic D. R.	Infantile Mortality Rate.	Natural Increase of Population.
'91	1756	694	37·3	14·7	1·9	120·0	1062
'92	1717	915	34·75	18·0	3·9	145·6	802
'93	1809	809	34·78	15·55	2·43	133·2	1000
'94	1813	717	32·0	12·6	1·8	129·6	1096
'95	2021	965	33·2	15·8	3·5	153·3	1056
'96	2101	817	32·3	12·5	2·4	127·5	1284
'97	2246	832	32·08	11·88	2·8	132·0	1414
'98	2294	1034	29·8	13·4	3·67	169·5	1260
'99	2835	1282	34·14	15·44	2·94	170·0	1553
'00	3037	1254	33·37	13·78	2·8	158·7	1783
'01	3210	1296	33·1	13·35	2·82	147·6	1914
'02	3426	1154	33·81	11·38	1·3	115	2272
'03	3535	1178	33·25	11·08	1·9	113·7	2357
'04	3649	1330	32·79	11·95	2·89	135·93	2319
'05	3389	1249	29·14	10·7	1·69	104·4	2140
Average for 10 years	2972	1142	32·37	12·54	2·52	137·4	1829
'06	3594	1447	29·6	11·9	2·54	129·7	2147

Total natural increase of Population since 1891, 25,459.

Total increase as shown by census, 1901, 48,785.

Total increase as estimated to middle of the year 1906, 74,988.

Total increase per cent. since 1891, 162.

INFANTILE MORTALITY RATE.

There were 466 deaths of children under 1 year of age registered during the year, compared with 354 in 1905, 496 in 1904, 401 in 1903, 394 in 1902, 481 in 1901 and 482 in 1900 and 1899

The death-rate of infants under 1 year of age, or "Rate of Infantile Mortality," is stated as so many deaths in a year to 1,000 registered births, and is usually looked on as one of great importance as a test of the social and sanitary circumstances of a district.

The Infantile Mortality Rate for 1906 was 129·7 or 7·7 lower than the average rate for the previous 10 years.

The influences at work in producing a high mortality are many, and may be classed broadly into **Pre-natal** and **Post-natal**.

Looking at Table V. in Appendix (Local Government Board form), it will be seen that of the 466 deaths under 1 year, 86 occurred in the first week of life, and 149 within the first month.

Pre-natal.—Of these "Premature Birth" (79), congenital defects (19), atrophy and debility (49), may well be regarded as due to conditions operative antecedent to birth, of a varied and complex character, and depending on economic and physiological factors over which your authority has little control.

In an interesting Table given by the Medical Officer of Health of Glasgow, showing infant deaths grouped under 10 principal headings, 33·2 per cent. of the total deaths are shown to be due to ante-natal conditions unfitting the child for independent existence. The sanitary circumstances of the home could have but little immediate influence on such as these, and improvements can only be hoped for in the improved education, moral, physical and hygienic, of our future mothers.

Of the **Post-natal causes**, deaths due to Diarrhoeal diseases (132), infectious diseases (15), Pneumonia and Bronchitis (53) and overlaying (11) are to a large extent preventable. At the present time considerable attention is directed by letters appearing in the *Tribune*, to one important influence in the production of a high infantile mortality, and though one cannot quite say all that has been written is true, it is recognised by the "man in the street" that inebriety in women is responsible for a great deal of the wastage of infant life. I have referred to this in previous reports. Medical authority goes further, and

statistical inquiry has proved that alcoholism in women has the unfortunate capacity of inflicting irreparable mischief on the unborn also.

It has been clearly shown that of 600 children born of 120 inebriate women, 335 (or 55·8 per cent.) were dead born, or died within the first years of life.

The commonest effect of the drink habit in women is shown in neglect of their offspring; and how inimical to child-life neglect is may be deduced from the deaths occurring in illegitimate children.

Of the 53 illegitimates born in this district in 1906, 12 died; in other words, had all the infants born shown a similar mortality, 226 would be our mortality figure instead of 129·6.

The prolonged and intense heat experienced in the summer was responsible for the large numbers of deaths registered from Diarrhœa, but were our infants brought up on their natural food—mothers' milk—this cause would be inoperative.

The following table shows the number of births, the birth-rate, the number of deaths, and the Infantile Mortality rate according to Wards. Those born and dying outside the district are added to their respective Wards.

TABLE VIII.

	Whole District.	St. James Street.	High Street.	Hoe Street.	Wood Street.	Northern Ward.
Population ...	121,500	24,000	21,000	24,000	17,500	35,000
Births ...	3,594	735	734	595	465	1,065
Birth-rate ...	29·6	30·6	35	24·7	26·5	30·4
Deaths ...	1,447	310	245	264	205	379
Death-rate ...	11·9	12·9	11·7	11	11·7	10·8
Infantile mortality rate ...	129·7	149·6	132·1	109·2	144	119·2
Deaths under 1 year	466	110	97	65	67	127

The death-rates in all the wards are greater than in the preceding year. The death-rate in the Wood Street and St. James Street Wards is considerably higher than in the other portions of the district.

TABLE IX.

CAUSES OF DEATHS.		Under 1 Week	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months	11-12 Months	Total Deaths under One Year.	
All Causes.	Certified	86	25	16	22	149	45	41	30	21	33	29	26	21	25	20	26	—	
	Uncertified	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
COMMON INFECTION- DISEASES.	Small-Pox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Chicken-Pox	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1	
	Measles	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	2	
	Scarlet Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Diphtheria ; Croup	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
DIARRHOEAL DISEASES.	Whooping Cough	—	—	—	—	—	—	1	—	—	1	1	2	—	3	3	1	12	
	Diarrhœa, all forms	—	—	1	3	4	10	12	8	5	10	14	10	7	10	4	6	100	
	Enteritis (<i>not Tubercu- lous</i>)	—	—	—	—	—	3	3	4	3	4	2	2	3	1	3	2	30	
WASTING DISEASES.	Gastritis, Gastro- intestinal Catarrh	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1	—	2	
	Premature Birth	44	11	5	8	68	6	2	2	1	—	—	—	—	—	—	—	79	
	Congenital Defects	12	1	2	2	17	1	1	—	—	—	—	—	—	—	—	—	19	
	Injury at Birth	1	1	—	—	2	—	—	—	—	—	—	—	—	—	—	—	2	
	Want of Breast-milk	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	1	
TUBERCU- LOUS DISEASES.	Atrophy, Debility, Marasmus	17	7	6	2	32	11	6	5	5	1	1	2	2	—	2	3	70	
	Tuberculous Meningitis	—	—	—	—	—	—	1	—	—	1	—	2	—	1	—	—	5	
	Tuberculous Peritonitis: Tabes Mesenterica	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	
	Other Tuberculous Diseases	—	—	—	—	—	—	1	—	3	2	1	1	2	—	—	—	10	
	Erysipelas	—	—	—	1	1	1	—	—	—	1	—	—	—	—	—	—	3	
	Syphilis	—	—	—	1	1	1	—	1	—	—	—	—	—	—	—	—	3	
	Rickets	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Meningitis (<i>not Tuberculous</i>)	—	—	—	—	—	—	—	—	—	—	2	1	2	1	—	—	2	8
	Convulsions	5	3	2	2	12	5	5	4	1	1	2	2	1	—	1	1	35	
	Bronchitis	—	1	—	1	2	2	—	—	1	4	2	1	—	6	2	—	20	
Laryngitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Pneumonia	—	—	—	—	—	—	5	2	2	3	3	2	5	3	2	6	33		
Suffocation, overlaying	3	1	—	1	5	2	3	1	—	—	—	—	—	—	—	—	—	11	
Other Causes	3	—	—	1	4	3	1	2	—	2	1	—	—	1	1	4	19		
		86	25	16	22	149	45	41	30	21	33	29	26	21	25	20	26	466	

The percentage of deaths from Diarrhœa to the total deaths under 1 year was for the various wards :—

St. James Street.	High Street.	Hoe Street.	Wood Street.	Northern.
30	26·8	21·5	20·8	34
and from ante-natal conditions, prematurity and congenital defects—				
St. James Street.	High Street.	Hoe Street.	Wood Street.	Northern.
24·5	41·2	44·6	44·7	34·6

These percentages are rather puzzling. One would have thought that conditions favourable to child-life in its first year, would also be favourable in the antecedent conditions.

St. James Street Ward, with its entirely working-class population, has a large percentage of diarrhœal death-rate, but the smallest ante-natal, in spite of early marriages and comparative immaturity in the contracting parties.

Hoe Street and Wood Street Wards, again with the lowest diarrhœal percentage mortality, have the highest ante-natal.

If early marriage means better home life and healthy offspring capable of adaptation to new environment, we have but to educate our working-class mothers in the proper feeding and management of their young to produce a lowered infant death-rate; and in this connection the work carried on by the Lady Health Visitor must be of great value.

The preceding Table IX. shows the causes and ages at death of children under one year.

The following shows in tabular form the numbers and causes of death in children under five years in 1906, 1905 and 1904:—

Disease.	1906.	1905.	1904.	Disease.	1906.	1905.	1904.
Measles ...	35	34	45	Cancer ...	—	—	1
Scarlet Fever ...	9	9	7	Premature Birth ...	83	56	62
Influenza ...	1	0	1	Developmental Diseases	88	84	94
Whooping Cough ...	18	31	29	Meningitis ...	14	16	18
Diphtheria ...	29	15	20	Acute bronchitis ...	34	31	32
Croup ...	3	—	2	Lobar pneumonia...	15	19	18
Enteric Fever ...	—	1	1	Lobular do. ...	49	54	45
Diarrhœa ...	106	52	82	Diseases of stomach	2	2	6
Zymotic Enteritis ...	49	26	99	Obstruction of intestines	2	2	—
Enteritis ...	11	12	4	Bright's disease ...	1	1	3
Gastric-Enteritis ...	—	—	13	Accidents or negligence	30	14	23
Septic Diseases ...	7	8	4	All other causes ...	66	47	46
Tuberculosis of Meninges	13	13	13				
Do. Lungs	4	4	3				
Do. other forms	20	13	22				
					689	545	693

689 deaths of the total 1,447 were among children under five years of age; 149 of these occurred in the first month of life, and 116 in the next three months.

SENILE MORTALITY.

Of the total deaths recorded 240, or nearly 17 per cent., were of 65 years and upwards, as compared with 21 per cent. in 1905, 17 per cent. in 1904, 17·57 in 1903, and 17·3 per cent. in 1902.

Of these 240, 121 or 50 per cent. were 75 years or upwards as follows:—

In the St. James Street Ward	22	were	75	and upwards.
„ High Street Ward	13	„	„	
„ Hoe Street Ward	38	„	„	
„ Wood Street Ward	22	„	„	
„ Northern Ward	26	„	„	

The following table shows the number and causes of the deaths for the whole district and the several Wards. This table is a combination of Schedule B (Form of the Medical Officers' of Health Society) and Table IV. (Local Government Board Form).

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ZYMOTIC MORTALITY.

Included under this heading are the deaths from Small Pox, Measles, Scarlet Fever, Diphtheria, Whooping Cough, Fever (Typhoid, Typhus, and Continued), and Diarrhœa.

The rate based on deaths due to the foregoing diseases is subject to many varying conditions, over which Public Health Authorities are still to a large extent powerless.

Measles and Whooping Cough have periodical outbreaks when susceptible material accumulates with the growth of population, and Diarrhœa is influenced largely by summer heat.

The best supervised district may thus show a high Zymotic mortality, when the sanitary circumstances would warrant otherwise.

Isolation of the sick and disinfection of premises applicable to and controlling the spread of Small Pox, Scarlet Fever, and Diphtheria have failed in the prevention of Measles and Whooping Cough epidemics.

Diarrhœal mortality in children, while much lessened by improved sanitary conditions, will never be effectually dealt with until our older schoolgirls are properly educated in the elements of healthy infant rearing, and in the principles governing healthy home life.

The excessive diarrhœal mortality of the third quarter of the year, joined to the number of deaths from Diphtheria, has caused our Zymotic mortality rate to rise to 2·54 compared with 1·69 in the previous year, and to slightly exceed the average of the preceding 10 years.

The deaths from Diarrhœa and Zymotic Enteritis were 164 as compared with 78 in 1905, and those from Diphtheria 54 compared with 28.

Our Zymotic rate of 2·54 compared with 2·24 for the "76 great towns" is an unfavourable one.

Of the constituent rates, Diarrhœa is lower while Diphtheria is much greater than in towns of similar size.

Compared with former years the rate is as follows: 1906, 2·54; 1905, 1·68; 1904, 2·89; 1903, 1·97; 1902, 1·31; and 1901, 2·82.

The following tabular statement shows the mortality from Zymotic diseases since 1898 :—

TABLE X.

	Small-Pox.	Scarlatina.	Diphtheria.	Croup.	Typhoid.	Measles.	Whooping Cough.	Diarrhoea.	Zymotic Enteritis.	Total.
1906	0	21	54	3	8	39	18	113	51	307
1905	0	17	28	0	8	35	31	52	26	197
1904	1	14	27	2	10	55	32	84	99	324
1903	0	6	17	—	19	52	34	28	37	193
1902	20	6	17	4	13	14	23	23	5	125
1901	1	13	38		12	43	26	131	10	274
1900	0	5	71	7	6	3	54	110	27	283
1899	0	6	64	9	19	33	34	144		309
1898	0	3	40	6	9	39	24	162		283

To make comparison with previous years easier, the deaths from Enteritis are not included in the foregoing table.

DEATHS FROM NOTIFIABLE INFECTIOUS DISEASE.

The deaths under this heading embrace all those due to Small Pox, Scarletina, Diphtheria, and Membranous Croup, Typhus, Enteric, and Continued Fever, Erysipelas, Puerperal Fever, Cholera, and Plague.

There were 96 deaths registered from these diseases during the year as compared with 60 in 1905, 65 in 1904, 55 in 1903, 73 in 1902, 74 in 1901, 103 in 1900, and 104 in 1899.

Under the Factory and Workshop Act, 1901, Section 73, "every medical practitioner attending or called in to visit a patient whom he believes to be suffering from Lead, Phosphorus, Arsenical or Mercurial

poisoning, or Anthrax, contracted in any Factory or Workshop, shall notify the fact to His Majesty's Chief Inspector of Factories."

The poisoning referred to would be, of course, acute.

TABLE XI.

NAMES OF DISEASES.	WHOLE DISTRICT.			WARDS, 1906.				
	Deaths, 1905.	Deaths, 1906.	Increase + Decrease -	St. James Street.	High Street.	Hoe Street.	Wood Street.	Northern
Small-Pox	—	—	—	—	—	—	—	—
Scarlatina	17	21	+ 4	4	1	6	5	5
Diphtheria	28	54	+26	13	4	8	6	23
Membranous Croup...	0	3	+ 3	—	—	—	1	2
Typhoid	8	8	—	3	—	1	1	3
Erysipelas	7	4	- 3	3	—	—	1	—
Puerperal Fever ...	2	6	+ 4	2	2	—	1	1
Cholera	—	—	—	—	—	—	—	—
Plague	—	—	—	—	—	—	—	—
Total	62	96	+34	25	7	15	15	34

ZYMOTIC DISEASES NOTIFIED DURING THE YEAR 1906.

Infectious Diseases Act, 1889.

The following table shows the number of cases of the various diseases certified each month during the year :—

TABLE XII.—Cases of Infectious Disease notified during the Year 1906.

