

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

Contributors

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HEALTH REPORT

FOR

1905

OF THE

Croydon Rural District

BY THE

Medical Officer of Health.

Submitted to the Council 15th March, 1906.

WALLINGTON :

WILLIAM PILE, LTD., PRINTERS, 19, MANOR ROAD.

HEALTH REPORT

1908

Wagon Rural District

Wagon Rural District

Wagon Rural District

Wagon Rural District

Croydon Rural District Council.

HEALTH REPORT FOR 1905.

MISS BOOBYER AND GENTLEMEN,

I beg to submit to you my eighth Annual Report upon the Health and Sanitary condition of the District.

Appended are certain special reports, together with statistical tables, and the report on the working of the Factory and Workshop Act, in accordance with the requirements of the Home Office.

The Death Rate, 9·6, is much lower than in any previous year during which I have been your Medical Officer. The Birth Rate is also extremely low being 25·7 per thousand of estimated population.

The year 1905, generally speaking, has been a fairly healthy one, with no serious outbreaks of epidemic disease.

It is with pleasure that I have again to place on record the kind help and assistance which I have received from the Council and all its officers with whom my work has brought me into contact.

I have the honour to be,

Your obedient servant,

C. M. FEGEN.

March 15, 1906.

Greydon Rural District Council

HEALTH REPORT FOR 1903

Miss Fawcett and Dr. Fawcett

I have the honor to acknowledge the receipt of your letter of the 12th inst. and in reply to inform you that the same has been forwarded to the appropriate authorities for their consideration.

I have also the honor to inform you that the same has been forwarded to the appropriate authorities for their consideration. I have also the honor to inform you that the same has been forwarded to the appropriate authorities for their consideration.

The Health Committee have considered the same and have decided to refer the same to the appropriate authorities for their consideration. I have also the honor to inform you that the same has been forwarded to the appropriate authorities for their consideration.

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It is with pleasure that I have been able to place on record the kind help and assistance which I have received from the Council and all the officers with whom my work has been carried out.

I am, Sir, very truly, Yours, the Doctor to be.

Your obedient servant,

G. M. FAWCETT

10th Dec. 1903

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REPORT.

I.—AREA AND POPULATION.

The District consists of nine parishes, and the total area is 22,766 acres. The largest Parish is Coulsdon, with 4,314 acres, and the smallest Wallington, with 823 acres.

In the year 1901, at the time of the last Census, the population was 38,071, but omitting the three large institutions, viz.: — The Cane Hill Asylum, the Holborn Workhouse, and the Holborn Schools, the total population was 34,180, of which number 16,202 were males and 17,978 were females.

At the middle of 1905, the population was estimated to have increased to 59,507, but omitting all institutions, the corrected number was 54,763, of which number 26,792 were males and 27,971 were females.

The number of inhabitants in the three large institutions has increased from 2,468 in 1891 to 3,878 in 1905; this shows an increase of 3 since the middle of 1904.

The number of occupied houses in the District was :

In 1881	...	...	...	...	3,730
„ 1891	...	...	...	...	4,845
„ 1900	...	...	...	...	6,597
„ 1901	...	...	...	...	7,027
„ 1902	...	...	...	...	7,694
„ 1903	...	..	...	...	8,316
„ 1904	...	...	...	...	9,421
„ 1905	...	...	...	...	10,493

This shows an increase of 6,763 in the number of houses occupied during the last 24 years, and in nearly every parish the supply is unequal to the demand.

The subjoined table will show the number of houses in each parish in the years 1891, 1901, 1902, 1903, 1904, and 1905, and also the increases between the years 1891 and 1901, 1901 and 1902, 1902 and 1903, 1903 and 1904, 1904 and 1905, and the total increase during the years 1891-1905.

Parish.	Number of Houses						Increase					
	In 1891	In 1901	In 1902	In 1903	In 1904	In 1905	Between 1891 and 1901	Between 1901 and 1902	Between 1902 and 1903	Between 1903 and 1904	Between 1904 and 1905	Between 1891 and 1905
Addington ..	132	131	120	120	138	134	-1	-11	—	18	-4	2
Beddington ..	442	751	825	933	1035	1169	309	74	108	102	134	727
Coulsdon ..	537	818	903	1001	1244	1365	281	85	98	243	121	828
Merton ..	654	1027	1218	1348	1620	1861	373	191	130	272	241	1207
Mitcham ..	2055	2743	2934	3076	3337	3806	688	191	142	261	469	1751
Morden ..	138	186	195	196	210	206	48	9	1	14	-4	68
Sanderstead ..	96	203	211	250	309	342	107	8	39	59	33	246
Wallington ..	710	1063	1168	1272	1388	1464	353	105	104	116	76	754
Woodmansterne	81	105	120	120	140	146	24	15	—	20	6	65
	4845	7027	7694	8316	9421	10493	2182	667	622	1105	1072	5648

It will be seen from this table that great activity in building has taken place at Mitcham with 469 new houses, Merton with 241, Beddington with 134, and Coulsdon with 121.

In the District generally the average number of persons occupying each house in 1891 was 5·4, but at the census in 1901 it was found to have fallen to 4·8, while for 1905 it is estimated at 5·0.

The average number of persons per inhabited house remains as a general rule fairly constant for each locality,

though varying considerably in different parishes according to the class of house erected recently. In many parts of the district "tenement" house or houses let in flats have been built, such houses of course having a considerably larger number of inmates.

The natural increase during the year has been 879 more births than deaths.

In 1897 the increase was	...	...	474
„ 1898	„	...	392
„ 1899	„	...	379
„ 1900	„	...	460
„ 1901	„	...	543
„ 1902	„	...	552
„ 1903	„	...	730
„ 1904	„	...	763
„ 1905	„	...	879

It has amounted to 7,834 since the census in 1891.

The greatest excess of Births over Deaths in 1905 was at Mitcham with 372, Merton with 178, Coulsdon with 111, and Wallington with 93.

Excess of Births over Deaths.

	Deaths in 1905.	Births in 1905.	Excess of Births in 1905.
Addington	... 11	11	
Beddington	... 39	123	84
Coulsdon	... 39	150	111
Merton ...	... 80	258	178
Mitcham	... 270	642	372
Morden ...	... 15	20	5
Sanderstead	... 8	28	20
Wallington	... 62	155	93
Woodmansterne	5	21	16
	<hr/> 529	<hr/> 1408	<hr/> 879

II.—VITAL STATISTICS.

BIRTHS.

The number of Births registered in the District was 1408, as compared with 1284 in 1904, 1161 in 1903, 976 in 1902, 961 in 1901, and 862 in 1900. Of this number 22 children were registered as being illegitimate. This gives an illegitimate birth-rate of 1·5 per cent. of total births.

	No. of Illegitimate Births.		Percentage.
Beddington ...	3	...	2·4
Merton ...	4	...	1·5
Mitcham ...	14	...	2·1
Wallington ..	1	...	·6

The birth rate for the year for the entire District was 25·7, as compared with 27·3 in 1904, 28·2 in 1903, 26·0 in 1902, 28·11 in 1901, and 23·1 in 1900.

The birth rate in England and Wales in 1905 was 27·2 per thousand of the population, which is 0·7 per thousand below the rate in 1904, and is much lower than the rate in any other year on record; compared with the average of the decade 1895-1904 the birth rate for 1905 shows a decrease of 1·8 per thousand of population.

REGISTERED BIRTHS AND BIRTH RATES.

	Estimated Population middle of 1905.	Registered Births.					Birth Rates.				
		1901	1902	1903	1904	1905	1901	1902	1903	1904	1905
Addington ..	670	14	10	7	13	11	21·8	16·1	11·3	18·5	16·4
Beddington ..	5789	85	84	101	144	123	22·1	20·7	22·0	27·8	21·0
Coulsdon ..	7137	90	108	122	149	150	22·0	23·4	23·6	23·1	21·2
Merton ..	9150	164	168	221	219	258	36·3	31·4	36·4	29·3	28·1
Mitcham ..	20617	409	428	497	542	642	30·3	29·5	32·0	31·8	31·1
Morden ..	1035	26	27	25	24	20	27·0	27·0	24·5	21·8	19·5
Sanderstead ..	1660	22	15	26	28	28	21·9	14·3	20·6	18·0	16·3
Wallington ..	7935	126	120	152	142	155	24·4	20·9	24·0	20·6	19·8
Woodmansterne	770	25	16	10	23	21	46·8	26·2	16·3	31·2	27·2
	54763	961	976	1161	1284	1408	23·1	26·0	28·2	27·3	25·7

DEATHS.

Exclusive of those Deaths which occurred in public Institutions situated within the district, the deaths registered during the year numbered 529. This number includes those persons from within the district who died outside, either at the Workhouse, Workhouse Infirmary, or at the General Hospital at Croydon; the Surrey County Asylum at Brookwood; the Cottage Hospital at Carshalton; or the Council's Isolation Hospital at Beddington Corner. The number of these Deaths was 92.

The mortality corresponds to a death rate of 9·6 per thousand of population, as against 11·0 in 1904, 10·4 in 1903, 11·3 in 1902, 12·2 in 1901, and 12·0 in 1900, and as against an average of 11·9 during the ten years 1904-1895.

The death rate in 1905 for the whole of England and Wales from all causes was 15·2 per thousand, which is 1·0 per thousand below the rate in 1904, and lower than the rate in any other year on record; compared with the average rate in the ten years 1895-1904, the death rate in 1905 shows a decrease of 2·0 per thousand.

