

[Report of the Medical Officer of Health for Walthamstow].

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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 1904.

Walthamstow:

PRINTED BY J. C. PHELP & SON, 62-64, BEULAH ROAD.

To the Chairman and Members
OF THE
Walthamstow Urban District Council.

GENTLEMEN,

I beg to present to you my seventh Annual Report upon the Public Health and the general conditions influencing it in your District during 1904.

Owing to the prolonged and intense summer heat experienced, Diarrhoea was very prevalent in August, and caused a large number of deaths among infants.

Joined to this, Measles and Whooping Cough were scarcely absent from the district during the year, and Scarlet Fever prevalence more marked than in former years.

Small Pox was introduced into the district upon more than one occasion, and owing to the disease being mistaken for Chicken Pox in an unvaccinated person, an epidemic of some proportions affecting 42 persons resulted in June and July.

Owing to those unfavourable conditions, our Zymotic death-rate, Infantile Mortality rate, and Infectious Sickness rate are higher than in 1903, but as will be seen in the body of the Report, even under these headings your district compares very favourably with the country as a whole. Diphtheria, while still maintaining the improvement noticed since the opening of the Sanatorium, showed a larger death-rate per 100 attacked than in 1903, and slightly above that of the "76 Great Towns."

The most favourable feature of the year was our comparative immunity from Typhoid and its death-rate reduction from .2 per 1000 to .08.

The Registrar-General has compiled the following table, and I have added the figures for Walthamstow, that you may see at a glance our position.

DISTRICT.	Annual rate per 1000 living.			Infant Mortality rate. Annual death rate of Infants under one year per 1000 births.
	Births.	Deaths from all diseases.	Deaths from the seven Chief Epidemic diseases.	
England and Wales	27·9	16·2	1·94	146
Rural England and Wales.....	26·8	15·3	1·28	125
"76 Great Towns"	29·1	17·2	2·49	160
"142 Smaller Towns"	27·5	15·6	2·02	154
Walthamstow	32·79	12·78	2·89	135·9

Judged by these figures and those published by "Public Health" February, 1905, your district may be said to be one of the healthiest and best administered in the Metropolitan area.

Our Birth-rate is 5 per 1000 greater, our death-rate is 3·5 and our Infant Mortality rate is 10 per 1000 less than the country as a whole.

Compared with the "76 Great Towns," our Zymotic Mortality rate, though favourable, is in my opinion too high, and is capable of reduction.

In the body of the Report I have dealt with this, and I trust some measures will be adopted in the direction indicated.

The Report furnished by Mr. West, the chief of the Sanitary Staff, shows a record of the good work accomplished, and without him and his staff any advice or action on my part would lose much of its usefulness. At all times and upon every occasion I could rely upon the advice given being acted upon and wishes expressed carried out.

As with Mr. West, so it has been with the chiefs of other Departments. Recognising my position as that of Chief Medical Adviser responsible to you for the Public Health in your District, while not assuming the control of any, I have presumed that all Departments in your service are at my disposal in carrying out the work entrusted to me.

In this conception of my position I have had every assistance given, and my relations with all your principal officers have been most cordial.

To Mr. Jones, of the Education Department, I am especially indebted for his ever ready co-operation, and for the weekly returns of Sickness among School children.

The clerical work entailed in my duties keeps steadily increasing, and has been well and faithfully performed by Mr. Lloyd. The number of returns asked for and furnished, the statistical work and correspondence, have, within recent years, nearly doubled, and I would respectfully submit to you Mr. Lloyd's claims for recognition.

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, but the character of the population is practically the same—the artisan and labouring classes predominating in all the Wards.

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, supplying the large lake there, and then 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.

That a correct estimate of the population is necessary, if any reliance can be placed on the various figures in this Report is very evident. An over-estimated population means a lowered death and other rates and *vice versa*.

The Registrar-General estimated that our mid-year population for 1904 was 111,282. He assumes that the rate of growth of the district as shown in the intercensal period 1891-1901 has been maintained during the years 1901-4; the proportion of occupied to unoccupied houses remaining fairly constant.

I fear this assumption is not correct. Neither has the rate of growth been maintained, nor is there that proportionate amount of occupied to unoccupied houses as existed at the last Census, and only by enumeration as in Census years can a correct population be given; but we have other data to guide us in arriving at a fairly accurate estimate.

In April, the Education Committee had a Census taken in the various Wards, of houses occupied, unoccupied, and in course of erection, and assuming six persons per house, came to the conclusion that the population of the district was 120,978. This estimate in my opinion is unduly exaggerated.

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. of Construction.	No. of Occupied Houses.	No. Empty.	No. in Construction.	No. of Occupied Houses.	No. Empty.	No. in Construction.
4139	228	31	3555	131	30	4324	254	36	2994	262	13	5151	726	255

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

TABLE II.

WARDS.	Houses.				Population.		
	Inhabited.	Uninhabited.		Building	Male.	Female.	Total.
		In occupa- tion.	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						

Since then plans have been passed for the building of 1,186 houses in 1902, 908 houses in 1903, and 975 in 1904.

Assuming that the houses for which the plans were passed in 1902 and 1903 and in the first quarter of 1904 were built and fit for occupation at mid year 1904, we had in St. James' Street Ward 4,210 houses ; High Street Ward ; 3,346 ; Hoe Street Ward, 4,484 ; Wood Street Ward, 3,000 ; and the Northern Ward, 4,957 ; or a total of 20,000.

In June the Overseers made a return of the empty houses in the district as follows :—

Shops.	Houses.	Tenements.	Total.
112	1,294	593	1,999

Taking half the number of tenements and adding to shops and houses, we get 1,703 houses as certified to be empty, or $8\frac{1}{2}$ per cent. of the possible total likely to be inhabited.

The maximum population from these data would be 108,000.

TABLE III.

WARDS.	Houses fit for Occupation, 1903.	Plans passed, 1904.	Plans passed in first Quarter.	Possibly fit for Oc- cupation, 1904.	Empty.	Occupied Mid- year.	Propor- tion empty in 1904.	Propor- tion empty at Census.	Average number per House.	Population.
St. James' Street ...	4,210	24	—	4,210	305	3,905	1 in 13·8	1 in 21	6	23,430
High Street ...	3,314	49	32	3,346	123	3,223	1 in 27·2	1 in 24	6·3	20,304
Hoe Street ...	4,470	47	14	4,484	308	4,176	1 in 14·5	1 in 15	5·5	22,968
Wood Street ...	2,977	39	22	2,999	271	2,728	1 in 11·1	1 in 15	6	16,368
Northern ...	4,882	816	75	4,957	695	4,262	1 in 7·1	1 in 7	5·7	24,293
Whole District ...	19,853	975	143	19,996	1,702	18,294	1 in 11·7	1 in 17·4	5·9	107,363

The foregoing may be thus placed in tabular form:—

Looking at the returns of the Education Committee's Attendance Officers, and assuming that the "number of occupied houses" means the total possible to be occupied and allowing for empty houses, we arrive at a population of 109,036 in this manner :—

TABLE IV.

WARDS.			"Number of occupied Houses."	Number of empty Houses.	Persons per House.	Population.
St. James' Street	...	...	4,139	228	6	23,466
High Street	...	...	3,555	131	6·3	21,571
Hoe Street	...	...	4,324	254	5·5	22,385
Wood Street	...	...	2,994	262	6	16,392
Northern	...	...	5,151	726	5·7	25,222

Taking into account the number of empty houses as found by the Overseers—1702—and the Education Committee—1601—and the ratio of empty to occupied houses ; on these data and comparing them with what existed in the census year, I have no doubt that a population of 108,000 is nearer to the actual figures than 109,000.

Upon the estimated population of the Registrar-General for England and Wales and the "76 Great Towns" all rates are based, I assume, then, our population to be 111,282—the Registrar-General's estimate—for comparative purposes. At the same time rates calculated on the truer estimate of 108,000 will be given.

As it is impossible to give the population of the different wards accurately, I assume, for statistical and comparative purposes, the number of inhabitants to be as follows, allowing a small variation from the numbers given on page 10 :—

	St. James St.	High St.	Hoe St.	Wood St.	Northern.	Total.
	23,600	20,400	23,100	16,600	24,300	=108,000
1903.	23,600	20,000	22,500	16,500	23,500	=106,100

Noting that the natural increase of the population for the year is 2,319, the figure 108,000 seems a low estimate as compared with last year. This is apparent, not real, when it is borne in mind that the proportion of empty houses has risen from 1 in 17·4 to 1 in 11·7, and, believing that these figures are as nearly correct as possible, they will be used throughout the report.

As a further check in estimating the population the following will serve.

In 1901 the registered births in the various wards were—

	St. James St.	High St.	Hoe St.	Wood St.	Northern.
	767	710	600	441	673
1904.	787	756	623	467	988
Increase,	20	46	23	26	315

This increase necessitates an increased population in the various wards of—

St. James St.	High St.	Hoe St.	Wood St.	Northern.
600	1,300	830	930	7,880

These figures, added to the estimated population of 1901, namely—

	St. James St.	High St.	Hoe St.	Wood St.	Northern
	23,218	19,886	21,500	15,512	16,884
give—	23,818	21,186	22,330	16,442	24,764

figures which do not vary greatly from the preceding, and which give a total of 108,540.

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 V.

	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
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

WHOLE DISTRICT.

Population.			Rateable Value. £	General District Rate per £.	Poor Rate.	School Board 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	„	111,282	404,101	3·2	1·10 $\frac{3}{4}$	2·4 $\frac{1}{4}$
Average for previous 10 years.						
Total Births registered, 1904	...	...	...	...	3,649	2,652
„ Deaths	„	„	...	...	1,330	1,053
Number of deaths of persons not belonging to this district	...	...	...	...	13	9
Natural increase of population	...	...	...	...	2,319	1,599
Birth-rate per 1,000 estimated population	...	...	...	...	32·79	32·7
Death-rate	...	...	...	...	11·95	13·12
Death-rate corrected for age and sex	...	...	...	...	12·78	14·03
Zymotic Death-rate	...	...	...	...	2·89	2·59
Infantile Mortality Rate	...	...	...	...	135·92	141·69
Infectious Sickness Rate	...	...	...	...	8·76	10·38
Number of persons per house	...	...	...	...	5·9	
„ „ „ acre (exclusive of Sewage Farms and Reservoirs)	...	...	...	...	28·3	

EDUCATION COMMITTEE'S RETURNS FOR DEC., 1904.

Schools.	Capacity.	On Books.	Present.	Average.	Per-centage.	Refused Ad-mission.
15 Boys' ...	6848	6979	6510	6226·1	89·2	35
17 Girls' ...	7010	7027	6504	6078·3	86·4	95
16 Infants'...	6825	7540	6701	6183·4	82·	348
8 Mixed ...	2042	2109	1949	1826·9	86·6	20
2 Special...	60	75	73	62·8	83·7	—
	22785	23730	21737	20377·5	85·8	498
Month ended—						
December, 1904	22785	23730	21737	20377·5	85·8	498
Month ended—						
December, 1903	22167	22945	20964	19977·4	87·	466

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

TABLE VI.

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

WARDS.	Acreage.	Acreage excluding Farm Reservoirs.	Number of Houses, 1901.	Estimated number of Houses. Mid-year 1904.	Estimated Population, 1904.	Density.	Birth Rate, 1904.	Death Rate, 1904.	Height above Sea Level.
St. James Street	489	307	3937	4210	23,600	76·8	33·3	13·85	18 to 54
High Street	660 $\frac{1}{3}$	415 $\frac{1}{3}$	3220	3346	20,400	49	37	12	21 to 60
Hoe Street	347 $\frac{1}{3}$	347 $\frac{1}{3}$	4084	4484	23,100	66·5	27	10·6	50 to 140
Wood Street	499	499	2716	2999	16,600	33·3	28·1	11·08	75 to 176
Northern... ..	2359 $\frac{1}{3}$	2237 $\frac{1}{3}$	3377	4957	24,300	10·8	40·6	13·4	25 to 220
Whole District	4355	3806	17,334	19,996	108,000	28·3	32·79	11·95	

BIRTHS—BIRTH-RATE.

The total number of births registered during the year was 3,649; males, 1,847; females, 1,802. Twenty-eight of these (males, 15, females 13) occurred at the Union Workhouse.

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

The birth-rate for 1904 is 32·79 per 1,000 as compared with 33·25 for the previous year, and 32·7 for the preceding 10 years.

The birth-rate for England and Wales for 1904 was 27·9 per 1,000, or 4·89 per 1,000 below that for this district.

The birth-rate for the country generally is the lowest on record.

The ratio of male to female births was as 100 to 97·6 nearly.

The birth-rate on a population of 108,000 would be 33·8 nearly.

Distributing the births, as supplied by the Registrar, over the various wards of the district, we have had in the four quarters of the year:—

TABLE VII.

	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 ...	95	94	82	88	86	79	55	62	118	141	1	4	437	468
2nd quarter ...	108	96	97	86	75	80	65	51	128	114	3	3	476	430
3rd quarter ...	86	96	114	93	86	79	59	44	115	114	8	2	468	428
4th quarter ...	122	90	87	109	71	67	60	71	123	135	3	4	466	476
Totals ...	411	376	380	376	318	305	239	228	484	504	15	13	1847	1802
	787		756		623		467		988		28		3,649	
Population ...	23,600		20,400		23,100		16,600		24,300		—		108,000	
Birth-rate 1904 ...	33·3		37·		27·		28·1		40·6		—		33·8	
Do. 1903 ...	31·6		39·1		29·24		27·45		38·1		—		33·25	

Excluding those births registered at the Workhouse, the birth-rate for the various wards was for the year, and for the previous years, as follows:—

St. James St.	High St.	Hoe St.	Wood St.	Northern.
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 similarity of the rates in 1904 and 1901 for the various wards is very striking, and makes one feel that the estimated populations are fairly correct.

The St. James Street and Wood Street Wards have practically the same rates as in the census year; Hoe Street is much nearer the figure attained then than in subsequent years; High Street is ·7 less than in 1901, and the Northern Ward is ·8 more than in that year.

Apparently the birth-rate varies with the character of the population; the lower the rate, the more well to do the people; the higher the rate, the poorer the people.

Noting the declining birth-rate throughout the country for years—1904 the lowest on record—one is inclined to speculate as to its cause.

One thing is certain that, with a declining birth-rate and a people said to be physically deteriorating, sanitary authorities have before them a great task if the country and its people are to hold their own.

High Street had 19, and Hoe Street 29 fewer births than in 1903; St. James Street had 46, Wood Street 20, and the Northern Ward 114 more births than in the previous year.

DEATHS AND DEATH RATES.

WHOLE DISTRICT.

During the year 1,175 deaths were registered as occurring in this district. Thirteen were of non-residents and are excluded, a copy of each death return being sent to its proper authority; 141 deaths registered at the Workhouse and Infirmary, 24 at the Sanatorium, and

3 of residents whose deaths occurred elsewhere outside the district are now added, making a total of 1,330 deaths properly attributable to Walthamstow.

Of these deaths 691 were males and 639 females.

Four deaths were registered without a Coroner's or medical practitioner's certificate, showing a very small percentage ($\cdot 3$) of uncertified deaths. Even this should not be possible. All death certificates should be transmitted by the certifying party—Coroner or medical practitioner—to the Registrar, and no certificate should be given without an examination of the dead body. This would be a great safeguard to the public, and a more correct and true classification of the causes of death would ensue.

Under present conditions it is quite possible to obtain a death certificate for one who is very ill but not dead, and if no suspicion is aroused no enquiry is made; temptation is thus put in the way of the criminally inclined.

The deaths registered represent a death-rate of 11·95 per 1,000 of the population, or 4·25 per 1,000 below that of England and Wales.

The death-rate for 1904 for the "76 Great Towns" was 17·2.

Correcting our death-rate of 11·95 for age and sex distribution, we get a rate of 12·78, which is 4·42 per 1,000 lower than those places truly comparable with our district.

The estimated populations of the "76 Great Towns" are made by the Registrar-General on a like assumption that our population is 111,282.

Taking the population as 108,000 our death-rate would be 12·3, and corrected for age and sex distribution, 13·6, or 3 per 1,000 less than the country as a whole, and 4 per 1,000 less than places—the "76 Great Towns"—comparable with Walthamstow. Even the "142 Smaller Towns" given by the Registrar-General have a death-rate of 15·6 per 1,000 of their population.

One death was registered for every 81·2 persons of the population, as compared with 1 in 90 in 1903, 1 in 87 in 1902, and 1 in 75 in 1901.

The ratio of male to female deaths was 100 to 92·4.

The causes of death and the ages of persons dying are set out on page 26A.

ACCORDING TO WARDS.

The deaths registered during the year in the wards and their death-rates were as follows. The population assumed is 108,000 :—

	St. James Street.	High Street.	Hoe Street.	Wood Street.	Northern.	Total.
Population ...	23,600	20,400	23,100	16,600	24,300	108,000
No. of deaths 1904 ...	327	246	246	184	327	1,330
Death-rate do. ...	13·85	12	10·6	11·08	13·45	12·3
Birth-rate do. ...	33·3	37	27	28·1	40·6	33·8
No. of deaths 1903 ...	285	234	229	189	241	1,178
Death-rate do. ...	12·08	11·7	10·2	11·45	10·25	11·08
Birth-rate do. ...	31·6	39·1	29·24	27·45	38·1	33·25

The death-rates for High Street, Hoe Street and Wood Street Wards are practically the same as in 1903. High Street and Hoe Street Wards have a slightly higher death-rate, although a lower birth-rate than in the previous year ; while Wood Street has a lower death-rate with a higher birth-rate.