1906. Notifications.		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Oct.	Nov.	Dec.	Total.	Deaths.
Small-Pox ...	{ Under 5 years Over	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Scarlet Fever ...	{ Under 5 years Over	15 34	18 35	13 29	12 38	19 56	20 61	15 54	21 65	23 41	36 71	22 55	14 42	228 581	9 12
Diphtheria ...	{ Under 5 years Over	8 16	3 7	5 10	10 15	7 18	7 11	7 21	6 19	8 15	13 27	14 16	9 15	97 190	Under 5, 29 Over 5, 25
Membranous Group	{ Under 5 years Over	1 0	0 0	1 0	1 0	0 0	0 0	0 0	0 0	0 0	0 0	1 0	1 0	6 0	0 0
Enteric Fever ...	{ Under 5 years Over	0 3	0 4	0 2	0 0	0 2	0 3	0 1	0 2	0 2	0 8	0 3	0 3	0 33	0 8
Continued Fever ...	{ Under 5 years Over	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 1	0 1	0 0
Puerperal Fever ...	{ Under 5 years Over	0 1	0 0	0 0	0 0	0 0	0 1	0 0	0 3	0 0	0 2	0 2	0 1	0 10	0 0
Erysipelas ...	{ Under 5 years Over	1 10	2 4	1 9	0 4	1 5	0 9	0 5	2 7	1 7	0 12	3 20	1 3	12 95	3 1
Totals ...		89	73	70	80	108	112	103	125	98	169	136	90	1253	87

The following table shows the distribution of Infectious Cases according to wards, and the increase or decrease compared with 1905:—

TABLE XIII.—Distribution of Infectious Diseases according to Wards.

WARDS.	Estimated Population.	Small-Pox	Scarlet Fever.	Diphtheria.	Group.	Erysipelas.	Typhoid.	Puerperal.	Chicken Pox.	TOTALS.	Increase + or Decrease - on last year.
St. James Street	—	0	137	74	1	35	10	4	0	261	+7
High Street ...	—	0	173	46	1	19	5	4	0	248	-63
Hoe Street ...	--	0	130	51	0	21	5	0	0	207	-2
Wood Street ...	—	0	173	32	1	15	6	1	0	228	+91
Northern ...	—	0	196	84	3	17	{ 7 Con. 1	1	0	309	+30
1906 ...	121,334	0	809	287	6	107	{ Con. 1 33	10	0	1,253	+65
1905 ...	117,500	0	756	254	4	122	50	2	0	1,188	+213
1904 ...	108,000	49	527	177	13	143	56	10	0	975	+275
1903 ...	106,290	2	292	147	5	117	88	6	53	700	-1,160
1902 ...	101,000	146	560	142	8	131	89	7	777	1,860	+669
1901 ...	97,000	3	608	322	11	111	73	10	53	1,191	+135

The following Table XV. is of interest to show the estimated population, number of cases of Infectious Diseases notified, with Infectious Sickness rate, and the mean for the years since the Notification Act came into operation. The estimated population is that of the Registrar-General:—

TABLE XIV.—*Estimated Population, Number of Infectious Diseases notified, with "Infectious Sickness Rate," and the Mean for the Years under consideration.*

Years.	Popula- tion.	Scarlet Fever.	Small Pox.	Diph- theria.	Croup.	Typhus Fever.	Typhoid Fever.	Con- tinued Fever.	Erysip- elas.	Puerperal Fever.	TOTALS.	Infectious Sickness Rate.
1890	46,500	129	0	160	3	1	117	3	31	0	444	9.5
1891	47,000	125	0	153	9	0	59	4	44	3	397	8.4
1892	49,400	399	6	137	17	0	28	0	94	3	684	13.8
1893	52,000	597	8	142	11	0	60	4	134	5	961	18.5
1894	57,000	247	11	129	15	0	66	0	75	3	546	9.5
1895	61,000	263	1	198	10	0	95	6	85	4	664	10.8
1896	65,000	315	0	124	6	0	193	2	122	5	767	11.8
1897	70,000	492	0	152	6	0	88	0	78	7	823	11.7
1898	77,000	293	0	225	9	0	75	0	82	3	688	8.9
1899	83,000	332	0	338	7	0	118	1	112	5	913	11.0
1900	91,000	347	0	516	11	0	86	1	87	8	1056	11.6
1901	97,000	608	3	322	11	0	73	0	111	10	1138	11.7
1902	101,318	560	146	142	8	0	89	0	131	7	1083	10.68
1903	106,290	292	2	147	5	0	88	0	117	6	657	6.2
1904	111,282	527	49	179	13	0	56	0	143	10	975	8.76
1905	116,300	756	0	254	4	0	50	0	122	2	1188	10.2
1906	121,334	809	0	287	6	0	33	1	107	10	1253	10.3
Mean		417	13	212	8	0	80	1	98.4	5.4	837	10.7
Average for previous years		392	14	207	9	0	83.8	1	98	5	810	10.3
Extremes {		809	146	516	17	1	193	6	143	10	1253	18.5
Lowest		125	0	124	3	0	28	0	31	0	397	6.2

INFECTIOUS DISEASES, AND MEASURES TAKEN TO PREVENT THEIR SPREAD.

The 1,253 cases of infectious diseases as set forth in the preceding tables represent 1,094 houses infected.

On receipt of notification, a visit was made as soon as possible by one or other of the Sanitary Inspectors who left instructions, written and verbal, as to the precautions to be taken to prevent the spreading of infection, on the part of the patient and the household.

Many of the houses were subsequently visited twice or oftener when there was reason to suspect that sufficient and proper isolation was not practised.

In such instances I also visited and succeeded in impressing on those in charge that the demands made on them were in their own interests.

The difficulty of carrying out such instructions by parents with four, five or more children living in flats of three or four rooms may easily be imagined.

Information as to probable source of infection, milk supply, schools attended, places of work, &c., is also obtained, and systematic inspection of the house is made with the view of detecting defects in drainage and other nuisances due to dirt and negligence.

The patient, if possible, is removed to Hospital, and failing removal is isolated from the other members of the family with varying degrees of efficiency.

Notices are sent to the Day and Sunday Schools prohibiting further attendance of children from the infected house, and the Medical Officers of Health of the Districts where members of the household worked, were made aware of the existence of the disease.

Disinfectants were supplied gratis to the poor, and to those unwilling to purchase them.

Under the Factory and Workshops Act, if clothing were made on the premises, Sect. 110 was put into operation and no further work admitted.

In such circumstances the patient was removed to Hospital within a day or two, with few exceptions in August, and the house and clothing disinfected and work resumed.

Upon recovery or removal of the patient to Hospital the premises were disinfected, clothing and bedding removed for the same purpose, and any rooms found dirty or dilapidated were repapered and white-washed.

All the disinfections were carried out by the employees of the Council, and no complaints were received as to any goods damaged in the process.

When a death occurred from Phthisis a notice was sent to the relatives, offering disinfection of premises and of the contents of the room recently occupied by the sufferer, and in this connection 20 such disinfections were carried out during the year.

As in former years "outfits for early diagnosis" for Diphtheria and Enteric Fever were kept at the Town Hall and a constant supply of anti-toxin maintained.

During the Holidays all the elementary schools were disinfected, and on special occasions certain schools, and at Christmas all the cloak-rooms were sprayed with Formalin.

SMALL POX.

No case of this disease occurred during the year.

SCARLATINA OR SCARLET FEVER.

Eight hundred and nine cases of this disease were notified during 1906, compared with 756 cases in 1905 and 527 in 1904.

The marked prevalence of Scarlet Fever noticed in London and suburbs was bound to affect this district. We are in no sense self-contained, and our favourable position, situated near the Forest, is an inducement to many with children convalescent from Infectious and other diseases to come away from London and live here.

In one such instance a child released from one of the Metropolitan Asylums Board's hospitals, after 16 weeks' detention, had a relapse and infected 3 others, resulting in their deaths.

As the child was never suspected to be in any way infectious, though discharging from nose and ears, and as no precautions were taken until the other children sickened with what the doctor in attendance thought was Diphtheria, much infection was thus spread.

Unlike previous years the disease in 1906 was of a severe type, occurred largely in adults, and was complicated with Diphtheria.

Five of the deaths in persons over 15 years of age occurred at the Sanatorium within a short time of their admission.

Of the 344 cases admitted to the Sanatorium, 29 were found on bacteriological examination to be also suffering from Diphtheria on admittance, and during convalescence 22 developed throat symptoms, which were found, on microscopic examination, to be due to the Diphtheria Bacillus.

Investigation was made in every instance to find the source of the supposed second infection, and failing to stop a case cropping up now and then, I had Dr. Thresh to visit the Hospital in September and advise.

Under his directions the large convalescent block was emptied of all the patients, the wards disinfected, and a fresh start made.

Prior to this, swabs were taken from the nurses' and maids' throats lest any of them might be suffering from Diphtheria without symptoms, and disinfections of either ward in the block practised.

Within a week of the supposed peccant ward being again occupied, a fresh case of Diphtheria arose, and then it was felt that the infection must have been prior to admittance to the convalescent block.

Henceforth all acute cases were examined for Diphtheria, with the result that 29 were found to be suffering from both diseases on admission, and in consequence were isolated throughout.

No further cases of so-called post-scarlatinal Diphtheria occurred, and in this connection the 12-bed cubicle pavilion was of the greatest service. That the two diseases co-existed on admittance is certain, as in removal a separate ambulance is used for Scarlet Fever, and before infection could possibly have taken place bacteriological examination was made; besides, the patients were absolutely isolated each in a cubicle.

In the Report of the Metropolitan Asylums Board I notice that 4·7 per cent. of the admissions to the South-Western Hospital developed a secondary infectious disease, but what proportion of those had actually contracted the infection before admission is not stated.

From the Report it does not seem that a bacteriological examination for Diphtheria was made in all cases of Scarlatina admitted, or probably the percentage would be much higher, for many of the cases at the Sanatorium admitted with double infection showed no particular clinical symptoms.

From the reports of the Metropolitan Asylums Board, it is shown that the percentage of children admitted to their Hospitals who suffer from superadded diseases varies from 10 to 46.

The percentage at the Sanatorium was not greater than 9, if we reckon those who were admittedly suffering on admission to those supposed to contract another infection while in Hospital.

The possibility of mixed infection arising where a number of children are brought together in the same ward at the most susceptible age is very great, particularly where one administrative building serves the needs of the whole staff.

Under these conditions neglect on the part of a nurse or ward maid in disinfecting and changing of costume may easily result in the breaking down of any system of isolation, however good.

Looking at page 39, it will be noticed that more than half the total number were between 5 and 15 years of age, that is in children of school age. Two hundred and twenty-eight children under 5 years were attacked, and 97 over 15 years, compared with 296 and 53 in the previous year.

Compared with the number notified (899), the deaths, 21 in number, are only equal to a case rate of 2·6 per cent. and a rate of ·17 per 1,000 of the population, slightly in excess of last year, and precisely as in England and Wales, but lower than the "76 great towns."

The death-rate, although small, does not exhaust all the dangers of Scarlatina, as many who recover have damaged hearts, kidneys, and ear troubles of a serious character.

Noting the frequency with which the dangerous infection of Diphtheria is also present, and the expressed wishes of parents to have their children removed to the Hospital, I feel that the recent additions to the Sanatorium were both useful and needful.

Unfortunately, we were unable to deal with all the cases desirous and suitable for removal, with the result that in many households with susceptible children one after another sickened.

In this connection one particularly unfortunate case occurred where the mother contracted the disease from her child and both died.

The removals to Hospital were made to the best of our judgment and in the interests of all, and on page it will be noticed that the removals were for the various Wards as follows:—

	St. James St.	High St.	Hoe St.	Wood St.	Northern.
1906	57	65	50	73	68
1905	50	70	44	31	62
1904	50	36	50	37	30
1903	59	63	53	67	45
% removed—					
1905	33	31	33	38	33
1906	41·6	37·5	38·4	42·2	34·7

The number of cases in the Wards per 1,000 of the population was as follows:—

	St. James St.	High St.	Hoe St.	Wood St.	Northern.
Population...	24,000	21,000	24,000	17,500	35,000
1906	5·7	8·2	5·4	9·8	5·6
1905	6	10	5	5	5·8

The greatest increase is shown in the Wood Street Ward, and partly accounting for this, we had in August 13 cases arising from a fete held on Bank Holiday, and in the roads leading out of the main street the houses are occupied by two families, and, in spite of re-visiting, no isolation precautions were nor in some cases could be taken, with the result that every susceptible person in the house contracted the disease.

The age incidence of the disease was as follows:—

Under one year	13
One to five years	215
Five to fifteen years	484
Fifteen to twenty-five years	71
Twenty-five years and upwards	26

Of the total deaths, 9 were under 5 years, 7 between 5 and 15 years, 3 between 15 and 25, and 2 over 25 years.

The case death-rate was nearly 4 per cent. under 5 years, and 2·6 over that age; the fatality was therefore nearly double in young children, showing the necessity for carefully guarding the very young from infection.

TABLE XV.—Cases of Infectious Disease notified during the Year 1906.

NOTIFIABLE DISEASE.	• CASES NOTIFIED IN WHOLE DISTRICT.						TOTAL CASES NOTIFIED IN EACH LOCALITY.					No. of Cases Removed to Hospital from Each Locality.						
	At all Ages.	At Ages—Years.						St. James Street.	High Street.	Hoe Street.	Wood Street.	Northern.	St. James Street.	High Street.	Hoe Street.	Wood Street.	Northern.	
		Under 1	1 to 5	5 to 15	15 to 25	25 to 65	65 and upwards											
Small Pox ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cholera ...	287	92	145	28	17	4	74	46	51	32	84	49	34	28	19	58	—	—
Diphtheria ...	6	6	—	—	—	—	1	1	—	1	3	—	—	—	1	3	—	—
Membranous croup ...	107	4	8	11	72	—	35	19	21	15	17	1	2	1	2	1	—	—
Erysipelas ...	809	13	215	484	71	26	137	173	130	173	196	57	65	50	73	68	—	—
Scarlet Fever ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Typhus Fever ...	33	—	16	8	9	—	10	5	5	6	7	8	3	3	2	2	—	—
Enteric Fever ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Relapsing Fever... ..	1	—	1	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—
Continued Fever... ..	10	—	—	—	10	—	4	4	—	1	1	—	3	—	—	—	—	—
Puerperal Fever... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Plague ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals ...	1253	26	317	654	118	134	4	309	248	207	228	309	115	107	82	97	134	—

I have received the following from Dr. Hall, the Resident Medical Officer :—

WALTHAMSTOW SANATORIUM REPORT, 1906.

TABLE XVI.

ADMISSIONS, DISCHARGES, DEATHS.

	Scarlet Fever.	Diphtheria.	S. F. & Dip.	Total.
Remaining on December 31st, 1905	44	18	3	65
Admitted during 1906	329	177	40	546
Staff	2	3	—	5
Total	375	198	43	616
Discharged	320	152	31 (C. Pox, 1)	504
Died	16	30	3	46
Remaining on December 31st, 1906	39	17	9	65

Of the cases admitted, 24 were from Woodford, 2 from Chingford, 3 from the West Ham Infirmary, and 4 from the General Hospital, Walthamstow.

TABLE XVII.

AGES OF PATIENTS ADMITTED.

	SCARLET FEVER.										
	Under 5 years.		From 5 to 10 years.		From 10 to 15 years.		15 years and upwards.		Total of		Total.
	M	F	M	F	M	F	M	F	M	F	
January ...	4	4	8	3	—	2	1	5	13	14	27
February ...	5	6	5	6	—	—	—	3	10	15	25
March ...	1	3	2	1	6	1	1	1	10	6	16
April ...	2	1	7	6	2	1	2	—	13	8	21
May ...	6	6	9	9	2	3	3	3	20	21	41
June ...	1	1	7	4	2	2	1	—	11	7	18
July ...	4	4	8	14	3	5	4	3	19	26	45
August ...	1	6	5	9	4	5	3	8	13	28	41
September	3	2	5	8	3	1	1	3	12	14	26
October ...	3	1	7	2	1	1	1	2	12	6	18
November	3	2	10	4	1	1	2	1	16	8	24
December	5	2	8	7	1	1	4	1	18	11	29
Total...	38	38	81	73	25	23	23	30	167	164	331
	76		154		48		53		331		

	SCARLET FEVER AND DIPHTHERIA.										
	Under 5 years.		From 5 to 10 years.		From 10 to 15 years.		15 years and upwards.		Total of		Total.
	M	F	M	F	M	F	M	F	M	F	
January ...	1	1	—	—	—	—	—	—	1	1	2
February ...	—	—	—	—	1	1	—	—	1	1	2
March ...	—	—	—	—	—	—	—	—	—	—	—
April ...	—	—	—	—	—	—	—	—	—	—	—
May ...	—	1	2	1	—	—	—	—	2	2	4
June ...	—	—	—	—	—	—	—	—	—	—	—
July ...	—	—	—	2	—	—	—	—	—	2	2
August ...	—	—	1	1	—	—	—	—	1	1	2
September	—	—	—	2	1	—	1	—	2	2	4
October ...	3	1	1	2	1	1	—	—	5	4	9
November	2	1	5	4	—	1	1	—	8	6	14
December	—	—	—	1	—	—	—	—	—	1	1
Total...	6	4	9	13	3	3	2	—	20	20	40

Complications of Diphtheria were :—

	No. of Cases.
Paralysis	5
Albuminuria	9
Relapse	2
Adenitis (Supp.)	2
Nephritis	2
Jaundice	2

Diseases complicating Diphtheria were :—

	No. of Cases.
Scarlet Fever	11
Measles	1
Varicella	2

Ten cases of laryngeal Diphtheria were admitted during the year. Of these seven recovered without operative interference, two that were tracheotomied both died, and the remaining case was admitted too late to hospital for any treatment to be effectual.