MORTALITY.*

Parish.	Population estimated to middle of 1905.	Deaths.					Death Rates.				
		1901	1902	1903	1904	1905	1901	1902	1903	1904	1905
Addington ..	670	9	12	5	11	11	14.0	19.3	8.0	15.7	16.4
Beddington ..	5789	29	30	34	45	39	7.5	7.4	7.4	8.7	6.7
Coulsdon ..	7137	40	31	40	41	39	9.8	6.7	7.7	6.3	5.4
Merton ..	9150	62	71	70	75	80	13.9	13.2	14.5	10.0	8.7
Mitcham ..	20617	200	202	195	247	270	14.8	13.9	12.9	14.5	13.0
Morden ..	1035	13	9	13	7	15	13.5	9.0	12.7	6.3	14.4
Sanderstead ..	1660	4	7	8	16	8	3.9	6.6	6.3	10.3	4.7
Wallington ..	7935	54	57	58	74	62	10.4	9.9	9.1	10.7	7.8
Woodmansterne	770	7	5	8	5	5	13.1	8.2	13.6	6.8	6.4
	54763	418	424	431	521	529	12.2	11.3	10.4	11.0	9.6

* Exclusive of deaths of non-residents occurring in public institutions in the District, but inclusive of deaths of residents occurring in public institutions outside the District.

N.B.—The number of deaths occurring to non-residents in public institutions in the District in 1905 was 178.

MORTALITY AT DIFFERENT AGES.

Infantile Mortality.—The number of infants under the age of one year who died during 1905 was 138, as against 158 in 1904, 109 in 1903, 106 in 1902, 105 in 1901, and 102 in 1900, the infantile mortality rate, therefore, being 98 per thousand births, as against 123 in 1904, 94 in 1903, 108 in 1902, 109 in 1901, and 118 in 1900, and an average of 120 in the ten years 1895 to 1904.

The deaths of children under the age of one year, numbering 138, gives a rate of 26.0 of the deaths at all ages, as against 30.3 in 1904, 25.5 in 1903, 25.0 in 1902, and 25.1 in 1901, and 25.3 in 1900.

The rate of mortality in England and Wales among infants under one year of age to thousand registered births was 128, which is 18 per thousand below the rate

in 1904, and lower than the rate in any other year on record. Compared with the average in the ten years 1895-1904, the rate of infantile mortality shows a decrease of 22 per thousand.

The deaths of children between the ages of one and five years, numbering 41, gives a percentage rate of 7·7 of total deaths, as against 8·0 in 1904, 6·7 in 1903, 9·2 in 1902, and 11·7 in 1901, and 9·2 in 1900.

The deaths occurring in persons over 65 years of age, numbering 145, gives a percentage of 27·4 of total deaths as against 22·8 in 1904, 28·3 in 1903, 27·5 in 1902, 25·1 in 1901, and 30·3 in 1900.

Parish.	Children under One Year.				Children between One and Five.				People over 65 Years.			
	1902	1903	1904	1905	1902	1903	1904	1905	1902	1903	1904	1905
Addington ..	3	1	2	1	..	1	..	..	3	3	3	..
Beddington ..	9	6	15	9	2	1	1	1	6	9	9	9
Coulsdon ..	7	9	9	8	4	3	3	5	10	10	13	11
Merton ..	23	20	21	22	5	4	5	2	19	16	19	19
Mitcham ..	56	57	86	78	25	15	31	26	47	53	44	72
Morden ..	1	5	3	3	..	1	..	2	5	2	3	6
Sanderstead ..	..	2	6	2	..	1	..	1	3	3	3	2
Wallington ..	4	8	15	13	3	2	2	3	22	23	24	25
Woodmansterne	3	1	1	2	..	1	..	1	2	3	1	1
Totals ..	106	109	158	138	39	29	42	41	117	122	119	145

CAUSES OF DEATHS.

The deaths registered in 1905 included—

- 10 from Measles.
- 4 „ Whooping Cough.
- 15 „ Diarrhœa.
- 38 „ Phthisis.
- 7 „ Influenza.
- 14 „ Injuries (self-inflicted or otherwise).
- 84 „ Lung Complaints.
- 29 „ Cancer (malignant disease).
- 11 „ Alcoholism (cirrhosis of liver).

The Zymotic Death Rate is a term commonly applied to the rates of deaths occurring from the seven principle zymotic complaints:—Small Pox, Measles, Scarlet Fever, Diphtheria, Whooping Cough, Diarrhœa and “Fever”; which latter term includes Typhus, Typhoid (or Enteric) and Puerperal Fevers. During the year 1905 the deaths from these complaints numbered 53, the Zymotic Death Rate therefore, being 0·9 per 1,000 of population, as compared with 1·5 in 1904, 1·7 in 1903, 1·04 in 1902, 1·9 in 1901, and 1·2 in 1900.

The deaths from Phthisis numbered 38 as against 37 last year, 33 in 1903, 19 in 1902, and 26 in 1901. The Phthisical Death Rate is, therefore, 0·6 per thousand of population as against 0·7 in 1904, 0·8 in 1903, 0·5 in 1902, and 0·7 in 1901.

The deaths from Pulmonary Diseases numbered 84 as against 126 last year, 61 in 1903, 74 in 1902, and 89 in 1901. This gives a Death Rate of 1·5, as against 2·6 last year, 1·4 in 1903, 1·9 in 1902, and 2·3 in 1901, per 1,000 of population.

The deaths from Influenza numbered 7 as against 10 last year, 6 in 1903, 8 in 1902, and 7 in 1901. This gives a Death Rate of 0·1 per 1,000 of population, as against 0·2 last year, 0·14 in 1903, 0·2 in 1902, and 0·2 in 1901.

To various forms of Violence, whether self-inflicted or otherwise, 14 deaths were due, in all of which cases inquests were held. This gives a Death Rate of 0·2, as against 0·48 last year, 0·5 in 1903, 0·4 in 1902, and 0·43 in 1901.

Birth Rate, Death Rate, and Analysis of Mortality in the year 1905.

	ANNUAL RATE PER 1000 LIVING.										
	Births.	Deaths.	Principal Epidemic Diseases. (Cols. 4-10)	Small-pox.	Measles.	Scarlet Fever.	Diphtheria	Whooping Cough.	Fever.	Diarrhœa.	Deaths under one year to 1000 Births.
Cols.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
England and Wales ..	27.2	15.2	1.52	0.00	0.32	0.11	0.16	0.25	0.69	0.59	128
76 Great Towns	28.2	15.7	1.88	0.00	0.39	0.13	0.16	0.29	0.08	0.83	140
141 smaller Towns	26.9	14.4	1.50	0.00	0.31	0.11	0.15	0.23	0.13	0.57	132
England and Wales, less the 217 Towns ..	26.3	14.9	1.09	0.00	0.24	0.09	0.15	0.20	0.09	0.32	113
Croydon Rural District ..	25.7	9.6	0.94	0.00	0.18	0.03	0.32	0.07	0.05	0.27	98

DEATHS IN INSTITUTIONS.

The Deaths in Institutions situate in the District numbered 178, as against 210 in 1904, 203 in 1903, 219 in 1902, 200 in 1901, and 249 in 1900.

These deaths included :—

- 16 from Phthisis.
- 5 „ Cancer.
- 24 „ Lung Complaints.
- 15 „ Heart Diseases.

III.—INFECTIOUS DISEASE.

The Infectious Disease (Notification) Act has been in force in this District since the year 1890. In July of that year Measles was also included in the list of notifiable diseases, and in the summer of 1894, it was considered necessary that Diarrhœa should, for a short period, also be considered a notifiable disease. Owing

to the epidemic of Small Pox that existed in and around London, as well as the Croydon Rural District, during the latter part of 1901 and the beginning of 1902, Chicken Pox was also made a Notifiable Disease, and continued to be so until the end of July, 1903. It was of great assistance in combating the outbreak of Small Pox.

The Infectious Disease (Prevention) Act is also in force in this District.

During the year 1,076 cases of Infectious Disease were either notified to the Sanitary Department or came to its knowledge through the vigilance of its Inspectors. Of this number 679 were due to Measles. Consequently, excluding this disease, there were 397 cases of other Notifiable Diseases, as against 333 in 1904, 227 in 1903, 321 in 1902, 202 in 1901, and 230 in 1900.

Reference to Table III. at the end of the report will show —

Firstly, cases notified in the whole District, with the ages of incidence and the nature of the Infectious Disease.

Secondly, the total number of cases (and nature of the disease) in each locality.

Thirdly, the number of cases removed from each locality to the Isolation Hospital.

SCARLET FEVER.

During the year 181 cases of Scarlet Fever were notified, and the largest number of cases came from Mitcham. The number is in excess of the number of cases notified during 1904, but out of this number the disease had a fatal ending in only two cases.

One very instructive outbreak occurred in Mitcham, in which the disease was undoubtedly milk-borne. Within a very short period 28 cases were notified as occurring in Mitcham, and it was found that in 22 instances the milk came from one dealer, in nearly all of the other cases direct contact with infected houses was traced. On visiting the vendor's farm nothing was found to be faulty with the cows or with the general cleanliness, etc., of the place, but a child was there looking ill, and on examination he was found to have some swelling of the legs and also desquamation of the hands, feet and body. I was informed that he was under treatment for Bright's disease, and that he was employed scouring out the utensils. Undoubtedly he had Scarlet Fever, and was the cause of the outbreak in the neighbourhood. On removing this source of infection no other cases occurred which could be traced directly to this milk supply. This "missed case" directly and indirectly was the probable cause of between 40 and 50 cases in Mitcham.

In three instances "return cases" unfortunately occurred, and in each case it was found that the patient discharged had contracted a "cold" within a few days of returning home, and this nasal discharge may probably have been the source of infection. The practice at the Isolation Hospital is for no patient to be discharged until I am satisfied that no infectivity from the throat, ears, nose, skin, or eyes exists. The following warning is given to parents and friends on the discharge of the patients, but I find that this recommendation is practically always ignored.

NOTICE TO PARENTS, GUARDIANS, AND OTHERS.

Although every care is taken to prevent carriage of infection by persons discharged from the Hospital, it is impossible in some cases to ensure against such an accident.