The St. James Street and the Northern Wards have 2 per 1,000 higher birth-rate, than in 1903. The difference in the death-rates of 1903 and 1904 for St. James Street is not marked, but there is a considerable variation of those in the Northern Ward.

This, I think, is not due to under-estimation of the population, nor to any insanitary or other conditions peculiar to the district, and inimical to health. Looking on page 16, Table VII., and page 26A, Causes of Death, Schedule A, an explanation is at hand.

The Northern Ward had 988 births, as compared with 787 in St. James Street, and a birth-rate of 40·6, as compared with one of 27·0 in Hoe Street, and with a difference of less than 4 per cent. of population. Consequently the Northern Ward had a very large child population that suffered severely from diarrhoeal complaints during an abnormally warm summer ; in fact, 66 deaths were registered from diarrhoeal complaints in the Northern Ward, as compared with 47 in the St. James Street, 29 in High Street, 18 in Hoe Street. and 23 in Wood Street Wards. A high birth-rate in a community is a very important factor in increasing a death-rate, and this must be borne in mind, especially when weather and other conditions are favourable to diarrhoea.

That this is the explanation I have no doubt, for a large portion of the Northern Ward still maintains its semi-rural character, and geographically it is most favourably situated.

The increased number of deaths from Diarrhoea in the Northern Ward accounts for 1·6 of its rate. Excluding this factor, which was absent in 1903, we have a rate of 11·85 per 1,000 in 1904, as compared with 10·25 in 1903, a difference which is not so great, nor calling for any further explanation.

The death-rates of the High Street, Hoe Street and Wood Street Wards require no explanation.

INQUESTS.

During the year 107 inquests were held, but 3 of these were on persons from outside the district, as compared with 94 in 1903, 86 in 1902, 105 in 1901, 90 in 1900, 83 in 1899, and 62 in 1898.

The deaths requiring investigation in 1904 were 7·8 per cent. of the total deaths.

The 104 deaths were certified as follows:—

Natural causes	...	...	...	...	...	...	53
Accidental suffocation through overlaying	...	...	...	...	...	...	6
„ „ in bed	...	...	...	...	...	...	6
Shock of burns and scalds	...	...	...	...	...	...	7
Accidental fall	...	...	...	...	...	...	5
Chronic alcoholism	...	...	...	...	...	...	3
Accidental poisoning	...	...	...	...	...	...	3
Want of proper attention at birth	...	...	...	...	...	...	3
Run over	...	...	...	...	...	...	3
Rupture of blood vessel	...	...	...	...	...	...	2
Accidental coma following a fall...	...	...	...	...	...	...	1
The cold	...	...	...	...	...	...	1
Accidental tetanus	...	...	...	...	...	...	1
„ injuries from being crushed	...	...	...	...	...	...	1
Syncope following vomiting	...	...	...	...	...	...	1
Rupture of aneurism	...	...	...	...	...	...	1
Improper feeding...	...	...	...	...	...	...	1
Shock of accident...	...	...	...	...	...	...	1
Manslaughter	..	...	...	...	...	...	1
Suicide	...	...	...	...	...	...	3
Exhaustion of diarrhoea induced by presence of formalin in milk	...	...	...	...	...	...	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 ten years and as compared with 1904:—

TABLE VIII.

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
Average for 10 years	2651	1052	32·7	13·12	2·59	141·69	1599
'04	3649	1330	32·79	11·95	2·89	135·93	2319

Total natural increase of Population since 1891, 21,172.

Total increase as shown by census, 1901, 48,779.

Total increase as estimated to middle of the year 1904, 65,934.

Total increase per cent. since 1891, 142·2.

INFANTILE MORTALITY RATE.

There were 496 deaths of children under one year of age registered during the year, as compared with 401 in 1903, 394 in 1902, 481 in 1901, 482 in 1899 and 1900.

The Infant Mortality rate, or the proportion which deaths under 1 year bear to 1,000 births, is 135·92, as compared with 113·7 in 1903 (the lowest since 1890), and 141·69, the average rate for the previous ten years.

This rate is 4·4 lower than that for England and Wales as a whole, and 18·4 lower than that for the "76 Great Towns," and 13 less than that for the "142 Smaller Towns" of the Registrar-General's Report.

Looking at the foregoing table, it will be observed that of the preceding 13 years in only seven was a lesser rate recorded. 1902 and 1903 were the only years in which anything like a desirable rate occurred, and of the total deaths in the district (1,330) over a third died within the first year of life.

Many and various are the causes which contribute to this great wastage of infant life, and if the opinion as generally expressed is correct, that the physique of the British race is deteriorating, the explanation may be found in the causes productive of high infantile death-rates.

Every condition inimical to child life leaves its mark on the surviving population, for conditions that kill the weakest must make the strong less strong, and if we want a physically improved race we must begin with the babe.

The main factors in producing a high infantile death-rate are—

1st. Very early marriages accompanied by—

- (a) Ignorance of parents.
- (b) Poverty.
- (c) Artificial feeding of babies.

2nd. Season ; and

3rd. Insanitary surroundings.

Seasonal causes are difficult to control, insanitary conditions should not exist, and the marriages of persons of immature years and with no knowledge of the responsibility or duty of parenthood should be by law prevented.

With a decreasing birth-rate it behoves us to take the greatest care of those that are born and to ensure that they are viable.

In this connection the survival of the fittest doctrine brings little comfort, as the bad influences that work in killing the weakest and poorest leave their mark upon and impair the vitality of the survivors. To ensure that the strong and healthy will live and that the weakest may have a chance is the aim of our work.

That there should be no difficulty in reducing our infantile rate to 100 may be easily deduced from existing conditions in portions of the district. In 1903 the Hoe Street Ward had a rate of 97·3 per 1,000 children born and this year a rate of 109; rates much more favourable than in any other ward.

Sanitary and seasonal conditions are common to all the wards, and the only explanation of the low rate of the Hoe Street Ward lies in its better social condition, the greater care exercised by the well-to-do towards their offspring, the comparative absence of early marriages among them, with its consequent ignorance, poverty, and artificial baby feeding common to all the others.

Mr. Charles Ansell, Actuary of the National Life Assurance Company, showed in 1874 that, below one year of age, the infant mortality of the upper and middle classes did not exceed 89 per 1,000 for males and 70 for females; and the experience of the Prudential Insurance Company showed that out of half a million of infants under twelve months insured in the society, the death-rate ranged from 106 to 137 per 1,000 for males and 89 to 114 for females.

These facts warrant us in assuming that anything over a rate of 100 indicates conditions existing productive of lowered vitality and defective developmental capacity, which are the forerunners of physical degeneration in the adult.

Apart from sanitary conditions, the greatest improvement may be looked for in improved methods of education for our girls and their compulsion to stay at school for a longer time than at present, with a considerable raising of the age limit before going to work.

That some such protection for the poor in their own interests is necessary, one has only to notice the poor physique of many of the factory hands as they come from and go to work. Nothing in the shape of improvement of the race can be expected from much of this material.

The following table shows the number of births, the birth-rate, the number of deaths, and the Infantile Mortality rate according to Wards.

TABLE IX.

	Whole District.	St. James Street.	High Street.	Hoe Street.	Wood Street.	Northern Ward.
Population ...	108,000	23,600	20,400	23,100	16,600	24,300
Births ...	3,649	787	756	623	467	988
Birth-rate ...	33·8	33·3	37	27	28·1	40·6
Deaths ...	1,330	327	246	246	184	327
Death-rate ...	12·3	13·85	12	10·6	11·08	13·45
Infantile mortality rate ...	135·92	158·8	129·6	109·1	141·3	140·6
Deaths under 1 year	496	125	98	68	66	139

As in previous years the relation of the birth, death, and infantile mortality rates is fairly constant. Hoe Street, well-to-do, has a low birth, death, and infant death-rate. High Street, with a considerably higher birth-rate, has a low death-rate and a lower infantile mortality rate than Wood Street. Wood Street, a mixture of very poor and well-to-do, has a low birth-rate and a low death-rate, but a high infant death-rate.

Contrast the infant death-rate with that of Hoe Street, and it can be at once seen that poverty and ignorance must be important factors in this rate. Hoe Street had 24 deaths from developmental diseases, and 19 from diarrhoeal, while Wood Street had 22 and 23 with 156—or one-fourth of the total—fewer infants.

Had the babies in Hoe Street died as in Wood Street, 90 would have perished instead of 68 as did actually. St. James Street, again, with a considerably smaller child population than the Northern Ward, has a much greater infant mortality.

This is partly accounted for by the semi-rural character of the Northern Ward, its comparatively recent existence as a residential ward, its distance away from the railway station, its less crowded condition, and its higher elevation.

The very poor in physique and circumstances seem to crowd near the railway stations, and the wives and children seem not to have similar inducements to walk and take fresh air that those removed from the shopping localities have, and consequently both mothers and children suffer.

Joined to this there is an amount of drinking in public houses amongst the women of the St. James Street Ward, which must act injuriously on the children and the homes. What is applicable to St. James Street is equally so to portions of the Wood Street Ward, and here we have partly the explanation of our high infant mortality rate. It is doubtful if poverty is the cause of drunkenness, but there is no doubt that drink is the cause of much of the dirt and poverty among our working classes, and here again we must look to our girls' schools to produce an altered state of things.

The deaths under one year of age were over 37 per cent. of the total deaths, compared with 34 per cent. in 1903, and were 13·5 per cent. of the registered births as compared with 14·6 per cent. for England and Wales.

The following shows in tabular form the numbers and causes of death in children under five years in 1904 and 1903:—

Disease.	1904.	1903.	Disease.	1904.	1903.
Measles	45	45	Cancer	1	1
Scarlet Fever	7	3	Premature Birth ...	62	66
Influenza	1	1	Developmental Diseases	94	90
Whooping Cough ...	29	34	Meningitis	18	14
Diphtheria	20	13	Acute bronchitis ...	32	44
Croup	2	—	Lobar pneumonia ...	18	18
Enteric Fever	1	—	Lobular do.	45	48
Diarrhœa	82	25	Diseases of stomach ...	6	13
Zymotic Enteritis ...	99	35	Obstruction of intestines	—	2
Enteritis... ..	4	20	Bright's disease ...	3	2
Gastric-Enteritis ...	13	—	Accidents or negligence	23	23
Septic Diseases ...	4	1	All other causes ...	46	54
Tuberculosis of Meninges	13	16		—	—
Do. Lungs	3	3		693	587
Do. other forms	22	16			

Over half of the total deaths of the district are in children under five years of age. One hundred and fifty-two of these, or one-fourth, died within a short time of birth from prematurity and constitutional weakness; and 496, or over one-third, died within the first year of life. Of every 22 children born three died within the first year, a proportion closely resembling that of the country generally, the balance being in favour of your district.

SENILE MORTALITY.

Of the 1,330 deaths recorded, 226—17 per cent.—were of 65 years and upwards, as compared with 17·57 per cent. in 1903, and 17·3 per cent. in 1902.

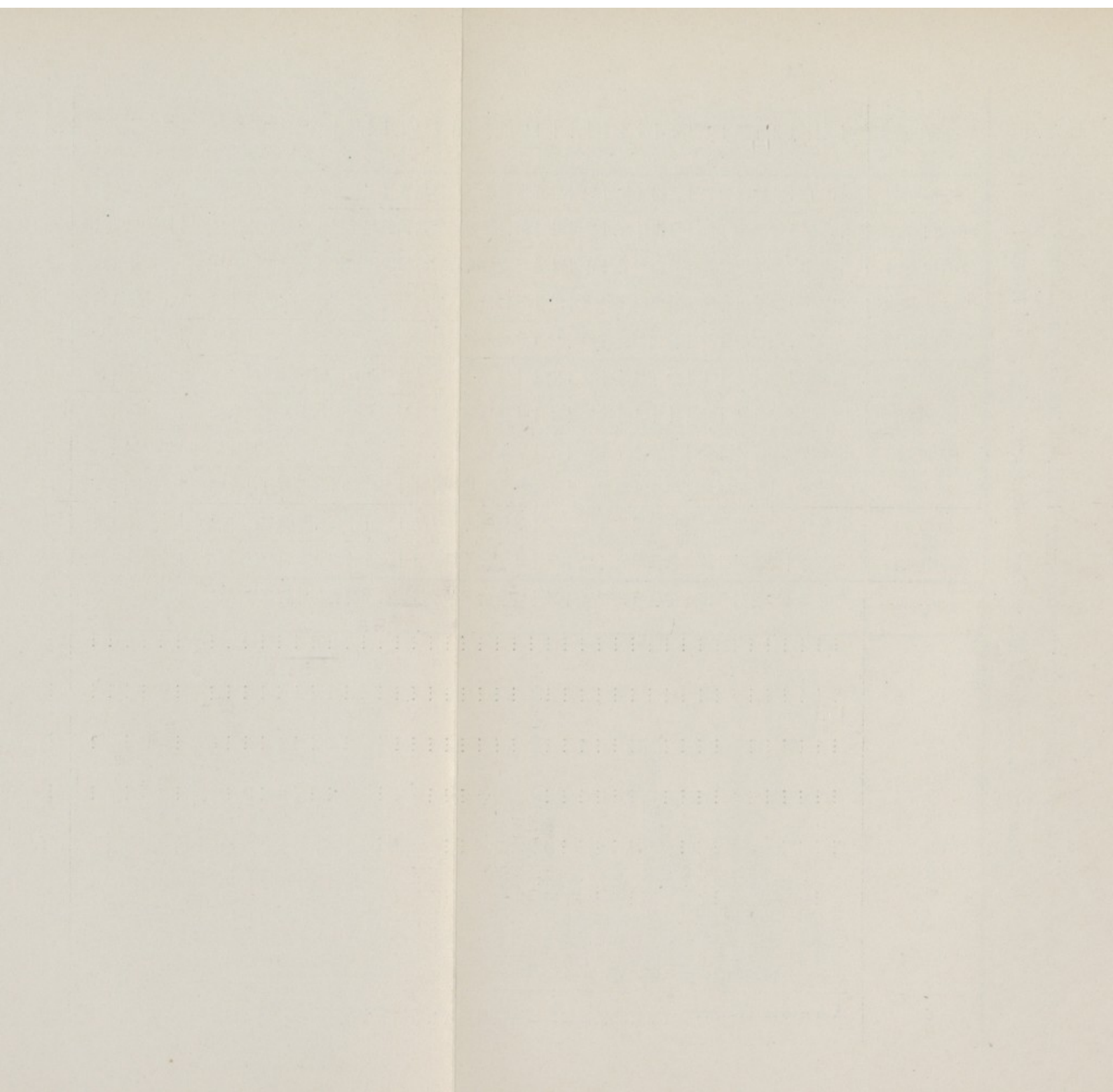
In the St. James Street Ward 22 were 75 and upwards.

„	High Street Ward	18	„	„
„	Hoe Street Ward	33	„	„
„	Wood Street Ward	16	„	„
„	Northern Ward	16	„	„

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).