Rashes, the result of the antitoxic injections, occurred in six cases, causing some slight discomfort from the irritation, otherwise they were attended with no ill-effects. No joint pains occurred from the injections. Most of the rashes appeared between the 9th and 12th days from the first injection.

208 cases, including staff, were admitted as suffering from Diphtheria. Microscopical examination of swabs from throats and noses of these patients on admission to Hospital, gave 94 positive results, 80 negative, and 16 contained Hoppman's bacillus alone. No swabs were taken from those patients who were dying on admission, or from those suffering from laryngeal Diphtheria.

Complications of Scarlet Fever were :—

	No. of Cases.
Albuminuria	4
Nephritis	1
Otorrhœa	25
Adenitis (Inflamed glands)	3
„ (Suppurative)	3
Rheumatism	4
Jaundice (Catarrhal)	2

Diseases complicating Scarlet Fever were :—

	No. of Cases.
Diphtheria	29
Pertussis	1
Varicella	2
Measles	1

Of seven cases admitted to Hospital for Scarlet Fever, and who showed very few symptoms characteristic of the disease at the time of admission, it is interesting to note the different intervals of time that elapsed before five of these patients developed Scarlet Fever of a very acute type, *i.e.*, in 6, 9, 17, 35 and 39 days respectively.

The other two cases did not develop the disease, as, fortunately, we were able to isolate them in the cubicle pavilion. They were discharged on the 15th and 23rd days respectively after admission to Hospital.

The following table shows some cases wrongly diagnosed, and the diseases for which they were mistaken :—

Certified as suffering from Diphtheria	Sc. F. & Diph.						Diagnosed in Hospital as suffering from
16	0	...	...	...	...	...	Scarlet Fever.
2	0	...	...	...	...	...	Pertussis.
1	0	...	...	...	...	...	Varicella.
13	0	...	...	...	...	...	Tonsillitis.
1	0	...	...	...	...	..	Measles.
1	0	...	...	...	...	...	Enlarged glands.
0	5	...	...	...	...	...	Scarlet Fever only.
0	1	...	...	...	...	...	Diphtheria only.

Complications of the mixed infections (Scarlet Fever and Diphtheria) were :—

	No. of Cases.							
Otorrhœa	6
Adenitis (Suppurative)	1
Albuminuria	3
Paralysis	2
Nephritis	1

There were 22 cases of post-scarlatinal Diphtheria, occurring principally in the latter part of the year. All the cases recovered.

Return cases of Scarlet Fever numbered 11.

DIPHThERIA AND MEMBRANOUS CROUP.

Two hundred and eighty-seven cases of Diphtheria and six of Membranous Croup were notified during the year, compared with 254 of Diphtheria and 4 of Membranous Croup in 1905.

The notifications represent an attack rate of nearly 2.5 per 1,000 of the population, a rate a little in excess of 1905, but considerably less than in previous years, 1896 excepted.

The deaths resulting were—Diphtheria, 54 ; Croup, 3 ; and were equal to a death-rate of $\cdot 44$ per 1,000 of the population, compared with $\cdot 19$ for the "76 Great Towns."

To appreciate our position as regards Diphtheria it is necessary to note that since 1890, when the Notification Act became operative, the lowest rate of attack per 1,000 has been 1·4 in 1903, and the highest 5·7 in 1900.

In no year has there been a single week without a fresh case of Diphtheria, and so the disease may be said to be endemic.

In March, 1901, the Isolation Hospital was opened for the reception of patients, and a notable decrease in Diphtheria followed :—

A rate of 5·7 in 1900 was followed by 3·4 in 1901, 1·5 in 1902, 1·4 in 1903, 1·7 in 1904, and 2·2 in 1905.

It is a well-recognised fact that two-thirds of the Scarlet Fever and Diphtheria cases occur in children under ten years of age, and the special period selected by Diphtheria is from one to five years.

Therefore our freedom in 1902, 1903 and 1904 supplied an amount of susceptible material that did not exist to such a large extent in the preceding years.

Added to this, the absence of symptoms in many cases of Diphtheria throws parents off their guard, and children are allowed to attend school when in an infectious condition.

In the Northern Ward, following the sudden death of a boy aged thirteen years from Diphtheria, the doctor in attendance wrote to me saying that he had another case under observation and isolated for the previous fourteen days, but was unable to make up his mind until then that it was Diphtheria.

Within a fortnight of this there were 8 cases notified and 3 deaths registered in the immediate neighbourhood.

These cases caused a mild scare at the Selwyn Avenue Schools, and the cause of the disease was attributed to some surface water near the premises.

That the disease was mainly spread by personal contact I have no doubt, and in this connection compulsory school attendance played a large part.

In the Forest Road School, I had reason to think, other causes excluded, that there must be a child in attendance with unrecognised Diphtheria, and, in consequence, I examined all the children of a suspected classroom.

One child, apparently in perfect health, had a slight discharge from its nose, which was subsequently found to be diphtheritic.

After exclusion of this child no further cases occurred, although the parents were not at all pleased at the exclusion, and could not believe that such a condition was possible.

In the active supervision of the children attending school and isolation in Hospital of all cases lie the best means of coping with Diphtheria.

That all the cases notified were not Diphtheria was to be expected, but a much larger error in nomenclature was found in those sent to the Sanatorium than is found elsewhere.

Of the total number admitted into Hospital about 65 per cent. were diphtheritic, and 35 per cent. found to be suffering from other affections.

Assuming that if a bacteriological diagnosis could have been made of all cases, and a similar result ensued, we then find that 118 cases of Diphtheria and Croup caused 59 deaths, or a case rate of 30 per cent., compared with 20 in the previous year.

That the type of the disease was very virulent I have no doubt, as is usually found when mixed infection is prevalent.

Some of the cases were diagnosed *post mortem*, and a number died within twenty-four hours of recognition.

The high death-rate in spite of anti-toxin was in part due to the delay in notification, and consequent late period of injection.

The following Table shows the estimated population, the number of cases of Diphtheria and Membranous Croup, the attack rate since 1890, and the death-rate since 1898:—

TABLE XIX.

Years.	Population.	Number of Diphtheria cases.	Rate per 1,000.	Membranous Croup cases.	Diphtheria and Croup Death-rate per 1,000 population.
1890	46,500	129	2·5	3	—
1891	47,000	153	3·22	9	—
1892	49,400	137	2·77	17	—
1893	52,000	142	2·73	11	—
1894	57,000	129	2·26	15	—
1895	61,000	198	3·24	10	—
1896	65,000	124	1·9	6	—
1897	70,000	152	2·17	6	—
1898	77,000	225	2·9	9	·59
1899	83,000	338	4·0	7	·88
1900	91,000	516	5·6	11	·86
1901	97,000	322	3·4	11	·39
1902	101,318	142	1·40	8	·20
1903	106,290	147	1·38	5	·16
1904	111,282	177	1·59	13	·26
1905	116,300	254	2·18	4	·24
1906	121,500	287	2·3	6	·44

The following table shows the distribution of cases of Diphtheria in the various wards since I have been your Medical Officer of Health:—

TABLE XX.
Diphtheria prevalence in Wards for the Years 1898 to 1905.

Year.	ST. JAMES STREET.			HIGH STREET.			HOE STREET.			WOOD STREET.			NORTHERN.		
	Population.	No. of Cases.	Rate per 1,000.	Population.	No. of Cases.	Rate per 1,000.	Population.	No. of Cases.	Rate per 1,000.	Population.	No. of Cases.	Rate per 1,000.	Population.	No. of Cases.	Rate per 1,000.
1898	17,620	37	2	15,320	54	3.5	22,019	67	3.0	13,140	65	5.0	11,900	11	1.0
1899	21,942	112	5	19,452	79	4.3	21,523	81	3.0	13,888	45	3.2	10,478	28	2.6
1900	23,133	203	9	19,936	107	5.0	23,039	64	3.0	14,767	104	6.9	14,508	49	3.2
1901	23,218	144	6	19,886	74	3.7	21,508	53	2.5	15,512	41	2.6	16,884	21	1.3
1902	23,000	43	1.87	20,000	26	1.3	22,000	25	1.14	16,000	25	1.56	20,000	23	1.15
1903	23,600	31	1.31	20,000	23	1.15	22,500	29	1.29	16,500	37	2.24	23,500	27	1.15
1904	23,600	36	1.56	20,400	61	2.9	23,100	21	.9	16,600	18	1.08	24,300	41	1.68
1905	24,000	57	2.37	21,000	58	2.8	23,500	58	2.46	17,000	31	1.8	32,000	50	1.5
1906	24,000	75	3.1	21,000	47	2.2	24,000	51	2.1	17,500	33	1.9	35,000	87	2.5

The Local Government Board Form, on page 83, shows the distribution of the cases of Diphtheria according to Wards.

The distribution of the cases over the various portions of the district, the numbers removed to Hospital, the deaths resulting and the death-rate per cent. of those notified were as follows :—

	St. James Street.	High Street.	Hoe Street.	Wood Street.	Northern.
No. notified	75	47	51	33	87
No. of deaths	13	4	8	7	25
No. removed to Hospital ...	49	34	28	20	61
No. of deaths in Hospital ...	6	1	4	4	15
Death-rate per cent. of those removed to Hospital	12·2	3	14	20	24·5
No. remaining at home	26	13	23	13	26
No. of deaths	7	3	4	3	10
Death-rate per cent. of those remaining at home	27	23	17·4	23	38·4

The death-rate per cent. of those admitted to the Sanatorium was 16 ; that of those treated at home, 24.

Taking into consideration that many of the worst cases are sent to Hospital, some only living a few hours after admission, and that many are admitted some four or five days after initial symptoms, the value of anti-toxin treatment may be appreciated.

There were in High Street 11, and in Hoe Street Ward 7 fewer cases, contrasted with 18 more in St. James Street Ward, 2 in Wood Street Ward, and 37 in the Northern Ward than in 1905.

While St. James Street and the Northern Wards had the greatest increase in number, Wood Street and the Northern Wards had the greatest death-rates.

The mortality in High Street resembles that of the Hospitals of the Metropolitan Asylums Board, that of the other Wards the mortality of pre-anti-toxin days.

Owing to the difficulty of early diagnosis of Diphtheria from clinical symptoms, and that bacteriology can solve any doubts, culture outfits are kept at the Town Hall for the use of all medical practitioners, but they have not been made use of to the extent one would like to see.

A supply of anti-toxin serum also has been maintained for gratuitous injection, and a syringe when necessary is provided, so that there need be no delay in early injection, and from the preceding table it is quite evident the results of such treatment are worth the extra trouble entailed.

During the year very few cases willing to be removed to the Sanatorium were refused admission.

The prevalence of Scarlet Fever and Diphtheria in this district, compared with neighbouring districts, may be of interest.

The following figures are taken from the Quarterly Returns of the Registrar General:—

Town.	Population.	No. notified.		Deaths.	
		Scarlet Fever.	Diphtheria.	Scarlet Fever.	Diphtheria.
Tottenham ...	119,000	474	133	18	12
East Ham ...	129,000	793	254	19	27
Leyton ...	118,000	624	292	16	35
Walthamstow ...	121,000	825	292	21	51

ISOLATION ACCOMMODATION.

In March the pavilion of 12 separate cubicles, and the 24-bed pavilion for convalescents, were opened for the reception of patients, and the old observation block, with its accommodation of 4 beds, was henceforth used as a discharge block.

Scarlatina patients believed to be free from infection are now placed in this block for some days, under conditions similar to those prevailing in their own homes, and then discharged.

In spite of the precautions a few return cases have arisen.

There is reason to believe that all so-called return cases are not really due to a discharged patient. On one occasion the parents failed to remove a child on the day appointed. Next day another child sickened with fever, which no doubt would have been considered a return case had the child in Hospital gone home as arranged.

The cubicle pavilion, originally intended for acute cases of Scarlet Fever, was largely used for cases of mixed infection, admitted and acquired and for the doubtful cases, hence the advantages originally claimed for it in the treatment of Scarlet Fever could not be properly estimated.

However, the ease of administration and its inexpensiveness, compared with other pavilions, were proved, as well as the possibility of treating cases of Scarlet Fever, Measles, Diphtheria and Varicella in the same block without bringing infection from one patient to the other.

One notable feature remarked on by the Resident Medical Officer was the comparative absence, in the patients treated in the cubicles, of Rhinorrhœa, Otorrhœa and other complications compared with previous years.

The insistence of wearing a separate cloak with hood whilst attending each patient, and the subsequent disinfection of hands before entering another cubicle or the duty room, gave an object lesson to nurses, useful and necessary.

Had we twice the number of cubicles, so that every patient about whom the Resident Medical Officer had doubts might be placed under observation for 10 to 14 days, the 5 cases described by Dr. Hall in her report contracting Scarlet Fever would be impossible.

The advantages originally claimed for the cubicles were as follows :—

1. Moderate cost in construction and working.
2. Each cubicle conforms with the requirements of a bedroom in a good modern house.
3. Each cubicle is a complete and separate ward, with ample light and thorough ventilation.
4. Disinfection of cubicle following patient's discharge, without interfering with other patients.
5. Patients, while absolutely separated, are at all time under the observation of the nurse.

The further advantage is that there need be no beds vacant while there is a patient to be admitted, and the system is the ideal one for small communities.

That Post-Scarlatinal Diphtheria can be avoided under any system I have my doubts. The close connection between the two diseases was shown again and again throughout the year.

We have had on several occasions cases notified of true Diphtheria and Scarlet Fever in different members of the same family, and *vice versa*.

Diphtheria.—The number of beds, 32, set apart for this disease generally sufficed, but there were occasions when the accommodation was insufficient, and the cubicles were used for urgent cases.

Scarlet Fever.—The 50 beds provided for this disease proved inadequate to deal with all cases wishing for hospital treatment.

Judged by the death-rate arising from Scarlet Fever, the necessity for hospital provision is small compared with Diphtheria.

Whatever the merits of hospital provision and isolation in checking the spread of Scarlet Fever, it is an undoubted necessity for a working-class community.

The expense entailed may not be justified by results, but great hardship would ensue to out-workers were no provision made, and instances of serious loss in income have occurred even with the accommodation provided.

That the removal of patients suffering from infectious disease from the midst of susceptible people must check the disease spreading appeals to all sensible people, and even if the community do not get value for money, the duty is no less obligatory.

Whenever the home accommodation permits of isolation, and no necessity for removal on other grounds exists, home treatment of Scarlet Fever is quite as good as hospital, and the danger of infection spreading is not so great as is usually imagined.

Instances have occurred in homes where isolation was in no way properly carried out, yet susceptible children failed to contract the disease.

On the contrary, a child after 8 or 9 weeks' stay in an isolation hospital, returning apparently well from Scarlet Fever, will be the cause of every susceptible child in the home contracting the disease.

Until more accurate knowledge of this disease and its vagaries is acquired, we can only regret the frustration of our best endeavours.

TYPHOID FEVER.

Thirty-three cases of this disease were notified during the year, and 8 deaths resulted.