Parents and others are cautioned against allowing recently discharged patients to come into unnecessarily close contact with others, nor to be allowed to sleep in the same bed as another, or to attend school for at least a fortnight after discharge.

C. M. FEGEN,

Medical Officer of Health.

I believe that "return cases" occur owing to the want of attention given, especially to small children, by parents after return from the Hospital, which is so great a contrast to the care and attention both in feeding and clothing, which they have received there, that on their return home they speedily contract colds, etc., which possibly induce a recrudescence of the infection, and so give rise to further cases amongst susceptible persons with whom they are brought into contact.

INFANTILE SUMMER DIARRHOEA.

During the year 24 deaths occurred. This compares favourably with the mortality of the last two years, which was 39 in 1904 and 28 in 1903.

Reference to Table XIII. in the appendix will show the circumstances of each individual case, and the condition of the domestic surroundings.

During the year street watering and scavenging were more extensively and carefully carried out in the localities, which, in previous years had suffered mostly from this, to a large extent, preventable disease.

DIPHTHERIA.

During 1905, 134 cases of Diphtheria occurred in the district, as against 169 in 1904.

There were 18 deaths, two occurred in cases not admitted to the Hospital, and of the 16 deaths in the Hospital, nine deaths occurred within 72 hours of admission.

Formerly the average mortality in Diphtheria was rarely below 40 per cent. of the persons attacked, but since the introduction of antitoxin the general mortality has fallen to about 10 per cent.

I consider that in all doubtful cases antitoxin should be administered, and that during the progress of the disease moderate doses should be repeated at about 12 hours interval until the membrane shows signs of separating or the urgency of the symptoms shows materially diminution.

Antitoxin is supplied free of charge to all medical men practising in the district, and as most of the cases occur amongst the very poor, the question of expense to them in providing antitoxin does not arise, so no reason exists why antitoxin should not be given at the earliest possible moment as soon as the disease is even only suspected.

TYPHOID FEVER.

During the year 18 cases of Typhoid Fever were notified. A special report in the appendix will be found relating to an outbreak in Mitcham and Merton connected with the sale of " stewed eels."

PHTHISIS.

A further increase in the number of deaths occurring from Phthisis will be noticed, namely 38 as against 37 in the previous year. This increase is perhaps not excessive if the large growth of the district is taken into consideration.

During the year I have examined the sputum of 47 persons, with a positive result in 40 cases. In all 192 such examinations were made.

Disinfection (repeated in several instances) has been largely carried out in the rooms occupied by Phthisical persons, and the clothing, &c., has been systematically dealt with at the Council's Disinfecting Station.

IV.—PREVENTIVE MEASURES.

During the year 268 patients were admitted to the Isolation Hospital at Beddington Corner, including 3 patients from neighbouring authorities; while to the Small Pox Hospital at North Cheam 1 patient was admitted.

The usual routine preventive and precautionary measures have been continued as in previous years to check the extension of infectious disease with most satisfactory results. Isolation, disinfection and quarantine have been carried out under the careful and

intelligent supervision of the Sanitary Staff, and outbreaks of infectious disease have been very materially limited.

Unrecognised cases as in previous years have been the origin of most outbreaks, and such unrecognised cases are always likely to exist in all diseases especially if the attack is a very mild type, so mild indeed are some of these cases that the advice of a medical man is, by the parents of the patients considered superfluous. These, unfortunately, are the cases which prove the nuclei of almost every epidemic. This has been particularly the case in the outbreaks of Scarlet Fever in Mitcham, Coulsdon and Woodmansterne, and Typhoid Fever in Mitcham and Merton.

Immediately on notification being received of the existence of cases of Scarlet Fever, Diphtheria, Typhoid Fever, and Small Pox, it is the custom to offer hospital treatment, and if the offer is accepted the patient is at once removed to the Hospital ; in no case should longer than two hours elapse after receiving the intimation of the existence of infectious disease in any house before the patient, if for removal is in the Hospital, unless the ambulance is in use removing another case, when removal may be delayed considerably. This delay is to be deprecated in all cases of diphtheria.

In all cases of Typhoid Fever which are not admitted to the Hospital, sanitary pails, of a special character, furnished with air-tight screw lids, are left at the infected houses for the reception of all excreta and other waste products of the sick room. These pails are collected daily, and their contents are dealt with in the destructor at the Hospital.

In every case of Notifiable Disease enquiries are made and recorded as to the number of persons in the house, where they are employed, milk supply, water supply, laundry, conditions of drains. etc., together with the history of the case and the probable cause of infection. Notice is at once sent to any school attended by children from infected houses, and these children are then excluded from school on my certificate, and are not allowed to return until due notice has been given to the school authorities.

Disinfection of infected rooms is carried out by fumigation with sulphur dioxide or formic aldehyde, and of the bedding and the clothes in the steam disinfectant at the disinfecting station at the Isolation Hospital. Disinfectants are supplied free of charge during illness. After the rooms have been disinfected the owners of the premises are required to strip and whitewash the ceilings and walls, under the supervision of the Sanitary Inspectors. This applies to all cases of Infectious Disease, and in the event of cases of Phthisis or Cancer occurring, on request, the rooms, as well as the bedding, clothing, etc., are from time to time disinfected.

The Council places at the disposal of all medical practitioners, free of charge, means of having the diagnosis of all cases of infectious or contagious disease confirmed or otherwise by bacteriological examination, and also, at the end of the illness, for determining whether the patient is free from the specific bacterium or not. During the year 1919 such examinations have been made.

While with regard to Diphtheria it is the custom to consider each case infective until the bacteriological examination shows the throat to be free from the true or pseudo-diphtheritic bacillus.

V.—ISOLATION HOSPITAL.

The Isolation Hospital at Beddington Corner was opened at the beginning of March, 1869, and since that date 1,200 patients have been admitted.

Accommodation.—The Isolation Hospital was opened to provide accommodation for 28 patients, namely :—10 beds for Scarlet Fever, 10 beds for Diphtheria, and 4 beds for Typhoid Fever, and 4 beds for doubtful cases. However, almost from its earliest days the accommodation proved unequal to the demand.

In 1904, a contract was entered into by the Council to considerably extend the accommodation at the Hospital, and in June 1905, an addition Scarlet Fever pavilion was completed, and has practically been full during the remainder of the year.

Staff.—The Staff consists of—

1 Matron	4 Servants
1 Assistant Matron	4 Wardmaids.
6 Nurses	1 Gardener
3 Probationer Nurses	2 Engineers
2 Laundresses	Porter and Portress
	1 Seamstress.

During the year 268 patients have been admitted, of which number

145	were suffering from	Scarlet Fever
109	„	Diphtheria
11	„	Typhoid Fever
3	„	Erysipelas

Three cases were admitted by arrangement with other authorities.

Twenty-two patients died :—Two from Scarlet Fever, 16 from Diphtheria, three from Typhoid Fever, and one from Erysipelas.

The throat and nasal passages of every patient admitted to your Hospital were examined, and it was found that out of the 254 cases of Scarlet Fever and Diphtheria admitted :—229 had enlarged tonsils, 77 had adenoid growths, 43 had nasal polypi, 31 had previous attacks of tonsilitis, 3 Scarlet Fever and 2 Diphtheria had had a previous attack for which they were admitted, and 37 cases were found to be suffering from both Scarlet Fever and Diphtheria.

During the year, after admission to the Scarlet Fever wards, it was found that in several cases Whooping cough, chicken pox, and ringworm were coincident complications of the disease.

Every case is regarded as being infectious so long as any congestion of the throat or fauces existed, or where there was any cough or any discharge from either the ears or nose, or when any sore existed, and until these troubles had entirely disappeared no patient is discharged from the Hospital, thus minimising to a large extent the always possible risk of the occurrence of "Return Cases."

Parish.	Scarlet Fever.		Diphtheria.		Typhoid Fever.		Erysipelas.		Total.	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Addington ..	1	..	..	..	1	..	..	..	2	..
Beddington ..	12	..	6	1	..	..	..	..	18	1
Coulsdon ..	9	..	11	..	..	..	..	..	20	..
Merton ..	24	1	4	..	7	2	..	..	35	3
Mitcham ..	70	..	77	14	3	1	3	1	153	16
Morden ..	3	..	1	..	..	..	..	..	4	..
Sanderstead ..	6	1	5	..	..	..	..	..	11	1
Wallington ..	10	..	5	1	..	..	..	..	15	1
Woodmansterne ..	7	..	..	..	..	..	..	..	7	..
Cases admitted by arrangement—										
Caterham ..	3	..	..	..	..	..	..	..	3	..
Totals ..	145	2	109	16	11	3	3	1	268	22

VI.—GENERAL.

Water Courses.—The condition of all water courses is under the constant supervision of your officers, and material improvements have been effected and continued.

House Refuse Collection.—The collection of house refuse has again been largely extended during the year. Except in the very rural portions, no part of the district is now without frequent and adequate collection. Nuisances have from time to time been dealt with with regard to the deposits made in this district of house refuse, which is brought in, both by road and rail more particularly from the Metropolis.

Legal Proceedings.—In the following cases legal proceedings were taken :—

Particulars.	Result.
For permitting a nuisance to exist at Grand Drive, Merton, arising from defective drainage.	Fined 40s. and 10s. 6d. costs, and an order made to do the necessary work.
Proceedings under the Housing of the Working Classes Act, at Common-side East, Mitcham.	Summons withdrawn. Owner having carried out an undertaking to demolish the cottage.
For permitting an old tram car and railway carriage to be used as dwellings at Sanderstead.	Closing orders granted by the Justices under the Housing of the Working Classes Act, and defendant to pay the costs.
For refusing permission to inspect a dwelling house at Godstone Road, Kenley.	Case adjourned to allow defendant opportunity of granting facilities for inspection.

REGULATED TRADES.

(1) DAIRIES, COWSHEDS AND MILKSHOPS.

There were 98 premises registered under the Dairies, Cowsheds and Milkshops Order at the end of the year.