SCHEDULE B. *Table of DEATHS during the year 1904, 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	1	—	—	—	—	1	—	—	1	—	—	—	—
2	Measles	55	12	33	10	—	—	—	11	12	15	9	8	—
3	Scarlet Fever	14	—	7	5	1	1	—	4	3	2	1	4	—
4	Typhus Fever	—	—	—	—	—	—	—	—	—	—	—	—	—
5	Epidemic Influenza	7	1	—	—	1	1	4	2	1	4	—	—	—
6	Whooping Cough	32	15	14	3	—	—	—	11	4	4	6	7	—
7	Diphtheria, Membranous Croup	27	2	18	7	—	—	—	6	8	2	—	11	1
8	Croup	2	—	2	—	—	—	—	—	—	1	—	1	—
9	Enteric Fever	10	—	1	1	3	5	—	3	3	2	1	1	1
10	Asiatic Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—
11	Diarrhoea, Dysentery	84	73	9	1	—	—	1	30	24	7	9	14	—
12	Epidemic or Zymotic Enteritis	99	79	20	—	—	—	—	17	5	11	14	52	—
13	Enteritis	5	2	2	—	—	—	1	2	2	1	—	—	—
14	Gastro-Enteritis	14	9	4	1	—	—	—	—	—	4	3	7	—
15	Varicella	1	—	—	1	—	—	—	—	1	—	—	—	—
16	Erysipelas	4	1	—	—	—	1	2	2	—	—	1	1	—
17	Puerperal Fever	—	—	—	—	—	—	—	—	—	—	—	—	—
18	Other Septic diseases	4	3	—	—	—	—	1	1	2	—	—	1	—
19	Intermittent Fever and Malarial Cachexia	—	—	—	—	—	—	—	—	—	—	—	—	—
20	Tuberculosis of Meninges	21	3	10	8	—	—	—	7	4	3	2	5	1
21	Tuberculosis of Lungs	96	—	3	9	18	63	3	25	17	22	10	22	2
22	Other forms of Tuberculosis	27	16	6	2	—	3	—	8	2	7	4	6	3
23	Alcoholism	6	—	—	—	—	6	—	1	—	—	2	3	—
24	Cancer	62	1	—	—	—	40	21	16	10	10	9	17	—
25	Premature Birth	62	62	—	—	—	—	—	15	11	10	8	18	—
26	Developmental Diseases	94	90	4	—	—	—	—	20	18	15	14	27	1
27	Old Age	56	—	—	—	—	1	55	18	5	15	10	8	—
28	Meningitis	25	10	8	5	—	1	1	9	6	2	3	5	—
29	Inflammation and Softening of Brain	6	—	—	—	—	2	4	—	1	2	1	2	—
30	Organic Diseases of Heart	31	—	—	1	8	12	10	5	10	7	5	4	3
31	Acute Bronchitis	38	22	10	—	—	2	4	12	7	6	6	7	—
32	Chronic Bronchitis	54	—	—	1	1	15	37	9	12	12	11	10	2
33	Lobar (Croupous) Pneumonia	61	10	8	3	2	23	15	16	14	13	5	13	3
34	Lobular (Broncho) Pneumonia	57	22	23	1	2	6	3	17	17	4	7	12	1
35	Diseases of Stomach	13	5	1	—	—	5	2	4	4	1	1	3	1
36	Obstruction of Intestines	7	—	—	—	1	3	3	—	2	2	—	3	2
37	Cirrhosis of Liver	6	—	—	—	—	5	1	1	—	2	1	2	1
38	Nephritis and Bright's Disease	17	1	2	1	2	11	—	3	7	3	1	3	2
39	Tumours and other Affections of Female Genital Organs	—	—	—	—	—	—	—	—	—	—	—	—	—
40	Accidents and Diseases of Parturition	7	—	—	—	1	6	—	3	—	1	2	1	1
41	Deaths by Accident or Negligence	42	19	4	2	2	12	3	11	3	11	5	12	11
42	Deaths by Suicide	5	—	—	—	1	4	—	1	1	—	1	2	—
43	Deaths from Ill-defined Causes	—	—	—	—	—	—	—	—	—	—	—	—	—
44	All other Causes	178	38	8	7	4	66	55	37	29	45	32	35	2
All Causes		1,330	496	197	69	47	295	226	327	246	246	184	327	38



ZYMOTIC MORTALITY.

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

The rate based on these deaths is usually taken as a standard for comparison, and inferences drawn as to the good or bad sanitary conditions existing.

That too much reliance must not be placed on this rate is manifest when one remembers how many factors enter into its making.

An epidemic of Measles or Whooping Cough in a district otherwise well administered, would swell the rate considerably, and though special efforts are made to check these diseases. Measles was very rife in the year under review, hence our large Zymotic rate of 2·89.

The improper observance of the general laws of health, and the lack of intelligent management in the nursing and feeding of babies during the diarrhœal months, are characteristic of the poor, and are especially noticeable in seasons favourable to this mortality.

In this connection too, special precautions have been taken, but we have to await the advent of properly educated mothers for a full realization of a low rate.

Among the deaths from these diseases are included five from Enteritis and nine from Gastro-Enteritis, and the total deaths were 335 as compared with 210 in 1903.

These deaths represent a rate of 3·0 in a population of 108,000, and 2·89 on the Registrar-General's assumption. The rate for 1903 was 1·97; 1902, 1·31; 1901, 2·82; and 1900, 2·81.

The deaths from Measles and Scarlet Fever were in excess of any of the previous six years, those from Whooping Cough were below the average, those from Diphtheria had risen from 17 in 1903 to 27, but still considerably below what has been usual in this district, while Typhoid deaths were fewer than in the previous years.

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

TABLE X.

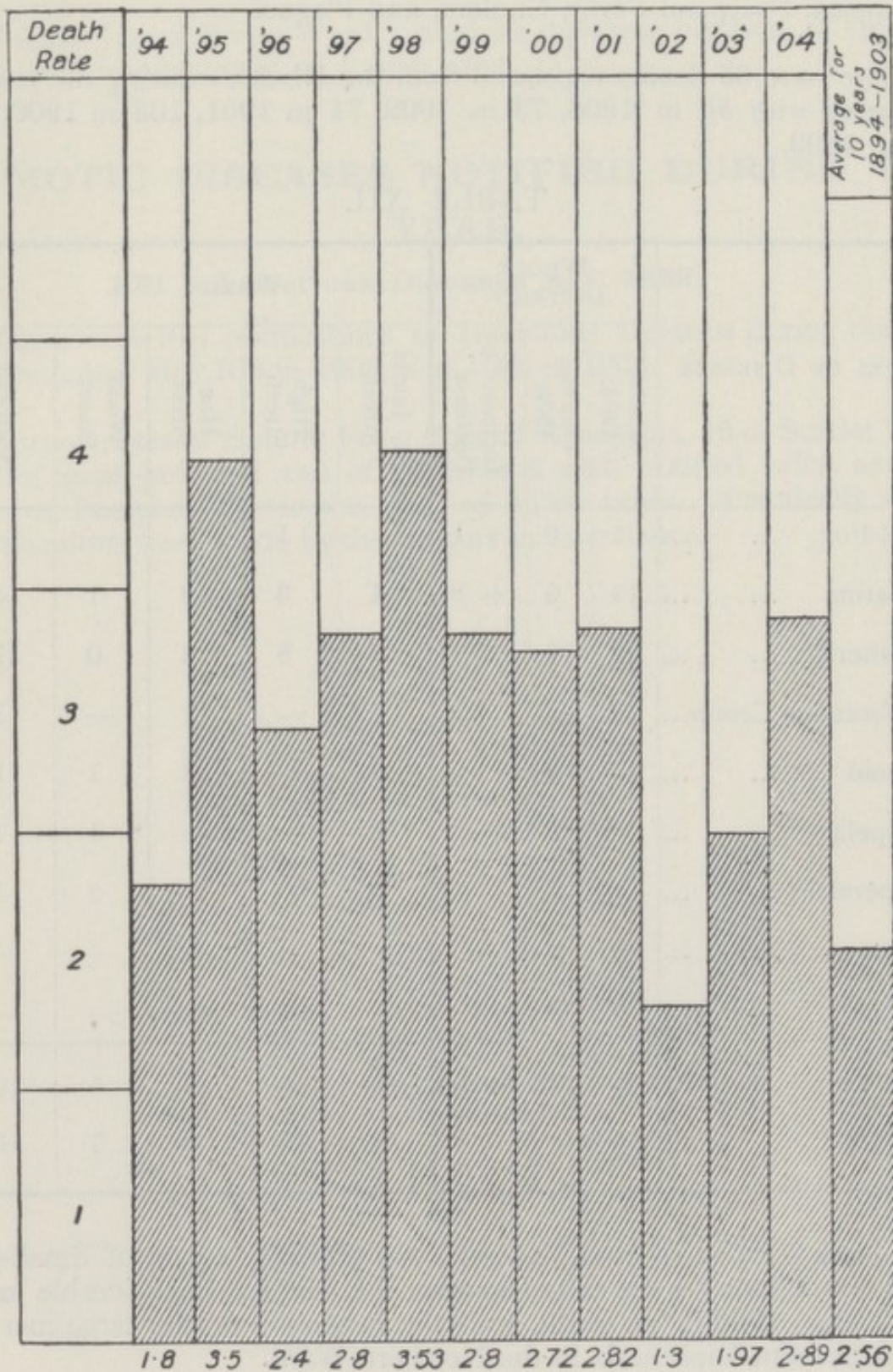
	Small-Pox.	Scarlatina.	Diphtheria.	Croup.	Typhoid.	Measles.	Whooping Cough.	Diarrhoea.	Zymotic Enteritis.	Total.
1904	1	14	27	2	10	55	32	84	99	324
1903	0	6	17	—	19	52	34	28	37	193
1902	20	6	17	4	13	14	23	23	5	125
1901	1	13	38		12	43	26	131	10	274
									Gastro-Enteritis.	
1900	0	5	71	7	6	3	54	110	27	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.

The following Chart shows graphically the death-rate for 1904 from these diseases and for the previous ten years and the average rate for the same period :—

**TABLE OF ZYMOTIC MORTALITY,
1894 to 1904.**

TABLE XI.



DEATHS FROM NOTIFIABLE INFECTIOUS DISEASES.

The Diseases under this heading are Small-pox, Scarlatina, Diphtheria, and Membranous Croup, Fever (Typhus, Typhoid, and Continued), Erysipelas. Puerperal Fever, Cholera, and Plague.

There were 65 deaths registered from the Diseases during the year, as compared with 55 in 1903, 73 in 1902, 74 in 1901, 103 in 1900, and 104 in 1899.

TABLE XII.

NAMES OF DISEASES.	WHOLE DISTRICT.			WARDS, 1904.				
	Deaths, 1904.	Deaths, 1903.	Increase + Decrease -	St. James Street.	High Street.	Hoe Street.	Wood Street.	Northern
Small-Pox	1	0	+ 1	—	1	—	—	—
Scarlatina	14	6	+ 8	4	3	2	1	4
Diphtheria	27	17	+10	6	8	2	0	11
Membranous Croup...	2	—	+ 2	0	—	1	—	1
Typhoid	10	19	- 9	3	3	2	1	1
Erysipelas	4	2	+ 2	2	—	—	1	1
Puerperal Fever ...	7	11	- 4	3	—	1	2	1
Cholera	0	0	—	—	—	—	—	—
Plague	0	0	—	—	—	—	—	—
Total	65	55	+10	18	15	8	5	19
„ 1903	55	—	—	16	13	6	7	13

A death notified as from Varicella, was probably a case of Small-pox, but is not included in the above figures. The difference noticeable in the Wards from 1903 is but slight, with the exception of the large increase of deaths from Diphtheria in the Northern Ward.

In the High Street Ward there were 61 cases of Diphtheria notified, resulting in 8 deaths; in the Northern Ward, 41 cases notified with 11 deaths. If all the notified cases in the High Street Ward were Diphtheria, one would expect at least 16 deaths, otherwise the type of disease must have been very mild.

The St. James Street Ward maintains the same position as in 1903, a material improvement on former years.

ZYMOTIC DISEASES NOTIFIED DURING THE YEAR.

Infectious Diseases Act, 1889.

There were 975 notifications of Infectious Diseases during the year, as compared with 700 in 1903, and 1083 in 1902.

Sixteen cases of Enteric Fever, four of Erysipelas, 16 of Scarlet Fever, two of Small-pox, and two of Diphtheria were notified twice, and one case of Puerperal Fever was notified three times. Practically all the notifications were made by the doctors in attendance.

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

TABLE XIII.—*Cases of Infectious Disease notified during the Year 1904.*

1904. Notifications.		Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sept	Oct.	Nov.	Dec.	Total.	Deaths.
Small-Pox ...	Under 5 years	0	0	1	0	0	3	0	0	0	1	0	0	5	0
	Over „	0	0	0	2	3	29	10	0	0	0	0	0	44	1
Scarlet Fever ...	Under 5 years	14	11	10	12	2	5	8	18	13	17	17	14	141	7
	Over „	17	32	27	22	23	14	19	38	49	76	36	33	386	7
Diphtheria ...	Under 5 years	6	5	6	3	2	6	6	4	4	3	7	5	57	20
	Over „	8	10	8	5	5	7	17	15	16	13	12	4	120	7
Membranous Croup {	Under 5 years	0	1	1	3	1	1	0	1	1	0	0	0	9	2
	Over „	0	0	1	1	2	1	0	0	0	0	0	0	4	0
Enteric Fever ...	Under 5 years	1	0	0	1	0	0	0	0	1	0	1	1	5	1
	Over „	5	2	1	5	2	2	1	4	10	4	6	9	51	9
Puerperal Fever ...	Under 5 years	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Over „	1	0	0	0	1	1	1	1	1	1	1	2	10	7
Erysipelas ...	Under 5 years	3	1	1	0	0	0	0	4	1	2	2	4	18	1
	Over „	4	14	11	13	3	7	7	11	17	13	11	14	125	3
Totals ...		59	76	67	66	44	76	69	96	113	130	93	86	975	65

TABLE XIV.—*Distribution of Infectious Diseases according to Wards.*

WARDS.	Estimated Population.	Small-Pox	Scarlet Fever.	Diphtheria.	Croup.	Erysipelas.	Typhoid.	Puerperal.	Chicken Pox.	TOTALS.	Increase + or Decrease - on last year.	Increase + or Decrease - excluding Chicken Pox
St. James Street	23,600	3	95	36	8	46	16	1	0	205	+26	+30
High Street ...	20,400	14	89	61	4	17	8	1	0	194	+41	+53
Hoe Street ...	23,100	12	90	21	1	22	13	3	0	162	+29	+46
Wood Street ...	16,600	4	91	18	0	27	6	3	0	149	+51	+54
Northern ...	24,300	16	162	41	0	31	13	2	0	265	+128	+145
1904 ...	108,000	49	527	177	13	143	56	10	0	975	+275	+328
1903 ...	106,290	2	292	147	5	117	88	6	53	700	-1,160	-426
1902 ...	101,000	146	560	142	8	131	89	7	777	1,860	+669	-55
1901 ...	97,000	3	608	322	11	111	73	10	53	1,191	+135	+82
1900 ...	95,383	—	347	516	11	87	{ Con. 1 86	8	0	1,056	—	—

The following table shows the distribution of infectious cases according to wards, and the increase or decrease as compared with 1903:—

TABLE XV.—*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
Mean.....		368	15	204	9.4	0	86	1.4	96	5.3	786	10.8
Average for previous years }		357	12.6	206	9.1	0	88	1.46	90	4.3	773	10.
Extremes { High't		608	146	516	17	0	193	6	143	10	1138	18.5
Lowest		125	0	124	3	0	28	0	31	3	397	6.2

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:—

INFECTIOUS DISEASES AND MEASURES TAKEN TO PREVENT THEIR SPREAD.

The 975 notified cases of Infectious Diseases as set forth in Tables XIII. and XIV., represent infection in 841 different houses, and a visit was paid in every instance by a Sanitary Inspector, followed by the usual routine of precautionary and preventive measures as in former years.

Handbills were distributed to the householders where hospital accommodation could not be found for the sufferer, and special instructions were issued in cases of Typhoid as in 1903.

Where children are attending school from an infected house, notification is sent to the Head Teachers, and such children are excluded. Instructions are also given that the children of the family may be kept apart from their neighbours.

Any clothing made at the premises is carefully disinfected before removal; the Medical Officer of Health of the district whither the work is sent is notified, and no further work is taken in until the house is free from infection.

As far as our limited accommodation would allow, Scarlatina and Diphtheria patients were removed to the Sanatorium for treatment and isolation.

Following the recovery or removal of the patients the houses were thoroughly disinfected. A small percentage of cases occurred subsequent to disinfection, but it is impossible to say if such were due to imperfect disinfection or other causes. I believe other causes largely contributed. It is most difficult to get parents to give up every article of infected clothing for removal, and it is not uncommon to find dirty underclothing brought for the children who are about to be discharged from the Sanatorium. Where secondary cases arise after disinfection the parents are, in my opinion, mainly responsible, as Mr. West assures me that the work under his supervision is thoroughly done.

All the disinfections during the year have been carried out by your servants, and I am greatly indebted to the ready acquiescence of my medical confrères to your wishes in this respect. A few certificates of private disinfections were withdrawn by the doctors issuing them when your desires were made known to them, and the work was subsequently done by your staff.

Outfits for early Diphtheria and Typhoid diagnosis are still kept at the Town Hall, and anti-diphtheritic serum for gratuitous injection for those unable to pay is supplied.

Thirty-two bottles of serum were asked for and used during the year.

In the Registrar's weekly returns all deaths from Phthisis are noted, and an offer is made to disinfect the rooms and bedding, &c., occupied by the deceased. In this way 30 such disinfections were carried out.

That such disinfections are very useful there can be no doubt, but I feel the time has come when all cases of Phthisis should be voluntarily notified and paid for, followed by simple printed instructions for the patient and those nursing him, to prevent dissemination while infection is active.

Mr. West in his report of last year truly pointed out that the Sanitary Inspector, "once almost solely engaged in the remedying of nuisances complained of by occupiers, becomes year by year more engaged in work in connection with infectious diseases, and a good deal of his time is thus taken up."

This is so, and works in the interests of the community.

Apart from the measures insisted upon by the Inspector to prevent infection spreading, the householder under such circumstances is always willing to give a hearty welcome to the officer, and allow him to thoroughly inspect the premises, and in this connection 841 houses were inspected during the year which otherwise would not have occurred, with the result that the sanitary defects set forth in Mr. West's report, page 82, were remedied.

SMALL POX.

During the year 49 cases of Small Pox were notified, and all were removed to Dagenham Hospital.

The first case, reported in March, occurred in an unvaccinated child $2\frac{1}{2}$ years old, and living in the Wood Street Ward. The infection was clearly brought by the parents, who had visited relatives in Seven Kings, and whose child had Small Pox. The usual precautions were taken, the child removed to hospital, and no further case arose from this source.

