

## **[Report of the Medical Officer of Health for Hornsey, Borough of].**

### **Contributors**

Hornsey (England). Urban District Council.  
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### **Publication/Creation**

[1898]

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# HORNSEY URBAN DISTRICT COUNCIL.

## MEDICAL OFFICER'S REPORT FOR THE YEAR 1897.

*To the Chairman and Members of the*

*Hornsey Urban District Council.*

GENTLEMEN,

I have the honour to submit the Annual Report for the past year.

In the Quarterly Reports for the same period the population of the District has been estimated at 65,082.

The Births during the year amounted to 1,337, being 43 more than were registered for 1896; this gives a birth-rate of 20·54 per 1,000 inhabitants, comparing with

20·84 per 1,000 inhabitants for	...	1896,
21·2	" "	... 1895, and
23·37	" "	... 1894.

The birth-rate for England and Wales for 1897 was 29·7 per 1,000 inhabitants.

The Deaths for the year from all causes amount to 528, giving a death-rate of 8·11 per 1,000 inhabitants, comparing with

8·42 per 1,000 inhabitants for	...	1896,
10·49	" "	... 1895,
9·85	" "	... 1894, and
11·33	" "	... 1893.

This, however, has to be corrected as regards the deaths occurring outside the District amongst inhabitants belonging thereto, namely, 23 deaths at the Edmonton Workhouse, and 2 at other places. Also the exclusion of 5 deaths occurring amongst non-residents dying within the District. By the courtesy of Dr. Charles D. Green, the Medical Officer of Health for Edmonton, I have been furnished with details as to the number of inhabitants and the deaths occurring amongst inhabitants of Hornsey in the Edmonton Workhouse during the year in question, these being 48 and 23 respectively. These facts being taken into account the population of the District is increased to 6,130 and the deaths to 548, giving a corrected death-rate of 8·41.

The death-rate for England and Wales for 1897 was 17·4 per 1,000 inhabitants, and that for London 17·7 per 1,000 inhabitants.

The death-rate for Hornsey is again very low, being rather less than for the year 1896 which was to that time the lowest annual death-rate ever recorded for the District, and it should also be taken into

account that up to the present time the deaths in the Edmonton Workhouse, where the mortality is naturally large, had not been taken into account in estimating the general death-rate.

The death-rate for the first quarter of 1897 was 9.34.

" " " second 8.7.  
 " " " third 6.4.  
 " " " fourth 7.7.

The following table gives the deaths which have been registered in each of the eight Wards of the District during the four quarters of the year:—

	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Total Deaths.	Death rate.
Highgate ... ..	25	19	14	22	80	9.20 per 1,000
Muswell Hill ... ..	5	2	3	1	11	4.43 "
Crouch End ... ..	5	8	8	9	30	6.0 "
Hornsey ... ..	44	25	43	46	158	10.63 "
North Haringey ... ..	24	19	26	17	86	8.43 "
South Haringey ... ..	13	10	10	17	50	7.36 "
Stroud Green ... ..	22	6	7	7	42	4.45 "
Finsbury Park ... ..	17	16	15	23	71	9.29 "
Total deaths ... ..	155	105	126	142	528	8.11 per 1,000

In this calculation three deaths which occurred at the isolation Hospital in the Muswell Hill Ward were taken from the number of deaths occurring in that Ward and added to the deaths in the North Haringey and Highgate Wards from which the patients were received.

The Ward death-rate for 1897 compared with that for 1896 and 1895 is shown in the following table :—

WARD.	1897.		1896.		1895.	
	Deaths.	Death-rate per 1,000.	Deaths.	Death-rate per 1,000.	Deaths.	Death-rate per 1,000.
Highgate .. ..	80	9.20	76	8.73	86	11.6
Muswell Hill ..	11	4.43	20	9.03	14	6.8
Crouch End ..	30	6.0	27	5.77	25	5.94
Hornsey .. ..	158	10.63	139	10.04	162	13.9
North Haringey..	86	8.43	82	8.19	102	11.7
South Haringey..	50	7.36	51	8.52	33	6.49
Stroud Green ..	42	4.45	62	6.80	55	7.14
Finsbury Park ..	71	9.29	66	8.75	88	12.6

From this table it will be seen that there are 4 more deaths in the Highgate Ward and 3 in the Crouch End Ward, 19 in the Hornsey Ward, 4 in the North Haringey and 5 in the Finsbury Park Wards, being a total increase of 35, whilst on the other hand the deaths in the Muswill Hill Ward are less by 9, in South Haringey by 1 and in Stroud Green by 20, making a total of 30, being an aggregate increase of 5.

As regards the 19 increased deaths in the Hornsey Ward, it should be noted that whilst the deaths in 1896 were 139 only, in the previous year they amounted to 162, being actually 4 more than for last year, notwithstanding the increase in the population.

As regards the decreased number of deaths in the Muswell Hill Ward, they compare with 11 for 1897, with 20 for 1896, and with 14 for 1895, and I note that this Ward has the lowest death-rate of any in the District (4.43 per 1,000 inhabitants), and with regard to the 20 decreased deaths in the Stroud Green Ward, they compare with 62 for

1896, and with 55 for 1895; this Ward death-rate being within a fraction of that for Muswell Hill. There is nothing particular to note as to the deaths in the other Wards as the numbers do not vary in any marked degree, as is seen on referring to the foregoing table which gives the Ward death-rate for the past three years, the District having been divided into Wards in the year 1894.

The Zymotic Death-rate amounts to 0·98 per 1,000 inhabitants, 64 deaths having been registered as due to the eight principal Zymotic diseases. Eight occurred in the first and second quarters, 34 in the third, and 14 in the fourth quarter. This death-rate compares with 0·93 for 1896, 1·11 for 1895, 1·12 for 1894, and 0·96 for 1893.