During the year a very considerable amount of attention was paid to all dairies, cowsheds, milkshops, and the milk supply generally in the district.

As milk is the staple food for all children and most invalids it is absolutely essential that the milk should be from healthy cows kept in an healthy and natural manner, and that no preservatives whatever should be used. Representations have been made with regard to the manner in which the Food and Drugs Act has been administered, and it is to be hoped that in the future the administration will not be such as it has been during the last three years.

(2) SLAUGHTERHOUSES.

There are 20 slaughterhouses in the district, all of which are regulated by the bye-laws of the Council. They have received very full attention from your officers.

(3) BAKEHOUSES.

There are 35 bakehouses in the District. This is 3 more than the previous year.

(4) PIGGERIES.

As usual with the hot weather, came several complaints of the piggeries, more particularly in Eastfields, Mitcham. All the piggeries in the District are receiving special attention from your officers.

Parish.				Dairies.	Cowsheds.	Milkshops.	Butcher's Shops.	Slaughter-houses.	Piggeries.	Bakehouses.
Addington	..	..	..	..	2	1	..	..	..	..
Beddington	..	..	..	1	3	5	5	1	3	4
Coulsdon ..	..	..	..	3	10	4	6	6	..	4
Merton ..	..	..	..	4	5	6	11	4	4	6
Mitcham ..	..	..	..	12	7	18	15	7	53	14
Morden ..	..	..	..	..	2	..	..	..	3	1
Sanderstead	..	..	..	2	3	..	..	..	..	..
Wallington	..	..	..	2	2	6	6	2	..	6
Woodmansterne	..	..	..	..	..	..	..	..	..	..
Totals	..	..	..	24	34	40	43	20	63	35

HOUSING OF THE WORKING CLASSES ACT.

During the year 14 houses have been dealt with under the Housing of the Working Classes Act, and in 10 instances the houses were put into a satisfactory condition, in 4 instances the houses were closed on Justice's orders.

SANITARY SURVEYOR'S DEPARTMENT.

I am indebted to Mr. Chart for the subjoined information.

SEWERS.

Main sewers have been extended by the Council at Old Lodge Lane, Higher Drive, and Smitham Bottom, Coulsdon; at Grand Drive, Merton, and Furzedown, Mitcham; in addition to the sewers that have been laid for the drainage of private estates.

The rapid development of the portion of the district south of Croydon, in the Parishes of Coulsdon, Sanderstead, and Woodmansterne points to the need in the immediate future of the provision of sewers, and negotiations are proceeding with the Croydon Corporation with the view of extending the area now draining by agreement to the Corporation Sewers.

A Scheme has been prepared for the Sewering of the area lying South-West of the Epsom and Leatherhead line of Railway at West Barnes, Merton, a neighbourhood which is rapidly being built over, and the development of which is being brought about by the construction of the Tramway line, which will eventually connect London County with Wimbledon and Kingston.

SEWAGE DISPOSAL WORKS.

Plans have been prepared for the construction of one acre of additional filters at the Sewage Works; these plans are now before the Local Government Board. The disposal of the pressed sludge has caused the Council considerable anxiety, the land utilized for this purpose for some years passed being now exhausted; plans were prepared for the erection of a Destructor, but in the

meantime an offer was received to convey the sludge away by rail and a contract to effect this has been entered into, and is in operation.

The Council has authorised the monthly analysis of the effluent, and the reports show that a good standard of purification is attained.

NEW STREETS AND BUILDINGS.

Plans have been deposited for the laying out of 26 new streets, and for 1,823 buildings in the District.

MAKING UP OF NEW STREETS.

During the year the following New Streets have been made up, under the provisions of the Private Street Works Act :—

Mitcham—Inglemere Road.

Beddington—Demesne Road, Foxley Lane.

Merton—Chestnut Road, Savoy Road, Beacon Road.

Wallington—Park Hill Road, Brambledown Road.

VII.—INSPECTORS' WORK.

Subjoined appears a summary of the Inspectors' work during the past year. It will be seen that no less than 8,905 visits have been paid by them, as against 7,904 in 1904, 8,083 in 1903, 9,244 in 1902, 7,777 in 1901, and 5,628 in 1900.

I have again to bear testimony to the extreme care and accuracy, and the unceasing vigilance which each Inspector displays in the carrying out of his arduous, and very often extremely unpleasant duties.

SUMMARY OF INSPECTORS' WORK FOR THE YEAR 1905.

	Inspectors.				Total
	White	Rabbetts	Payne	Pointon	
Total number of visits paid...	2130	2661	2718	1396	8905
Number of complaints received and investigated ...	87	65	40	43	235
Number of premises inspected ...	310	655	753	346	2064
Number of nuisances discovered ...	237	398	188	162	985
Nuisances abated without report ...	232	242	95	109	678
" " after report ...	5	93	90	53	241
Preliminary notices served ...	127	174	123	63	487
Legal notices served... ..	5	39	11	24	79
Notices followed by legal proceedings	—	2	2	—	4

CHARACTER OF WORK DONE—

Houses dealt with under the Housing of the Working Classes Act ...	1	11	3	—	15
Houses cleansed and repaired generally	63	41	36	23	163
Ventilation of houses improved ...	3	20	2	—	25
Overcrowding abated	1	4	2	1	8
Defective roofs repaired	47	45	25	15	132
Houses under-pinned (damp proof course inserted) or damp walls remedied	8	11	4	—	23
Eaves guttering renewed or repaired	50	41	22	8	121
Water-closets renewed or repaired ...	52	65	18	12	147
Water-closets provided with water for flushing	59	60	19	27	165
Privies or earth-closets re-constructed, improved or abolished	2	2	5	—	9
Privies or earth-closets abolished, and water-closets substituted ..	1	—	5	—	6
Houses supplied with water from the main	1	—	3	1	5
Water tanks or cisterns cleansed or covered	9	31	2	1	43
Yards of houses paved with impervious material	11	11	4	4	30
Paving of yards repaired	17	15	8	4	44
Floors of sculleries paved or repaired	9	22	5	4	40
Ashpits or dustbins provided	18	82	12	9	121
Cesspools abolished and filled up ...	1	—	6	—	7
Cesspools cleansed	9	2	15	12	38
Houses at which drains were tested	56	59	70	17	202
Houses at which drains were found defective... ..	41	46	25	16	128
Houses at which drains were re-constructed or new provided ...	15	45	15	4	79
Houses at which drains were cleansed, ventilated, trapped or repaired	53	109	47	7	216

	Inspectors.				Total
	White	Rabbetts	Payne	Pointon	
Number of drain tests made in course of work done under the two previous headings	70	89	49	34	242
Houses at which inspection chambers in drains were provided ...	24	26	13	4	67
Stables provided with drainage ...	2	3	4	—	9
Premises at which animals improperly kept were removed ...	1	13	2	—	16
Number of inspections of food exposed for sale	133	46	150	51	380
Urinals cleansed and repaired ...	1	2	2	—	5
Smoke nuisances abated	3	—	1	1	5
Offensive accumulations removed ...	9	45	23	5	82
Piggeries repaired and improved ...	2	18	—	3	23
Infective houses disinfected and cleansed	51	140	44	48	283
Visits to infective houses	204	335	294	176	1009
Number of dairies and milkshops ...	19	33	25	21	98
Visits to ditto	153	111	239	76	579
Number of complaints as to uncleanliness and neglect of regulations	7	15	14	5	41
Number of slaughterhouses... ..	3	5	6	6	20
Number of visits to same	62	81	109	42	294
Number of complaints as to uncleanliness	4	12	5	1	22
Number of drains opened up for examination (Section 41, P.H.A.)	2	29	4	2	37

ARTICLES DISINFECTED.

January ...	768	July ...	860
February ...	641	August ...	674
March ...	668	September ...	754
April ...	753	October ...	607
May ...	1,171	November ...	693
June ...	578	December ...	880
			<hr/>
			9,047

APPENDICES.

TABLE I.—Vital Statistics of Whole District during 1905 and Previous Years.

YEAR.	Population estimated to middle of each year.	BIRTHS.		DEATHS UNDER ONE YEAR OF AGE.		DEATHS AT ALL AGES. TOTAL.		DEATHS IN PUBLIC INSTITUTIONS.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the 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
1895	29329	769	26.2	87	113	530	18.0	208	208	30	352	12.0
1896	30099	765	25.4	105	137	557	18.5	209	209	38	386	12.8
1897	30896	821	26.5	80	97	544	17.6	228	228	31	347	11.2
1898	31681	790	24.9	119	148	571	18.0	205	205	32	398	12.5
1899	32515	823	25.4	129	156	622	19.1	227	227	49	444	13.6
1900	33304	862	25.8	102	118	603	18.1	249	249	48	402	12.0
1901	34180	961	28.1	105	109	551	16.1	200	200	67	418	12.2
1902	37500	976	26.0	106	108	585	15.6	219	219	58	424	11.3
1093	41120	1166	28.2	109	94	585	13.0	203	203	49	431	10.4
1904	47030	1284	27.3	158	123	654	13.9	210	210	77	521	11.0
Averages for Years, 1895—1904	34765.4	921.7	26.3	110.0	120.3	580.2	16.7	215.8	215.8	47.9	412.3	11.9
1905	54763	1408	25.7	138	98	615	11.2	178	178	92	529	9.6

* Rates calculated per 1,000 of estimated population.

NOTE.—The deaths included in Column 7 of this table are the whole of those registered during the year as having actually occurred within the district. The deaths included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10, and the addition of the number in Column 11.

By the term “Non-residents” is meant persons brought into the district on account of sickness or infirmity, and dying in Public Institutions there; and by the term “Residents” is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in Public Institutions elsewhere.

The “Public institutions” to be taken into account for the purposes of these Tables are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses and lunatic asylums. A list of the institutions in respect of the deaths in which corrections have been made should be given on the back of this Table.