The ages at which death took place were as follows:—

Between 5—15 years.	15—25 years.	25—65 years.	65 and upwards.
1	3	3	1

The death-rate from Typhoid was $\cdot 06$ per 1,000 of the population, a rate considerably lower than any grouped portion of the kingdom—the "Great Towns," "Smaller Towns," or Rural England and Wales.

Of the 33 cases notified, 18 were removed to Hospital, and the case death-rate was 24 per 100, compared with 16 in 1905.

The number of notifications was the smallest recorded, excepting 1892, and the very smallest in proportion to the population.

The greatest number in any month notified was in October (8), and the least (1) in July. No case occurred in April.

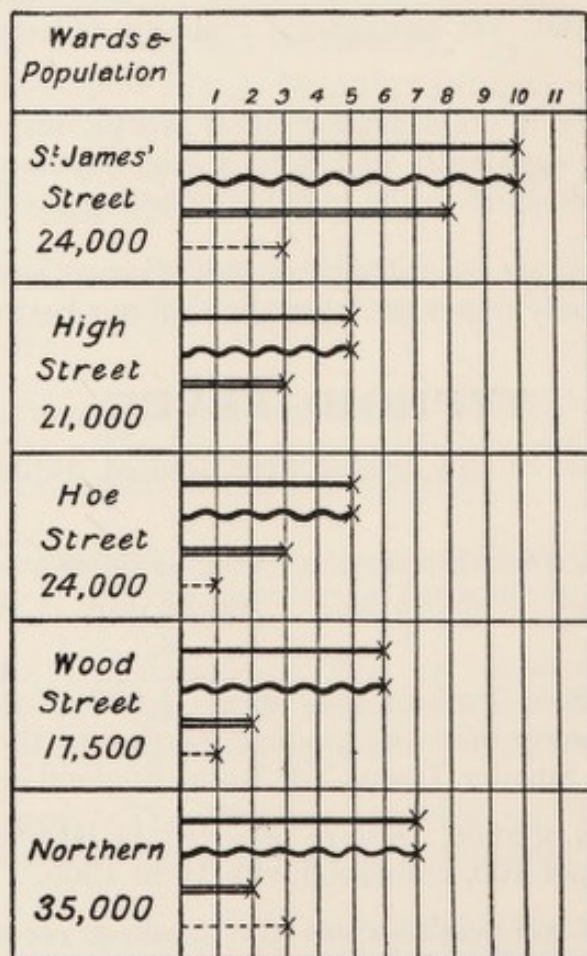
The incidence according to Wards and for previous years was as follows :—

	St. James Street.	High Street.	Hoe Street.	Wood Street.	Northern.
1906	10	5	5	6	7
1905	18	4	8	8	12
1904	16	8	13	6	13
1903	28	21	14	8	17

Wood Street, as in former years, enjoys a favourable immunity compared with St. James Street.

Excluding epidemic causes, the source of infection in isolated cases is most difficult to trace.

The distribution of the cases according to Wards, the number of infected houses, removals to Hospital and deaths are represented in the following diagram :—



Single line indicates cases
 Crenated, " " infected houses
 Double " " " removals
 Dotted " " " deaths

SUMMER DIARRHŒA—EPIDEMIC OR ZYMOTIC ENTERITIS.

One hundred and thirteen deaths were registered from Diarrhœa ; 51 from Epidemic Enteritis, and 14 from Enteritis, making 178 in all, compared with 73 in 1905.

These deaths represent a death-rate of 1·04 per 1,000 of the population, compared with ·67 in 1905, and 1·16 for the "76 Great Towns," ·94 for the "Smaller Towns," and ·52 for Rural England.

One hundred and thirty-two of these deaths, or 74 per cent., occurred in children under 1 year of age, compared with 73 in 1905.

Of the total deaths in children under 1 year of age nearly 30 per cent. have died of Diarrhœa, so that this disease is one of the most serious affecting childhood.

No subject has been more written about, nor excited greater interest, than Diarrhœa in its relations to the Public Health.

This is of course in great part due to the belief that, to a large extent, the wastage of infant life caused by Diarrhœa is in a great measure preventable.

Although so much has been written on the subject, and statistics of the most various kinds registered, our knowledge of its causation and prevention has advanced but little since 1887, when Dr. Ballard made his investigations.

In his day the main conditions associated with Diarrhœa were clearly laid down, and the only real progress since made is in the acknowledgment that Diarrhœa is a "filth disease," and in this recognition is the way shown to combat its mortality.

All the other factors associated with Diarrhœa in children might be ignored if we could attain to absolute cleanliness in their feeding.

Nature designed that the food of infants should be mothers' milk—an absolutely clean product.

Unfortunately owing to our modern methods of living and the urbanization of our people, many women seem either incapable or unwilling, or both, to suckle their offspring, and have recourse to many substitutes in no way conforming with Nature's standard.

That the deaths are not so much due to the substitutes themselves as to their contamination in one way or another by dirt in hot and dusty weather, may be easily understood, from the fact that hand-fed children do not die to any greater extent than breast-fed in the first and fourth quarters of the year when the weather is wet and cold, and that persons in well-to-do circumstances manage to preserve their babies from Diarrhœa though hand-fed.

Year by year the death-rate in Hoe Street is less than half that of St. James Street, an object-lesson in this respect.

Could we but educate our mothers to use cows' milk only as a substitute, where suckling is impossible, and could we insist upon milk being provided and sold in an absolutely clean condition, in spite of home conditions, much of the diarrhœal mortality would cease.

In practice, what do we find? Generally speaking, milk is procured under the most revolting conditions, and were it not that we are all so accustomed to the methods adopted, very few would be willing to drink it.

A farm labourer with dirty clothes and dirtier hands comes straight from other employment and sits down to milk a cow with dirty flanks and dirtier udder.

The first milk goes to moisten the milker's hands, and during the whole operation of milking, dried dirt, hairs, scales from the skin, etc., are constantly falling into the milk.

The milk is subsequently cooled and strained. Straining milk is no doubt a great help to make it look cleaner, but much of the dirt is dissolved with milk, and all that is required is the heat of the summer-time to develop innumerable bacteria and their poisons, to an extent that in its consumption by babies is inevitable death.

Were the milk not subjected to any worse and further contamination, perhaps things would not be so bad, but unfortunately many of our mothers are dirty and slovenly, and in blissful ignorance of the value of fresh air and sunlight in the home and scrupulous cleanliness in everything pertaining to the house and to the storage of food. Milk, stored under such insanitary conditions, soon becomes a "solution of bacteria and little short of rank poison to an infant."

Failing a pure milk supply from source to consumption, our efforts have been directed to educating our present and future mothers in the

feeding and management of infants, and in inculcating the doctrine of cleanliness, home and personal.

In addition to the distribution of leaflets giving general advice on the care and feeding of infants, Miss Portlock spends a good deal of time in lecturing to our senior girls in the schools and to mothers at their various meetings, besides visiting the homes and giving personal advice when such is asked for.

This work in time will have a great influence for good, by dispelling the ignorance and prejudice associated with the care and management and feeding of young children.

Enquiries were made into the circumstances surrounding the deaths of 146 children, more especially into the social condition of the parents, the sanitary condition of the houses, number of inmates, care and feeding of the child, and previous deaths from summer Diarrhœa in the family, and may thus be summarized:—

Accommodation.

Whole Houses.	Half-Houses.	Flats.	Lodgings.	
			One Room.	Two Rooms.
62	34	22	23	5

Sanitary Defects.

Homes Neglected and Dirty.	Dirty Premises (entire).	Dirty Kitchens (12), Bedrooms (6).	Defects in W.C. Flush.	Defects in Ventilating Pipe.	Over-Crowded
17	4	18	11	2	2

There were other minor defects found having little influence in Diarrhœa production.

The water supply was very unsatisfactory in most of the houses.

In 36 instances the water was directly from the main, in 110 through cisterns.

Twenty-five of these cisterns had been cleaned within the year, but the remaining 85 had not been cleaned for long periods—in one instance ten years.

The excuse given was that the cistern was inaccessible, and as a rule it was found that there was no lid provided, "so that the drinking water was seldom fit to use."

Any cistern, used for the supply of water for domestic purposes, so placed or kept as to render the water liable to contamination, should be deemed a nuisance and dealt with accordingly.

Until some such power is given we cannot hope for improvement in houses already built, and there is no provision in the new Bye-laws dealing with houses yet to be built.

Feeding.

							Tube	Bottles.
Breast	...	...	...	...	...	6	—
Cows' Milk—Pearl Barley or Water	...	...	...	...	...	21	11
„ Patent	...	...	...	...	...	20	12
Nestle's Milk—Pearl Barley Water	...	...	...	...	...	37	17
„ Patent	...	...	...	...	...	13	8
Patent Foods	...	...	...	...	...	27	20
Bread Sop	...	...	...	...	...	10	—

Of the children who died, “23 were illegitimate, 8 were twins, 17 premature, 11 suffering from Marasmus, 13 Consumption, 7 Pneumonia and Bronchitis, 4 had Whooping Cough, and 2 had just recovered from Measles.”

Previous Deaths from Diarrhœa in Family:—

1 Death.	2 Deaths.	3 Deaths.	4 Deaths.	5 Deaths.	6 Deaths.	10 Deaths.
10	13	7	5	2	2	1

That any mother should have 10 infants die from Diarrhœa seems incredible, but such is the information given, and from the figures it looks as if certain mothers persist in feeding their young on wrong lines, and with the advent of a hot summer, if the child happens to be between 2 and 6 months, death seems inevitable.

Parents' Social Condition.—Thirteen of the fathers were out of work, 10 were slack, and 3 of the mothers went out washing and charing.

One of the mothers was deserted 6 months after marriage, and had to work in a laundry both before and after the birth of her child.

One mother was removed to an asylum within a week of confinement and the child died within the month.

All these conditions were inimical to the child, and in a way unavoidable.

Three of the babies were utterly neglected, the mothers being drunkards.

Of the 23 illegitimate babies who died, 4 were born in Walthamstow. The latter were on Miss Portlock's lists, and to an extent under her care, and it speaks well for her supervision that only 4 out of 70 died.

Had the others died in the same proportion it would mean that we had 350 nurse children from other districts. This is not so, the large number of deaths was due to illegitimacy and consequent neglect.

As long as any woman, however unfitted, without registration and supervision, may take in *one* nurse child, the infantile death-rate of these must necessarily remain high.

The following table shows the death-rate in the various Wards from this disease :—

TABLE XXI.

	St. James Street.	High Street.	Hoe Street.	Wood Street.	Northern Ward.
Number of Births	735	734	595	465	1065
Birth-Rate	30·4	35	24·7	26·2	30·2
Number of Deaths	43	32	19	26	58
Death-Rate per 1,000 ...	1·8	1·5	·8	1·5	1·6

The death-rate from Diarrhoea in the whole district was 1·07 per 1,000.

The similar rate for England and Wales was ·87, and for the "76 Great Towns," 1·16.

MEASLES AND WHOOPING COUGH.

The deaths from these diseases were fewer than in either of the two previous years, yet the mortality was considerable—Measles causing 39 and Whooping Cough 18 deaths.

Both diseases mainly affect very young children. Owing to this fact the suggestions made in last year's report have been largely carried out. Instead of excluding all children from infected households, those over 10 years of age and those under 10 years known to have had these diseases were permitted to attend school when either complaint became epidemic.

This course does not so seriously lower the average attendance as exclusion of all children, and the risk run is not much greater.

The infection, I believe, is very rarely carried by other than the sufferer, and, situated as we are, with children abounding everywhere and freely mixing in the streets, little good would accrue by excluding non-sufferers who have passed up from the Infants' Schools.

Of 39 deaths caused by Measles, 2 were under 1 year of age, 33 between 1 and 5 years, and 4 between 5 and 15 years.

Of the 18 deaths caused by Whooping Cough, 12 were under 1 year of age, and 6 between 1 and 5 years.

No death from Whooping Cough has occurred for the past 3 years in children over 5 years of age.

As pointed out in previous years, were the admittance age of school children raised, probably the deaths from Whooping Cough would be considerably fewer.

Whooping Cough and Measles, from their very prevalence, are looked upon by parents with an indifference quite unwarranted.

The deaths from both diseases are numerous, and many who escape death are left with permanently damaged constitutions.

School closure has not in my experience, been asked for at any time in the case of Whooping Cough, and during the year no school or department has been closed on account of Measles.

The procedure of former years in reference to these diseases, with the difference already noted, has been carried out during 1906.

The returns given by the Attendance Department of the Education Committee have been generally trustworthy, and reliance has been placed on the exclusion of sufferers, with the distribution of leaflets dealing with prevention of spreading and home treatment.

The Lady Health Visitor has made many visits in connection with these diseases, and to some of the poorer parents she gave verbal instructions. This conduct was resented and brought to my notice by a medical practitioner.

I hardly expected it, and it augurs badly for my suggestion that ladies with diplomas in Hygiene and Sanitary Science should be appointed as Attendance Officers when occasion arose.

Such appointments would, however, in spite of occasional friction and opposition, work in the interests of the schools and the community.

In former years I have commented on the excessive expenditure incurred in the prevention of Scarlatina and Diphtheria compared with Measles and Whooping Cough, and I am still of opinion that a great deal more ought to be done in the direction of minimising the risks that children run in compulsory attendance at school.

So long as parents are ignorant of the dangers or ignore them, little improvement can be effected, and pending the time when parental ignorance in these matters has disappeared under an improved system of education, we could usefully employ many Health Visitors.

The objections sometimes made against appointments "tainted with Socialism" are equally applicable to all the work carried on under the Public Health Acts.

The death-rate for Measles was $\cdot 32$ per 1,000, compared with $\cdot 3$ in 1905, and $\cdot 49$ in 1904.

The death-rate for the "76 Great Towns" was $\cdot 4$, and for England and Wales $\cdot 27$.

The death-rate for Whooping Cough was $\cdot 14$, compared with $\cdot 26$ in 1905, $\cdot 23$ for England and Wales, and $\cdot 28$ for the "76 Great Towns."

The deaths from Measles and Whooping Cough since 1889 onwards were as follows :—

		1889	1890	1891	1892	1893	1894	1895	1896	1897
Measles...	...	40	14	12	83	9	3	87	19	19
Whooping Cough	...	--	54	16	32	34	25	15	37	21
		1898	1899	1900	1901	1902	1903	1904	1905	1906
Measles...	...	39	32	3	43	14	52	55	35	39
Whooping Cough	...	24	33	54	26	23	34	32	31	18

The following figures supplied by Mr. Jones, the School Attendance Superintendent, show the number of children away from school during the year from these alleged causes :—

TABLE XXII.

SICKNESS RETURN, FROM JANUARY, 1906, TO DECEMBER, 1906.

Month Ending	Measles.	Whooping Cough.	Total.
January	252	129	381
February	904	129	1,033
March	2,016	163	2,179
April (Easter Holiday—1 week)	1,172	85	1,257
May	818	92	910
June (Whitsun Holiday—1 week)	197	99	296
July	45	129	174
August (Midsummer Holiday—4 weeks)	7	58	65
September	52	250	302
October	59	188	247
November	298	337	635
December (Christmas Holiday—2 weeks)	282	300	582
Total	6,102	1,959	8,061

INFLUENZA.

This disease, though at no time epidemic, was responsible for many more deaths than in previous years.

Death certification depends a good deal on the views held by medical men, and many acute diseases show in their early stages symptoms that might be attributed to Influenza. When the graver disease manifests

itself and carries off the patient, the certificate is filled in as due to Influenza with the supposed secondary disease added.

The procedure in classification of attributing death to a specific rather than a general disease has, I think, something to do with the increased number of deaths under this heading.

The deaths numbered 21, compared with 6 in 1905.

The disease is not one over which sanitary righteousness has much influence.

PUERPERAL FEVER—LYING-IN FEVER.

This dangerous disease of lying-in women is one in which great interest was taken by many members of the Sanitary Committee during the year, and invariably I was asked as to the measures taken in every case.

Upon notification enquiries are made as to the probable cause, the sanitary condition of the house and the possibility of the infection having been conveyed to the patient by those in attendance. Subsequently a letter of advice is sent to the nurse as to her future conduct and the method to be adopted by her for disinfection of self and clothing. The instructions sent have invariably been obeyed, and a second case attributable to the nurse has not arisen.