The following table shows the deaths in the District from the eight principal Zymotic Diseases for the last seven years:—

	1891.	1892.	1893.	1894.	1895.	1896.	1897.
Small Pox ...	—	—	—	—	—	—	—
Measles ...	2	7	5	5	13	6	7
Scarlet Fever ...	3	4	9	1	3	8	2
Diphtheria ...	6	11	16	23	21	12	16
Fever ...	1	3	6	6	5	6	—
Whooping Cough	14	13	2	22	10	17	10
Diarrhœa ...	5	6	9	1	8	9	29
Cholera ...	—	—	—	—	—	—	—
TOTALS	31	44	47	58	60	58	64

No Mortality from small pox or cholera has occurred in the District for the last eight years.

Measles.—Although this disease has been very prevalent in parts of the District, especially during the latter part of the year, only seven deaths have been attributed to it. This is about the average death-rate from this disease for several years.

Scarlet Fever has only proved fatal in two cases. Considering the number of cases reported this mortality is very small.

Diphtheria has caused 16 deaths, 6 in the first, 1 in the second, 2 in the third, and 7 in the fourth quarter. This mortality is very slightly over the average taken for the seven years commencing with 1891. The percentage of fatal cases to cases notified is higher when compared with 1896 but lower when compared with 1895.

Typhoid Fever.—There has been no fatal case of this disease during the year.

Whooping Cough has proved fatal to the extent of 10 cases, comparing with 17 for 1896, 10 for 1895 and 22 for 1894.

Diarrhoea.—Twenty-nine fatal cases of this disease have occurred, 28 being in the third quarter, and 1 in the fourth. All these cases were children under five years of age. These deaths show a considerable increase over previous years, and constitute nearly half of the deaths attributed to zymotic diseases. I note that in the vital statistics of London for August, 1897 (during which month nearly all the deaths

in the Hornsey District were certified) there were considerably more than double the average number of cases of diarrhœa, and that during that period the mortality from these principal zymotic diseases was nearly twice that of the corrected average owing to the excessive fatality of summer diarrhœa. Thus tending to show that there were general conditions favourable to the development of this disease not affecting the Hornsey District only, but more or less the various sanitary areas in and around London.

The deaths from diseases other than zymotic are as follows :—

	1891	1892	1893	1894	1895	1896	1897
From Pulmonary Consumption ..	38	28	35	40	43	30	43
„ Bronchitis, Pneumonia, and other Pulmonary Diseases ..	122	118	139	87	105	96	100
„ Brain Diseases .. ..	59	63	69	68	50	58	47
„ Heart „ .. ..	42	46	61	40	64	68	56
„ Rheumatism .. ..	2	1	5	4	4	3	1
„ Ague .. ..	—	—	—	—	—	—	—
„ Puerperal Diseases .. ..	5	10	3	2	—	1	2
„ Pyæmia .. ..	—	—	—	1	—	1	—
„ Erysipelas.. ..	2	2	4	—	—	—	1
„ Malignant Diseases, Cancer, &c.	22	24	37	31	22	31	30
„ Injuries .. ..	11	12	11	15	15	11	10
„ Various other Causes .. ..	157	160	139	153	202	166	174
TOTALS .. ..	460	464	503	441	505	465	464

## AGES AT WHICH THE DEATHS OCCURRED.

	1896.	1897.
One year and under ... ..	133	138
One year to five years ... ..	56	58
Five years to fifteen years ... ..	25	22
Fifteen years to twenty-five years ... ..	21	36
Twenty-years to sixty-five years ... ..	149	129
Sixty-five years and over ... ..	139	145
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	523	528
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The deaths under one year to births registered works out at 103·21 for 1,000 inhabitants, and compare with London with 158 per 1,000 for the same period and with 102·7 for 1896 for Hornsey, and the deaths under five years to 146·67 against 146 for 1896 and the percentage of deaths under one year is 26·1 compared with 25·4 for 1896.

The mortality under one year per 1,000 inhabitants amounts to 2·12 and under five years to 3·01 and the mortality for 65 years and over amounts to 2·22 per 1,000 inhabitants.

The following table (for part of which I am indebted to "The Lancet" of February 5th, 1898) shows the cases notified and the deaths occurring from infectious disease in London, Hampstead, St. Pancras, Islington, Finchley and Hornsey. London is made up of 43 sanitary areas, but I would specially draw attention to that of Hampstead as being in many respects similar to Hornsey and the comparison between the vital statistics of two of these northern suburbs of London must be interesting and instructive. It is needless to go further into details as a glance at the table shows at once the general sanitary condition of the Districts as compared with each other. St. Pancras, Islington and Finchley are selected because they to a great extent surround the Hornsey District, and, therefore, the comparison of their death rate, &c. with our own should be a source of information as to the general sanitary condition existing in them all. I have also appended the death rates—from 33 of the largest English Towns and also their annual death rate from zymotic diseases.