Area of District in acres (exclusive of area covered by water) }	22766	Total population at all ages	38071	} At Census of 1901.
		Number of inhabited houses.. ..	7027	
		Average number of persons per house	4·8	

Institutions within the District receiving sick and infirm persons from outside the District —

Cane Hill Lunatic Asylum, in the Parish of COULSDON.
Holborn Workhouse, in the Parish of MITCHAM.
Holborn Union Schools, in the Parish of MITCHAM.

Institutions outside the District receiving sick and infirm persons from the District—

Surrey County Asylum, at BROOKWOOD.
Carshalton Cottage Hospital, at CARSHALTON.
Croydon Rural District Isolation Hospital, at CARSHALTON.
Joint Small Pox Hospital, in Parish of CHEAM.
Croydon General Hospital, at CROYDON.
Croydon Infirmary and Workhouse, at CROYDON.

Other Institutions, the deaths in which have been distributed among the several localities in the District.

Russell Hill School, in Parish of BEDDINGTON.
Royal Female Orphanage, in Parish of BEDDINGTON.
Reedham Orphanage, in Parish of COULSDON.

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TABLE II.—Vital Statistics of separate Localities in 1905 and previous years

Name of Locality	WHOLE DISTRICT.				ABINGDON.				BERKSHIRE.				COTSWOLD.				MERTON.				MITCHEM.				MORLEY.				SANDHURST.				WALLINGTON.				WOODHARTHEM.			
	1				2				3				4				5				6				7				8				9				10			
	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.
Year.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.
1895	29329	709	332	86	678	14	7	0	3166	63	25	4	3577	60	30	7	8009	93	41	15	11790	579	146	47	826	17	12	4	698	16	3	0	4225	93	31	7	433	14	6	3
1896	30959	765	386	104	670	19	5	0	3213	65	19	6	3671	74	32	11	8555	90	36	10	12057	532	197	63	851	22	5	1	739	16	9	3	4463	99	38	7	467	20	6	3
1897	30895	821	347	79	679	14	7	1	3390	57	31	8	3747	109	32	6	4039	103	38	9	12943	539	155	39	870	27	8	2	787	13	5	0	4601	94	35	13	473	16	7	1
1898	31641	790	398	118	672	13	8	1	3459	53	21	4	3921	58	47	10	4123	94	64	20	12654	568	192	67	898	21	9	4	845	15	8	1	4727	103	43	10	486	19	8	2
1899	32515	825	444	129	675	14	19	2	3698	69	39	11	3885	94	29	9	4280	109	50	12	12992	541	216	74	921	24	5	4	892	11	8	1	4860	105	70	13	502	18	8	3
1900	33304	862	492	169	663	11	9	1	3732	69	31	4	3969	92	50	12	4398	116	48	14	13155	499	185	54	943	13	14	3	936	19	8	0	5002	113	49	10	515	29	8	4
1901	34180	951	418	165	642	14	9	1	3816	85	29	5	4015	90	40	7	4510	164	62	18	13403	499	200	56	900	26	13	3	1001	22	4	1	5152	125	54	10	534	33	7	1
1902	37560	976	421	165	620	10	12	3	4050	84	30	9	4660	108	31	7	5550	168	71	23	14500	498	202	56	1000	27	9	1	1050	15	7	0	5720	129	57	4	610	16	8	3
1903	41120	1161	431	169	620	7	5	1	4750	101	34	6	5150	122	40	9	6000	221	70	29	15500	497	195	57	1018	25	13	3	1060	26	8	3	6330	152	58	8	612	10	8	1
1904	47080	1284	521	158	700	13	11	2	5170	144	45	15	6450	149	41	9	7450	219	75	31	17000	542	247	66	1100	24	7	3	1550	28	16	6	6975	142	74	15	735	23	5	1
Averages of years, 1905-1901	34765.4	921.2	412.3	109.6	660.2	12.9	9.2	1.2	3841.4	78.8	30.7	7.6	4290.3	101.1	37.2	8.6	4795.4	137.7	55.5	10.2	13335.8	418.4	193.5	60.3	940.6	22.6	9.5	2.7	975.3	18.1	7.4	1.4	5205.5	114.4	52.9	9.7	538.9	17.2	6.3	1.9
1905	54763	1464	529	138	670	11	11	1	5789	123	39	9	7137	150	39	8	9150	258	80	22	20617	642	270	78	1005	20	13	3	1660	28	8	2	7935	155	62	13	770	31	5	2

NOTE.—(a) The separate localities adopted for this table should be areas of which the populations are obtainable from the census returns, such as wards, parishes or groups of parishes, or registration sub-districts. Block 1 may, if desired, be used for the whole district; and blocks 2, 3, &c., for the several localities. In small districts without recognised divisions of known population this Table need not be filled up.
 (b) Deaths of residents occurring in public institutions beyond the district are to be included in sub-column c of this table, and those of non-residents registered in public institutions in the district excluded. (See note on Table I. as to meaning of terms "resident" and "non-resident.")
 (c) Deaths of residents occurring in public institutions, whether within or without the district, are to be allotted to the respective localities according to the address of the deceased.
 (d) Care should be taken that the gross totals of the several columns in this Table respectively equal the corresponding totals for the whole districts in Tables I. and IV.; thus the totals of sub-columns a, b, and c should agree with the figures for the year in the columns 2, 3, and 12 respectively, Table I. the gross total of the sub-columns c should agree with the total of column 2 in Table IV., and the gross total of sub-columns d with the total of column 3 in Table IV.

TABLE III.—Cases of Infectious Disease notified during the year 1905.

NOTIFIABLE DISEASES.	Cases Notified in whole District.						Total Cases Notified in each Locality.									No. of Cases Removed to Hospital from each Locality.									Totals.
	At all Ages.	At Ages—Years.					1 Addington.	2 Beddington.	3 Coulsdon.	4 Merton.	5 Mitcham.	6 Morden.	7 Sanderstead.	8 Wallington.	9 Woodmanst'rne.	1 Addington.	2 Beddington.	3 Coulsdon.	4 Merton.	5 Mitcham.	6 Morden.	7 Sanderstead.	8 Wallington.	9 Woodmanst'rne.	
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.																				65 and upwards.
Small Pox	1	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	1
Cholera .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria	134	3	35	81	11	4	..	10	13	6	91	1	5	8	..	..	6	11	4	77	1	5	5	..	109
Membranous Croup ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas	44	2	..	4	7	29	2	3	7	7	23	1	..	3	..	..	..	..	3	..	..	..	..	..	3
Scarlet Fever	181	2	46	107	14	12	..	1	12	11	27	93	5	7	16	9	1	12	9	24	70	3	6	10	142
Typhus Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	18	..	4	6	2	6	..	1	..	1	8	8	..	..	..	..	1	..	..	7	3	..	..	..	11
Relapsing Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever	2	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles	697	14	258	391	21	13	..	133	158	56	202	16	21	111	..	..	..	..	..	..	..	..	..	..	..
Totals	1077	21	343	589	56	66	2	2	158	191	104	418	23	34	138	9	2	18	20	35	153	4	12	15	266

The Isolation Hospital is situated at Beddington Corner, Mitcham Junction, but is within the Carshalton Urban District.
The Small Pox Hospital is situated at Cheam, and is the Joint Hospital for Croydon Borough, Wimbledon, Penge, and the Croydon Rural Councils.

TABLE IV.—Causes of, and ages at, Death during 1905.

CAUSES OF DEATH.	Deaths at the subjoined ages of "Residents" whether occurring in or beyond the District.							Deaths at all ages of all "Residents" belonging to Localities, whether occurring in or beyond the District.								Total Deaths whether of Residents or non-Residents in Public Institutions in the District.		
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	All ages.	Under 1.	1 and under 5.	5 and under 15.	15 & under 25.	25 & under 65.	65 & upwards.	Addington.	Beddington.	Coulsdon.	Merton.	Mitcham.	Morden.	Sanderstead.	Wallington.	Woodmanstree.	Cane Hill Asylum	Holborn Union Workhouse
Measles	10	3	6	1	..	..	..	..	..	3	..	4	1	..	2	..	..	..
Scarlet Fever	2	..	1	1	..	..	..	..	..	..	1	..	..	1	..	..	..	..
Whooping Cough	4	2	1	1	..	..	..	..	..	..	..	4	..	..	..	..	..	..
Diphtheria and Membranous Croup ..	18	..	5	13	..	..	..	..	1	..	..	16	..	..	1	..	..	..
Croup	2	..	1	1	..	..	..	..	..	..	..	1	1	..	..	..	..	1
Typhoid Fever	3	..	..	..	..	3	..	..	..	..	2	1	..	..	..	..	..	..
Epidemic Influenza	7	1	..	..	..	4	2	..	1	1	1	3	..	..	1	..	..	..
Diarrhoea	15	12	2	..	..	..	1	..	..	..	6	8	1	..	..	..	..	..
Enteritis	31	27	1	..	1	1	1	..	1	..	6	23	1	..	..	..	..	..
Puerperal Fever	1	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..
Erysipelas	2	..	1	..	..	1	..	..	..	..	1	1	..	..	..	..	..	..
Other Septic Diseases	11	..	1	1	..	5	4	..	..	1	1	7	1	..	1	..	1	3
Phthisis (Pulmonary Tuberculosis) ..	38	1	2	3	7	24	1	1	5	4	2	21	..	1	4	..	11	5
Other Tubercular Diseases	15	3	3	3	2	4	..	..	..	2	2	9	..	..	1	1	..	2
Cancer, malignant disease	29	..	..	..	1	16	12	1	2	..	8	9	..	..	9	..	5	..
Bronchitis	36	9	4	1	2	5	15	1	3	2	4	22	..	1	3	..	1	15
Pneumonia	38	12	6	1	..	12	7	2	3	3	4	23	..	1	2	..	5	3
Pleurisy	3	..	2	..	..	..	1	..	..	1	..	2	..	..	..	..	..	..
Other Diseases of Respiratory Organs ..	7	1	1	1	..	3	1	..	1	..	2	3	1	..	..	..	..	..
Alcoholism—Cirrhosis of Liver	11	..	..	..	..	7	4	..	1	1	..	5	2	1	1	..	..	..
Venereal Diseases	2	2	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..
Premature Birth	28	28	..	..	..	..	..	..	2	5	5	12	..	1	3	..	..	..
Diseases and accidents of Parturition ..	7	2	..	..	1	4	..	..	2	..	..	4	..	..	1	..	..	..
Heart Diseases	63	4	..	1	1	29	28	..	4	7	15	27	1	1	6	2	6	9
Brain	33	..	2	4	2	12	13	1	3	1	3	18	1	..	6	..	93	1
Kidneys	12	..	..	..	..	5	7	..	1	3	2	3	..	..	3	..	3	2
Dysentery .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..
Accidents	8	3	1	..	..	3	1	1	1	..	2	4	..	..	..	..	1	..
Suicides	6	..	..	..	3	3	..	2	..	1	..	1	..	..	2	..	..	..
Homicide .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
All other causes	87	28	1	2	..	9	47	2	8	4	13	37	4	1	16	2	6	3
All causes	529	138	41	34	20	151	145	11	39	39	80	270	15	8	62	5	134	44