That there are so few cases of Puerperal Fever always seems to me remarkable, considering the primitive notions the average untrained nurse entertains concerning surgical cleanliness.

The "handy woman" as a rule sees no reason why she should be cleaner at the most critical times of her attending than at others, and if her hands be particularly soiled, she may dip them in some water and wipe on the nearest available cloth.

We have now a branch of the Essex Nursing Association established in Greenleaf Road, and the provision of competent nurses will be in time within the reach of all. At present, the persons registered as midwives under the 1902 Act are supervised by Dr. Thresh on behalf of the County Council, and are pretty well looked after.

The conditions to which the name Puerperal Fever may be given are numerous, but are not interpreted by all medical men alike.

They are in addition to Sæpticæmia, Pyæmia Septic Peritonitis, and Septic Metritis, "all septic inflammations in the pelvis occurring as the direct result of childbirth."

Very seldom is a notification of Puerperal Fever received without being followed in a few days by the death of the patient; this year fortunately four of the notified cases recovered.

Owing to the belief still entertained that Scarlet Fever in lying-in-women is very fatal, beds have always been provided at the Sanatorium for patients in homes where confinements were anticipated.

The deaths returned as due to diseases and accidents of parturition embrace many others besides Puerperal Fever.

PHTHISIS OR CONSUMPTION.

One hundred and twenty-three deaths were registered from "Tuberculosis of Lungs," compared with 93 in 1905, 96 in 1904, 98 in 1903, 87 in 1902, and 86 in 1901.

Seventeen deaths were registered from Tuberculosis of Meninges and 26 from "other forms of Tuberculosis," compared with 20 and 22 respectively in the previous year.

The increased number of deaths compared with previous years may be due to greater accuracy in certificates and not increased prevalence. Consumption, however, is a very fatal disease, and one against which more active measures should be taken than are adopted here.

At present we offer disinfection, and invariably get the relatives to have it carried out in houses where consumptives have died.

This measure is undoubtedly useful, but we fail to do anything in the most active stage—*ante mortem*—when the sufferer is a great danger to others.

The compulsory notification of Phthisis has been suggested as the best initial measure in fighting this disease, but the objections raised to its utility, if we do not carry notification to its logical conclusion—*isolation*—have so influenced sanitary authorities, that what is feasible and possible in existing circumstances is left undone.

Some authorities have made arrangements so that Phthisis is voluntarily notified and paid for, but no action is taken further than advice in the early stages.

In this way many consumptives come under control, and an immense amount of good effected.

All those likely to be affected by the sufferer are advised as to their danger, and the house and its sanitary conditions are under supervision.

Consumption is most fatal at the time of life when men have assumed responsibilities and are of most value to the State, and the seriousness of this scourge may be estimated from the statement that, were there no consumptives, the average life of every individual born would be two years greater than at present.

The Registrar-General's returns show that consumption alone causes an annual loss to the country of 17,000 males between 25 and 50 years of age.

Judged by this standard Phthisis is much more necessary to deal with seriously than Scarlet Fever, Diphtheria, Typhoid, or Small Pox, diseases the country spends huge sums in combating.

The ages at which death took place during the year were as follows:—

Under 1 year.	1 to 5 years.	5 to 15 years.	15 to 25 years.	25 to 65 years.	65 years and upwards.
2	2	8	18	89	4

The total deaths from Tuberculosis represent a rate of 1·3 per 1,000 of the population, or one-ninth of the total, compared with 1·16, or one-eighth of the death-rate in 1905.

Diseases of the Respiratory Organs other than Phthisis.—These caused 208 deaths, compared with 236 in 1905, 219 in 1904, and 197 in 1903.

OTHER DISEASES.

Erysipelas.—Four deaths resulted from this disease, 3 under 1 year and 1 between 25 and 65 years.

Considering the few deaths compared with the number of cases notified, the necessity for this disease being placed among the dangerous

infectious diseases seems little. It would be much more sensible to substitute Phthisis.

The number of conditions that appeal to some certifiers as Erysipelas is very great, and accounts for the few deaths properly belonging to the disease.

Cancer.—Seventy-three deaths were attributed to Cancer in 1906, compared with 56 in 1903, and 62 in 1904.

As I pointed out in a previous report, either Cancer is on the increase or the increasing number of deaths from this complaint is due to a more correct appreciation of the conditions due to advancing knowledge.

Cirrhosis of Liver and Alcoholism.—Eleven deaths were reported as due to this cause. These deaths in no way represent the actual loss of life due to excessive drinking. Were the primary cause of many deaths correctly stated, Alcoholism would be found to be much more prevalent than the above number of deaths would indicate.

Only a few medical men ever certify this disease or Syphilis as a cause of death; from experience I know that both are fruitful causes.

WATER SUPPLY.

The whole of the district is served by the Metropolitan Water Board.

The supply is constant and of good quality. Throughout the year no circumstances indicated that independent analyses, other than those carried out for the Local Government Board and published by the Registrar General were necessary, and in consequence monthly analyses were not made as heretofore.

Practically every house has its water supply from the public service, but it is unfortunate that every householder has not his drinking water directly from the main.

Enquiries made concerning Summer Diarrhœa showed that of 146 houses the drinking water was received through cisterns in 110, and from the main in 36.

Of the 110 cisterns 85 had not been cleaned for long periods, and 25 not within the year, "so that the drinking water was seldom fit to use."

It is a great pity that to remedy these defects we must rely on the goodness of builders and the suasion of officials.

I have tried in vain to have inserted in the new Bye-Laws a provision that all cisterns must be placed in a suitable position, that is, one easily accessible and free from risks of pollution.

The Public Baths are much used by the general public and for teaching swimming to the children of the elementary Schools. Of the 129,000 bathers during the summer, nearly 18,000 were children from our elementary and other Schools.

COWSHEDS, MILKSHOPS AND DAIRIES.

The number of cowsheds in occupation and registered is now 15, and the number of milksellers 133 ; compared with 15 and 102 in 1905. Systematic visiting of these is made throughout the year, and the Model Bye-laws governing them have been in operation since 1900.

Bye-laws are much easier to adopt than to enforce, and perhaps no class is more conservative in their methods than cowkeepers.

Suggestions for greater cleanliness in the handling and procuring of milk are generally received in a way to indicate that cowkeepers only know anything of that product.

The quantity of milk produced in the district is small, and, however well its production is supervised, no great influence could be exerted on the amount consumed.

Systematic visits have been made throughout the year and attention given to the air space provided, the sanitary condition of the premises, water supply, drainage of floors, etc., of all cowsheds.

Most of the premises were clean, and means for ventilation were adequate if used.

Only in one cowshed have I seen the cattle thoroughly clean and well groomed, the others were clean from the cowkeeper's point of view.

The great majority of the cows had the thighs, flanks, and posterior parts of udder covered with dried layers of dirt that will come off only with the shedding of the hair.

HOUSING OF THE WORKING CLASSES.

As remarked on in previous reports, the district is well supplied with houses of good construction and at moderate rentals, suitable for the "Working Classes."

The ordinary steady manual labourer can find a good sanitary dwelling for about 8s. per week in any Ward in the district, and his presence is everywhere welcome.

There are, unfortunately, a number congregated round the St. James Street and Wood Street railway stations who wreck houses within a few months of their occupation.

Dirty habits and wilful depredations soon tell a tale on the best of houses, and property occupied by such people is a constant source of trouble to those responsible for its sanitary condition.

With these exceptions the houses for the Working Classes everywhere are well kept, are sanitary, and suitable.

There is no need for overcrowding, nor is there much. An exceptional case, caused by poverty or drunkenness, is sometimes found, and soon remedied.

The air space around dwellings, provided for in the Model Bye-laws of the Local Government Board, is exceeded in every house in this district.

Believing that the air space of these Bye-laws is absolutely inadequate in many cases, the new Bye-laws provide for very much more.

They will also enable us to deal more effectually with insanitary conditions due to want of paving round houses and the keeping of fowls, etc., too close to the dwelling house.

Strict supervision is exercised by special Inspectors over the building of all new houses.

No action has been taken to provide houses under the Housing of the Working Class Act, although a Committee was formed for that purpose; and no action was considered necessary to be taken by me under Part I. or Part II. (Sections 30 and 38).

OFFENSIVE TRADES.

These consisted of two fat boiling premises in the Northern Ward.

During the year one has been closed.

The owner of some neighbouring houses obtained an injunction in the High Court to prevent the nuisance caused by the fat boiling, and the process has been discontinued.

The remaining fat boiling premises, situated close to the Chingford Road tramway route, were during the summer months the cause of many complaints and a great nuisance to the travelling public.

Owing to the conditions existing, some cottages a few hundred yards away were literally swarming with flies in the summer months, and the inmates seemed to accept the position as inevitable.

I reported unfavourably on these premises more than once, and it is to be hoped, in the light of what has taken place in regard to Shirley's premises, that steps will be taken to be rid of the nuisance and safeguard the public health.

HOUSE REFUSE REMOVAL AND SCAVENGING.

The work carried out under these headings has been well done throughout the year, and no complaints have been received.

There is a bi-weekly collection of dust, and when and where necessary as in the shopping districts a tri-weekly collection is made.

Nearly 15,000 tons of house, and 500 tons of trade refuse were collected during the year, and of this about 13,000 tons were burnt in the destructor, the remainder being disposed of at the brickfields. No complaints of any nuisance caused by the working of the destructor have been received.

SEWAGE DISPOSAL.

This has been a great source of trouble during the year, and in consequence of the effluent produced, the Council has been twice summoned by the Lee Conservancy for polluting the Dagenham Brook

The sewage effluent enters the river Lea below the intake of drinking water, and any effluent clear in colour and free from putrescence ought to be satisfactory whatever the chemical composition.

That a more satisfactory and efficient method of dealing with the sewage must be found soon is very evident, considering the likely population we will have in a few years.

Efforts have been made to get the London County Council to receive the sewage from this district in vain, and the application to the Local Government Board to sanction a loan of £46,000 for carrying out the Engineer's scheme has also failed, so that at present we are worried by the Lee Conservancy and neighbouring Authorities for not doing that which the Local Government Board fails to allow.

There were hopes at one time that the central Authority would formulate an efficient scheme for the sewage disposal of the whole Lea Valley, and in this direction lies the best solution of our difficulty.

The recent sanction of the Local Government Board, without enquiry, to a loan of £4,500 for filters, while perhaps giving an opportunity of doing somewhat better than at present, cannot in any sense be looked on as anything but a makeshift.

A very great deal of time and consideration has been given during the year to this question of sewage disposal, but its solution has not yet been found.

There has been no complaint of smells from the sewers during the year, and no further ventilating shafts have been found necessary.

The drainage and sewerage of the district is satisfactory, and the new sewer made in the Northern Ward will prevent any further flooding of any portion of that district.

FACTORY AND WORKSHOPS ACT, 1901.

The Medical Officer of Health, in his Annual Report, must, under Section 132, "report specifically on the administration of the Act in workshops and workplaces, so far as the matters under the charge of the Council are concerned, and to send a copy of his Report on the subject to the Secretary of State."

The following table filled in for your district gives the information as required by the Home Office :—

**ANNUAL REPORT OF THE MEDICAL OFFICER
OF HEALTH FOR 1906, FOR THE URBAN
DISTRICT OF WALTHAMSTOW.**

Factories, Workshops, Laundries, Workplaces and Homework.

1.—INSPECTION.

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS OR
INSPECTORS OF NUISANCES.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories (Including Factory Laundries.)	23	—	—
Workshops (Including Workshop Laundries.)	389	1	—
Workplaces (Other than Outworkers' premises included in Part 3 of this Report.)	25	—	—
Total	437	1	—

2.—DEFECTS FOUND.

Particulars.	Number of Defects.			Number of Prosecutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
<i>Nuisances under the Public Health Acts:—*</i>				
Want of cleanliness	110	110	—	—
Want of ventilation	43	43	—	—
Overcrowding	—	—	—	—
Want of drainage of floors... ..	Nil.	Nil.	—	—
Other nuisances	146	146	—	—
†Sanitary accommodations	{ insufficient... .. { unsuitable or defective { not separate for sexes	—	—	—
		56	56	—
		—	—	—
<i>Offences under the Factory and Workshop Act:—</i>				
Illegal occupation of underground bakehouse (S. 101)	—	—	—	—
Breach of special sanitary requirements for bakehouses (ss. 97 to 100)	—	—	—	—
Other offences (Excluding offences relating to outwork which are included in Part 3 of this Report).	—	—	—	—
Total	355	355	—	—

* Including those specified in Sections 2, 3, 7 and 8, of the Factory Act as remediable under the Public Health Acts.

† For districts not in London state here whether Section 22 of the Public Health Acts Amendment Act, 1890, has been adopted by the District Council; and if so what standard of sufficiency and suitability of sanitary accommodation for persons employed in factories and workshops has been enforced.

3.—HOME WORK.

NATURE OF WORK.*	OUTWORKERS' LISTS, SECTION 107.						OUTWORK IN UN- WHOLESOME PREMISES, SECTION 108.				OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110.										
	Lists received from Employers.		Out- workers.†	(3)	(4)	(5)	Numbers of Addresses of Outworkers received from other Councils.	Numbers of Addresses of Outworkers forwarded to other Councils.	Prosecutions.		(8)	(9)	(10)	Instances.	(11)	(12)	Prosecutions.	Instances.	(14)	(15)	(16)
	Twice in the Year.	Once in the Year.							Failing to keep or permit inspection of lists.	Failing to send lists.											
	Lists.†	Out- workers.†	Lists.	Out- workers.	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)		
Wearing Apparel—																					
(1) making, &c.	60	714	10	81	572	119	...	...	...	...	...	1134	2	...	...	12	...	...	...	...	...
(2) cleaning and washing...
Lace, lace curtains and nets
Furniture and Upholstery
Fur pulling	1	3	5	1	...	...	...	...	...	7	...	...	...	...	...	...	...	...	...
Umbrellas	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
Paper Bags and Boxes...	13	...	...	...	...	...	...	13	...	...	...	...	...	...	...	...	...
Brush making	23	...	...	...	...	...	...	23	...	...	...	...	...	...	...	...	...
Stuffed Toys
File making
Electro Plate
Cables and Chains
Anchor and Grapnels
Cart Gear
Locks, Latches and Keys
Total ...	60	714	11	84	614	120	...	...	...	...	...	1178	2	...	...	12	...	...	...	...	...

* If an occupier gives out work of more than one of the classes specified in column 1, and subdivides his list in such a way as to show the number of workers in each class of work, the list should be included among those in column 2 (or 4 as the case may be) against the principal class only, but the outworkers should be assigned in column 3 (or 5) into their respective classes. A footnote should be added to show that this has been done.

† The figures required in columns 2 and 3 are the total number of lists received from employers who sent them both in February and August as required by the Act and of the entries of names of outworkers in those lists. They will, therefore, usually be double of the number of such employers and (approximately) double of the number of individual outworkers whose names are given, since in the February and August lists of the same employer the same outworker's name will often be repeated.

4.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of 1906.	Number.
Bakehouses	54
Laundries	53
Dressmakers and Milliners	32
Tailoring—Wearing Apparel	16
Furriers	2
Sweets, Gelatin, Cardboard Box Manufacturers	4
Outworkers' Workshops—Wearing Apparel	92
Domestic Workshops	83
Total Number of Workshops on Register	336

5.—OTHER MATTERS.