In April two cases were notified—one in Chester Road, from which there was no spreading, and one in the Northern Ward, on the border of Forest Road. The latter (a man), after walking through the crowded street, was seen by me and removed to hospital. He had had the rash well out for three days, and had been going to his business in London daily before his removal, nine days after his first symptoms of illness. There was strong reasons for believing that both contracted the disease from without the district.

From April 16th till May 8th no further case occurred but on the latter date a man living at Byron Road was certified as suffering from Small Pox. He had been ill for some days previous to notification, and meantime was visited by his friends. At once I had the man removed to hospital, but his child and a relative from Gaywood Road, who refused re-vaccination, immediately fell ill. These being under observation were at once removed, and no further cases arose from them.

On June 11th a woman, aged 47, living at Woodville Road, and an unvaccinated child, aged six years, in Chingford Road, were notified as suffering from Small Pox. No certain cause of infection was traced in either case, nor did they give rise to any.

On the 13th, owing to a letter from the M.O.H. of Stepney, advising me that an undertaker, who had buried a child from Forest Road, was suffering from Small Pox, I visited the house indicated and found five unvaccinated children suffering from Small Pox in its various stages. One of the children, who was convalescent, came in while I was examining the others, with some purchases from a neighbouring shop.

On the same morning (13th) I had been requested by two medical men to look at some suspicious cases which were undoubtedly Variola, resulting in the removal, on that day, of seven cases from Forest Road and one from Borwick Avenue. I could trace no direct connection between the case at Century Road in the immediate vicinity and these later cases, but it is possible the infection came from there. The houses were not far apart, and although no further cases occurred in Century Road, where infection ought to be most active, it does not preclude the possibility suggested. The time elapsing from April 16 to June 13—8 weeks—is difficult to fill in.

On the 14th five further cases in the immediate vicinity were notified and on the 15th three cases

On the 16th a case was notified from Markhouse Road—2 miles away—but no further case arose from it.

On the same day a case occurred in Russell Road well within the sphere of influence of those originating in Forest Road.

On the 17th two cases were notified, and one on the 20th and 21st, all well within a short distance of the first cases.

On the 22nd one occurred in Russell Road and a contact in Borwick Avenue, followed by another contact on the 24th.

On the 28th and 29th two contacts were notified.

On the 30th I was asked to visit a doubtful case in Billet Lane, and found two others suffering from Small Pox, so that on July 1st five sufferers were removed from the house.

On the 2nd July a case occurred in High Street, and two cases of Chicken Pox presenting unusual difficulties in diagnosis were notified as Small Pox. These latter were not removed to Hospital, but every precaution was taken against the possibility of their causing a spread of the disease, assuming that they might be Small Pox.

On the 4th a further case was notified from Cuthbert Road, the cause unknown.

The subsequent cases could be traced from the foregoing, and on July 21st the last notification was received.

The cases occurring in Forest Road were the undoubted cause of all the subsequent ones, although in every instance direct communication could not be traced.

Many of the cases were preventable if we could have insisted upon immediate vaccination of contacts, and the experience gained was that of all epidemics of the kind, in favour of vaccination in infancy and revaccination in adults exposed to the disease. Two of the men engaged on the Electric Tram lines contracted Small Pox, and it was then rumoured that the influx of navvies into the district was the cause of the epidemic, but I could not trace any such connection.

The 49 cases reported resulted in one death, that of a woman, aged 35 years.

The death of the child, certified as due to Chicken Pox was no doubt Small Pox, and was the cause of the undertaker's illness.

In all the cases of Small Pox the following precautions were taken :—

1. The patient when notified was immediately visited and removed to hospital.

2. The premises and clothing disinfected.

3. Notification to the Education Authority advising exclusion, for 21 days, of contacts ; excepting vaccinated children under 10 years and those over that age who were re-vaccinated.

4. Pawnshops were notified.

5. Notification to M.O.H.'s of other districts of contacts if residing or working out of the district.

6. Notification to vaccination officer and offers of gratuitous vaccination.

7. Removal of house refuse after disinfection and in special carts.

8. Distribution of leaflets in the neighbouring houses and streets advising re-vaccination.

9. Observation of contacts.

The epidemic caused a great deal of extra work, which was done willingly and well by Mr. West and his staff, with the result that the disease was kept well within its original limits and soon got rid of.

I personally visited every case notified and others presenting doubtful symptoms, when asked by those attending.

The extra and unlooked for expenditure was £728 11s. 9d.

SCARLATINA OR SCARLET FEVER.

Five hundred and twenty-seven cases of Scarlet Fever were notified during the year, the largest number since notification became compulsory, save the years 1902 and 1893. Throughout the year the disease was prevalent, and was confined to no particular ward. In July 27 cases occurred, followed by 56 in August, 62 in September, and 93 in October—the maximum number for the year. In December the number notified had fallen to 47.

Thirteen of the cases occurred at the St. Mary's Orphanage.

To deal satisfactorily with such a large number of cases was impossible with our limited isolation accommodation. Numerous applications were made for the Sanatorium and refused, and many complaints resulted.

Deciding what was best for the community generally, did not always commend itself, and was not acceptable, to many—some sending their grievances to the Local Government Board. But no private influence was consulted, and my selection was not influenced or dictated by any consideration other than what I considered was best for all.

On pages 32 and 77 will be found tables giving the numbers notified monthly, with the ages and wards affected.

It will be noticed that the percentage of cases removed to Hospital from the various Wards was as follows :—

			St. James Street.	High Street.	Hoe Street.	Wood Street.	Northern.
1904	...	...	50	36	50	37	30
1903	...	...	59	63	53	67	45

Neglect to remove from the Northern Ward might be interpreted from these figures, but the real explanation is that the Northern Ward was most affected towards the end of the year when the Sanatorium could not accommodate those willing to go.

The incidence of the disease was 4·8 per 1,000, and is above the mean, but well below some previous years.

Although the disease was very prevalent, only fourteen deaths resulted ; eight of these taking place at the Sanatorium.

The case mortality—the proportion of deaths to number attacked—was 2·6 per cent., as compared with 2 in 1903 ; and the mean annual death-rate per 1,000 of the population was ·12.

Seven of the deaths were in children under 5 years of age, and, as I have pointed out in previous reports, the longer we can prevent our children from contracting this disease, the less likely they are to get it, with a more favourable termination.

The Northern and Wood Street Wards had the greatest number of cases in proportion to the population.

Scarlatina, when occurring in a mild form, as has been the case for several years, is most difficult to control. Many parents whose children suffer in this way are the worst offenders in spreading Scarlatina, and take no adequate precautions except the patient is very ill, and they never realize what ought to be done except when “the fever” is in a neighbour’s house. Some time since I visited a child peeling, who had kept to school the whole time of her illness. and the mother could not see why the child should lose its medal by staying away from school. She was not ill, and strange to say, only two cases could in any way be traced to her influence.

That there are times when children are very and little susceptible to Scarlatina, and that mild cases are responsible for much spreading, is undoubted. But judging by the death-rate, now ·12 compared with ·96 in 1870, one wonders if the expense incurred in the isolation of Scarlatina is justified or necessary, considering how little is done for Measles prevention with four times the death-rate.

Of the total 527 notifications, 467 were under 15 years of age ; 141 of these being under 5 years. Seven of the fourteen deaths occurred in children under 5 years, and 5 of the 14 between 5 and 15 years. We thus have a case death-rate of nearly 5 per cent. under 5 years and 1·5 per cent. between 5 and 15. The necessity of protecting the very young is quite obvious from these figures.

DIPHTHERIA AND MEMBRANOUS CROUP.

One hundred and seventy-seven cases of Diphtheria and thirteen of Membranous Croup were notified during the year, as compared with 142 and 8 in 1903.

The sickness rate for this disease with two names was 1·59 ; a rate, although higher than 1903, well below any previous year, excepting 1896.

Twenty-seven deaths resulted from Diphtheria and two from Croup. Of these sixteen took place at the Sanatorium—two patients dying within a few hours of admission.

The deaths represent a mortality rate of ·26 per 1,000 of the population and a case rate of over 15 per 100 attacked ; in other words, two die of every thirteen contracting the disease. If we assume that 57 of the 120 cases sent to the Sanatorium were not Diphtheria, as the bacteriological examination proved negative, and that a like proportion of those remaining at home would prove negative on examination, we come to the conclusion that about 87 cases of Diphtheria—I mean Diphtheria bacteriologically as well as clinically—caused 27 deaths, or one in every three who contract Diphtheria dies.

That Diphtheria is a truly dangerous infectious disease is well recognised, and that every case should go to Hospital, in the interests of the community, is quite obvious. It is regrettable that such is not so, considering that for every three cases of preventable infection, one life is spared. The co-operation of the medical practitioners of your district would soon bring about this change, once patients would realize that it is impossible for the doctor to be always right in his diagnosis. Joined to this, when the extensions at the Hospital are completed, parents will have the assurance that every doubtful case will be treated as non-diphtheritic until sufficient time proves the contrary. For want of room and suitable isolation the work at the Sanatorium has been greatly hampered, and our practice of sending home within a short time of admittance patients who were non-diphtheritic, has caused medical men to be chary and parents sceptical.

All these drawbacks to good work and efficiency in the prevention of Diphtheria spreading, I hope to see removed, with increased and better accommodation.

That less prejudice to hospital removal exists than formerly is shown by the fact that 63 per cent. of sufferers were removed in 1904, as compared with 50 per cent. in 1903, and the good effects from Sanatorium isolation may be gauged from the following table. The improvement from the year 1900 is very marked, and with a more extended use of isolation and removal of first cases, a further decline is easily realizable.

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 XVI.

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

The Local Government Board form on page 77, shows the distribution of the cases of Diphtheria according to wards.

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

TABLE XVII.

Diphtheria prevalence in Wards for the Years 1898 to 1904.

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

It will be noticed that every ward is satisfactory in comparison with previous years except the High Street, which has more than double its rate. The only reason I can assign for the prevalence of Diphtheria in this ward is the free inter-communication of children permissible in the "flat" system of housing prevailing there.

Of the 120 cases admitted to the Sanatorium 43 were under five years of age; and realizing what a large part school attendance plays in the spread of Diphtheria, as shown by Sir Shirley Murphy, a wise precaution would be exercised in excluding every child of this age from school.

ISOLATION ACCOMMODATION.

Diphtheria.—The arrangements of 1902 and 1903 prevailed this year. One pavilion of 14 beds was reserved for Diphtheria and sufficed, owing to the fact that only half the notified cases were removed to the Hospital.

No pressure was exercised to bring patients to the Sanatorium, believing as we do that parents are becoming daily more sensible of the benefits of isolation accommodation, and that in a short time, with the co-operation of the medical men and a little suasion, every case of Diphtheria will go to Hospital.

Had all the cases gone to the Sanatorium, our accommodation would have been quite inadequate.

Scarlet Fever.—As it was in 1903 so this year, the accommodation for Scarlatina patients was quite insufficient, and many complaints were the result.

Why parents are more anxious to have their children removed to Hospital for Scarlatina than Diphtheria has already been explained, but the consideration influencing them is not what should guide sanitary authorities in this respect, and we await the result of more knowledge and experience for a change for the better.

Of the 527 cases notified, 208 were removed to the Sanatorium, 8 to Metropolitan Asylums Board Hospitals, and 5 to the Liverpool Road Hospital. Those sent to the Metropolitan Asylums Board and Liverpool Road Hospitals were not at the expense of your Authority.

In last year's report I expressed a hope that by this time the proposed extensions would be completed. Unfortunately such is not the case, but I am pleased to record that the work has now been started, and the buildings will be completed about September, 1905.

We shall then have not only ample accommodation for present needs, but a hospital second to none in the kingdom.

With a very little experience of the present buildings, it was apparent that a great deal more might be done in the interests of those who were removed from their homes for the benefit of the public. Unlike general hospitals, the primary object of isolation hospitals is to protect the healthy members of the community; but while doing so, your Authority has recognised that a further duty is also imposed—to protect the sick from each other and prevent risk of further infection. The segregation of large numbers of Scarlet Fever and Diphtheria patients is in no proper sense isolation, and in spite of the best nursing, air space and ventilation, I felt the results were not as anticipated.

The extensions designed by Mr. Holmes are on an entirely new plan, and in conformity with the most up-to-date knowledge of infectious diseases and their sequelæ. In consequence of this departure, and owing partly to the Local Government Board and to the need for economy in local administration, much delay has ensued. It is now proposed that in the acute stages of the illness each patient will have a separate room. This may necessitate a little extra expense in nursing, but will result in more economical general administration, as I anticipate that each patient in future will have a shorter stay in hospital than at present, and thus each bed will serve a greater number.

That the public need have no alarm that this seemingly extravagant provision is going to entail a very large expenditure may be seen when I mention that the proposed additional 36 beds and administrative block extension will not exceed £10,000, as compared with £33,400 for an already existing 46 bed accommodation.

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

WALTHAMSTOW SANATORIUM REPORT, 1904.

TABLE XVIII.
ADMISSIONS, DISCHARGES, DEATHS.

	Scarlet Fever.	Diphtheria.	Total.
Remaining on December 31st, 1903	33	2	35
Admitted during 1904	216	120	336
Staff	1	—	1
Total	250	122	372
Discharged	214	95	309
Died	9	16	25
Remaining on December 31st, 1904	35	5	40

Of the cases admitted 8 were from Woodford; 5 from West Ham; 1 was from Chingford.

The maximum number of cases admitted in any month was in September (38), and the minimum was in April (12).

The greatest number of Scarlet Fever cases admitted in September (26), and the minimum in April (11).

Of the Diphtheria cases the maximum was in July (15), and the minimum in April (1).

Average number of patients in the Hospital for the year 1904 was as follows:—

January...	...	...	...	...	...	...	33.2
February	...	...	...	...	...	...	39.1
March	...	...	...	...	...	...	35.5
April	...	...	...	...	...	...	28.9
May	...	...	...	...	...	...	29.8
June	...	...	...	...	...	...	30.3
July	...	...	...	...	...	...	37.4
August	...	...	...	...	...	...	42.5
September	...	...	...	...	...	...	44.2
October	...	...	...	...	...	...	38.4
November	...	...	...	...	...	...	44.3
December	...	...	...	...	...	...	41.9

TABLE XIX.

AGES OF PATIENTS ADMITTED.

		SCARLET FEVER CASES.				Total.
		Under 5 years.	From 5 to 10 years.	From 10 to 15 years.	15 years and upwards.	
January	...	7	3	1	1	12
February	...	3	7	2	2	14
March	...	4	11	5	3	23
April	...	4	4	2	1	11
May	...	4	8	7	4	23
June	...	2	6	6	2	16
July	...	7	9	—	3	19
August	...	7	10	4	1	22
September	...	4	16	5	1	26
October	...	4	8	3	2	17
November	...	9	9	—	2	20
December	...	8	7	3	2	20
Total	...	63	98	38	24	223

TABLE XX.

AGES OF PATIENTS ADMITTED.—DIPHTHERIA.

			Under 5 years.	From 5 to 10 years.	From 10 to 15 years.	15 years and upwards.
January	...	...	5	3	1	1
February	...	...	3	4	0	2
March	...	...	4	0	2	2
April	...	...	0	1	0	0
May	...	...	3	2	0	0
June	...	...	3	4	1	0
July	...	...	5	4	1	5
August	...	...	4	4	0	3
September	...	...	5	3	1	3
October	...	...	2	4	1	4
November	...	...	5	6	2	1
December	...	...	4	4	0	1
			43	39	9	22

DEATHS.

Disease.	Under 5 years.	From 5 to 10 years.	From 10 to 15 years.	15 years and upwards.
Diphtheria ...	11	5		(1 from Acute
Scarlet Fever ...	3	5		Tuberculosis.

Complications of Diphtheria were :—

Paralysis ...	...	...	...	...	...	...	...	2
Nephritis ...	...	...	...	...	...	...	...	2
Bronchitis...	...	...	...	...	...	...	...	3

The diseases complicating Diphtheria were :—

Scarlet Fever	...	...	...	...	...	...	...	3
Syphilis	...	...	...	...	...	...	...	1

The complication of Scarlet Fever :—

Albuminuria	...	...	...	...	...	...	5
Nephritis (Inflammation of the Kidneys)	...	...	...	...	...	...	2
Otorrhœa (Ear Discharge)	...	...	...	...	...	...	41
Adenitis (Inflamed glands)	...	...	...	...	...	...	8
" Suppurative	...	...	...	...	...	...	8
Arthritis	...	...	...	...	...	...	1
Endocarditis	...	..	...	...	...	...	2

Diseases complicating Scarlet Fever :—

Measles ...	...	...	...	...	...	...	...	5
Varicella ...	...	...	...	...	...	...	...	1
Diphtheria ...	...	...	...	...	...	...	...	1

Among the cases sent in, as Diphtheria 57 were found on bacteriological examination to be free from the Klebs-Löffler Bacillus, but seven of them proved to be suffering from Scarlet Fever, 1 from Measles ; 1 from Broncho-Pneumonia ; 1 from Follicular Tonsillitis ; 1 from Carious Teeth. The others were ordinary cases of Sore Throat.