NOTES. - (a) In this Table all deaths of "Residents" occurring in public institutions, whether within or without the district, are to be included with the other deaths in the columns for the several age groups (columns 2-8). They are also, in columns 9-15, to be included among the deaths in their respective "Localities" according to the previous addresses of the deceased as given by the Registrars. Deaths of "Non-Residents" occurring in public institutions in the district are in like manner to be excluded from columns 2-8 and 9-15 of this Table.

(b) See notes on Table I. as to the meaning of "Residents" and "Non-residents," and as to the "Public Institutions" to be taken into account for the purposes of these Tables. The "Localities" should be the same as those in Tables II. and III.

(c) All deaths occurring in public institutions situated within the district, whether of "Residents" or of "Non-residents," are, in addition to being dealt with as in note (a), to be entered in the last column of this Table. The total number in this column should equal the figures for the year in column 9, Table I.

(d) The total deaths in the several "Localities" in columns 9-15 of this Table should equal those for the year in the same localities in Table II., sub-columns c. The total deaths at all ages in column 2 of this Table should equal the gross total of columns 9-15, and the figures for the year in column 12 of Table I.

(e) Under heading of "Diarrhoea" are to be included deaths certified as from diarrhoea, alone or in combination with some other cause of ill-defined nature; and also deaths certified as from

Epidemic enteritis;
Zymotic enteritis;
Epidemic diarrhoea. Summer diarrhoea;
Dysentery and dysenteric diarrhoea;
Choleraic diarrhoea, cholera, cholera nostras
(in the absence of Asiatic cholera).

Under the heading of "Enteritis" are to be included those certified as from Gastro-enteritis, Muco-enteritis, Gastric catarrh, unless from information obtained by enquiry from the certifying practitioner or otherwise, the Medical Officer of Health should have reason for including such deaths, especially those of infants, under the specific term "Diarrhoea."

Deaths from diarrhoea secondary to some other well-defined disease should be included under the latter.

Table V.—The Area in Acres, Inhabited Houses, Population, and Density of each Parish in the District in 1891 and 1905.

Parish.	Area in Acres.	Inhabited Houses.		Population.						Density. Persons per acre.		Persons per house.	
		1891.	1905.	1891.			1905.			1891.	1905.	1891.	1905.
				Persons.	Males.	Females.	Persons.	Males.	Females.				
Addington	3605	132	134	670	346	324	670	345	325	·18	·18	5·0	5·0
Beddington	3128	442	1169	2607	1162	1445	5789	2819	2970	·8	1·8	5·9	4·9
Coulsdon	4314	537	1365	3335	1623	1712	7137	3550	3587	·7	1·6	6·2	5·2
Merton	1765	654	1861	3360	1612	1748	9150	4500	4650	1·9	5·1	5·1	4·9
Mitcham	2915	2055	3806	10758	5300	5458	20617	10012	10605	3·6	7·0	5·2	5·4
Morden	1475	138	206	763	387	376	1035	504	531	·5	·7	5·5	5·0
Sanderstead	3150	96	342	509	262	247	1660	808	852	·1	·5	5·3	4·8
Wallington	823	710	1464	3823	1587	2236	7935	3884	4051	4·6	9·6	5·4	5·4
Woodmansterne ..	1591	81	146	408	204	204	770	370	400	·25	·4	5·0	5·2
	22766	4845	10493	26233	12483	13750	54763	26792	27971	1·1	2·8	5·4	5·0

In no instance are Institutions considered in this calculation.

TABLE VI.—Showing Parishes with Institutions.

Parish.	Area in Acres.	Inhabited Houses.		Population.						Density of persons per acre.		Average number of persons per house.	
				1891.			1905.						
		1891.	1905.	Persons.	Males.	Females.	Persons.	Males.	Females.	1891.	1905.	1891.	1905.
{ Beddington Royal Female Orphanage .. Russell Hill School ..	3128	442	1169	2607	1162	1445	5789	2819	2970	·8		5·9	
							160	—	160				
							363	218	145				
							6312	3037	3275				
{ Coulsdon Cane Hill Asylum .. Reedham Orphanage ..	4314	537	1365	3335	1623	1712	7137	3550	3587	·7		6·2	
							2419	1013	1406				
							343	212	131				
							9899	4775	5124				
{ Mitcham Holborn Workhouse .. „ Schools ..	2915	2055	3806	10785	5300	5458	20617	10012	10605	3·6		5·2	
							1058	702	356				
							401	228	173				
							22076	10942	11134				

TABLE VII.—Showing the Annual Birth and Death Rates, and Death Rates of Infants for the Year 1905 and 10 preceding years.

In the Year.	Birth Rate per 1,000 of Population.	Corrected Death Rate per 1,000 of Population.	Children under 1 year per 1,000 of Registered Births.
1905	25·7	9·6	98
1904	27·3	11·0	123
1903	28·2	10·4	94
1902	26·0	11·3	108
1901	28·1	12·2	109
1900	25·8	12·0	118
1899	25·4	13·6	156
1898	24·9	12·5	148
1897	26·5	11·2	97
1896	25·4	12·8	137
1895	26·2	12·0	113
Average of 10 Years, 1894—1903.	26·3	11·9	120·3

N.B.—Before 1893, the deaths occurring *outside* the District among persons belonging to the District were *not* included in the above figures; the inclusion of such deaths since 1893 has increased the death-rates considerably.

TABLE VIII.—Showing the Population, Births,
and Deaths for the Year 1905, and 10
years preceding.

GROSS NUMBERS.

Year.	Estimated Population.	Registered Births.	Corrected No. of Deaths.			Deaths in Institutions.
			Total.	Under 1 year.	Under 5 years.	
1905	54763	1408	529	138	41	178
1904	47030	1284	521	158	42	210
1903	41120	1161	431	109	29	203
1902	37500	976	424	106	145	219
1901	34180	961	418	105	154	200
1900	33304	862	402	102	139	249
1899	32515	823	444	129	163	227
1898	31681	790	398	118	166	205
1897	30896	821	347	79	121	228
1896	30099	765	386	104	160	209
1895	29329	769	352	86	117	208
Average of 10 years, 1895- 1904	34765·4	921·2	412·3	109·6	123·6	215·8

**TABLE XI.—Ascertained Cases of Infectious Disease
since the adoption of the Notification Act.**

	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905
Small-pox ..	..	7	1	2	..	..	3	..	..	..	..	29	9	5	1
Scarlatina ..	85	117	316	99	51	65	262	144	84	115	81	161	131	125	181
Diphtheria ..	17	16	44	63	26	45	35	107	38	62	87	77	48	169	134
Membranous Croup ..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..
Typhoid Fever ..	9	12	24	12	18	14	13	15	19	15	13	14	11	9	18
Continued Fever ..	..	..	1	..	1	2	..	..	..	..	..	..	..	..	..
Puerperal Fever ..	1	1	4	6	1	..	2	2	..	4	1	5	5	8	2
Cholera ..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas ..	13	22	31	18	18	33	26	23	29	34	20	35	23	27	44
Measles ..	237	579	138	458	29	1083	172	1023	251	420	862	636	280	1085	679
Acute Diarrhoea ..	..	..	..	5	..	..	..	..	..	..	..	..	..	..	..
*Chicken Pox ..	..	..	..	..	..	..	..	..	..	..	..	162	188	..	..
Totals ..	362	754	560	664	144	1243	513	1314	421	650	1064	1119	695	1428	1076

* Chicken Pox was a notifiable disease until July 31st, 1903.

TABLE XII.—Cases of Typhoid Fever (including Continued Fever) in each Parish since Notification was adopted.

	Addington	* Beddington	+ Coulsdon	+ Merton	+ Mitcham	* Morden	+ Sanderstead	* Wallington	* Woodmansterne	Institutions	The District
1890	..	6	..	..	3	..	..	4	..	1	14
1891	..	2	2	1	2	..	1	1	..	..	9
1892	..	2	..	2	4	..	..	3	..	1	12
1893	..	2	4	4	12	1	..	1	..	1	23
1894	..	..	4	2	2	..	..	4	..	..	12
1895	..	1	1	4	6	1	..	3	..	3	19
1896	..	1	2	1	9	..	1	2	..	..	16
1897	..	1	2	1	6	..	..	3	..	..	13
1898	1	..	1	2	11	..	..	..	..	..	15
1899	..	1	2	4	4	1	2	1	4	..	19
1900	..	1	2	3	3	..	..	3	3	..	15
1901	..	..	3	4	3	..	2	1	..	..	13
1902	1	2	1	2	3	1	2	2	..	..	14
1903	..	..	5	2	4	..	..	..	..	..	11
1904	..	1	..	..	5	..	1	2	..	..	9
1905	1	..	1	8	8	..	..	..	..	..	18
	3	20	30	40	95	4	9	30	7	6	234

* Water supplied by Sutton Water Company.