Class.	Number.						
Matters notified to H.M. Inspectors of Factories :—							
Failure to affix Abstract of the Factory and Workshop Act (s. 133)	—						
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5).	<table border="0"> <tr> <td style="font-size: 3em; vertical-align: middle;">{</td> <td>Notified by H.M. Inspector ...</td> <td>1</td> </tr> <tr> <td style="font-size: 3em; vertical-align: middle;">{</td> <td>Reports (of action taken) sent to H.M. Inspectors</td> <td>1</td> </tr> </table>	{	Notified by H.M. Inspector ...	1	{	Reports (of action taken) sent to H.M. Inspectors	1
{	Notified by H.M. Inspector ...	1					
{	Reports (of action taken) sent to H.M. Inspectors	1					
Other	—						
Underground Bakehouses (s. 101) :—							
Certificates granted during 1906	—						
In use at the end of 1906	6						

NOTE.—The Factory and Workshop Act, 1901 (s. 132), requires the Medical Officer of Health in his Annual Report to the District Council to report specifically on the administration of that Act in workshops and workplaces, and to send a copy of his Annual Report, or so much of it as deals with this subject, to the Secretary of State (Home Office). If the Annual Report is presented otherwise than in print, it is unnecessary to include in the copy sent to the Home Office the portions which do not relate to factories, workshops, laundries, workplaces or homework. The duties of Local Authorities and the Medical Officer of Health under the Act of 1901 are detailed in the Home Office Memorandum of December, 1904. A further Memorandum, on the Home Work Provisions of the Factory Act, was issued to all District Councils and Medical Officers of Health in October, 1906.

Most of the work has been carried out by Miss Portlock, especially in connection with homework and where females are employed.

Sections 2, 3, 7 and 8 of the 1901 Act, dealing with cleanliness of premises, overcrowding, ventilation and dryness of floors in connection with certain occupations have received special attention, and were generally observed.

The clerical work involved is very great, and much increased by the neglect of employers in not sending lists at the proper time.

Incorrect and frequent changes of address are also great sources of useless labour.

Many of the outworkers re-contract or sub-let by giving the work to others poorer than themselves, so that it is impossible to supervise these as their existence is unknown, except a case of infectious illness arise in the house. There seems to be no provision whereby such person must be registered.

An outworker for some London wholesale drug firm was brought before the Stratford Justices for neglecting her children, and unmerited strictures were passed on the Sanitary Authority for allowing work to be performed in such unwholesome premises. The woman, though under the observation of the Inspector, refused to give her employer's name, and your officers were in no way to blame. As a matter of fact, it was through the activity of Miss Portlock and the Sanitary Inspectors in their work that attention was drawn to the woman.

Factories.—These are under the Home Office.

The duties imposed by Section 22 of the Public Health Acts Amendment Act have been carried out, and the sanitary conveniences were sufficient in all instances.

The following defects were remedied:—

Defective flush (w.c.)	...	...	...	13
„ w.c.	...	...	...	9

There were 3 certificates granted under Section 14.

Workshops and Workplaces.— Among the number of these premises on the Register were:—Laundries, 53 (5 others are factories); bakehouses, 54; homeworkers premises, 1,022; and 52 other workshops. The workplaces include coffee and eating houses, fishmongers, and ice cream makers' premises, and others that vary in number from time to time.

These have all been systematically visited and defects remedied, as set out in the Sanitary Inspector's Report attached.

Laundries and Bakehouses had special attention given them, the latter particularly. Generally they have been well kept, but it is only by constant visiting that bakehouses can be kept up to a good standard.

Outworkers' Premises.—There are 1,022 of these on the Register, and 1178 visits were made to them.

They consist mainly of one or two rooms of the dwelling-house used temporarily as a workplace.

Air Space.—One case of overcrowding was reported by the Factory Inspector. I visited the place and found the woman had left and moved into another house. The overcrowding consisted in having an extra hand in a room, while another room was fitted with a sewing machine. This is the least likely portion of the Act to be infringed in this district.

Cleanliness and Ventilation.—In 3 instances the entire premises, and in 59 the kitchens, bedrooms, or workrooms were dirty. The necessary cleansing was effected.

Suitable and Sufficient Sanitary Conveniences exist in all. In 6 instances the w.c., and in 28 the w.c. flush was defective and remedied.

Homework.—Under this heading Section 107 to 115 gives power to deal with (a) unhealthy dwellings, (b) premises where there is dangerous infectious disease.

Unwholesome Dwellings.—Action was taken in two instances.

Infectious Dwellings.—In 12 instances where wearing apparel was made the Act was put into operation. Any authority having power to carry out these sections should certainly also be able to deal with the cases of infectious illness by having them removed to hospital. Only in a few instances was there any delay in removing the patients and having the premises and clothing disinfected.

Every Medical Practitioner attending a case of Anthrax, Lead, Phosphorus, Arsenical and Mercurial Poisoning is bound to notify the same to the Chief Inspector of Factories at the Home Office.

MORTUARY AND CEMETERIES.

The Mortuary and the three Cemeteries have been well kept during the year, and are always neat and tidy.

ELEMENTARY SCHOOLS.

Boys' Schools.—These are fifteen in number, with an original recognised accommodation for 6,390 children, subsequently increased to 6,810, and the average number attending is 6,494.

All the Schools, with the exception of St. Saviour's (accommodation, 244) are "provided," and are modern and up to date, with central halls, Marsh Street (540) and Pretoria Avenue (380) excepted.

Girls' Schools.—There are seventeen of these, with an original capacity for 7,019, increased to 7,299, and having an average attendance of 6,539. There have been rarely present more than the original capacity allowed for, although many more are on the books.

All these Schools are "provided," with the exception of St. Saviour's (218) and St. Mary's (457), and are modern and up to date, with central halls, Marsh Street (362) excepted.

Infants' Schools.—There are twenty-one of these, with a capacity for 7,656, and an average attendance of 6,622. All these are "provided" excepting St. Saviour's (303), St. Mary's (197), and St. George's (46).

Like the Boys' and Girls' these Schools are modern, and most of them have central halls.

Mixed Schools.—There are seven of these, all "provided" excepting St. George's (141), with an original capacity for 1,816 children, increased to 1,906, and an average attendance of 1,877.

Four of these are modern, up-to-date Schools, with central halls, and every requirement. Of the others, Wood Street (370) and Copeland Road (170) are temporary.

Special Schools.—There are three of these, with accommodation for 100 children—Deaf Centre, 20; Mental Defectives—boys, 40, girls, 40; besides Cookery and Laundry Centres.

All the Schools have been visited and thoroughly examined, and information obtained and recorded as to playgrounds, their area and surface, the sanitary conveniences provided, drainage, refuse disposal,

heating, position of cloak rooms, lavatory accommodation, lighting, ventilation, water supply, etc.

With the exception of some of the leased temporary buildings, all are suitable for the work carried on. Copeland Road and St. George's Roman Catholic Schools have only one large room each, where the teaching of all the standards is carried on, and the playgrounds of both are not ideal.

On my visit, St. George's was thoroughly ventilated, but Copeland Road was stuffy and no adequate provision made for sufficient ventilation at any time.

What applies to the playgrounds of St. George's and Copeland Road equally applies to those of St. Mary's and St. Saviour's Schools. The surface is gravel, and, in wet weather, water must accumulate owing to irregularity of ground.

The lowering of the floor space for each child—substituting 8 for 10 square feet in the Boys' and Girls' Schools, and thus increasing the capacity—is a procedure entirely to be deprecated, and should be remedied as soon as possible.

Sanitary defects of no grave character were found in a number of the schools, and notice has been given to the Education Committee and those responsible. The action taken in reference to the health of the scholars, and for preventing the spread of disease, will be found under the headings of Diphtheria, Scarlet Fever, Measles and Whooping Cough. In addition to the routine procedure there recorded, the teachers send me notice of any suspicious cases, and I at once go and visit the Schools.

Children found with dirty heads and other conditions of a non-notifiable character are visited at their homes by Miss Portlock, who advises the mothers as to treatment and prevention of the existing conditions.

In this way, in addition to 166 visits made on account of Measles, the parents of 45 cases of sore heads, sore eyes, scabies and general neglect were called on, and induced to attend to the children and make them fit to return to school.

One hundred and four visits were made in this connection, and from the number of homes found neglected and dirty, bedrooms and kitchens dirty, foul water-closet pans, accumulations of dirt, etc., these children are the offspring of careless, dissolute, dirty parents, who invariably keep their children from school on the least pretext, and who need the constant supervision of the Sanitary Inspector and the School Attendance Officer.

The following requirements are needed for the sanitary equipment of your district —

1. More adequate provision for the disposal of sewage.
2. More public conveniences.
3. The paving of all passages at the rear of premises.
4. The provision of a suitable milk for infant feeding,
5. The appointment of ladies with diplomas in Sanitary Science as attendance officers for our schools.
6. The provision of Public Abattoirs.
7. An improved disinfecting Station—the existing one is too small.
8. Bye-laws under Section 15, Factory and Workshop Act.

APPENDIX.

LOCAL GOVERNMENT BOARD FORMS:—

TABLE I.

TABLE II.

TABLE III.

TABLE IV.

TABLE V.

CHART SHOWING BIRTH, DEATH AND ZYMOTIC DEATH RATES.

LOCAL GOVERNMENT BOARD FORM]

TABLE I.—For Whole District.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		DEATHS UNDER ONE YEAR OF AGE.		DEATHS AT ALL AGES. TOTAL.		DEATHS IN PUBLIC INSTITUTIONS W'stow General Hospital	Deaths of Non-Residents registered in District.	Deaths of Residents registered beyond District.	DEATHS AT ALL AGES. NETT.	
		Number.	Rate *	Number.	Rate per 1,000 Births registered.	Number.	Rate. *				Number.	Rate. *
1	2	3	4	5	6	7	8	9	10	11	12	13
1896.	65,000	2101	32.30	270	127.5	772	11.87			45	817	12.5
1897.	70,000	2246	32.08	306	132.0	795	11.41	28	4	37	832	11.88
1898.	77,000	2294	29.80	390	169.5	974	12.65	16	15	60	1034	13.4
1899.	83,000	2835	34.14	482	170.0	1220	14.70	28	8	62	1282	15.44
1900.	91,000	3037	33.37	482	158.7	1166	12.80	23	13	88	1254	13.78
1901.	97,000	3210	33.10	473	147.6	1191	12.27	42	4	114	1296	13.35
1902.	101,318	3426	33.81	394	115.0	1009	9.95	28	8	153	1154	11.38
1903.	106,290	3535	33.25	402	113.7	1065	10.19	39	10	123	1178	11.08
1904.	111,282	3649	32.79	496	135.9	1175	10.55	38	13	168	1330	11.95
1905.	116,300	3389	29.14	354	104.4	1046	8.9	33	16	219	1249	10.7
Averages for years 1896-1905.	91,819	2972	32.3	404	137.4	1041	11.52	30	10	106	1142	12.54
1906.	121,334	3594	29.6	466	129.7	1206	9.9	35	10	251	1447	11.9

* Rates calculated per 1,000 of estimated population.

Area of district in acres (exclusive of area covered by water), 3,988

Total population at all ages, 95,131. Number of inhabited houses, 16,083. Average number of persons per house, 5.8.—At Census of 1901.

I.	II.	III.
Institutions within the District receiving sick and infirm persons from outside the District.	Institutions outside the District receiving sick and infirm persons from the District.	Other Institutions, the deaths in which have been distributed among the several localities in the District
Walthamstow, Leyton, and Wanstead Children's and General Hospital. The Asylum.	Sanatorium, Chingford. Union Infirmary, Leytonstone. Union Infirmary, Whipp's Cross.	Small-Pox Hospital Dagenham.

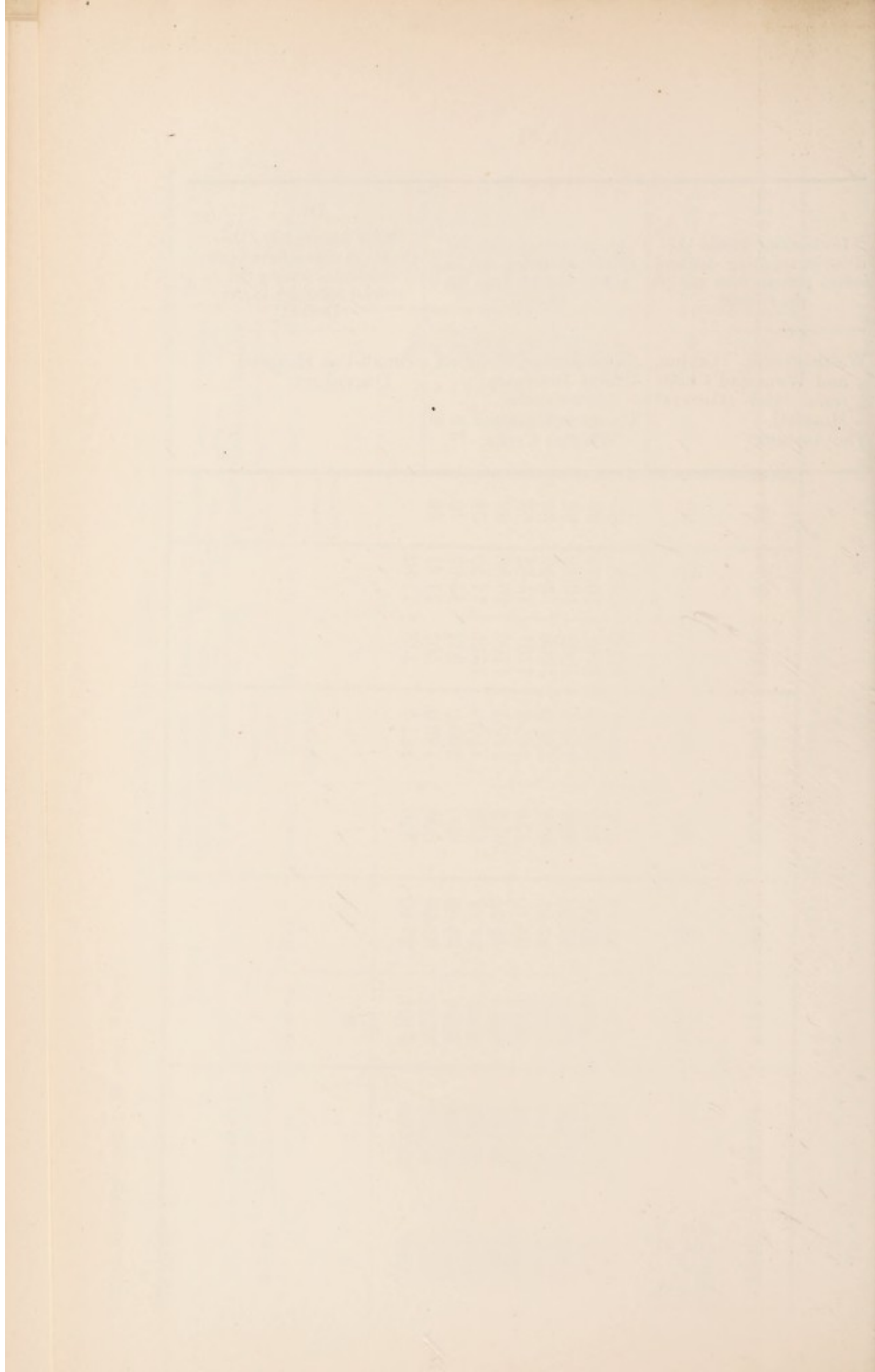


TABLE II.
Vital Statistics of separate Localities in 1906 and previous years

YEAR.	NAMES OF LOCALITIES.																								
	St. James Street Ward.				High Street Ward.				Hoe Street Ward.				Wood Street Ward.				Northern Ward.				Whole District.				
	Population esti- mated to middle of each year.	Births registered	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	
1896 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	65,000	2101	817	270
1897 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	70,000	2246	832	306
1898 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	77,000	2294	1034	390
1899 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	83,000	2535	1282	482
1900 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	91,000	3037	1254	482
1901 ...	23,218	772	349	124	19,886	714	255	105	21,500	604	247	79	15,512	443	187	68	16,884	677	258	165	97,000	3210	1296	481	
1902 ...	23,000	766	293	89	20,000	735	228	81	22,000	650	224	55	16,000	482	183	64	20,000	793	234	105	101,318	3426	1154	394	
1903 ...	23,600	747	281	98	20,000	781	230	90	22,500	658	226	64	16,500	453	187	50	23,500	896	236	99	106,290	3535	1178	401	
1904 ...	23,600	793	327	125	20,400	762	246	98	23,100	628	246	68	16,600	471	184	66	24,300	995	327	139	111,282	3649	1330	496	
1905 ...	24,000	705	305	90	21,000	640	240	82	23,500	589	232	45	17,000	429	173	46	32,000	1026	299	91	116,300	3389	1249	354	
Averages of Years 1901-5	23,483	756	311	105	20,257	726	239	91	22,520	625	235	62	16,322	455	182	58	23,336	877	270	107	91,819	2972	1142	404	
1906 ...	24,000	735	317	110	21,000	734	247	97	24,000	595	273	65	17,500	465	212	67	35,000	1065	398	127	Average of Years 1896 to 1905	121,334	3594	1447	466