Tracheotomy was performed in one case, the patient dying soon after from Cardiac Failure. Another case in which the operation was performed before admission to the hospital, died about half an hour after its arrival.

TYPHOID FEVER.

Fifty-six cases of this disease were notified during the year, and 34 of these were removed to general hospitals or the Infirmary.

The number of cases reported was the least on record, the year 1892 excepted, but in that year the ratio of cases to the population was greater than this year.

On pages 32 and 77 will be seen the monthly and yearly records of this disease. The greatest number of cases were reported in September and December and the fewest in March and July, only one case occurring in each of these latter months. This is mainly in accordance with the seasonal incidence of Typhoid throughout the country.

The absence of rain in the summer and the consequent absence of organic matter in the drinking water contrasting strongly with 1903, no doubt exercised a favourable influence.

The comparative absence of the disease did not cause any slackening of effort to deal with every case and prevent its spreading. Special instructions were issued, and the ambulance was at the service of those who could be provided with beds in hospital.

That a district with a population of over 100,000 inhabitants is without proper hospital accommodation for Typhoid is a matter of reproach, and ought at once to be seriously considered. Depending on the generosity of general hospitals, may one day result in serious consequences, and shirking responsibility in this matter leaves a large portion of the duty of a Sanitary Authority undone.

The reduction to a minimum of cases of Typhoid, Diphtheria, Phthisis and Diarrhoea is the aim of all sanitary work where prevention is the remedy, and without hospital provision for Typhoid the results desired cannot be obtained.

The deaths from Typhoid were ten as compared with nineteen in 1903, and the case rate was nearly 18 per cent. of those attacked, proving the serious nature of a disease claiming one death in every five persons contracting it.

Two of the deaths were in persons under 15 years, three between 15 and 25 years, and five between 25 and 65 years.

The number of cases according to Wards was :—

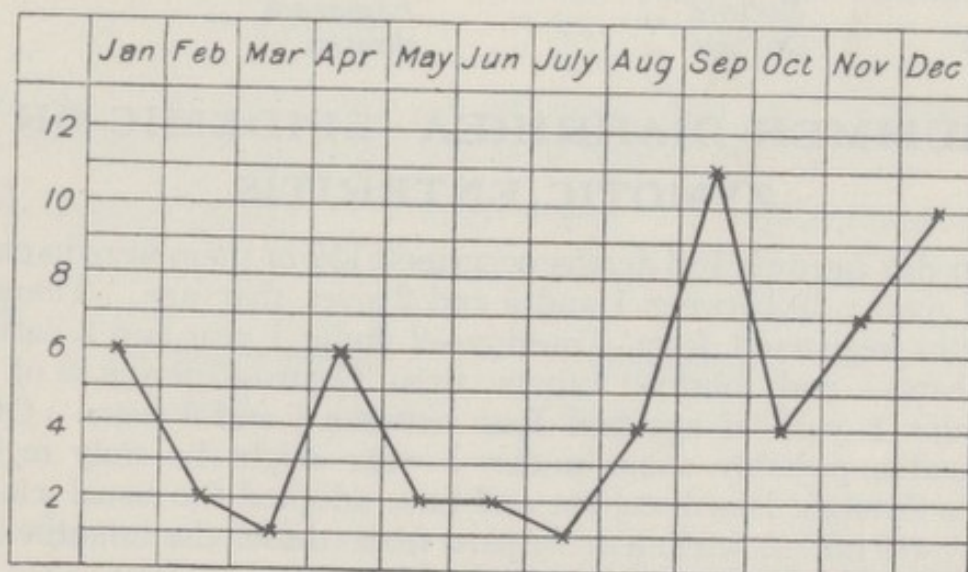
	St. James Street.	High Street.	Hoe Street.	Wood Street.	Northern.
1904.	16	8	13	6	13
1903.	28	21	14	8	17

The comparative freedom of the Wood Street Ward is noticeable in both years, and I have no explanation to offer.

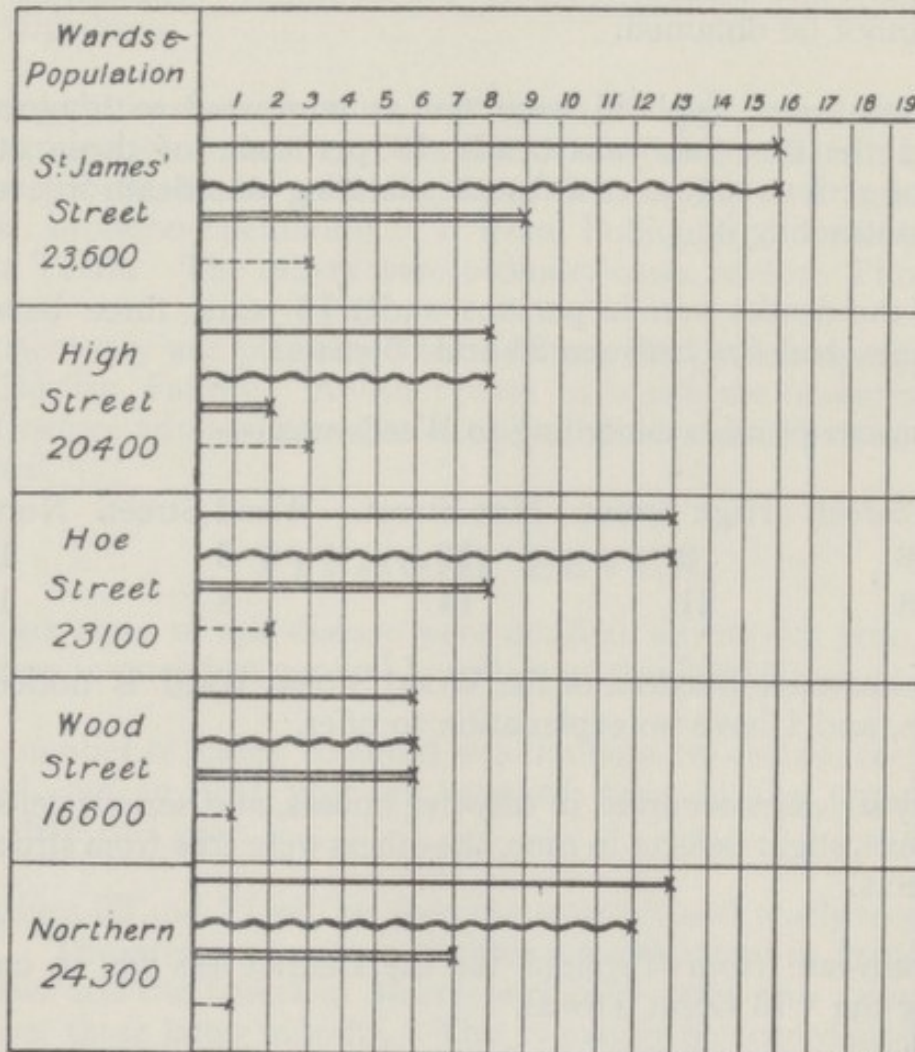
The fifty-six cases occurred in fifty-five houses, and serious defects were found in five, slight defects in nine, the others were free from structural or other defects.

The death-rate from Typhoid for the District was $\cdot 08$, as compared with $\cdot 1$ for the "76 Great Towns."

The following diagrams show at a glance the number of cases for each month, the number of houses infected, the removals and deaths.



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



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

SUMMER DIARRHŒA—EPIDEMIC OR ZYMOTIC ENTERITIS.

Under this heading 183 deaths occurred; 152 of them were in children under 1 year; 29 between 1 and 5 and 2 over that age. There were five deaths registered from Enteritis—2 under 1 year and 2 between 1 and 5 years—and fourteen others from Gastro-Enteritis, 9 of which were under 1 year of age and four between 1 and 5 years. Of these latter deaths possibly some under 1 year might be truly registered as due to Zymotic Diarrhœa, but as I have adopted the usual classification they are not so included. Apart from these, the infantile deaths due to Diarrhœa are greatly in excess of last year.

The special efforts of former years were continued in this, and leaflets on "Infant Feeding" and the prevention of Summer Diarrhœa were freely distributed. I have attributed, on former occasions, good results from these efforts and how far they are successful, is difficult to gauge. On many occasions I have had personal testimony from mothers of the usefulness of these leaflets, and doubtless with the advent of our Lady Health Visitor, better results await us from a more judicious distribution.

Enquiries were made in all the cases of death, and in this way 153 were investigated as to the social condition of the parents, whether they occupied a house, half house or were lodgers; whether the sites of the houses were concreted and yards paved; into the water supply, whether direct from the main or indirectly through a cistern; whether the mothers were employed other than in domestic duties; the length of time of the babies' illness, and as to the kind of food supplied them. At the same time information was obtained as to the average number of persons per house, the cleanliness of rooms and the flushing arrangements of water closets.

The 153 returns so obtained showed that the deaths occurred in 87 houses, 44 half-houses and 11 flats. Thirty of the parents were lodgers and in 35 instances the rooms were dirty. The distribution was as follows :—

	Houses.	Half-houses.	Flats.	Dirty rooms.
St. James Street ...	18	12	1	10
High Street.....	7	7	6	1
Hoe Street	10	3	3	0
Wood Street	11	11	1 old cottage	11
Northern.....	41	11	11	13
	—	—	—	—
Totals	87	44	22	35

In no case was the father out of work, and the mothers were engaged in other than domestic duties as follows :—

St. James's Street.		High Street.		Hoe Street.	
At Home.	Away.	At Home.	Away.	At Home.	Away.
3	1	0	1	0	0
Wood Street.		Northern.			
At Home.	Away.	At Home.	Away.		
3	4	6	1		

Over 90 per cent. of the yards were paved, and over 50 per cent. of the sites concreted, and no serious sanitary defects were found. The

returns of the concreting of sites is in no way accurate, as it was impossible to get at the actual fact without further measures.

Of the duration of illness, 53 of the children were ill for less than a week and 42 under 14 days.

The drinking water was directly from the main in 68 houses, and from the cistern in 85, and the flushing arrangements were defective in 22 instances. There was no overcrowding found.

In my 1898 Annual Report, I went fully into the diarrhoeal mortality of infants, and as far as I could, explained the chief causes in its production in the district, in order that an improvement might be effected.

The conclusions then come to were similar to those as expressed by the most competent authorities, and that whatever the cause, Infantile Diarrhoea is always associated with excessive heat and want of breast-milk.

I then came to the conclusion (excluding excessive seasonal heat) that soil and locality had very little influence in this district, that there was no overcrowding, and that the social position of the parents and their environment, conjoined to feeding, were the main causes of Diarrhoea.

In that year 87 per cent. of the deaths occurred in hand-fed children, and the enquiries of 1904 show similar results, only $12\frac{1}{2}$ per cent. of the deaths investigated being in breast-fed children, in the remaining other foods were used.

The following table shows at a glance how we arrived at these figures :—

DEATHS OF CHILDREN AND HOW FED.				
	Breast.	Partial Breast.	Cows' Milk.	Condsd. Milk.
St. James Street	0	4	15	12
High Street ...	6	3	8	3
Hoe Street ...	2	1	8	5
Wood Street ...	3	2	10	8
Northern ...	8	6	34	15
	—	—	—	—
Totals ...	19	16	75	43
	—	—	—	—
Death-rate per cent.	$12\frac{1}{2}$	10·4	49·	28

Breast-fed children died from Epidemic Diarrhoea at the rate of $12\frac{1}{2}$ per cent. Children otherwise fed at the rate of $87\frac{1}{2}$ per cent.

From the nature of milk and milk foods as at present administered this cannot be wondered at, when conditions are favourable to the growth of micro-organisms and their resulting poisons.

Milk as it comes from the cow contains a large number of these bodies, and milk is the most favourable medium for their development in the presence of heat, especially when time elapses between milking and consumption. Joined to this, the many hands through which it passes offer every facility for pollution.

Breast milk is the natural food of all babies, but for many reasons all cannot have it, and must have some substitute. The nearer this substitute comes to the natural food the better for the baby, and the more similar the conditions surrounding its preparation the less will be the Diarrhoea death rate. That the breast milk substitutes are not so much at fault as the surrounding conditions of their preparation, is evident from the fact that very little Diarrhoea occurs except when great heat is allowed to develop bacterial growth and decomposition of the baby's food, and all steps taken to counteract these bad influences is work in the right direction to check Infantile Death Mortality.

Dr. Thresh went to a great deal of trouble a few years since to effect some improvement in this direction in the Metropolitan area of Essex, and hopes were held out that some of our large milk purveyors would put down some plant for the preparation of milk suitable for infant feeding in this district.

All the efforts then put forth came to naught as far as Walthamstow was concerned, and we are to day in the same position as in 1898. This is not creditable to us, considering how much has been done in other localities and in mere villages on the Continent, in providing a proper milk diet for young children. As I point out elsewhere, to have a healthy adult population you must start with the baby, and every condition that makes for his well-being tends to improve the race and the physical well-being of the community.

The Municipal Milk Depôts of Battersea and elsewhere, conceived in the proper spirit and on scientific lines, have not been instrumental in the amount of good otherwise attainable, owing to the costliness of production and distribution of their milk. You are much more favourably circumstanced in this respect owing to the recent development of machinery for the making of dry milk, and the large area of land in your possession for the purposes of cowkeeping.

Some three years ago, backed by Dr. Thresh—an eminent scientific and Public Health expert—I reported favourably on the feasibility of

cowkeeping at the Farm, and your Manager showed how that could be effected at no expense to the ratepayer, but on the contrary a good profit could be made even when selling the milk at wholesale prices.

To-day the circumstances are even more favourable and the potentialities for doing good are much greater. By thus producing good milk cheaply and treating it by the Just-Hatmaker process and selling it at cost price to all mothers feeding babies otherwise than by the breast, I feel sure would reduce the infant death-rate in a way that no other agency can.

The dried milk so produced could be reconstituted into ordinary milk by the addition of warm water and used immediately, before bacterial decomposition or other pollution had time to set in.

The results of feeding by this dry milk have been so satisfactory in New York that of 850 children so fed not one child died, at a time when the death-rate of similar children fed on ordinary milk was 40 in 100, and even with Pasteurised and sterilized milk the death-rate was 20 in 100.

In establishing cows at the Farm and the subsequent treating of their milk for the purpose indicated, a public health measure will be adopted of great benefit to the general community and no expense to the ratepayer, and in doing so you need have no fear that milk sellers would complain of undue competition and the taking away of part of their business. Assuming such complaints to arise they need no consideration, for in a short time milk sellers would recognise, as doctors now do, that the community does not exist for their benefit, and in this respect "*Salus populi suprema lex*" must be your guiding principle.

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	787	756	625	467	988
Birth-Rate	33·3	37	27	28·1	40·5
Number of Deaths	47	29	18	23	66
Death-Rate	2·0	1·4	·78	1·38	2·7

The death-rate from Diarrhoea in the whole district was 1·64 per 1,000.

The similar rate for England and Wales was ·86 and for the "76 Great Towns" 1·2.

MEASLES AND WHOOPING COUGH.

The deaths from these diseases during the year were very numerous, 55 being attributed to Measles and 32 to Whooping Cough.

Both diseases are very infectious and cause yearly many deaths, besides being responsible for many serious after effects.

Their prevalence and apparent inevitableness make parents careless, and it is not uncommon to find, when a child is stricken down in a home, that the other children of the family are allowed to constantly associate with the sufferer, so that they all may have it and get it over. No advice to act on the contrary is listened to, with the result that there are bi-annual epidemics, and consequent great loss of life. Joined to this the prevailing habit of sending children to school under five years of age, and the desire of parents that their children should not miss a day and thus earn a medal for regular attendance, are responsible for much of this serious child wreckage. Invariably Measles starts with the youngest member of the family attending the Infants' Schools; and before the disease proclaims itself and the child is too ill to attend, the infection is spread.

Of the fifty-five deaths from Measles, 45 were under 5 years of age; and of the 32 deaths from Whooping Cough 29 were under 5 years.

I think it would be safe to say that many of these deaths would not occur if all children under 5 years were refused admittance to schools, and children would be better physically and mentally in the long run.

For children up to 5 years of age, the forced and unnatural positions that must ensue at school, are neither useful nor beneficial; and at that tender age, to be forced to sit still or give their attention for even half-an-hour, must be a great punishment when we reflect how difficult it is to get children to sit still at their own homes. The healthy and natural child's habit is to be constantly on the move, and this activity serves to promote health and growth. A visit to a baby's class-room, between three and four o'clock in the afternoon, will suffice to convince anyone that mentally very young children cannot benefit by the early working of their little brains—most of the children are listless and tired-looking and inclined to go to sleep.

At a recent meeting of the Society of Medical Officers of Health, in discussing the report of the Inter-Departmental Committee on Physical Degeneration the opinion was generally expressed that 6 years was the minimum age when children should attend school. Were this age limit legalised, no doubt Measles and Whooping Cough, even if inevitable, would lead to much less loss of life and fewer bad after effects than at present.

I am pleased to think a great change is coming over the public opinion of this country. Formerly all efforts were spent in improving the general surroundings of the individual, and drains, with their stinks and sequelæ, engaged the attention of all; to-day the school teacher and his work are recognised as equally potent for good as that of the health official, and the general opinion of the Medical Officers of Health that children should not go to school before 6 or 7 years of age is the outcome of this.