† " " " East Surrey Water Company.

‡ " " " Lambeth Water Company.

Addington is principally supplied by the Croydon Corporation.

INFECTIOUS DISEASE during 1905.

Showing Disease; also place and month of incidence.

SMALL POX.

Parishes.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Grand Totals.
Addington
Beddington
{ Coulsdon
{ CaneHill Asyl'm
Merton
{ Mitcham
{ Holborn Schools
{ and Workhouse
Morden
Sanderstead	1	..	..	..	..	..	1
Wallington
Woodmansterne
Totals	1	..	..	..	..	..	1

TYPHOID FEVER.

Parishes.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Grand Totals.
Addington	1	..	..	..	..	..	..	..	1
Beddington
{ Coulsdon	1	..	..	..	1
{ CaneHill Asyl'm
Merton	2	2	1	1	1	1	..	8
{ Mitcham ..	1	..	..	..	..	..	..	7	..	..	..	..	8
{ Holborn Schools
{ and Workhouse
Morden
Sanderstead
Wallington
Woodmansterne
Totals ..	1	..	..	..	1	2	2	8	2	1	1	..	18

PUERPERAL FEVER.

Parishes.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Grand Totals.
Addington
Beddington
{ Coulsdon	1	..	..	..	..	..	..	1
{ CaneHill Asyl'm
Merton
{ Mitcham	1	..	..	..	1
{ Holborn Schools
{ and Workhouse
Morden
Sanderstead
Wallington
Woodmansterne
Totals	1	..	..	1	..	..	..	2

MEASLES.

Parishes.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Grand Totals.
Addington ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Beddington ..	..	4	8	6	..	2	..	..	..	..	36	77	133
{ Coulsdon ..	1	3	5	5	..	2	..	..	13	20	59	50	158
{ CaneHill Asyl'm ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Merton ..	1	..	14	9	14	9	1	2	3	..	2	1	56
{ Mitcham ..	2	..	7	3	25	62	47	4	1	..	1	22	174
{ Holborn Schools ..	..	..	..	..	..	19	9	..	..	..	..	..	28
{ and Workhouse ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Morden ..	..	..	3	7	3	..	2	1	..	..	..	..	16
Sanderstead ..	..	..	..	1	..	4	..	1	..	..	3	12	21
Wallington ..	7	1	8	3	4	3	2	2	..	1	13	67	111
Woodmansterne ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals ..	11	8	45	34	46	101	61	10	17	21	114	229	697

ERYSIPELAS.

Parishes.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Grand Totals.
Addington ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Beddington ..	..	..	..	..	..	..	..	1	..	2	..	..	3
{ Coulsdon ..	..	..	..	..	..	..	1	..	..	..	..	1	2
{ CaneHill Asyl'm ..	..	1	2	1	..	1	..	..	..	..	..	..	5
Merton ..	..	1	..	1	..	..	1	..	1	..	3	..	7
{ Mitcham ..	3	4	1	1	2	..	2	1	..	..	3	3	20
{ Holborn Schools ..	..	..	..	..	..	..	..	..	..	1	..	..	1
{ and Workhouse ..	1	..	..	..	..	1	..	..	..	..	..	..	2
Morden ..	..	..	1	..	..	..	..	..	..	..	..	..	1
Sanderstead ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wallington ..	1	1	..	..	..	..	..	..	1	..	..	..	3
Woodmansterne ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals ..	5	7	4	3	2	2	4	2	2	3	6	4	44

SCARLET FEVER.

Parishes.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Grand Totals.
Addington ..	..	..	..	..	..	..	1	..	..	..	..	..	1
Beddington ..	..	..	5	..	..	2	..	2	2	1	..	..	12
{ Coulsdon ..	..	..	..	..	..	3	2	..	..	..	1	5	11
{ CaneHill Asyl'm ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Merton ..	4	6	4	7	4	..	..	..	..	1	1	..	27
{ Mitcham ..	9	9	12	5	29	10	6	3	4	2	2	1	92
{ Holborn Schools ..	..	..	..	..	..	..	..	..	..	..	1	..	1
{ and Workhouse ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Morden ..	..	4	1	..	..	..	..	..	..	..	..	..	5
Sanderstead ..	..	..	..	..	1	..	3	..	1	1	..	1	7
Wallington ..	1	1	4	2	2	..	3	..	1	..	1	1	16
Woodmansterne ..	1	..	..	..	..	..	..	..	1	1	3	3	9
Totals ..	15	20	26	14	36	15	15	5	9	6	9	11	181

DIPHTHERIA.

Parishes.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Grand Totals.
Addington ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Beddington ..	2	1	..	1	..	..	..	5	..	1	..	..	10
{ Coulsdon ..	..	1	..	2	1	..	4	2	1	..	..	2	13
{ CaneHill Asyl'm ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Merton ..	2	..	1	..	..	2	..	..	..	..	1	..	6
{ Mitcham ..	11	5	4	8	9	6	8	5	11	3	10	11	91
{ Holborn Schools ..	..	..	..	..	..	..	..	..	..	..	..	..	..
{ and Workhouse ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Morden ..	..	..	..	..	..	..	..	..	..	1	..	..	1
Sanderstead ..	..	..	..	..	..	2	1	..	..	2	..	..	5
Wallington ..	2	2	2	..	..	..	..	..	2	..	..	..	8
Woodmansterne ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals ..	17	9	7	11	10	10	13	12	14	7	11	13	134

Date		Description		Amount	
1890	Jan 1	Balance		100.00	
	Feb 1	Interest		5.00	
	Mar 1	Interest		5.00	
	Apr 1	Interest		5.00	
	May 1	Interest		5.00	
	Jun 1	Interest		5.00	
	Jul 1	Interest		5.00	
	Aug 1	Interest		5.00	
	Sep 1	Interest		5.00	
	Oct 1	Interest		5.00	
	Nov 1	Interest		5.00	
	Dec 1	Interest		5.00	
1891	Jan 1	Balance		100.00	
	Feb 1	Interest		5.00	
	Mar 1	Interest		5.00	
	Apr 1	Interest		5.00	
	May 1	Interest		5.00	
	Jun 1	Interest		5.00	
	Jul 1	Interest		5.00	
	Aug 1	Interest		5.00	
	Sep 1	Interest		5.00	
	Oct 1	Interest		5.00	
	Nov 1	Interest		5.00	
	Dec 1	Interest		5.00	
1892	Jan 1	Balance		100.00	
	Feb 1	Interest		5.00	
	Mar 1	Interest		5.00	
	Apr 1	Interest		5.00	
	May 1	Interest		5.00	
	Jun 1	Interest		5.00	
	Jul 1	Interest		5.00	
	Aug 1	Interest		5.00	
	Sep 1	Interest		5.00	
	Oct 1	Interest		5.00	
	Nov 1	Interest		5.00	
	Dec 1	Interest		5.00	

Table XIII.—Deaths from Infantile Summer Diarrhoea, showing place of incidence and condition of domestic surroundings.