PROPERTY OF THE

UNITED STATES DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

WATER RESOURCES DIVISION

REPORT OF INVESTIGATION

NO. 1

BY

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The following Table shows Infectious Diseases according to Wards, and the number removed to Hospital :—

LOCAL GOVERNMENT BOARD FORM.]
TABLE III.—Cases of Infectious Disease notified during the Year 1906.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.						TOTAL CASES NOTIFIED IN EACH LOCALITY.					No. of Cases Removed to Hospital from Each Locality.				
	At all Ages.	At Ages—Years.					St. James Street.	High Street.	Hoe Street.	Wood Street.	Northern.	St. James Street.	High Street.	Hoe Street.	Wood Street.	Northern.
		Under 1	1 to 5	5 to 15	15 to 25	25 to 65											65 and upwards
Small Pox ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cholera ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria ...	287	92	145	28	17	4	74	46	51	32	84	49	28	19	58	
Membranous croup	6	6	—	—	—	—	1	1	—	1	3	—	—	1	3	
Erysipelas ...	107	4	8	11	72	—	35	19	21	15	17	1	1	2	1	
Scarlet Fever ...	809	13	215	484	71	26	137	173	130	173	196	57	50	73	68	
Typhus Fever ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Enteric Fever ...	33	—	16	8	9	—	10	5	5	6	7	8	3	2	2	
Relapsing Fever...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Continued Fever...	1	—	1	—	—	—	—	—	—	—	1	—	—	—	1	
Puerperal Fever...	10	—	—	—	10	—	4	4	—	1	1	—	—	—	1	
Plague ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Totals ...	1253	26	317	654	118	134	4	309	248	207	228	309	82	97	134	

Time	Lat	Long	Wind	Sea	Temp	Bar	Remarks
0800	34° 15' N	122° 00' W	10	3	55	30.1	Under way
0900	34° 15' N	122° 00' W	10	3	55	30.1	Under way
1000	34° 15' N	122° 00' W	10	3	55	30.1	Under way
1100	34° 15' N	122° 00' W	10	3	55	30.1	Under way
1200	34° 15' N	122° 00' W	10	3	55	30.1	Under way
1300	34° 15' N	122° 00' W	10	3	55	30.1	Under way
1400	34° 15' N	122° 00' W	10	3	55	30.1	Under way
1500	34° 15' N	122° 00' W	10	3	55	30.1	Under way
1600	34° 15' N	122° 00' W	10	3	55	30.1	Under way
1700	34° 15' N	122° 00' W	10	3	55	30.1	Under way
1800	34° 15' N	122° 00' W	10	3	55	30.1	Under way
1900	34° 15' N	122° 00' W	10	3	55	30.1	Under way
2000	34° 15' N	122° 00' W	10	3	55	30.1	Under way
2100	34° 15' N	122° 00' W	10	3	55	30.1	Under way
2200	34° 15' N	122° 00' W	10	3	55	30.1	Under way
2300	34° 15' N	122° 00' W	10	3	55	30.1	Under way
0000	34° 15' N	122° 00' W	10	3	55	30.1	Under way
0100	34° 15' N	122° 00' W	10	3	55	30.1	Under way
0200	34° 15' N	122° 00' W	10	3	55	30.1	Under way
0300	34° 15' N	122° 00' W	10	3	55	30.1	Under way
0400	34° 15' N	122° 00' W	10	3	55	30.1	Under way
0500	34° 15' N	122° 00' W	10	3	55	30.1	Under way
0600	34° 15' N	122° 00' W	10	3	55	30.1	Under way
0700	34° 15' N	122° 00' W	10	3	55	30.1	Under way

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TABLE IV.

SCHEDULE B. Table of DEATHS during the year 1906, in the Urban Sanitary District of Walthamstow, classified according to Diseases, Ages, and Wards.

No.	CAUSES OF DEATHS.	All Ages	Under 1	1 to 5	5 to 15	15 to 25	25 to 65	65 & upwards	St. James St.	High Street	Hoe Street	Wood Street	Northern	Total Deaths in Public Institutions in the District
1	Small-Pox	...	2	33	4	...	...	...	8	8	4	3	16	...
2	Measles	...	...	...	...	...	...	...	4	1	6	5	5	...
3	Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...
4	Typhus Fever	...	...	...	...	...	...	...	4	4	5	2	6	...
5	Epidemic Influenza	...	...	...	...	...	...	...	4	3	3	1	3	...
6	Whooping Cough	...	12	6	...	...	...	...	8	3	3	1	3	...
7	Diphtheria, Membranous Croup	...	29	25	...	...	...	...	13	4	8	6	23	...
8	Croup	...	...	3	...	...	...	...	...	...	1	2	...	...
9	Enteric Fever	...	...	...	...	...	...	...	1	3	1	1	3	3
10	Asiatic Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...
11	Diarrhoea, Dysentery	...	87	19	...	...	...	...	27	27	15	20	24	1
12	Epidemic or Zymotic Enteritis	...	38	11	1	...	...	...	11	4	4	1	31	...
13	Enteritis	...	5	6	...	...	...	...	5	1	5	5	3	...
14	Other Continued Fevers	...	...	...	...	...	...	...	...	...	...	...	...	...
15	Varicella	...	1	...	...	...	...	...	1	1	...	...	...	...
16	Gangrene of Various Parts	...	2	...	...	...	...	...	1	1	...	...	...	...
17	Erysipelas	...	4	...	...	...	...	...	3	...	...	1	...	...
18	Puerperal Fever	...	3	...	...	...	...	...	...	...	...	...	...	...
19	Other Septic diseases	...	4	3	2	...	...	...	7	...	7	4	2	5
20	Intermittent Fever and Malarial Cachexia	...	...	...	...	...	...	...	...	...	...	...	...	...
21	Tuberculosis of Meninges	...	5	8	4	...	...	...	6	5	2	1	3	...
22	Tuberculosis of Lungs	...	23	2	8	18	89	4	22	25	22	18	36	...
23	Other forms of Tuberculosis	...	9	11	2	1	2	1	8	6	4	7	1	...
24	Alcoholism	...	11	...	...	...	...	...	10	1	2	1	5	...
25	Cancer	...	...	...	...	...	...	...	14	14	19	13	13	1
26	Premature Birth	...	83	...	...	...	...	...	11	24	20	9	16	...
27	Developmental Diseases	...	88	86	2	...	...	...	13	16	9	21	29	...
28	Old Age	...	62	...	...	...	...	...	62	12	8	14	13	...
29	Meningitis	...	17	8	2	1	...	...	4	1	2	3	7	1
30	Inflammation and Softening of Brain	...	9	1	1	...	...	...	3	3	1	3	2	...
31	Organic Diseases of Heart	...	39	19	3	5	16	14	6	9	13	8	3	4
32	Acute Bronchitis	...	46	15	2	...	...	...	9	8	5	11	20	...
33	Chronic Bronchitis	...	48	...	...	...	...	...	27	11	7	11	8	...
34	Lobar (Croupous) Pneumonia	...	49	10	7	1	22	4	11	9	9	5	15	...
35	Lobular (Broncho) Pneumonia	...	54	28	2	1	...	...	18	14	8	3	11	...
36	Other Diseases of Respiratory Organs	...	11	...	...	...	...	...	2	1	4	2	1	...
37	Diseases of Stomach	...	8	2	1	1	...	...	4	2	1	1	4	...
38	Obstruction of Intestines	...	11	1	1	1	5	2	3	2	2	1	3	1
39	Cirrhosis of Liver	...	11	...	...	...	...	...	1	2	1	4	3	...
40	Nephritis and Bright's Disease	...	24	1	1	2	13	7	6	3	3	4	8	1
41	Tumours and other Affections of Female Genital Organs	...	...	...	...	...	...	...	...	...	...	...	...	...
42	Accidents and Diseases of Parturition	...	13	...	...	...	...	...	2	4	3	1	3	3
43	Deaths by Accident or Negligence	...	47	20	4	1	8	4	11	7	9	3	17	12
44	Deaths by Suicide	...	6	...	...	...	...	...	2	1	1	...	3	2
45	Deaths from Ill-defined Causes	...	...	...	...	...	...	...	...	...	...	...	...	...
46	Veneral Diseases	...	3	3	...	...	...	...	2	...	1	...	...	...
47	All other Causes	...	199	42	6	6	78	55	40	28	49	33	49	...
	All Causes	1,447	466	223	88	48	382	240	317	247	273	212	398	35

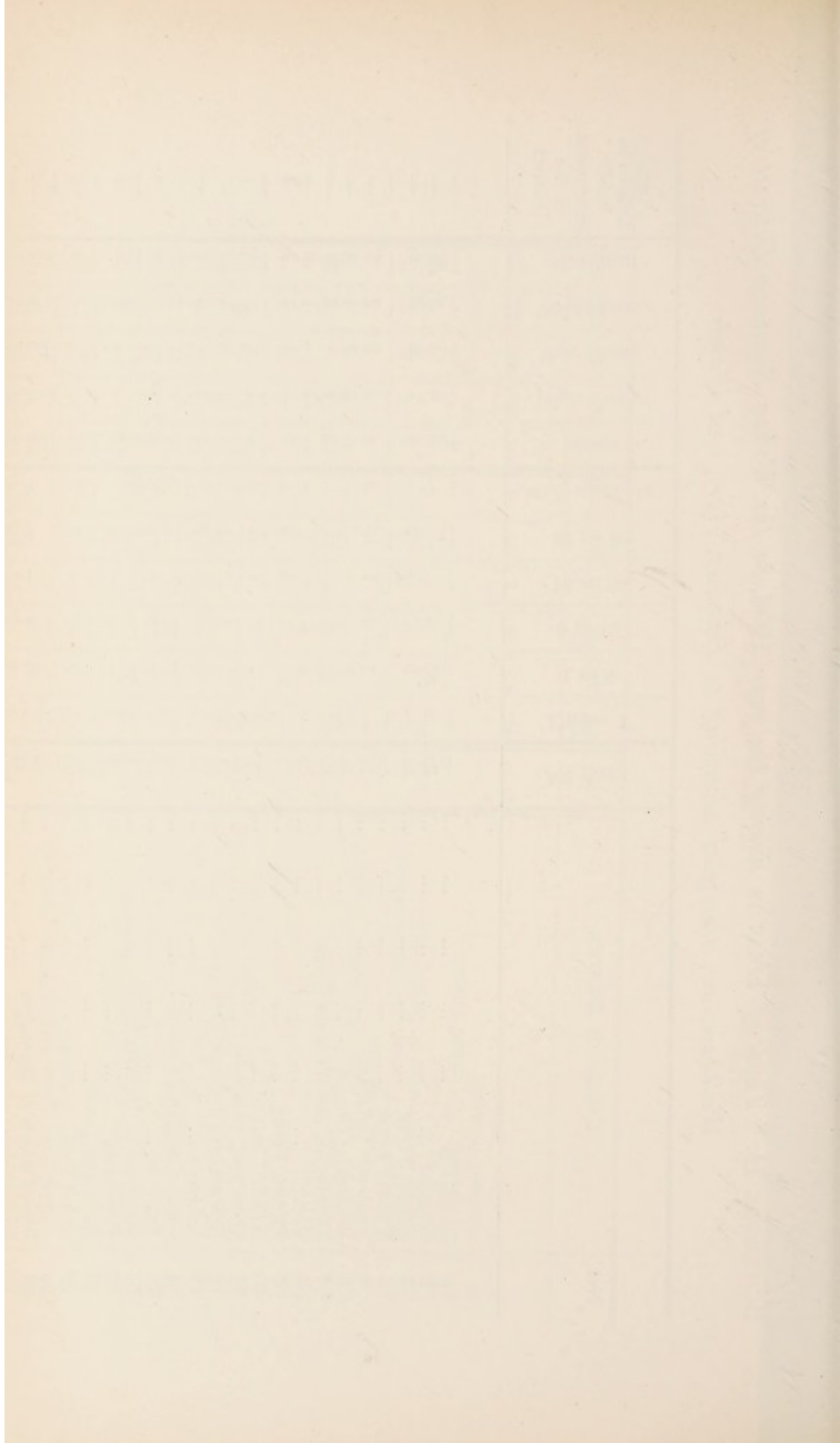
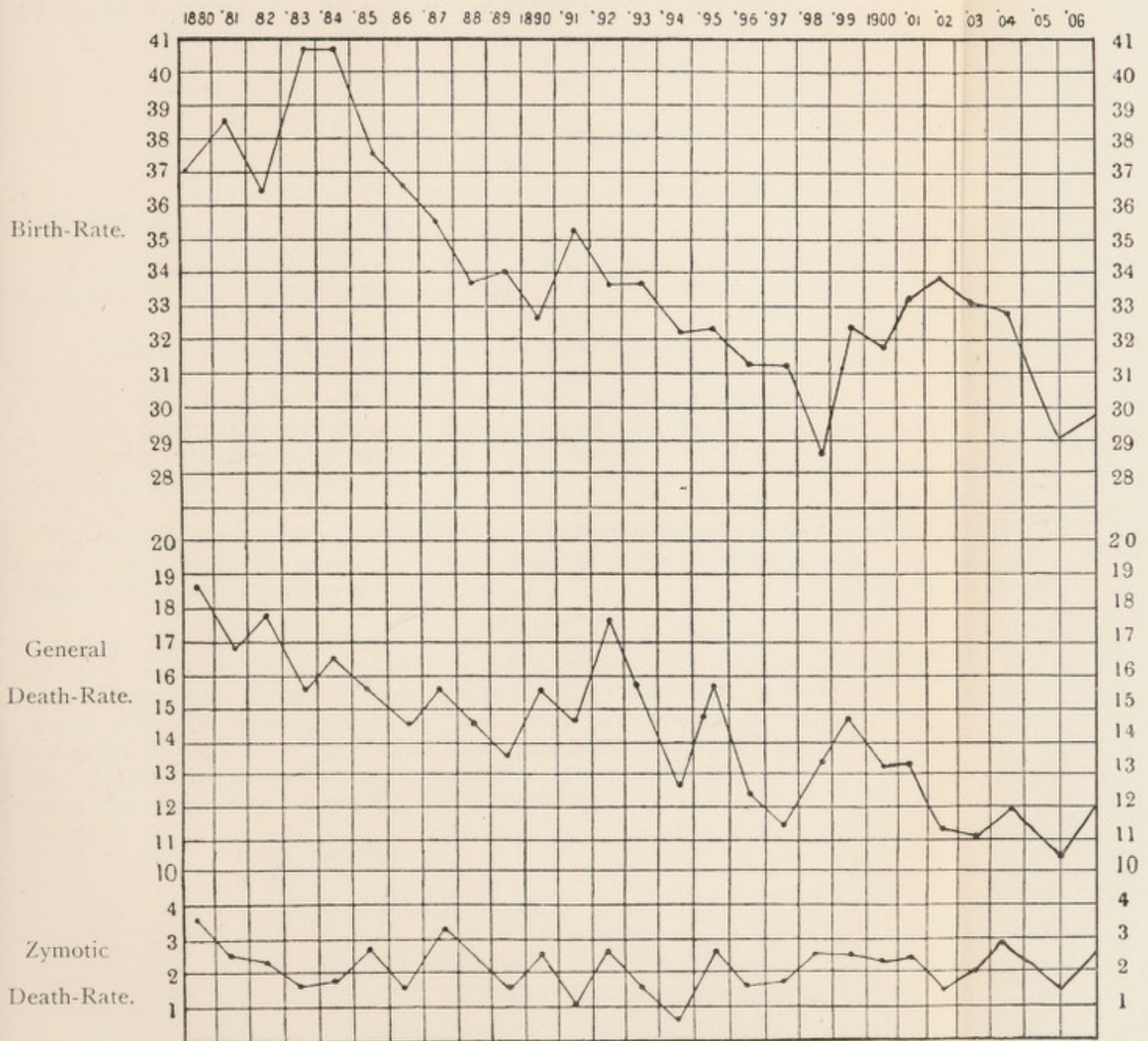


TABLE V.