In the last week of February, Measles showed itself in the Coppermill Road Infants' School and 16 children were said to be away from that cause.

On March 4th, 67 were away, and on the 8th I received a letter from the Superintendent Officer, Mr. Jones, that only 393 children were present and that 142 others were away suffering from or due to Measles in the home. The average attendance of the school was 519.

I considered the matter carefully, but did not see my way to advise closure; however, the Education Committee did so on the 10th March, and on Mr. Liddiard's application I advised re-opening in seventeen days.

In May, Measles were prevalent all over the district and 3 per cent. of the children were absent from this cause. After attaining its maximum in June, a decline set in in July, followed by the holidays in August, and on reassembling in September only 37 cases were said to be away from this cause.

In March the Schools of the Central District were mainly affected.

In April	„	„	„	Central, E.C., E. and N.W.
In May	„	„	„	S.W., E.C., C., E. and W.C.
In June	„	„	„	W.C., E.C., S.W., S., C., E. and N.W.
In July	„	„	„	S., N., N.W., C., E.C., E. and W.C.

Throughout the year the Infants' Schools were mainly affected.

Whooping Cough, like Measles, was present throughout the year, but did not rise to any particular maximum save March and July.

In March the St. Saviour's and Markhouse Road Infants' Schools were mainly affected. Out of a total absence of 136, 109 were from these Schools. In July these Schools were practically free, and Queen's Road and Gamuel Road were mainly affected.

In March the Schools of the S.W. District were mainly affected.

In April	„	„	S.W. and N.W.	„
In May	„	„	S.W., N.W. and W.C.	„
In June	„	„	Central	„
In July	„	„	S., N.W., E.	„
In September	„	„	E., N.W.	„
In October	„	„	E., N.W.	„
In November	„	„	S., E. and N.W.	„
In December	„	„	E., N.W. and S.W.	„

Leaflets, dealing with both these diseases, their origin, spreading, symptoms and prevention, were distributed in the districts of greatest prevalence.

Of course all children were forbidden to attend School from an infected house, and no child was allowed to return for 3 weeks from the onset of the disease, and then only if cough and desquamation had ceased.

Children exposed to infection within the previous 16 days were also excluded.

The death-rate from Measles was $\cdot 49$ compared with $\cdot 47$, and the death-rate from Whooping Cough was $\cdot 28$, as compared with $\cdot 4$ for the "76 Great Towns."

In last year's report I contrasted the mortality from Measles and Whooping Cough with that from Scarlet Fever and Diphtheria, much to the disadvantage of the former. I also pointed out that £5,000 a year was spent on Scarlet Fever and Diphtheria prevention, whereas diseases with four times the mortality were hardly seriously dealt with.

To remedy this existing anomaly I recommended the appointment of a Lady Health Visitor, and next month such an official will be appointed.

The work of the Education and Sanitary Committees being common at so many points and their interests identical, I trust that, in the future, women with Sanitary or other diplomas will be appointed as attendance officers. In such a position women would have many opportunities of educating and advising the poor in the management of their houses and children, and thus truly supplementing the existing educational agencies.

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

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

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.

FOR THE YEAR ENDING DECEMBER, 1904.

Month.					Measles.	Whooping Cough.	Weeks.
January	...	...	...	...	71	111	3
February	...	...	...	...	99	179	4
March	...	...	...	...	1,436	548	5
April	...	...	...	...	768	188	3
May	...	...	...	...	1,366	207	3
June	...	...	...	...	2,949	218	4
July	...	...	...	...	2,219	418	5
August	...	...	...	...	This month is the summer holidays.		
September	...	...	...	...	188	282	5
October	...	...	...	...	51	264	4
November	...	...	...	...	42	292	4
December	...	...	...	...	35	245	3
Total	...	...	...	...	9,224	2,952	43

INFLUENZA.

At no time of the year was this disease prevalent. Seven deaths were certified as due to it, 4 of these being in persons over 65 years and 1 under 1 year.

The disease was usually accompanied with some other, as Bronchitis or Pneumonia.

To no other disease is attributed so many symptoms by the public, and many of the cases of Small Pox in their initial symptoms were attributed to Influenza.

Personally, I have seen very few cases of Influenza since the epidemic years, but that it is ever present may be judged by the death returns.

The only protective measures in your power are embraced in those which tend to improve the general health conditions of the people. The disease being highly infective, the sick should be isolated and protected from cold.

PUERPERAL FEVER—LYING-IN FEVER.

Ten notifications were received during the year of women suffering from this disease, and 7 deaths were registered from "Accidents and Diseases of Parturition."

Unlike other years the deaths are fewer than the notifications and show that medical practitioners are more willing than heretofore to notify as Puerperal Fever "all septic inflammation in the pelvis occurring as the direct result of Child-birth."

Enquiries are made in every case and the nurse in attendance warned as to the precautions to be taken by her for disinfection of self and clothing and for her future conduct.

Ten cases of Puerperal Fever in 3,649 confinements, or 1 in 365, is very satisfactory, taking into consideration the character of the population, and if Puerperal Fever be looked on as the expression of bad air, dirt and overcrowding, an attack rate of less than .3 per 1,000 speaks well for the district, and the death-rate of .06 per 1,000 of the population is lower than that of the country generally.

All the cases, except two, were attended throughout the illness by a medical practitioner. It remains to be seen if the operation of the "Midwife's Act" will better the existing state of things.

Scarlet Fever has been usually looked on as most dangerous in lying-in women, and to prevent the possibility of such, 2 beds are usually reserved at the Sanatorium. My own experience is that the infection of Scarlet Fever is no more potent or more dangerous at this time than at others, and apart from the ordinary sepsis of broken surfaces, the great danger to lying-in women is the infection of Erysipelas.

PHTHISIS OR CONSUMPTION.

Ninety-six deaths from this disease were registered during the year as compared with 98 in 1903, 87 in 1902, and 86 in 1901.

Including Tuberculosis of Meninges, 22, and "Other Forms of Tuberculosis," 27, the deaths due to this preventable disease were 144.

These deaths represent a rate of 1·3 nearly or one-ninth of the total deaths.

The ages at which deaths from Consumption took place were as follows :

1-5 years.	5-15	15-25	25-65	65 and upwards.
3	9	18	63	3

Judged by the length of illness associated with Consumption and its fatality in the most useful time of man's life, the loss to the community must be very great, and in last year's report I suggested that some further action would be taken by your Authority.

At present the only measure adopted is the disinfection of rooms where a consumptive has died, no doubt very good in itself, but too much like locking the stable door when the steed is stolen. Some further action is needful, and every local practitioner should be notified, that the expenses of a bacteriological diagnosis by Dr. Thresh would be paid, to be followed by voluntary notification and the payment of the payment of the usual fee as under the Act of 1889.

Some supervision would then be exercised over the sufferers in their most infective stage and advice as to precaution tendered.

That this duty would be cautiously undertaken, and with the co-operation of the medical attendants, might be left to your officials.

The expenses in this connection would be inconsiderable, and some good results would be sure to follow.

Great interest in Consumption and its prevention has been taken by the public for some years past, and the possibility of its cure by the open-air sanatorium treatment is not yet proven, but one thing is certain that during the last months of a consumptive's life millions of disease producing bacilli are expectorated, and one wonders how it is that no institutions are provided for these incurables, where they could be made happier and less harmful than in their own homes.

Bearing in mind the infective nature of the sputum in Phthisis your Authority will no doubt take precaution against spitting, and make it a penal offence to do so in the Electric Cars to be presently run under your control.

It is to be hoped that this precaution will be taken at the very outset.

Diseases of the Respiratory Organs, other than Phthisis.—These caused 210 deaths as compared with 197 in 1903, and are about the average number.

OTHER DISEASES.

Erysipelas.—Only four deaths were attributed to this disease out of a total of 143 notifications received. The same precautions as with other infectious diseases is taken with this. Apart from its bad influence if brought in contact with lying-in women, it is in no sense a dangerous infectious disease. That bad hygienic surroundings favour its occurrence, is undoubted, but such conditions are rarely met with in the cases notified.

Cancer.—Sixty-two deaths were attributed to this disease, and their distribution according to locality will be found on page 26A. An increase of 18 deaths over the previous year indicates not so much a greater incidence among the population as a more correct appreciation of the condition with advancing knowledge.

Cirrhosis of the Liver and Alcoholism.—Twelve deaths were attributed to these influences. Unwillingness to certify deaths as due to alcoholism is the only explanation of so few deaths from these causes.

Were the truth told it is safe to say that Alcoholism is the primary cause of many deaths otherwise certified.

Whether poverty and dirt be the result or the cause of Alcoholism one thing is certain, excessive beer and spirit drinking is the genesis of decay.

WATER SUPPLY.

Owing to the prevalence of Typhoid in 1903, systematic monthly analyses were made during the year 1904, of the water supplied to your district by the East London Water Company, now the Metropolitan Water Board.

The analyses showed an improvement in the quality over the previous year, and the water supply was good and constant.

When the revision of the Building Bye-Laws were under consideration in July, it would have been well had Mr. West or myself been consulted and some provision made to insist upon cisterns being placed in a position accessible to the householder and Sanitary Inspector. At present these cisterns are placed in the most inaccessible positions in the houses, uncovered and liable to all kinds of pollution. It is no uncommon thing, when illness in the house draws particular attention to them, to find dead leaves, birds, insects, besides a large quantity of liquid filth at the bottom, and in the investigation into the causes of Summer Diarrhœa, only 50 per cent. of the houses took their drinking water direct from the main, the rest from the cistern. If a cistern be necessary, the builder might be compelled to place it in a well-lighted and well-ventilated position, unliable to contamination, and where periodical cleaning might be possible to the householder.

The cisterns should only be used for supplying water to kitchen boilers, for washing clothes, and for the flushing of water-closets, and perhaps to prevent the household supply being entirely cut off when mains are under repair.

The drinking water should at all times be free from every possible contamination.

The Public Baths increase in popularity and have been much used. The teaching of swimming to school children of both sexes is a pleasant and healthful feature in their education.

The provision of Open Air Swimming Baths must soon come.

COWSHEDS, MILKSHOPS, AND DAIRIES.

The Model Bye-Laws of the Local Government Board governing these, are in operation and enforced.

There are, at present, 15 licensed Cowsheds and 102 Milk-sellers in this district, as compared with 14 and 98 in 1903.

The premises are regularly visited, and a few minor defects were found and remedied. The Cows and Sheds are generally kept in a good condition.

The majority of the Milk consumed here comes from without the district, and no Infectious Disease, or spreading, was traced to its influence, but in August an inquest was held concerning the death of an infant aged five months, and the jury returned a verdict of "death due to Sickness and Diarrhoea accelerated by the presence of Formalin in the milk."

The doctor in attendance prior to death suspected the milk as causing the Diarrhoea and Sickness, and had some analysed by a local chemist. From the latter's evidence it appeared no quantitative analysis was made, and he could not say how much Formalin had been added.

The Milk-seller, in his evidence, said that the milk in question was not produced in this district, and as a large quantity sold by him came from different farms in Essex, he was unable to trace the source of it, but at no time, or on any occasion, were preservatives used by him.

Mr. West, in his evidence, proved that in only one sample was a trace of Formalin detected out of the numbers sent to the Public Analyst during the year, and that the dairy where the suspected milk was procured was "kept in most excellent order."

In 1901, a Departmental Committee of the Local Government Board reported that the use of Formaldehyde, or preparations thereof, in articles of food and drink should be prohibited, and here we have milk procured from one of the most respected and upright vendors, unconsciously, I firmly believe, containing this substance as alleged by the doctor that caused the illness and subsequent death of an infant.

What better argument for my recommendations on page 54?

OFFENSIVE TRADES.

Two of these are established in the Northern Ward, but no serious complaints have been made of their giving rise to any nuisance.

That they require careful watching, owing to the number of pigs kept, was made clear from Mr. West's Report for 1903 *re* Swine Fever.

Apart from this keeping of pigs, the fat boiling causes very little nuisance.

Just recently, an application to establish a much more offensive business, necessitating gut scraping with its attendant malodours, was refused upon my advice.

HOUSE REFUSE REMOVAL AND SCAVENGING.

No complaints have been received under these headings, and the work in my judgment has been well done. As in recent years, bi-weekly, and where shops predominate, tri-weekly removals of dust are systematically carried out.

The new Bye-Laws, providing for a galvanised, or other suitable metal receptacle for house refuse, have not been observed to the extent anticipated, and sufficient time has elapsed for householders to have made a voluntary change from the old boxes and baskets formerly in use.

Insistance is now advised on the observance of the Bye-Laws in this respect.

The Destructor is now nearing completion, and will shortly be in operation.

The vast improvement in the lighting of the district, noticed in recent years, has been maintained.

The Scavenging, though well done, hardly ever shows to advantage, owing to the amount of waste paper and other refuse of a similar nature that gets into the streets and forecourts.

The Bye-Laws of the Essex County Council dealing with this nuisance have been, as far as I can judge, a dead letter.

It would be well if the mud, etc., swept off the roads were collected forthwith instead of being allowed to remain at times some days before removal.

In May, the Sanitary Committee recommended that notice be served on all stallholders, *requesting* them to provide their stalls with baskets for the purpose of receiving refuse, in consequence of information given me that poor children were in the habit of picking up and eating damaged fruit and other perishable foodstuffs thrown on the ground by the Vendors.

SEWAGE DISPOSAL.

The difficulty of dealing with the ever-increasing Sewage of the district has been accentuated during the year by the action taken by the Lea Conservancy Board against the Council for polluting the Dagenham Brook.

The Clerk to the West Ham Corporation, also wrote in May, complaining of alleged pollution of the Channelsea River from the same cause.

During the year, a large amount of underdraining of the Farm has taken place, and every care exercised in the precipitation and subsequent treatment of the sewage before its discharge into the Brook ; but in spite of this, in the proceedings at Stratford. Mr. Young, on behalf of the Lea Conservancy, gave evidence that the effluent was dilute sewage.

This is not in itself such a serious matter. Chemical and bacteriological experts say the same of the London water supply.

All are agreed that a good effluent, equal to the Standard of the River Pollution Commissioners, is very desirable and ought to be aimed at.

Remembering the large expenditure involved and the uncertain results of the many different schemes, recommended by expert chemists for sewage purification, and placed as we are, I think that the powers that be should not expect more than that our effluent would not be a nuisance dangerous to the Public Health.

Your willingness to adopt any scheme that would deal adequately with this serious problem, and your acceptance of the scheme of the Lea Conservancy Board, makes that body's action unintelligible.

In November the Clerk was instructed to report as to the advisability of applying to the Local Government Board for a Provisional Order for the formation of a united district among the neighbouring authorities for the disposal of sewage, and in December the West Ham Corporation and Hackney Borough Council were invited to join the Council in their interview with the Board upon this difficult question.

No scheme of sewage disposal, short of taking the sewage out of the district, will suffice for more than a few years except at a ruinous cost to a poor district like yours, and entire removal can only be a matter of time. Meantime every effort should be made with the means at your disposal, and no new scheme should be embarked upon without a probable certainty that the results will justify the expenditure.

No complaints have been received during the year of smells in connection with the sewage disposal, and the sewers proved adequate for the needs of the district. A number of new surface water drains have been constructed, and the ventilating shafts in the district now number 51.

HOUSING OF THE WORKING CLASSES.

The Committee formed to take action under The Housing of the Working Classes Act, Part 3, has met on several occasions during the year with no tangible results.

The district is mainly inhabited by the working classes, and the housing accommodation already provided by private enterprise is ample and good.

All the buildings have to comply with the bye-laws (Model Bye-laws of the Local Government Board), and if these are strictly enforced, as they are supposed to be, there is little room for improvement.

It is possible that houses, with fewer and larger rooms than the ordinary six-roomed cottage, might be erected in the outskirts and serve the needs of many.

The Electric Trams would then make it possible, for those who now crowd round the stations, to live in a purer and better atmosphere.

My personal experience, however, has been that in Walthamstow the housing accommodation is not at fault; where fault is greatest is with the housed.

Under Section 32, the cottages in Church Lane have been visited and carefully inspected by Mr. West and myself. No action under the Act resulted further than the rectifying of the structural and other defects found.

FACTORY AND WORKSHOPS ACT, 1901.

The Medical Officer of Health, in his Annual Report, must, under Section 132 of the above Act, "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 MEDICAL OFFICER OF HEALTH FOR 1904, 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.)	147	11	—
Workplaces	—	—	—
Homeworkers' Premises '	753	16	—
Total	900	27	—

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	29	29	—	—
Want of ventilation	—	—	—	—
Overcrowding	3	3	—	—
Want of drainage of floors... ..	4	4	—	—
Other nuisances	30	30	—	—
†Sanitary accommodations {	insufficient... ..	—	—	—
	unsuitable or defective	—	—	—
	not separate for sexes	—	—	—
<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)	—	—	—	—
Failure as regard lists of out-workers (S. 107)	—	—	—	—
Giving out work to be done in premises which are {	unwholesome (S. 138)	—	—	—
	infected (S. 110)	—	—	—
Allowing wearing apparel to be made in premises infected by scarlet fever or smallpox (S. 109)	—	—	—	—
Other offences	—	—	—	—
Total	66	66	—	—

* 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.