Sanitary Area.	Estimated population in the middle of 1897.	Notified cases of Infectious Disease.										Deaths from Principal Infectious Diseases.														
		Small Pox.	Scarlet Fever.	Diphtheria. *	Typhus Fever.	Enteric Fever.	Other continued Fevers.	Puerperal Fever.	Erysipelas.	Cholera.	TOTAL.	Annual rate per 1,000 persons living.	Small Pox.	Measles.	Scarlet Fever.	Diphtheria. †	Whooping Cough.	Typhus Fever.	Enteric Fever.	Other continued Fevers.	Diarrhoea.	Total.	Annual rate per 1,000 persons living.	Deaths from all causes.	Death-rate per 1,000 living.	Deaths of Infants under One Year to 1,000 Births.
London ..	4,463,169	104	22,850	13,192	4	3,106	65	264	5,796	38	45,419	10.2	16	1,927	779	2,240	1,837	1	557	8	4,089	11,454	2.57	78,972	17.7	158
St. Pancras ..	242,255	3	942	542	—	223	8	16	388	3	2,124	8.8	1	87	24	114	124	—	38	—	209	597	2.47	4,518	18.7	168
Islington ..	341,134	3	1,577	733	—	259	1	27	313	1	2,914	8.6	1	99	61	129	134	—	45	—	184	653	1.91	5,387	15.8	136
Hampstead ..	77,275	—	224	107	—	32	2	2	40	—	407	5.3	—	9	6	17	25	—	5	—	23	90	1.16	911	11.8	127
Finchley ..	20,064	—	54	20	—	13	—	2	15	—	104	5.1	—	11	—	1	4	—	2	—	16	34	1.69	205	10.2	101
Hornsey ..	65,082	—	264	90	—	31	—	2	39	—	426	6.54	—	7	2	19	10	—	—	—	29	67	1.02	548	8.41	103
33 great towns	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.87	—	19.1	177	

\* Including cases of Membranous Croup.

† Including deaths from Membranous Croup.

The Compulsory Notification of Infectious Diseases has been in force in this District since the 1st of January, 1890, and under the Act the following cases have been reported during the year—

Scarlet Fever ... ..	264	in 1896	530
Diphtheria ... ..	87	„	95
Typhoid Fever... ..	31	„	34
Puerperal Fever ... ..	2	„	5
Erysipelas ... ..	39	„	39
Continued Fever ... ..	—	„	1
Membranous Croup ... ..	3	„	1 and
Small Pox ... ..	—	„	4
	<hr/>		<hr/>
	426		709
	<hr/>		<hr/>

The number 426 compares with 709 for 1896, 615 for 1895, 410 for 1894, 618 for 1893, 340 for 1892, and 349 for 1891.

127 cases were reported in the first quarter of the year,

87	„	„	„	second	„	„
72	„	„	„	third	„	„
140	„	„	„	fourth	„	„
<hr/>						
426						
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The following table gives in detail the cases of Infectious Disease as notified for each quarter of the year, and a comparison with other years—

	Scarlet Fever.			Typhoid Fever.			Diphtheria.			Erysipelas.			Small Pox.			Continued Fever.			Puerperal Fever.			Membranous Croup.		
	1897	'96	'95	'97	'96	'95	'97	'96	'95	'97	'96	'95	'97	'96	'95	'97	'96	'95	'97	'96	'95	'97	'96	'95
During 1st quarter	95	40	295	8	4	10	21	23	18	14	10	14	—	2	—	—	1	—	1	2	1	1	—	—
During 2nd quarter	54	139	46	4	3	3	9	16	14	4	13	5	—	1	—	—	—	1	—	2	2	1	—	—
During 3rd quarter	48	214	33	10	13	7	21	33	27	8	8	15	—	1	1	—	—	—	—	1	—	—	—	2
During 4th quarter	67	137	46	9	14	26	36	23	30	13	8	11	—	—	4	—	—	1	1	—	1	1	1	2
Total ... ..	264	530	420	31	34	46	87	95	89	39	39	45	—	4	5	—	1	2	2	5	4	3	1	4

No case of Cholera or Small Pox has been reported during the year.

	Scarlet Fever.	Diphtheria.	Typhoid Fever.	Erysipelas.	Small Pox.	Membranous Croup.	Continued Fever.	Puerperal Fever.	TOTAL.
Highgate ...	37	14	2	4	—	—	—	—	57
Muswell Hill ...	16	1	1	1	—	—	—	—	19
Crouch End ...	15	6	2	7	—	—	—	—	30
Hornsey ...	78	15	12	10	—	3	—	—	118
North Haringey	40	18	7	6	—	—	—	1	72
South Haringey	24	19	3	8	—	—	—	—	54
Stroud Green...	36	3	3	2	—	—	—	1	45
Finsbury Park	18	11	1	1	—	—	—	—	31
TOTALS	264	87	31	39	—	3	—	2	426

From the following table will be seen the various Wards in which the 426 cases notified occurred:—

**Scarlet Fever** shows a decrease of 286 cases as compared with 1896. It was most prevalent during the first quarter of the year, when 95 of the cases were reported. It was pretty evenly distributed throughout the District, none of the Wards being free from it, but the cases show a decrease in the whole of the Wards, with the exception of Muswell Hill.

**Diphtheria** shows a small decrease in the cases reported—87 comparing with 95 for 1896, and 89 for 1895. The disease was most prevalent in the fourth quarter, when 36 cases were reported. As regards its distribution in the Wards, it will be seen that four Wards show an increased number of cases certified, namely :—Highgate an increase of 2, North Haringey 2, South Haringey an increase of 6, and Finsbury Park an increase of 7, whilst, on the other hand, Muswell Hill shows a decrease of 4, Crouch End of 8, Hornsey of 1, and Stroud Green of 12. As this disease showed a considerable increase in the third quarter, especially in the two Haringey Wards, I reported on this to the Public Health and Hospital Committee in the following terms :—

“ Since the last meeting of the Committee I have been making  
 “ inquiries as to the cases of diphtheria occurring in the last three  
 “ months in the two Haringey Wards, with a view to ascertain, if possible the cause of the increased prevalence of this disease. I have  
 “ written letters to the medical officers of the Districts bordering on  
 “ those Wards, making enquiries as to whether there has been any  
 “ appreciable increase in the diphtheria returns, with the result  
 “ that Dr. Harris, of Islington, has sent me a return showing the  
 “ number of cases of diphtheria certified in the Tufnell, Upper  
 “ Holloway and Tollington districts for the whole of the year 1897.  
 “ From that I notice that the Tollington district, which abuts on  
 “ the Stroud Green Road, and is, therefore, the nearest of these  
 “ three to the Haringey Wards, shows a much larger percentage of  
 “ cases, being 118 for 29,731 population, against Upper Holloway  
 “ 77 cases for 36,312, and Tufnell 71 cases for 32,230. On the  
 “ other hand, I hear from Dr. W. Tindell Watson, of Tottenham,  
 “ that there have been only three cases of diphtheria along the  
 “ part of their District bordering with Haringey, and there is  
 “ nothing exceptional as regards this disease in that part of the  
 “ District. I have had a map prepared locating the 24 cases of