CAUSES OF DEATHS.		Under 1 Week	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months	11-12 Months	Total Deaths under One Year.
All Causes.	Certified	86	25	16	22	149	45	41	30	21	33	29	26	21	25	20	26	—
	Uncertified	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
COMMON INFECTIONOUS DISEASES.	Small-Pox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Chicken-Pox	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1
	Measles	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	2
	Scarlet Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Diphtheria; Croup Whooping Cough	—	—	—	—	—	—	—	1	—	—	1	1	2	—	3	3	1	12
DIARRHOEAL DISEASES.	Diarrhoea, all forms	—	—	1	3	4	10	12	8	5	10	14	10	7	10	4	6	100
	Enteritis (<i>not Tubercu- lous</i>)	—	—	—	—	—	3	3	4	3	4	2	2	3	1	3	2	30
	Gastritis, Gastro- intestinal Catarrh	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1	—	2
WASTING DISEASES.	Premature Birth	44	11	5	8	68	6	2	2	1	—	—	—	—	—	—	—	79
	Congenital Defects	12	1	2	2	17	1	1	—	—	—	—	—	—	—	—	—	19
	Injury at Birth	1	1	—	—	2	—	—	—	—	—	—	—	—	—	—	—	2
	Want of Breast-milk	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	1
	Atrophy, Debility, Marasmus	17	7	6	2	32	11	6	5	5	1	1	2	2	—	2	3	70
TUBERCU- LOUS DISEASES.	Tuberculous Meningitis	—	—	—	—	—	—	1	—	—	1	—	2	—	1	—	—	5
	Tuberculous Peritonitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Tabes Mesenterica	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1
	Other Tuberculous Diseases	—	—	—	—	—	—	1	—	3	2	1	1	2	—	—	—	10
	Erysipelas	—	—	—	1	1	1	—	—	—	1	—	—	—	—	—	—	3
	Syphilis	—	—	—	1	1	1	—	1	—	—	—	—	—	—	—	—	3
	Rickets	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Meningitis (<i>not Tuberculous</i>)	—	—	—	—	—	—	—	—	—	2	1	2	1	—	—	2	8
	Convulsions	5	3	2	2	12	5	5	4	1	1	2	2	1	—	1	1	35
	Bronchitis	—	1	—	1	2	2	—	—	1	4	2	1	—	6	2	—	20
Laryngitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Pneumonia	—	—	—	—	—	—	5	2	2	3	3	2	5	3	2	6	33	
Suffocation, overlaying	3	1	—	1	5	2	3	1	—	—	—	—	—	—	—	—	—	11
Other Causes	3	—	—	1	4	3	1	2	—	2	1	—	—	1	1	4	19	
		86	25	16	22	149	45	41	30	21	33	29	26	21	25	20	26	466

*Chart shewing the Birth, Death and Zymotic Death-rates,
for the years 1880 to 1906.*



TO THE CHAIRMAN AND MEMBERS
OF THE
Walthamstow Urban District Council.

TOWN HALL, WALTHAMSTOW,

January, 1907.

GENTLEMEN,

I have the honour to present to you my report of the work done through my department during the year 1906.

The difficulties which have beset us in previous years, owing to the condition of the law with reference to the status of "sewers" and "drains," have continued to somewhat embarrass and delay our work in relation thereto, but have been less during this year; having, however, tended more towards casting upon the Council itself the cost of reconstruction in a number of cases.

The need for improvement in our Building Bye-laws, especially so far as they may be made to apply to work done in existing buildings, I have referred to in previous annual reports.

As I felt that there was no logical reason why the same powers should not be in force in Walthamstow as in London and other populous places, at my urgent request, your Surveyor, in his interviews on the subject with the representatives of the Local Government Board, repeatedly pressed this matter upon them, and ultimately that Board have approved of clauses giving powers in that respect, and there is no doubt that these new clauses will be of considerable service to us in our work.

I am, Gentlemen,

Your obedient Servant,

W. W. WEST, Assoc. Roy. San. Inst.,
Fellow San. Inspectors' Ass'n,
Inspector of Nuisances.

FACTORY AND WORKSHOP ACTS.—There are 1,379 premises registered and inspected under these Acts, exclusive of bakehouses.

As in previous years, the vast majority, 1,022, are occupied by outworkers, and it is satisfactory that so few of them are found in a condition to call for serious action as regards cleanliness. The supervision of these is directly in the hands of Miss M. Portlock, the Council's Assistant Sanitary Inspector and Health Visitor, and they are regularly visited and the requirements of the law enforced.

As a result of this inspection, the following repairs, &c., were effected at outworkers' premises :—

Works of cleansing walls, ceilings, &c.	...	107
" " floors by occupiers	...	49
Defective w.c. flush reinstated	...	28
" " pan, &c., renewed	...	6
" " drainage repaired	...	7
" " roofs and guttering reinstated	...	18
" " paving repaired	...	16
" " walls from dampness made good	...	5
Offensive accumulations removed	...	17

In 74 cases space cards were supplied.

The following list shows the nature of work carried on and the number of premises in each occupation :—

Blouse makers	...	281
Pinafores and Infants' silk frocks	...	29
Baby linen	...	11
Tailoring—		
Juvenile	...	54
Ladies' costumes, skirts, mantles	...	43
" dressing gowns and jackets	...	5
Men's	...	39
Waistcoat makers	...	22
Underclothing—		
Ladies' and Children's	...	64
Corsets	...	2
Men's	...	29
Linen shirts, collars and button-holing	...	24
Boots, shoes and leather work	...	78
Pompons and shoe bows	...	28

Ties, belts and braces	87
Caps	2
Millinery	21
Chiffon Tucking	158
Trimmings	5
Gold Embroidery	2
Embroidery	15
Furriers... ..	5
Artificial flowers	11
Cardboard boxes	13
Brush makers	23
Umbrella makers	1

LAUNDRIES.—Fifty-eight laundries have been supervised, and the following improvements effected from time to time :—

Workrooms cleansed and whitewashed ...	30
Entire rooms " " " ...	3
Ventilation improved... ..	2
Dilapidations repaired	3
Flooring repaired	12
Defective drains, w.c.'s, etc., repaired ...	10
Accumulations removed	1

WORKSHOPS.—The following works of sanitary improvement have been suggested and carried out during the year in the course of supervision of workshops :—

Toy Makers ...	Workshop cleansed.
Bootmakers ...	" "
Leather Dresser... ..	" "
Sweet Makers ...	Workshop cleansed, yard paved, nuisance from smoky chimney abated.
" "	Workshop cleansed, yard and workshop paved.
" "	Workshop cleansed and paved, w.c. flush reinstated, and animal improperly kept removed.
Upholsterers ...	Ventilation improved.
Picture framers ...	Workshop cleansed and repaired, w.c. provided.
Shoe Makers ...	Workroom cleansed.
Brush Makers ...	Drains reconstructed, premises cleansed.
Pianoforte Makers	Three w.c.'s repaired.
Wheelwright ...	Nuisance from smoke remedied, w.c. flush reinstated.

COWKEEPERS AND MILKSELLERS.—Fifteen cowkeepers' and 133 milksellers' premises are registered within the district, and the following works have been carried out in them during the year at my request for maintaining them in good condition, in accordance with the requirements of the law :—

Cowkeepers' Premises—

Special cleansing	...	...	...	...	1
Paving repaired	...	...	...	...	3
Sundry repairs	...	...	...	...	3

Milksellers—

Cleansing	...	...	...	...	15
Paving repaired	...	...	...	...	14
Drainage repaired	...	...	...	...	10
W.c. flush improved or reinstated	...	...	...	...	9
Water supply improved	...	...	...	...	4

COFFEE AND EATING HOUSES.—There are 25 of these premises in the district, and visits were paid to them during the year, with special regard to the conditions under which food was prepared and kept, and occupiers without exception readily complied with my suggestions as follows :—

Cleansing of entire premises	...	...	...	3
Partial cleansing	...	...	...	20
Food storage improved by lighting or ventilation	...	...	...	12
Water supply improved	...	...	...	5
Drainage improved	...	...	...	4
Animals improperly kept removed	...	...	...	3
Premises repaired	...	...	...	4

BAKEHOUSES.—The 54 bakehouses in the district, of which 6 are underground, have been visited periodically and at irregular intervals, and the regulations governing their use enforced, in most cases ready compliance with our suggestions being obtained. The following works have been carried out :—

Drainage repaired or reconstructed	...	...	4
Yard or stable paving improved	...	...	10
W.c. flush repaired	...	...	8
Receptacle for refuse provided	...	...	1

In one case I have been obliged to ask for the authority of the Council to enforce our requirements, and the service of the formal notice was sufficient without recourse to legal proceedings.

FISHMONGERS.—Forty-four premises occupied by fishmongers have been visited from time to time, and the following structural and other improvements obtained :—

Paving improved or repaired	15
Cleansing works	13
Drainage repaired	6
New offal receptacles provided	6
W.c. flush repaired	8
Smoke-house chimney heightened	2

ICE-CREAM MAKERS.—Throughout the year, and especially during the warm weather, visits have been paid to these premises, which were generally found to be clean and well kept, and the following works were executed :—

Cleansing of shops	2
Paving repaired	3
W.c. flush improved	3
Ice storage improved	1

SLAUGHTERHOUSES.—The 12 slaughterhouses in the district have been frequently visited and the premises kept in good condition, and in several instances meat, which would possibly have been allowed to go to market, prevented from being so used. It is beyond dispute that the existing system of slaughtering animals in private premises at any and all times does lend itself to the possibility of meat reaching the markets which is unfit for food, inasmuch as adequate inspection can only be carried out at the time and place of slaughtering.

The following repairs have been effected in these premises :—

Paving repaired	4
Drains repaired	1
Roof repaired	1
New receptacle for offal provided	3
Water supply improved	1

INFECTIOUS DISEASE.—During the year Infectious Disease has been notified as occurring in 1,094 premises. Inspection has been made at once of each house, and the usual information obtained for the purpose

of ascertaining, if possible, the source of the disease, and for taking measures for prevention of spread.

Houses visited	...	...	...	...	...	...	...	1094
Houses having defective drainage	...	...	...	...	...	...	...	32
Houses having other insanitary conditions of a minor character	...	...	...	...	...	...	...	410

Articles disinfected at Council's apparatus :—

Beds	...	...	...	...	...	...	1221
Bol s ers	..	...	...	...	...	...	987
Pillows	...	...	...	...	...	...	2279
Blankets	...	...	...	...	...	...	2210
Miscellaneous	...	...	...	...	...	...	3751

Destroyed on written request of owners :—

Beds	...	...	...	...	...	...	37
Cushions	...	...	...	...	...	...	4
Books from Public Library disinfected	...	...	...	...	...	...	92

Patients have been removed to Hospital as follows :—

In the Council's ambulance—

To London Fever Hospital	...	...	...	...	...	14
To Walthamstow General Hospital	...	...	...	...	...	12
To Middlesex Hospital	...	...	...	...	...	1

HOUSE TO HOUSE INSPECTION.—House to house inspection has been carried out in the following streets and roads :—

Arkley Road.	Ilton Road.
Aubrey Road.	King Street.
Barclay Road.	Kimberley Road.
Bromley Road.	Kitchener Road.
Brown's Road.	Milton Road.
Brunner Road.	Parkstone Road.
Beresford Road.	Ringwood Road.
Byron Road.	Roberts Road.
College Place.	South Grove.
Gladstone Road.	Telford Road.
Gosport Road.	Tower Hamlets Road.

Five thousand six hundred and forty-three premises have been inspected, and works of sanitary improvement carried out in 1,701 of them. The drainage of 243 has been reconstructed or substantially repaired.

In addition to the drainage of single premises and more or less substantial repairs in other cases, entire reconstruction of drains has been carried out in the following premises :—

22, 24 and 26, Albany Road.	54, 56 and 56a, Beulah Road.
14 and 16, Arkley Crescent.	70, 72 and 74, Beulah Road.
90 and 92, Albert Road.	12 and 14, Brown's Road.
24, 25, 26 and 27, Aubrey Road.	32 and 34, Byron Road.
131, 133 and 135, Barclay Road.	1, 3 and 5, Cottenham Road.
137 and 139, Barclay Road.	31 and 33, Cranbrook Road.
54 and 56, Barclay Road.	12 and 14, Church Passage.
62, 64 and 66, Barclay Road.	1, 3, 4, 5 and 7, Gaywood Road.
88 and 90, Gladstone Road.	52 and 54, Gladstone Road.
50 and 52, Glenthorne Road.	11, 13 and 15, Springfield Road.
22, 24 and 26, Herbert Road.	9, 11 and 13, Station Road.
11 and 13, Ickworth Park Road.	2, 4 and 6, Storey Road.
91 and 93, Markhouse Avenue.	42 and 44, Tower Hamlets Road.
61 and 63, Milton Road	54 and 56, Woodville Road.
23 and 25, Pretoria Avenue.	62, 64 and 66, Woodville Road.
186 and 188 Queen's Road.	

FOOD AND DRUGS ACT.—I have submitted to the County Analyst, Dr. Bernard Dyer, during the year 233 samples for analysis, and I give below the description of the articles, with the number found to be adulterated or impoverished :—

Description of Article.	Number submitted.	Number adulterated.
Milk	146	14
Butter	71	3
Pepper... ..	8	0
Lard	4	0
Mustard	3	0
Coffee	1	0

Eleven summonses were obtained, and fines to the amount of £24 15s. inflicted, together with £8 18s. 6d. analyst's fees and £2 8s. costs as follows:—

No. of Sample.	Description of Article.	Amount of Adulteration.	Fines inflicted.		Analyst's Fees.		Costs.		Remarks.
			£	s. d.	s. d.	s. d.	s. d.		
No. 6	Milk	20 per cent. deficient in fat	0	5 0	10	6	4	0	No. 28. Defendant died before hearing.
" 21	"	23 per cent. added water	2	0 0	10	6	4	0	
" 28	"	7 per cent. added water	—	—	—	—	—	—	
" 43	"	Skimmed milk with 9 per cent. added water	—	—	10	6	4	0	
" 43	"	Can without name	2	0 0	—	—	4	0	No. 51. Taken on delivery, but no warranty available.
" 51	"	13 per cent. deficiency in cream	—	—	—	—	—	—	
" 55	"	7 per cent. added water	5	0 0	10	6	4	0	No. 66. No proceedings. Warranty.
" 55	"	No name on can	2	0 0	—	—	4	0	
" 66	"	6 per cent. added water	—	—	—	—	—	—	Nos. 81, 82 and 83. Amount of preservative too small in analyst's opinion to warrant proceedings.
" 73	"	23 per cent. added water	5	0 0	10	6	4	0	
" 80	"	20 per cent. added water	5	0 0	10	6	4	0	No. 88. Proceedings failed from insufficient service.
" 81	Butter	8 per cent. boric acid (preservative)	—	—	—	—	—	—	
" 82	"	7 "	—	—	—	—	—	—	No. 131. No proceeding. Warranty.
" 83	"	8 "	—	—	—	—	—	—	
" 88	Milk	10 per cent. added water	—	—	—	—	—	—	No. 163. Amount of deficiency small.
" 119	"	8 per cent. deficiency in cream	—	—	—	—	—	—	
" 131	"	20 "	—	—	—	—	—	—	No. 168. Dismissed with costs.
" 158	"	23 per cent. added water	2	0 0	10	6	4	0	
" 163	"	4 "	—	—	—	—	—	—	
" 168	"	5 per cent. added water, 11 per cent. deficient in cream	—	—	—	—	—	—	
" 230	Butter	Margarine	0	10 0	10	6	4	0	
" 231	"	"	0	10 0	10	6	4	0	
" 232	"	"	0	10 0	10	6	4	0	