III.—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 Act (S. 5).	1
Notified by H.M. Inspector ...	1
Reports (of action taken (sent to H.M. Inspectors	1
Other	—
Underground Bakehouses (S. 101) :—	
In use during 1903	7
Certificates granted { in 1903... ..	—
{ in 1904... ..	6
In use at the end of 1904	6
Homework :—	
<i>Lists of Outworkers*</i> (S. 107) :—	
Lists received	126
Addresses of outworkers { forwarded to other Authorities ...	29
{ received from other Authorities ...	402
<i>Homework in unwholesome or infected premises :—</i>	
Notices prohibiting homework in unwholesome premises (S. 108)	—
Cases of infectious disease notified in homeworkers' premises	4
Orders prohibiting homework in infected premises (S. 110)	4
Workshops on the Register (S. 131) at the end of 1904 :—	
Bakehouses	51
Laundries	49
Total number of workshops on Register ...	147

* The Lists should be received twice in the year. The year's figures required in the Table are then obtained by adding together the two half-yearly totals.

The clerical and other work necessary for carrying out the duties under this Act, yearly increase, and the irregular way in which lists are sent in, and the numerous wrong addresses given, are sources of great annoyance, so much so, that notices under Section 107 have been sent to the various employers, pointing out the penalties and the determination of your Authority to enforce the provisions of the section.

A "Register of Workshops" and "Workshop Record Book" have been kept fairly well up to date, and a further Record of Outworkers, as per lists received, has been kept on the Card Index System. The latter is found more convenient, owing to the shifting character of the workers.

During the year systematic visiting took place, and the defects found as set out in tabular form, were remedied.

Factories.—Inspection of these was made, and the conveniences were sufficient in all instances to comply with Section 22 (Public Health Amendment Act).

In 1902, I pointed out the duty imposed on your Council for insisting on proper provision being made for escape of the workers in case of fire.

During this year (July, 1904), the Council approved "proposed regulations submitted by the Surveyor as to providing means of escape from factories in the case of fire," and recommended that the same be printed and forwarded to owners of factories.

The Plans and Highways Committee, in January, 1905, had applications from four factories for certificates under Section 14.

Workshops and Workplaces.—The number of these premises on the Register was 49 laundries, 51 bakehouses, 753 outworkers' premises (20 of these being workshops), and 27 other workshops.

Laundries.—These were generally kept well. In four instances the flooring was found defective and remedied.

A few minor nuisances were found and remedied, as set forth on page 68.

Bakehouses.—These are generally in a very good condition and well kept.

The requirements laid down in my 1902 Report, under Section 101, and carried out, have made the six underground premises perfectly satisfactory, as regards lighting, ventilation and in all other respects.

All the bakehouses have been regularly visited during the year, and the statutory cleansing carried out, besides special cleansing in five cases ; other defects found were of a minor character.

Outworkers' Premises.—These consist mainly of one or two rooms of the dwelling-house, used as a workplace, and were generally found very satisfactory, and only a very small percentage of defects were found.

Air Space.—In three instances overcrowding was found and abated.

Cleanliness and Ventilation.—In six instances the entire premises were cleansed, and in eleven partial cleansing was found necessary, and effected.

Suitable and Sufficient Sanitary Conveniences existed in all the premises, and the w.c. flush was improved in three houses.

Home Work.—Under this heading, power is given to your Authority for controlling the conditions under which certain classes of work are done in the workers' homes.

In Sections 107 to 115 powers are given for the prevention of home work being done in (a) unhealthy dwellings ; (b) in premises where there is dangerous infectious disease.

Under **Unwholesome Dwellings**, that is, from insanitary conditions, want of ventilation, or overcrowding, action was taken, as above recorded.

Infectious Dwellings.—Under this heading, an important and useful work is prescribed by the Act, but to carry it out, an ever-changing register has to be kept.

In houses—four—where dangerous infectious disease showed itself, the employers of the outworkers were notified immediately, and no further work was taken in until the premises were free from infection. The clothing before its return was disinfected, and the Medical Officer of Health for the district whence it came was also made aware of the circumstances.

Every medical practitioner attending a case of anthrax, lead poisoning, phosphorus, arsenical and mercurial poisoning, is bound to notify the same to the Chief Inspector of Factories at the Home Office.

ELEMENTARY SCHOOLS AND PUBLIC HEALTH.

The arrangements made in 1903, enabling the Head Teachers to make use of my services in cases of non-notified contagious diseases among children attending school, were little used.

Cases of Scabies, Ringworm, Ophthalmia and Impetigo are fairly common among children; and to enable the teachers to recognise these and other complaints, every school was provided with a card detailing their symptoms, &c., a measure which I have reason to think has proved useful.

The incidence and larger death-rate from Measles and Whooping Cough in children under five years of age have already been dealt with.

Opinions vary as to the wisdom or foolishness of prizes and medals for good attendance—a question for the Education Committee; but I have no doubt such bribes are productive of no good from a public health standpoint.

MORTUARY.

During the year 154 bodies were received, 112 inquests held, and 25 *post mortem* examinations made.

Erected in 1901, the Mortuary is quite up to date, with provision for infectious and non-infectious bodies.

The Committee Room, placed quite near, has been used by the Coroner for all inquests, and serves admirably his purpose.

With a minimum fee of 5s. paid by the County Council for each inquest or adjourned inquest, the capital expenditure of £1,100 may be said to be justified.

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

1. Further Isolation Hospital accommodation (in course of erection).
2. More adequate provision for the disposal of sewage.
3. An improvement in the surface-water and the enlargement of other sewers.

4. More public conveniences for both sexes.
5. The earlier making up of private streets, and the paving of all passages at the rear of premises.
6. Energetic measures against the nuisances of common occurrence near public-houses.
7. The provision of a milk depôt for the supply of suitable milk for infants.
8. More adequate supervision of schools and school children.
9. The provision of small open spaces wherever possible, for children to play in out of school hours.

A refuse destructor and van for disinfected bedding and clothing have been provided during the year, and the extensions to the Sanatorium are in course of construction.

APPENDIX.

LOCAL GOVERNMENT BOARD FORMS :—

TABLE I.

TABLE II.

TABLE III.

TABLE IV.

CHART SHOWING BIRTH, DEATH AND ZYMOTIC DEATH RATES.

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 INSTI- TUTIONS 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
1894.	57,000	1813	32·00	240	129·6	670	11·75			47	717	12·6
1895.	61,000	2021	33·20	311	153·3	937	15·36			28	965	15·8
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
Averages for years 1894-1903.	80,861	2652	32·7	375	141·69	979·9	12·29	29	9	75·7	1053	13·12
1904.	111,282	3649	32·79	496	135·92	1175	10·55	38	13	168	1330	11·95

* 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, 16,085 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.

LOCAL GOVERNMENT BOARD FORM.]

TABLE II.

YEAR.	Population estimated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
1894	57,000	1813	717	240
1895	61,000	2021	965	311
1896	65,000	2101	817	270
1897	70,000	2246	832	306
1898	77,000	2294	1034	390
1899	83,000	2835	1282	482
1900	91,000	3037	1254	482
1901	97,000	3210	1296	481
1902	101,318	3426	1154	394
1903	106,290	3535	1178	401
Averages of } Years 1894 to 1903.	80,861	2652	1053	375
1904	111,282	3649	1330	496

WARDS.	DISTRIBUTION IN 1904.			
St. James Street	23,600	793	327	125
High Street ...	20,400	762	246	98
Hoe Street ...	23,100	628	246	68
Wood Street ...	16,600	471	184	66
Northern ...	24,300	995	327	139

TABLE III.

Cases of Infectious Disease notified during the Year 1904.

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 ...	49	2	3	10	9	25	—	3	14	12	4	16	3	14	12	4	16
Cholera ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria ...	177	2	55	76	22	22	—	36	61	21	18	41	19	47	11	9	29
Membranous croup ...	13	1	9	3	—	—	—	8	4	1	—	—	3	1	—	—	—
Erysipelas ...	143	6	12	17	21	79	8	46	17	22	27	31	1	—	—	—	—
Scarlet Fever ...	527	9	132	326	45	15	—	95	89	90	91	162	45	31	46	33	66
Typhus Fever ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever ...	56	—	5	15	15	20	1	16	8	13	6	13	9	2	8	6	7
Relapsing Fever...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Continued Fever...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Fever ...	10	—	—	—	2	8	—	1	1	3	3	2	—	1	3	3	2
Plague ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chicken Pox ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals ...	975	20	216	447	114	169	9	205	194	162	149	265	80	96	81	54	120

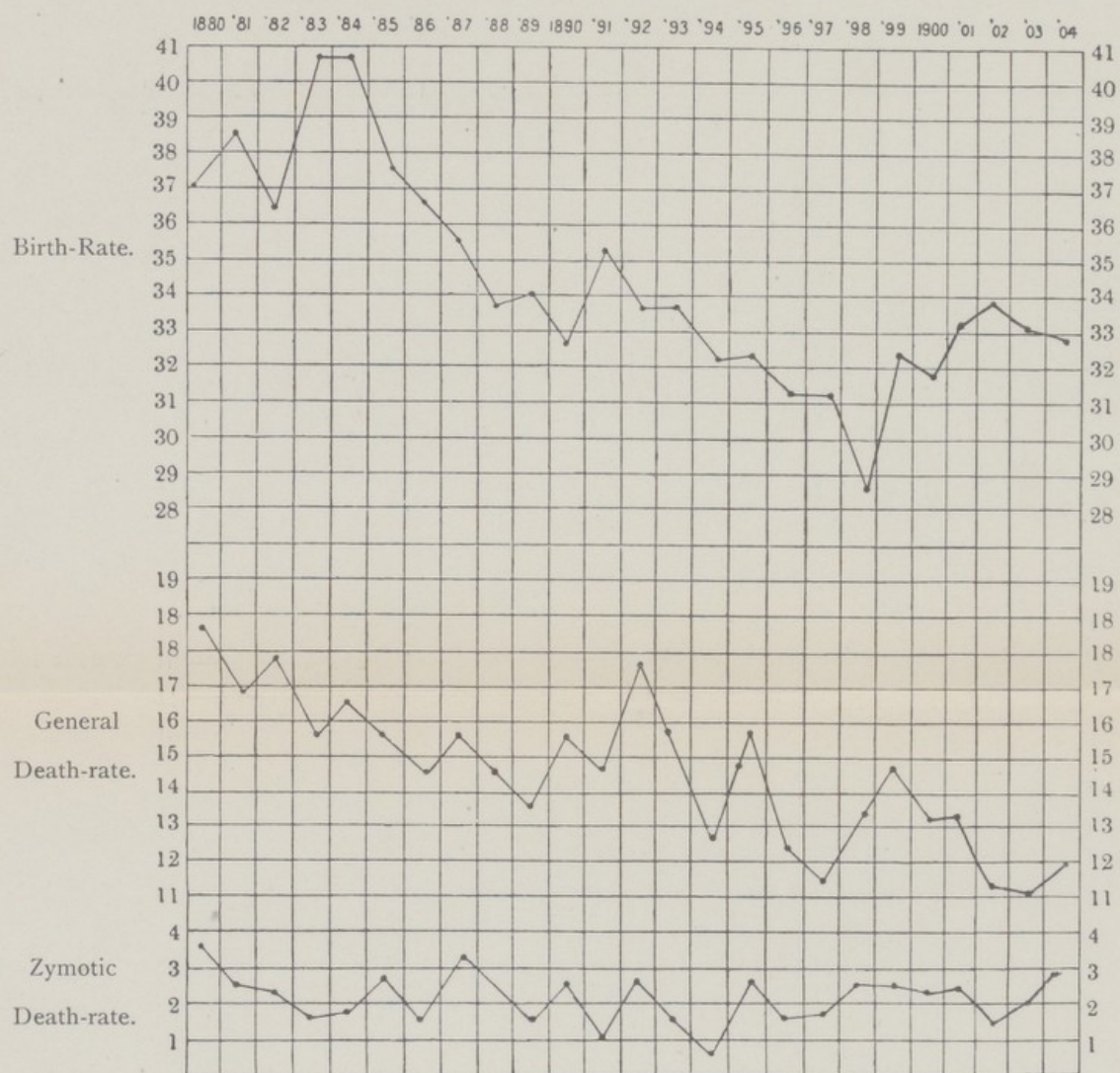
The following Table shows Infectious diseases according to Wards, and the number removed to Hospital:—

TABLE IV.

SCHEDULE B. *Table of DEATHS during the year 1904, 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	1	—	—	—	—	1	—	—	1	—	—	—	—
2	Measles	55	12	33	10	—	—	—	11	12	15	9	8	—
3	Scarlet Fever	14	—	7	5	1	1	—	4	3	2	1	4	—
4	Typhus Fever	—	—	—	—	—	—	—	—	—	—	—	—	—
5	Epidemic Influenza	7	1	—	—	1	1	4	2	1	4	—	—	—
6	Whooping Cough	32	15	14	3	—	—	—	11	4	4	6	7	—
7	Diphtheria, Membranous Croup	27	2	18	7	—	—	—	6	8	2	—	11	1
8	Croup	2	—	2	—	—	—	—	—	—	1	—	1	—
9	Enteric Fever	10	—	1	1	3	5	—	3	3	2	1	1	1
10	Asiatic Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—
11	Diarrhoea, Dysentery	84	73	9	1	—	—	1	30	24	7	9	14	—
12	Epidemic or Zymotic Enteritis	99	79	20	—	—	—	—	17	5	11	14	52	—
13	Enteritis	5	2	2	—	—	—	1	2	2	1	—	—	—
14	Gastro-Enteritis	14	9	4	1	—	—	—	—	—	4	3	7	—
15	Varicella	1	—	—	1	—	—	—	—	1	—	—	—	—
16	Erysipelas	4	1	—	—	—	1	2	2	—	—	1	1	—
17	Puerperal Fever	—	—	—	—	—	—	—	—	—	—	—	—	—
18	Other Septic diseases	4	3	—	—	—	—	1	1	2	—	—	1	—
19	Intermittent Fever and Malarial Cachexia	—	—	—	—	—	—	—	—	—	—	—	—	—
20	Tuberculosis of Meninges	21	3	10	8	—	—	—	7	4	3	2	5	1
21	Tuberculosis of Lungs	96	—	3	9	18	63	3	25	17	22	10	22	2
22	Other forms of Tuberculosis	27	16	6	2	—	3	—	8	2	7	4	6	3
23	Alcoholism	6	—	—	—	—	6	—	1	—	—	2	3	—
24	Cancer	62	1	—	—	—	40	21	16	10	10	9	17	—
25	Premature Birth	62	62	—	—	—	—	—	15	11	10	8	18	—
26	Developmental Diseases	94	90	4	—	—	—	—	20	18	15	14	27	1
27	Old Age	56	—	—	—	—	1	55	18	5	15	10	8	—
28	Meningitis	25	10	8	5	—	1	1	9	6	2	3	5	—
29	Inflammation and Softening of Brain	6	—	—	—	—	2	4	—	1	2	1	2	—
30	Organic Diseases of Heart	31	—	—	1	8	12	10	5	10	7	5	4	3
31	Acute Bronchitis	38	22	10	—	—	2	4	12	7	6	6	7	—
32	Chronic Bronchitis	54	—	—	1	1	15	37	9	12	12	11	10	2
33	Lobar (Croupous) Pneumonia	61	10	8	3	2	23	15	16	14	13	5	13	3
34	Lobular (Broncho) Pneumonia	57	22	23	1	2	6	3	17	17	4	7	12	1
35	Diseases of Stomach	13	5	1	—	—	5	2	4	4	1	1	3	1
36	Obstruction of Intestines	7	—	—	—	1	3	3	—	2	2	—	3	2
37	Cirrhosis of Liver	6	—	—	—	—	5	1	1	—	2	1	2	1
38	Nephritis and Bright's Disease	17	1	2	1	2	11	—	3	7	3	1	3	2
39	Tumours and other Affections of Female Genital Organs	—	—	—	—	—	—	—	—	—	—	—	—	—
40	Accidents and Diseases of Parturition	7	—	—	—	1	6	—	3	—	1	2	1	1
41	Deaths by Accident or Negligence	42	19	4	2	2	12	3	11	3	11	5	12	11
42	Deaths by Suicide	5	—	—	—	1	4	—	1	1	—	1	2	—
43	Deaths from Ill-defined Causes	—	—	—	—	—	—	—	—	—	—	—	—	—
44	All other Causes	178	38	8	7	4	66	55	37	29	45	32	35	2
All Causes		1,330	496	197	69	47	295	226	327	246	246	184	327	38

*Chart shewing the Birth, Death and Zymotic Death-rates,
for the years 1880 to 1904*



Sanitary Inspector's Report.

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

GENTLEMEN,

I have the honour to present to you my report on the work carried out through my department during the year 1904.