“ diphtheria occurring in the two Haringey Wards for the last three  
 “ months, from which it will be seen that they are distributed  
 “ more or less evenly throughout. The cases where they seem to  
 “ be more particularly grouped are those in which second or third  
 “ cases have occurred in one house. I have carefully inquired as  
 “ to the school attendance of the children affected, and, although  
 “ many of them have attended the Haringay Board School, there  
 “ is nothing in that School, so far as I am aware, to account for  
 “ the outbreak. I have carefully examined the sanitary arrange-  
 “ ments of this School in conjunction with Mr. Lovegrove, and  
 “ see nothing that can be objected to. The water-closets are all  
 “ clean and in good order, and are in the hands of a caretaker, who  
 “ constantly supervises them, more particularly so in the case of  
 “ the closets used by the infants, it being his duty to see that  
 “ they are properly flushed after use. I understand from Mr.  
 “ Lovegrove that the drains of the School have been tested with a  
 “ water test and not found defective. I have made careful inquiry  
 “ at all the houses where diphtheria has occurred, and have also  
 “ reported on them to your Committee, and I may say that the  
 “ almost universal reply as to the question how the disease was  
 “ supposed to have been caught, is that they are unable to say.”

**Typhoid Fever.**—Fewer cases of this disease have been certified during the year, 31 comparing with 34 for 1896, and 46 for 1895. No Ward has been free from this disease, but the greater number of the cases have been in two Wards only, namely:—12 in Hornsey and 7 in North Haringey. The drains at all the houses at which the disease occurred have been tested.

**Erysipelas.**—Exactly the same number of cases have been certified as for the previous year, namely:—39 comparing with 45 for 1895.

**Continued Fever.**—There was no case reported during the year.

**Puerperal Fever.**—Two cases were reported comparing with 5 for 1896, and 4 for 1895.

**Membranous Croup.**—Three cases of this disease were notified, all of them being fatal, the numbers compare with 1 for 1896, and with 4 for 1895.

**Isolation Hospital.**—202 cases have been treated during the year, comparing with 298 for 1896, and with 139 for 1895. Of these 3 died and 177 left the Hospital well, leaving on the 31st of December 22 still under treatment. The deaths occurred from diphtheria amongst children of the following ages ; 8, 7 and 4 years. The last of these was exceedingly ill on admission, it being the seventh day of the disease. The patient aged 8, was also admitted on the sixth day of the disease, and the patient aged 7, on the fifth day, and neither of these children had before admission received the diphtheritic antitoxin treatment.

Of the patients in the Hospital on the 1st of January, all were cases of scarlet fever, and at the termination of the year the 22 cases still under treatment consisted of 18 cases of scarlet fever, and 4 of diphtheria.

The following table shows the number of cases admitted during each of the twelve months of the year, and the diseases for which they were admitted :—

			Scarlet Fever.	Diphtheria.	Typhoid Fever.	Total.
January	...	...	25	1	—	26
February	...	...	17	1	—	18
March	...	...	14	—	—	14
April	...	...	6	—	—	6
May	...	...	8	1	2	11
June	...	...	12	—	—	12
July	...	...	11	2	—	13
August	...	...	4	—	—	4
September	...	...	10	—	—	10
October	...	...	14	—	—	14
November	...	...	7	4	1	12
December	...	...	14	6	—	20
			<hr/>	<hr/>	<hr/>	<hr/>
			142	15	3	160
			<hr/>	<hr/>	<hr/>	<hr/>

**Scarlet Fever.**—It will be noted that 142 cases of this disease were admitted out of the total of 264 certified, being more than one-half. This compares with 273 out of 530 in 1896 and with 125 to 420 for 1895.

During the first quarter 56 cases of this disease were admitted the cases notified being 95.

During the second quarter 26 cases of this disease were admitted the cases notified being 54.

During the third quarter 25 cases of this disease were admitted the cases notified being 48, and

During the fourth quarter 35 cases of this disease were admitted the cases notified being 67.

**Diphtheria.**—Fifteen patients were admitted comparing with 24 for 1896 and with eight for 1895. Of these 15 cases, 2 were admitted on the second day of the disease, 4 on the third day, 3 on the fourth day, 3 on the fifth, 2 on the sixth and 1 on the seventh. In only one of these cases had the antitoxin treatment which is now recognised as the one most calculated to be successful been used, and as the efficacy of this remedy depends mainly upon the early period upon which it can be administered, it will be seen that a considerable loss of time with regard to it was lost in the great majority of these cases, most of which on admission were in a very critical condition.

In my opinion the objects of the Isolation Hospital are to a great extent of no avail as to the stopping the spread of infectious diseases if the patients are allowed to remain ill at their homes for an unnecessarily long period before application is made for their removal to the Hospital, and I trust that in future less delay will occur, and that the applications will be forwarded to the Council's Offices as soon as the nature of the case is ascertained and when for isolation purposes the removal of the said patients is desired.

**Typhoid Fever.**—Three cases of this disease were admitted during the year. Two of these were discharged cured, but the third, although showing certain symptoms of typhoid fever, was not considered to be suffering from this disease, but was kept under observation for a

few days, at the end of which time he was seen in consultation with the medical gentleman who sent him in, the disease from which he was suffering pronounced not be one of typhoid, and he was taken away by his mother.

All the Hospital washing has been done at the laundry, and the patients clothes, &c., disinfected in the disinfecting apparatus, both the laundry and the disinfector being in the Hospital grounds.

Notwithstanding the severity of many of the cases both in the scarlet fever and diphtheria blocks, the Hospital nursing staff has proved fully efficient, and there has been no necessity of calling in the aid of private nurses as has previously been the case. The plan adopted by the Hospital Committee of appointing a certain number of probationer nurses has been carried out. These nurses have attended a course of lectures given by myself. Special nursing, more particularly directed to fever nursing, is constantly taught them by the Sister; they have shown considerable aptitude and perseverance, and, no doubt, at the end of their two years (during which each serves as a probationer) they will be fully qualified to undertake the duties of staff nurses in any fever hospital. The Sister has been most painstaking and assiduous in her duties, both as regards the patients and the training of the probationers. I have again to thank the Matron for the very efficient manner in which she has carried out her duties, which I may state, with the growth of the establishment, have very considerably increased.

**Cost of Maintenance of Patients and Resident Staff at the Hospital.**—This works out at 7s. 9d. for each person per week, comparing with 7s. 10½d. for 1896, and with 9s. 1d. for 1895.

**Sanitary Defects, Nuisances and Sanitary Work.**—I append tabular statements of the sanitary work carried out in the District during the year, and also Table A of the Deaths, and Table B of the Population, Births, and new cases of Infectious Disease coming to the knowledge of the Medical Officer of Health during the year. It will be seen from these tables that a great deal more sanitary work has been done during the year. This is partly owing to the appointment of an Assistant Sanitary Inspector of Nuisances in January of

last year. The number of preliminary notices sent detailing the nuisances reported have been materially increased. It usually happens that the defects mentioned in these notices are remedied without the necessity of a statutory notice being served, the number of such notices sent during the year amounted to 98. In very few instances was it necessary to enforce compliance with these by application to the Magistrates.

**Water Closets without Water Supply.**—There are a number of these within the District. Special attention has been given by the Sanitary Inspectors to see that they are kept clean and properly hand flushed. Their existence, however, is undesirable, and they are only to be found in houses which have been built for a considerable number of years. Nearly as bad as these are the water-closets with too small flush tanks; wherever these are found a two gallon flush is substituted, this being the highest amount allowed by the water company.

**Manure Pits** are much more frequently visited and required to be kept clean. In many cases it is necessary to have these watched carefully, otherwise the manure is allowed to accumulate and cause a nuisance.

**Slaughter-houses, Bake-houses, and Milkshops and Dairies.**—These are all periodically visited and their condition reported on from time to time to the Public Health and Hospital Committee. With regard to the milk sold in the District most comes from outside sources and I have no reason to attribute any outbreak of infectious disease to its influence. I have, however, alluded more in detail to certain dangers likely to arise from the consumption of milk under the heading of Tuberculous diseases. The milk vendors are always willing to produce a certificate stating that the farms and dairies from which the milk is sent are in a sanitary condition.

**Analysis of Water.**—It has been decided that the water supplied to the District by the New River Water Company shall be periodically examined chemically and bacteriologically when required. The chemical examination is to be from a specimen of water taken

from a stand-pipe or other direct supply in each Ward once during the year making a total of eight examinations yearly. Hitherto the analyses sent are of a very satisfactory nature. There has been no need up to the present time to make a bacteriological examination.

**Water Supply.**—In several parts of the District, a constant supply of Water has been given by the New River Company, in place of the intermittent service which hitherto prevailed. The whole of the Stroud Green District has been treated in this way.

A considerable part of the District is still on the intermittent service; from a sanitary point of view it is highly desirable that the constant supply should be extended.

**Pulmonary Consumption and Tuberculosis.**—The number of deaths from phthisis during the year has amounted to 43, and a considerable number of deaths have been due to tuberculosis. These latter, however, have been included under the head of other causes. As both these diseases may be considered as infectious in a more or less degree, and due to bacilli derived from external sources, it will be well, I think, to record in a brief way the manner in which they may be spread, in order to endeavour to stamp them out in the future. First of all as regards pulmonary consumption, it must be considered that this disease is communicable from the patient to others, and it has been suggested that it should be included amongst the diseases required to be certified, but that step is, in my opinion, too extreme to be carried out. Patients and their nurses should, however, be warned that there is a liability of the disease being spread unless proper precautions are taken, and these consist chiefly in the disposal of the sputa, which should be so dealt with as to be thoroughly disinfected or destroyed. Care also should be taken that the patient should not come into too close contact with the healthy, especially at night, when the air of the room slept in is apt to be less frequently changed. As regards the general community it will be found that anything which tends to improve the general healthy condition also enables persons to resist the attack of this and many other such diseases, and it is, therefore, desirable that dampness in houses, deficient air supply, absence of light, bad food, and

other causes which tend to lower the vitality, and thus indirectly make people more subject to the attacks of those diseases, should be corrected. The objects of a Health Authority should be to induce the population to live under the most favourable sanitary conditions, so that they may be able the better to resist the onset of these infectious diseases, and secondly, by prompt measures, to arrest the spread of such diseases as soon after their occurrence as possible, and having found the source of the infection, to try and stamp it out.