In doing so I desire to call the attention of the Council to the desirability of supervision being exercised over the position in new houses of the cisterns provided for the drinking water supply. A very large number of them are still placed in such positions as to be quite inaccessible for cleaning or even inspection, and it would be well if such a provision as that contained in the East Ham Improvement Act were in force, viz. :—"The Council may from time to time make bye-laws for securing the cleanliness and freedom from pollution of tanks, cisterns and other receptacles used for storing water used or likely to be used for drinking or domestic purposes, or for manufacturing drink of any sort."

May I further quote from a previous annual report of mine :—"Attention may be drawn to the need for greater powers under the drainage bye-laws in certain details as to the construction of drains, etc. The enforcement of the provision of inspection chambers, the prescription of the materials of which soil and ventilating pipes should be composed, and the conditions under which a drain should be watertight are of sufficient importance to require regulations, and a still more necessary requirement is that contained in the recent regulations of the London County Council, approved by the Local Government Board, that these bye-laws shall apply to any person so far as he shall effect any such works in any building erected *before* the confirmation of these bye-laws as if the same were being constructed in a building newly erected."

The exceedingly perishable material used for drain ventilating pipes lasts only a very short time, with the result that they are constantly

being found in a dilapidated state, ventilating the drain into the lower windows of the houses instead of above the roofs, which would be prevented by the use of suitable substantial material capable of proper jointing.

There is often also a considerable length of waste pipe between the bath or kitchen sink and the gully into which it discharges. This getting fouled by the greasy waste is a cause of much nuisance to occupiers, and certainly in all such cases a trap should be placed immediately beneath the bath or sink.

I would submit that these matters deserve the serious consideration of the Council when further powers of various kinds are being sought, as our work in existing houses is largely affected by powers in force in relation to new buildings.

It would be unjust of me not to place on record the continued zealous work of my Assistants—Messrs. T. J. Barnes, F. E. Sendall and J. B. Pointon, without which it would have been impossible to keep in touch with the multifarious divisions of the work.

I am, Gentlemen,

Your obedient Servant,

W. W. WEST, Assoc. Roy. San. Inst.,
Inspector of Nuisances.

FACTORY AND WORKSHOPS ACT.—*Outworkers.*—The number of premises in the occupation of Outworkers is slightly less than last year. The total number visited during the year was 753, of which 459 were placed on the register for the year, and 293 were found to have removed or ceased to take in work. The following table shows the various kinds of work carried on by Outworkers in the district, showing the number of premises occupied under each heading :—

Blouse and Pinafore Makers..	186	Embroidering	...	...	5
Tailoring	...	Furriers	...	...	3
Ladies' Underclothing	...	Button Making	...	...	1
Boots, Shoes and Leatherwork	42	Shawl Making	...	...	1
Dress and Mantle Making	...	Cardboard Box Making	...	...	1
Tie, Belts and Brace Makers	21	Tobacco Pipe Making	...	...	1
Millinery	...	Men's Underclothing	...	...	1
Linen and Collar Makers	...	Waistcoat Making	...	...	1

As the result of visits to Workshops and Outworkers, the following works have been carried out :—

Cleansing entire premises	...	...	...	6
„ partial premises	...	...	...	11
Overcrowding of workrooms abated	...	...	...	3
W.c. flush improved	...	...	...	3
Drinking water supply improved	...	...	...	1
Drainage and paving works	...	...	...	3
Use of bedroom as workshop discontinued	...	...	...	1

LAUNDRIES.—There are 49 laundries registered under the Acts, and during the year sanitary improvements have been made as follows :—

Washhouse paving repaired...	...	in 4 cases.
Works of cleansing carried out	...	„ 7 „
Drains repaired	...	„ 4 „
Roofs and gutters	...	„ 3 „
W.c. flush reinstated	...	„ 2 „

BAKEHOUSES.—The improvements effected in the condition of the bakehouses both over and underground, by the extensive alterations carried out in the year 1903, have been well maintained, and the premises are kept (with one or two exceptions) in very good condition.

There are 51 retail bakehouses in the district, of which 6 are underground, and during the year the following repairs have been effected, in addition to the periodical cleansing :—

Repairs to paving	...	...	...	in 6 cases.
Special cleansing	...	...	...	„ 5 „
W.c. flush repaired	...	...	...	„ 3 „
Drains repaired	...	...	...	„ 2 „
Gutters, etc., repaired	...	...	...	„ 2 „

House-to-house inspection has been carried out in the following roads :—Berwick Road, Billet Road, Colebrooke Road, Cuthbert Road, Cranbrook Road, Edinburgh Road, Farey's Row, Gladstone Road, Gosport Road, Hawthorne Road, Hylton Grove, Linford Road, Mansfield Road, Markhouse Avenue, Short Road, Telford Road, Vallentin Road and Waverley Avenue.

Premises to the number of 3,845 have been inspected, and works of sanitary improvement have been carried out in 1,149. In 183 cases drains have been reconstructed or repaired.

It is noticeable that the work of drain reconstruction tends on the average to decrease, a condition which might be anticipated in view of

the very great number which have been so dealt with, say, during the last ten years, in addition to substantial repairs, and in view also of the close supervision exercised in recent years over the drainage of new buildings under your Surveyor.

HOUSE DRAINAGE.—The following blocks of house drains have been entirely reconstructed, besides many other single drains, and more or less substantial repairs which could not be classed as reconstructions :—

23 and 25, Colebrook Road.	18, 20 and 22, Byron Road.
70 and 72, Palmerston Road.	7 and 8, Farey's Row.
50 and 52, Woodville Road.	33 and 35, Hale End Road.
59, 61 and 63, Telford Road.	28, 30 and 32, Vallentin Road.
13 and 15, Mayfield Road.	54, Brown's Road.
29, 31, 33 and 35 Worcester Road.	1, 2 and 3, Elm Road.
1 and 2, Raymond Villas, Telford Road.	102 and 104, Maynard Road.
14 and 16, Pretoria Avenue.	106 and 116, Maynard Road.
5 and 7, Pretoria Avenue.	44 and 46, Byron Road.
12 and 14, Shakespeare Road.	20 and 22, Brunswick Street.
15 and 17, Buxton Road.	33 to 53, Cuthbert Road
87 and 89, Hoe Street.	170, 172 and 174, Boundary Road.
10 and 12, Brandon Road.	9 and 11, Priory Avenue.
25 and 27, Brandon Road.	64 and 66, Beaconsfield Road.
7 and 9, Linford Road.	22 and 24, Frazer Road.
16 and 18, Linford Road.	42 and 44, Gladstone Road.
68 and 70, St. Mary's Road.	31 and 33, Arkley Road.

The vexed question of "Sewers" versus "Combined Drains" still continues to give rise to delay, but no legal proceedings have resulted either on the part of the Council or of owners in connection with the thirty-four sets of premises detailed above, as care is always taken to avoid as far as possible any action which will lead to such proceedings.

Several important cases have recently been before the Courts of Law, the decisions in which in the first instance threatened a worse state of confusion than ever, but subsequent revision in a superior Court has restored the position somewhat and helped to clear up some hitherto undecided points, and in general maintained the decision given some years back in *North v. the Walthamstow District Council*.

Some day, perhaps, local authorities will be sufficiently united in opinion upon the question to secure the desirable alteration in the law, and there is growing a general opinion in favour of such a clause as Section 42, West Ham Corporation Act, 1898:—"In and for the purpose of the Section 41 of the Act of 1893 the word 'drain'

shall be deemed to include any sewer or drain whether constructed before or after the passing of this Act with which two or more houses or premises (whether belonging to the same or different owners) are at the date of the passing of this Act, or may at any time thereafter be connected, or which is used or capable of being or intended to be used for the conveyance of the drainage of such houses or buildings directly or by means of any other sewer or drain to any public sewer situate under a street repairable by the inhabitants at large, but shall not include any sewer which has been constructed to the satisfaction of the Corporation under Section 152 of the Public Health Act, 1875, or any sewer which has been constructed by the Corporation for the effectual drainage of the Borough."

INFECTIOUS DISEASE.—During the year infectious disease has been notified as occurring in 841 premises. On receipt of each notification the premises are visited and the usual information obtained as to the possible source of infection, source of milk supply, what schools are attended by the inmates, nature and source of work, if any, carried on, use of library books, need for isolation, etc.

The results are summed up as follows :—

Houses inspected and disinfected	...	...	...	841
Houses having defective drainage	...	...	...	77
Houses having other insanitary conditions	...	...	...	166

In addition to the enquiries above alluded to special enquiries were made at the request of the Medical Officer of Health into the possible causes and attendant conditions in 178 cases of infantile diarrhoea after the autumnal recurrence of that disease.

Articles disinfected at Council's apparatus :—

Beds	...	...	...	...	...	...	896
Bolsters	...	...	...	...	...	...	648
Pillows	...	...	...	...	...	...	1599
Blankets	...	...	...	...	...	...	1846
Miscellaneous	...	...	...	...	...	...	3008

Destroyed on request of owners :

Bolsters	...	...	...	...	...	...	12
Pillows	...	...	...	...	...	...	1
Blankets	...	...	...	...	...	...	3
Mattresses	...	...	...	...	...	...	8

Books from public libraries disinfected	...	...	...	88
Premises having needlework, etc., carried on, and goods disinfected	...	...	...	3

Patients have been removed to hospital as follows :—

In Council's Ambulance :—

Walthamstow General Hospital	...	...	23
Liverpool Road Hospital	...	...	5
The London Hospital	...	...	2
Dagenham Small Pox Hospital	...	...	49
Sanatorium	...	...	322
Total			401

By other Means :—

Metropolitan Asylums Board Hospitals	...	13
West Ham Infirmary...	...	19
Leyton Sanatorium	...	1
Walthamstow Sanatorium	...	14
Saint Bartholomew's Hospital	...	1
North Eastern Hospital for Children	...	1
Total		49

PRIVATE SCHOOLS—Visits paid to private elementary schools show that, generally, they are well kept with good light and space ; but one instance come across during the year shows that parents do not always consider the advantage of their children by declining to send them to a public school.

The following table will show the conditions existing :—

Cubic Capacity in feet of Rooms.		Per Child.	Area of floor in feet.	No. of Children present.	Floor space re- quired by Educa- tion Department for same number of Children.
Room 1	2262	62	234	37	370
Room 2	1103	65	108	17	170
Room 3	630	36	81	24	240

In addition to this comparison, a public school would be well lighted and ventilated, while in this case the contrary was found ; the walls were unclean, the plaster broken away, and the bare places soiled and greasy with the rubbing of children's clothes.

I at once called the serious attention of the proprietress to the bad condition of things, and the necessity of taking immediate steps for improvement, with the result that larger premises were taken, with better accommodation, and the general conditions are now satisfactory.

COWKEEPERS AND MILKSELLERS.—There are within the district 15 registered cowkeepers and 102 milksellers. All these have been regularly visited and the bye-laws enforced, and the following works carried out :—

Cowkeepers.—Paving made good	...	...	...	2
W.c. flush repaired	...	...	...	1
Milksellers.—Paving repaired	...	...	...	10
W.c. flush reinstated	...	...	...	1
Accumulation	...	...	...	1
Cleansed	...	...	...	4
Drains repaired	...	...	...	2
Ventilation	...	...	...	1

SLAUGHTER-HOUSES.—There are twelve licensed slaughter-houses within the district, which are all maintained in good condition. Only in one case was any work required, that being a repair of the paving.

FISHMONGERS.—Special visits are constantly paid to the premises of the 62 fishmongers in the parish, and the following works have been carried out at our suggestion :—

Paving	...	...	...	...	...	...	13
Receptacles	...	...	...	...	...	...	2
Smoke-hole improved	...	...	...	...	...	...	2
Cleansing	...	...	...	...	...	...	2

FISH OFFAL REMOVAL.—The nuisance caused by the removal of fish offal during the hours when the streets were filled with people, was a source of some trouble in the early summer.

A complaint was received of the nuisance thus caused, and I kept special observation for nearly a fortnight during the evenings, and on 16th August I found a considerable nuisance was caused in the course of removal.

I thereupon took proceedings against the carman who was engaged in the removal, and on 17th September he was fined 2s. 6d. and ordered to pay costs; the firm employing him, having in the meantime, succeeded in making arrangements with the fishmongers to provide facilities for the removal about two o'clock in the morning. That has been done, and no complaints have since been received.

UN SOUND FOOD.—During the year the following parcels of food have been destroyed as unfit for human consumption :—

1 box of herrings,	5 boxes of kippers.
1 trunk of haddocks.	2 trunks of cod.
1 barrel of roker.	2 boxes of plaice.
5 boxes of tomatoes.	1 box of plaice.
7 boxes „	1 trunk of whiting.
2 cwts. potatoes.	2 barrels of fresh herrings.
2 pads of mackerel.	30 dozen rabbits.
1 trunk of plaice.	2 trunks of soles.
5 boxes of kippers.	18 rabbits.
20 boxes of cherries.	1 barrel of herrings.
10 boxes $\frac{1}{2}$ full ditto.	18 rabbits.

WATER SUPPLY.—We have received during the year from the Water Board, notice of the cutting off of the supply from 37 premises. Early visit and subsequent ooservation have secured that the supply has in each case been reinstated.

Twenty samples of water from the main at the Town Hall were submitted to Mr. Leo Taylor for analysis. Fifteen for chemical and five for bacteriological examination.

SALE OF FOOD AND DRUGS.

Articles to the number of 235 have been submitted to the County Analyst during the year. The following list shows the description of articles purchased and the number of each :—

Description.	No. of samples purchased.	No. of samples adulterated.
Butter	98	2
Milk	53	5
Pepper	26	0
Mustard	22	0
Margarine	10	0
Coffee	7	0
Dripping	5	0
Arrowroot	4	0
Cocoa	5	0
Corn Flour... ..	2	0
Ground Rice	1	0
„ Ginger	1	0
Baking Powder	1	0

The particulars of proceedings are given below :—

No. of Sample	Description.	Offence charged.	Result.
18	Butter	Selling margarine unlabelled	Fine 20s., costs 14s. 6d.
41	Milk	30 per cent. deficiency of cream	Fell through on insufficient service.
64	„	8 per cent. added water	Dismissed on payment of costs.
65	„	12 per cent. added water	Fine 40s., costs 14s. 6d.
73	„	25 per cent. deficient in cream	Fine 40s., costs 14s. 6d.
134	„	5 per cent. added water	Fine 1s., costs 14s. 6d.
193	Butter	Selling margarine unlabelled	Fine 10s., costs 14s. 6d.

LEGAL PROCEEDINGS.—In April a summons was obtained against Mr. W. Bennett for keeping swine so as to be a nuisance in Mount Pleasant Road, and an order was obtained for the abatement of the nuisance. In July a further summons was issued for breach of the order, and defendant was ordered to pay 40s. and costs.

In the end the pigs were removed and the keeping of them discontinued.

In the general work of the department no further legal proceedings were found necessary, a verbal request or informal intimation being generally sufficient to secure attention from owners or occupiers, and in special cases a personal interview sufficed to satisfy them that our requirements are necessary and reasonable.

SUMMARY.

Drains tested	...	...	...	...	...	...	249
„ reconstructed	...	...	...	...	...	...	111
„ repaired	...	...	...	...	...	...	93
Obstructions cleared	...	...	...	...	...	...	131
Manhole and clearing eyes provided	...	...	...	...	...	...	73
4-inch vents provided	..	...	...	...	...	...	58
Pans and traps provided	...	...	...	...	...	...	167
New gully traps provided	...	...	...	...	...	...	184
Bell traps abolished	...	...	...	...	...	...	17
Vent pipes repaired or heightened	...	...	...	...	...	...	49
Soil pipes repaired	...	...	...	...	...	...	21
Rain-water pipes repaired or disconnected from drains	...	...	...	...	...	...	18
Roofs repaired	...	...	...	...	...	...	53
„ renewed	...	...	...	...	...	...	3
Gutters reinstated	...	...	...	...	...	...	48
W.c. flush (new) provided	...	...	...	...	...	...	19
„ reinstated	...	...	...	...	...	...	199
„ disconnected from drinking water	...	...	...	...	...	...	23
W.c. lighting or ventilation improved	...	...	...	...	...	...	2
Sink or bath wastes repaired or renewed	...	...	...	...	...	...	108
Drinking water reinstated	...	...	...	...	...	...	37
„ supplied from main	...	...	...	...	...	...	21
Yards paved and drained	...	...	...	...	...	...	235
Sculleries, etc., paved	...	...	...	...	...	...	17
W.c. cleansed and repaired	...	...	...	...	...	...	24
New sinks provided	...	...	...	...	...	...	11
Dirty houses cleansed (wholly)...	...	...	...	...	...	...	54
„ „ (partially)	...	...	...	...	...	...	975
Floors repaired	...	...	...	...	...	...	88
Ventilation provided under floors	...	...	...	...	...	...	38
Cisterns cleansed and repaired ..	...	...	...	...	...	...	11
Offensive accumulations removed	...	...	...	...	...	...	76
Stables paved and drained	...	...	...	...	...	...	5
Overcrowding in houses abated	...	...	...	...	...	...	14
Animals kept so as to be a nuisance removed	...	...	...	...	...	...	12
Dungpits...	...	...	...	...	...	...	22
Smoke nuisances	...	...	...	...	...	...	4