**Tuberculosis** is also one of the preventible diseases which not uncommonly affects the human race ; it also depends for its existence upon bacilli, which generally enter the body by way of the mouth in the shape of a very unwelcome and harmful addition to the food. The chief vehicle is milk, which has become infected either from the cows suffering from tubercular disease affecting the internal parts, such as the lungs, glands, &c., or, more frequently, from a superficial tubercular ulceration of the teats. It has also been decided that the meat from animals suffering severely from tuberculosis can convey the disease. It may be stated that if such meat is well cooked and the tubercle carrying milk either scalded or boiled, the bacilli are rendered harmless, but even supposing that to be so, are people to be subjected to the risks attendant on these processes, should not the aim rather be to make it a penal offence for any one to sell such meat or milk. The only way I know of to prevent such infected meat being put on the market is for properly instructed inspectors to view the carcasses and condemn any meat they may consider unfit for consumption, and this can hardly be done until public abattoirs come into more frequent use. As regards milk, the public can to a certain extent be protected by periodical examinations of the cows, and there is yet a more sure test in what is called the tuberculin treatment, with which experts can tell whether animals are affected with tubercle or not, I believe that before long all large dairies will in self-defence be obliged to be able to certify to their customers that the cows which give their milk supply have successfully undergone the tuberculin test, something of this sort will have to be done ; the public must be protected from the dangers incident to the consumption of meat or milk tainted with tubercle ; a large percentage of cattle are said to be suffering from this disease, more especially cows which are kept in stalls for a large part of the year and fed on food calculated to stimulate the production of the largest quantity of milk (quantity, not quality, being the desideratum of

the producer), in fact, cows so kept, being more or less artificially treated, are in consequence not in such a healthy condition as they should be, and it can surprise no one that under such unfavourable hygienic conditions tubercle is prevalent; the fact that nearly one-tenth of the total deaths (as was the case this year in the Hornsey District) are attributed to diseases owing their origin to the presence of the tubercle bacillus, must be my excuse for entering somewhat in detail into the matter.

In connection with the danger to the community, arising from the germs of sputa, expectorated by tuberculous patients in various public places, such as railway carriages, omnibuses, tramway cars and public thoroughfares (the said sputa being liable to become dried and converted into dust), I notice that in America, where this disgusting habit is said to be very prevalent, that the Woman's Health Protective Association has been joined by the Health Board of New York, in endeavouring to put a stop to the practice by placing conspicuously posted notices inviting passengers to refrain from spitting, for the two-fold reason of decency and health, and that this example has been followed in Italy. That this habit of expectorating, is both disgusting and likely to cause danger to others, cannot be denied, but I think that it is done thoughtlessly, and the danger of it only requires to be pointed out for public opinion, to see that the nuisance is abated. I understand that in a few instances at least, these notices are posted in some of the tramway cars in London, and it is much to be desired that the plan should become general.

I am again able by the courtesy of the Council's Engineer and Surveyor to supply the following details as to the matters more particularly under his charge.

**Disposal of House Refuse.**—The cremation of the whole of the house refuse of the District in Destructor Furnaces, at the Sanitary Depôt at Hornsey, has been again carried out throughout the year in a highly satisfactory manner and without causing the slightest nuisance or objection of any kind.

The whole of the twelve cells have been in operation, and the increased quantity of refuse which has had to be dealt with is shewn by the following figures :—

HOUSE REFUSE BURNT AT THE SANITARY DEPÔT, HORNSEY.

			Year, 1895.	Year, 1896.	Year, 1897.
Loads	...	...	7,846	9,451	11,260
Tons	...	...	10,092	12,106	14,267

The number of applications for removal, received during the year, amounted to 377 or an average of 7·25 per week. The complaints numbered 114 or an average of 2·1 per week.

**Sewer Flushing.**—The system of flushing the sewers within the District has been continued during the year with satisfactory results.

The Council have, during the year, doubled the flushing in the Harringay District, adopting a fortnightly flush instead of monthly.

The quantity of water used for the purpose amounted to 18,765,000 gallons, against 19,866,000 gallons in 1896. This difference is due to the improved method of flushing referred to last year, the result being greater efficiency with a less expenditure of water.

**Ventilation of Sewers.**—Careful attention has been given to the ventilation of the Sewers.

On all the new Estates laid out provision has been made for the erection of vertical shafts at the highest points of the Sewers, and these will be erected up the flanks of houses or in other suitable positions as the houses are erected. Permission has also been obtained for erecting these upcast shafts in various other parts of the District, and in many cases where this has been done the open manhole covers at the road level have been closed with good results.

The total number of these cast iron shafts erected during 1897 was 16.

**Gullies.**—A number of stoneware pot Gullies with proper water seals have been substituted for old and defective brick gullies wherever the latter have been found to be a nuisance and the traps inefficient.

**Sewers.**—More than  $4\frac{1}{4}$  miles of new stoneware pipe Sewers have been laid during the year. The figures are as under:—

	Yards.
Foul Water Sewers ... ..	2,680
Surface Water Sewers ... ..	4,860
	<hr/>
Total ... ..	7,540
	<hr/>

The length of new Sewers laid in 1896 was 2,557 yards. A considerable length of Sewers were re-constructed, particulars of which are as follows:—

	Yards.
9 in. Surface Water Sewer, Hampden Road, Hornsey ...	186
15 in. and 18 in. Sewers in Stapleton Hall Road ...	240
3 ft. Storm Water Culvert, Cholmeley Park, Highgate ...	120
9 in. Surface Water Sewer, High Street, Hornsey ...	130
	<hr/>
	670

Several cases of the fouling of Storm Water Sewers have been traced and steps have been taken to remedy same.

**Medical Department.**—Conduct of work. On the 14th of June the following recommendations of the Public Health and Hospital Committee, with regard to the Health Department, were passed by the Council :—

“ The Committee are of opinion that the Public Health work  
“ should be directed and supervised by the Medical Officer of  
“ Health, who should be responsible for the work carried out by  
“ his staff.

“ The Committee gave instructions for the Medical Officer to  
“ give attendance at the Council’s offices for at least one hour on  
“ each day, to deal with the correspondence, to receive personal  
“ complaints, and to direct the work of the day. He is on the  
“ morning of each day to initial the diary kept by the Inspector  
“ of Nuisances, and to direct the programme of his work for the  
“ day. He is to visit most of the cases notified of diphtheria,  
“ typhoid fever, and puerperal fever, and also such cases of scarlet  
“ fever as, after the inquiries made by the Inspector of Nuisances,  
“ appear to demand further investigation.

“ The Medical Officer is to be able to give to the Committee  
“ information on matters arising on the Agenda.

“ The Committee also gave instructions that the Inspector of  
“ Nuisances and his assistant should be in attendance at the offices  
“ between the hours of 9 and 10 a.m. on each day to receive the  
“ Medical Officer’s instructions, and also from 4.30 to 5 p.m., to  
“ enter up their journals of the day’s work.”

Also the recommendation that Mr. Samuel Gilbert should, from the 1st of July, be transferred from the Clerk’s to the Medical Officer’s Department.

I remain, Gentlemen,

Your obedient servant,

HENRY CLOTHIER, M.D., Lond.

*Medical Officer of Health,*

March 18th, 1898,







(C IV.)

COUNTY OF MIDDLESEX.—SANITARY WORK, 1897.

Sanitary Districts.	Disinfection.			Dust.			Dampness.						Sundry nuisances abated.						Contagious Diseases of Animals.			Infant Life Protection Act.						
	Rooms fumigated.	Rooms stripped and cleaned.	Articles disinfected or destroyed.	Dust-bins repaired.	New bins provided.	Movable receptacles substituted for fixed.	Periodical frequency of dust removal.	Number of complaints of non-removal received.	Roofs repaired, &c.	Guttering and rain-pipes repaired, &c.	Gardens, Areas, &c., levelled and drained.	Yards paved and drained.	Surface adjoining houses paved.	Dry areas provided.	Ventilation below floor provided.	Basements rendered impervious.	Overcrowding.	Smoke.	Accumulations of refuse.	Foul ditches, ponds, &c., and stagnant water.	Foul pigs and other animals.	Other nuisances.	Outbreaks.	Animals infected.	Animals destroyed.	Number of licensed premises.	Number of children.	Number of deaths.
HORNSEY URBAN DISTRICT	441	250	5230	10	41	4	Weekly	114	29	30	—	64	7	2	40	5	4	3	4	3	18	52	—	—	—	None	—	—







THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

REPORT

PHYSICS 351

BY

NAME

DATE

INSTRUCTOR

--

# Horwich Urban District Council.

## Medical Officer's Annual Report,

For the year ended December 31st, 1897.

To the Chairman and Members of the District Council.

GENTLEMEN,—

I beg to submit the following Report on the Health and Sanitary Condition of the District during the year 1897 :—

The total population estimated to the middle of 1897 is 15,132.

**BIRTHS.**—520 births were registered during the year (258 boys and 262 girls). These figures give a birth-rate of 34·3 per 1,000 per annum, against a rate of 35·9 for the year 1896, when 534 births were registered.

**DEATHS.**—247 deaths took place during the year (124 males and 123 females). This mortality is equivalent to a death-rate of 16·3 per 1,000 per annum, against a death-rate of 16·9 for the preceding year.

The births are diminished by 14, and the deaths by 5.

The natural increase to the population is 273.

The subjoined Table shows the mortality in each of the four quarters of the year, distinguishing males and females :—

	Males.	Females.	Total.	Annual Rate per 1000.
First Quarter . .	33	23	56	14·8
Second „ . .	36	38	74	19·5
Third „ . .	24	39	63	16·6
Fourth „ . .	31	23	54	14·2

It will be seen that the highest mortality prevailed in the second quarter of the year ; it was due to an epidemic of measles.

During the same periods of the previous year the deaths number 56, 66, 62, and 68.

The age mortality was as follows:—Under one year, 87; one year and under five, 46; five and under fifteen, 13; fifteen and under twenty-five, 11; twenty-five and under sixty-five, 61; sixty-five and upwards, 29.

**INFANTILE MORTALITY.**—The deaths of children under five years of age numbered 133, including the deaths of 87 infants under the age of one year. During the year 1896 the mortality amongst children under five was 144, including 80 under the age of one year; there is therefore a decrease of 11 in the present year.

The infantile mortality, measured in the proportion of deaths to 1,000 births, was 167, as compared with 149 in 1896.

**ZYMOTIC DISEASES.**—The number of deaths due to the principal zymotic diseases was 36, equal to a rate of 2·3 per 1000, a decrease of 9 in comparison with 45 deaths from these ailments in 1896. They comprised—Scarlet Fever, 4; Diphtheria, 4; Membranous Croup, 1; Typhoid Fever, 4; Measles, 18; Puerperal Fever, 2; and Whooping Cough, 3.

**RESPIRATORY DISEASES.**—Forty deaths were caused by diseases of the Respiratory Organs, a rate of 2·6 per 1000, a decrease of 2·3 on the mortality of 1896 from these causes.

Thirteen deaths were attributed to Consumption of the Lungs; 8 deaths were due to accidental causes, inquests being held in each case.

**INFECTIOUS SICKNESS.**—The total number of Notifications received throughout the year amounted to 197, against 337 in 1896, a very gratifying decrease of 140. The diseases notified were—Scarlet Fever, 77; Diphtheria, 11; Membranous Croup, 4; Typhoid Fever, 28; Continued Fever, 2; Puerperal Fever, 9; and Erysipelas, 66.

**SCARLET FEVER.**—This complaint displays a marked diminution in the number of cases notified—only 77 cases against 197 in the previous year.

Four fatal results were recorded. As stated in my last annual report, this disease is exhausting itself on all the available material in the district; in the absence of hospital accommodation, efficient isolation is impossible.

**DIPHTHERIA.**—Eleven cases notified against 31 in 1896. Four deaths occurred. Dampness of houses and sub-soil were the chief causes of the outbreaks.

**MEMBRANOUS CROUP.**—Four cases notified, with one death.

**TYPHOID FEVER.**—Subjoined is a table giving a brief sketch of the cases:—

Number.	Date of Notification.	Locality,	Traceable or not to a previous case.	Insanitary conditions observed.	Result.
1	Jan. 1	Winter Hey Lane	No.	Offensive odours from fish and other refuse	Recovery
2	" 20	Canada Street	Case of Puerperal Fever in the house.	Slop water in foundation	"
3	" 22	Oxford Road	No.	Ashpit defective	Fatal
4	Feb. 8	St. Clare's Terrace	No.	None	Recovery
5	" 23	49, Mary Street West	No.	None	"
6	" 23	108, Wright Street	No.	Dampness	"
7	Mar. 7	Top-o'th-Such	No.	Drainage defects	"
8	" 11	Bank Meadow	No.	None	"
9	" 19	Chorley New Road	No.	None	Fatal
10	" 19	"	No.	Bad smells in house	Recovery
11	Apr. 10	"	Same house as case 10	"	"
12	" 10	"	"	"	"
13	" 16	"	"	"	"
14	" 18	41, Oxford Road	No.	Defective ashpits	"
15	" 21	36, Penn Street	No.	None	"
16	" 22	Chorley New Road	Same house as case 10	See case 10	"
17	May 4	"	"	"	"
18	June 8	"	"	"	"
19	July 29	110, Wright Street	No.	None	"

Number.	Date of Notification.	Locality.	Traceable or not to a previous case.	Insanitary conditions observed.	Result.
20	Aug. 30	Higher Barn	No.	Drainage bad; no back door	Fatal
21	Sep. 28	"	No.	None	Recovery
22	Oct. 5	Autumn Street	No.	Ash pit and closet defective; from other causes	Fatal
23	" 7	Captain Street	Came from another town	Fish refuse smells	Fatal
24	Nov. 1	Owen's Court	No.	Overcrowding	Recovery
25	" 2	Sefton Fold	No.	None	"
26	" 3	Heavily Grove	No.	Overcrowding; do back door	"
27	Dec. 1	Melbourne Grove	No.	No.	"
28	" 30	Bank Meadow	No.	No.	"

In many of the cases no insanitary conditions were found, and in no instance was the disease traceable to any polluted water or milk supply. Seven cases came under observation in one house situated in Chorley New Road; a bad smell under the kitchen floor caused the disease. All recovered, and there was no extension to the adjoining premises.

**PUERPURAL FEVER.**—Nine cases notified, with two deaths.

**WHOOPIING COUGH.**—This disease never assumed the form of a serious epidemic. Only 8 fatalities are reported.

**MEASLES** prevailed extensively in the second quarter of the year, so much so that it was considered advisable to close the schools, with the result that the epidemic subsided after the midsummer holidays. Eighteen deaths were due to this disease of infant life.

**ERYSIPELAS.**—Sixty-six cases notified. No fatal results.

**SMALL-POX.**—No cases notified.

Regular and special inspections were conducted in the course of the year. In cases of infectious diseases the premises are visited and disinfectants supplied.

With this report I submit tables furnished by the Local Government Board, which tables give the mortality and sickness returns for the year.

Work done in the Sanitary Department:—

OVERCROWDING.—Two cases reported, and remedied.

SEWAGE DISPOSAL.—Sewage was treated with Ferrozone and filtered through Polarite. In the course of the year experiments have been tried to produce a more satisfactory effluent, but so far the Council have not been successful. This matter is receiving attention.

DISINFECTION.—Clothing, bedding, &c., disinfected by steam, rooms stored with formalin.

HOUSE ACCOMMODATION.—This is sufficient for the needs of the locality. 43 plans for new houses passed during the year.

WATER SUPPLY.—This is hardly sufficient for the wants of the district. Several new schemes have been under consideration, but nothing definite is yet decided. The hardness of one source continues to be a subject of complaint.

SCAVENGING.—This has been carried out in a satisfactory manner. 438 pails and ash tubs are emptied weekly. 94 loads of refuse are carted away per week. Some method of storage or destruction of this material will have to be adopted, as the quantity is becoming too large for utilization on the land at Red Moss.

LODGING HOUSES.—Four registered. Day inspections are made once a month, night inspections twice a quarter. They have been found clean and with satisfactory accommodation.

BAKEHOUSES.—Inspected every month. Found in good condition.

SLAUGHTER HOUSES.—As stated in last report, they are satisfactory considering the fact that we have no public abattoir. They are inspected twice a month.

DAIRIES, COWSHEDS, AND MILKSHOPS.—These are regularly inspected. Some are becoming dilapidated, and require attention to drainage. In one case it was found that only about 250 cubic feet of air space per cow was allowed.

NUISANCES.—60 notices served. 58 remedied. No legal proceedings were taken.

UNWHOLESOME FOOD.—One carcase of a cow was condemned and destroyed.

SMOKE.—Many complaints; six observations recorded; no time limit is fixed; no legal proceedings taken. There is no doubt whatever that the adoption of some practical method that will abate the smoke nuisance will greatly add to the health of the district, as well as to the general comfort and cleanliness. There are plans by which the nuisance can be greatly lessened, by condensing the soot, which would make the smoke lighter, and cause it to rise instead of settling towards the ground. I again draw the attention of the Council to the recommendations in my Annual Report for 1896. The one referring to disinfection is acted upon, but the others have not yet received the amount of attention which they require and deserve.

CONCLUDING OBSERVATIONS.—The mortality for the year is low, the

death-rate comparing satisfactorily with other towns of similar size. Infectious disease has not been so prevalent, but we do not possess the necessary sanitary defence, in the shape of an Isolation Hospital, to battle with it when it appears in our midst. I hope during the year 1898 this important edifice will be one of the institutions of the town.

I am, Gentlemen,

Your obedient Servant,

GEORGE H. WHITAKER,

Med. Officer of Health.