Address.	Age.	Sex.	L. or Ill.	Number in Family, and how many have died of similar Complaints.	How fed: Cow, Breast, or Tinned Milk. Note condition and cleanliness of Cooking Utensils.	Condition.			Notes
						Interior of house.	Back and Front Yards.	W.C.'s.	
Foxley Lane, Beldington	2 months	M.	L.	None	Fed from the breast during the first four weeks. Afterwards on cows' milk, lime water, and water mixed, and on the last day of life from the breast (wet nurse). Utensils very clean.	Clean	Clean	Slightly corroded in traps from hard water.	This is a house where there could be no suspicion of uncleanness to set up Diarrhoea. The child was out a good deal in the open air, and the hot weather of July and early part of August may have had some effect on the child.
Reform Place, Merton	4 months	M.	L.	None	Fed on Dr. Allen's Food mixed with water and milk, from O. J. White, Morden Farm, Merton, and after illness set in barley water and lime water were both used. Food boiled in enamel saucepans, which parents state were kept very clean.	Clean	Front area is used as a flower garden. Back yard fairly clean, but garden not cultivated. These houses are somewhat humped in, but there is an opening for a little air to pass through back gardens.	W.C. pan recently soiled, otherwise pan is not corroded.	The front room of the house is stuffy owing to want of ventilation, the stove register being down.
Kingston Road, Merton	14 weeks	M.	L.	None	By bottle, with cows' milk and barley water. Utensils very clean.	Very clean	Very well kept, and with good sanitary surroundings.	In good condition	
Dupont Road, Merton	11 months	F.	L.	Four in family; two died of similar complaints	Cows' milk and several patent foods, by good shaped bottle. Utensils clean.	Clean	In good condition, very clean.	One W.C. outside in garden.	
Chestnut Road, Merton	16 months	M.	L.	Ten in family	By bottle, correct shape, with cows' milk and Nestle's Food. Utensils very clean.	Very clean	Yards well kept	One W.C. in yard, in good order.	This child was delicate from birth
Kingston Road, Merton	3 months	M.	L.	Three in family	Bottle, with cows' milk, and Allenbury's Patent Food. Utensils very clean.	Clean	In good condition	In good order	This is the first child, and was delicate from birth.
Grove Road, Mitcham	10 months	F.	L.	Four in family; one died of similar complaint in 1902	By good shaped bottle, with Allen & Hanbury's and Nestle's Condensed Milk. Utensils very questionable.	Clean	Dirty and badly paved. Vegetable refuse thrown about.	One W.C. inside scullery. Filthy bedroom utensils about kitchen and scullery.	
Fortescue Road, Mitcham	10 months	M.	L.	Five in family; two died of similar complaints, one in 1900 and one in 1903	Fed by breast till five months old, then Robinson's Grouts, cows' milk and barley water, in good bottle. Utensils only fairly clean; the whole place suffers from neglect.	Fairly clean. Very poorly furnished.	Damp and very squalid. Vegetable refuse lying about.	One W.C. in yard, in good order.	Father was out of work for some time
Piccadilly, Mitcham	11 months	M.	L.	Eight in family	Cows' milk and Allen & Hanbury's Food. Utensils clean.	Fairly clean	Paved court. No back yard.	In good condition	There are only two very small bedrooms in this property.
Grove Road, Mitcham	9 months	F.	L.	Four in family; three died of similar complaints	Totally from breast. Utensils clean.	Fair condition	Very badly kept back yard.	In good condition.	
Princes Road, Mitcham	6 months	F.	L.	Five in family; two died of similar complaints	Partial breast and bottle, Nestle's Milk. Utensils clean.	In good condition. Kitchen very dirty, a large number of flies.	Front yard very good. Back very dirty and squalid.	In good order	Father out of work for some time.
Belgrave Road, Mitcham	7 months	F.	L.	Four in family	Bottle, with Nestle's Milk and malted food. Utensils good.	Bedrooms require cleaning, otherwise very good.	Good condition	One W.C. in fairly good condition.	No proper dustbin, and drinking water from cistern in roof space, with defective cover.
Chapel Road, Mitcham	7 months	M.	L.	Four in family	Frame Food and cows' milk, by bottle. Utensils very clean.	Very clean	In good condition	In good condition, perfect flush.	
Seaton Road, Mitcham	3 months	F.	Illeg.	None	At the breast to five weeks old, then on cows' milk and barley water, given in ordinary feeding bottle. Latterly milk was not boiled. Utensils generally clean.	The air of the kitchen was unwholesome at time of visit.	Back yard is partly paved	W.C. in order.	The mother of this child is a single woman who had to go out to work, consequently the child was taken from the breast and left to the care of the occupier of the house during the day.
Lilian Road, Mitcham	5 months	F.	L.	Two living	On Nestle's Milk and patent barley, in tubeless bottle. Utensils very clean.	New house. Kept in a very cleanly state.	Back yard is paved	W.C. is situated in yard, in good order.	
Heaton Road, Mitcham	5 months				Condensed milk.				The case was the subject of an inquest, the child died somewhat suddenly, and it was alleged by the father to be due to tainted milk, as he found some rust at the bottom of the condensed milk tin. At the inquest it was not proved that the rust had anything to do with tainting the milk, but fermentation had set in.
Fountain Road, Mitcham	9 months	F.	L.	Six living; two previous deaths from diarrhoea	Nestle's in ordinary feeding bottle. Utensils not kept in a cleanly state.	The interior of house is in a very dirty and bad repair. The occupants are poor and dirty in their habits.	The back is paved, but very defective.	W.C. is situated in yard, and is being re-constructed.	Steps have been taken to have the house cleansed and repaired.
Fountain Road, Mitcham	7 months	F.	L.	One living	Cows' milk and corn flour by ordinary feeding bottle. Utensils generally clean.	The house is kept in a fairly cleanly state.	The back yard is paved, but is defective. Rubbish strewn all over the place.	W.C. is in yard abutting, against the dwelling, is stopped (a frequent occurrence).	The mother of this child works at a laundry from 8 a.m. to 8 p.m., during which time the child was left in the care of its grandmother in the next street.
Church Road, Mitcham	9½ months	M.	L.	Two living	Cows' milk and Robinson's barley. Utensils very clean.	House kept in a cleanly state.	Both yards are paved	W.C. is in yard, and is in good order.	
Gledstone Road, Mitcham	10 months	F.	L.	Five living	On Nestle's Milk and Robinson's biscuits. No feeding bottle used. Cooking utensils clean.	House is in a fairly cleanly state.	Back yard paved, but is defective.	W.C. pan is a long hopper, foul & broken.	The water storage cistern is in scullery, over the copper, and is without a cover.
Western Road, Mitcham	9 months	M.	L.	None	Mellin's Food given by ordinary feeding bottle. Utensils very clean.	The house is somewhat overcrowded, is kept in a cleanly state.	Back yard is paved.	In good order	The house consists of four rooms and a washhouse, and is occupied by two families.
Westfields, Mitcham	8 months	M.	L.	None	Nestle's Milk in ordinary feeding bottle. Utensils not kept in a cleanly state. Food is kept in a cupboard alongside the fire place, where the pots and kettles are kept.	The house consists of three rooms on the ground floor, and all are in a cleanly state.	The back yard is paved. The private cartway in front of the house is in a very bad state.	W.C. is in yard, and is in good order.	The mother of the child is a flower seller. The father a carman.
Leonard Road, Mitcham	2 months	M.	L.	Four living; two others have died of diarrhoea	Nestle's Milk given in an ordinary feeding bottle. Utensils clean.	The walls and ceilings of the house are in a cleanly state.	The back yard is paved and in good order.	W.C. is situated in yard and is in good order.	



TABLE XIV.—Table showing Total Deaths from Infantile Summer Diarrhoea, during the five years, 1901, 1902, 1903, 1904, and 1905 in each Parish, and in every Street invaded :—

ADDINGTON.

1. Keeper's Lodge.

1. Badger's Hole.

BEDDINGTON.

1. Beddington Lane.

1. Bandon Hill.

1. Foxley Lane.

COULSDON.

1. Coulsdon.

1. Godstone Road.

1. Lower Road, Kenley.

MERTON.

2. High Street.

1. Dorien Road.

1. Pincott Road.

1. Savoy Road.

1. Crown Road.

2. Dupont Road.

1. Nelson Grove Road.

3. Kingston Road.

1. Nursery Road.

1. Edna Road.

1. Reform Place.

1. Chestnut Road.

MITCHAM.

1. Manor Road.

3. Princes Road.

2. Love Lane.

2. Smith's Buildings, C.E.

1. Grange Villas, Eastfields.

1. The Broadway.

1. Harewood Road.

1. Concrete Cottages.

1. Fieldgate, Western Road.

1. The Terrace, Grove Road.

1. Bond's Road.

2. Gladstone Road.

4. Lilian Road, Lonesome.

6. Fountain Road.

4. Marian Road, Lonesome.

2. Willow View.

1. Allen's Cottages, Lonesome.

1. Nicholl's Cottages, Eastfields.

1. Greyhound Terrace, Lonesome

1. Bailey Road.

1. Lonesome.

1. Lewis Cottages.

4. Queen's Road.

1. Lewis Road.

4. Sibthorpe Road.

4. Seaton Road.

6. Bath Road.

1. Robinson Lane.

3. Church Road.

3. Heaton Road.

2. Church Buildings.

1. Portland Road.

1. Spencer Road.

1. Caithness Road.

1. Upper Green.

1. Lock's Lane.

2. Robinson Road.

1. Palestine Grove.

2. Tramway Terrace.

1. Courtney Road.

1. Norfolk Road.

2. Chapel Road.

1. Benedict Walk.

1. Marlboro' Road.

1. Homewood Road.

1. Aberdeen Road.

2. Grove Road.

2. Fortescue Road.

1. Westfields.

1. Belgrave Road.

1. Western Road.

1. Piccadilly.

1. Leonard Road.

WALLINGTON.

1. Seymour Road.

1. Wood Street.

1. Hackbridge.

SANDERSTEAD.

1. Riddlesdown Road.

WOODMANSTERNE.

1. Chipstead Valley Road.

The visits paid by Inspector Low in connection with the milk and meat trades are shown in the following Table :—

NATURE OF PREMISES.	WARD.							TOTAL
	NO. OF INSPECTIONS.							
	West.	Central	East.	South.	S. Nor.	U. N. W.		
Slaughter-houses	932	422	15	364	69	66	1868	
Butchers	222	233	20	52	62	27	616	
Fishmongers	18	61	11	11	17	15	133	
Markets ... ..	...	49	...	50	...	...	99
Cowkeepers	74	16	36	53	24	52	255	
Milk Purveyors	145	25	47	61	45	77	400	
TOTAL	1391	806	129	591	217	237	3371	

FOOD AND DRUGS ACTS.—Table IX. gives the number of samples taken by Mr. Saunders during the year, the results of the analyses and the action taken thereon.

PROSECUTIONS, 1905 :—

Date.	Defendant.	Charge.	Result.
Jan. 3	W. T. D.	Selling Butter adulterated with 89 per cent. Foreign Fat	Convicted, and Fined £5 and 7s. 6d. costs.
Feb. 14	W. E. E.	Selling adulterated Brandy	Convicted, and Fined £5 and £12 18s. 6d. costs.
May 9	K. H.	Selling Butter adulterated with 80 per cent. Foreign Fat	Convicted, and Fined £1 and 7s. 6d. costs.
June 24	H. G. W.	Selling Butter adulterated with 55 per cent. Foreign Fat	Convicted, and Fined 10s. and 7s. 6d. costs.
June 24	E. W. W.	Selling Butter adulterated with about 20 per cent. Foreign Fat	Convicted, and Fined £1 and 7s. 6d. costs.
Oct. 21]	F. W. G.	Selling Milk adulterated with about 11 per cent. Additional Water	Convicted, and Fined £5 and 7s. 6d. costs.
Oct. 21	J. E. C.	Selling Coffee adulterated with 80 per cent. of Chicory	Convicted, and Fined £1 and 7s. 6d. costs.
Dec. 9	W. S. R. S.	Selling Butter adulterated with 50 per cent. Foreign Fat	Convicted, and Fined £1 and 7s. 6d. costs.
Dec. 30	J. L.	Selling Butter adulterated with 95 per cent. Foreign Fat	Convicted, and Fined £1 and 7s. 6d. costs.
Dec. 30	Messrs. D. & C.	Trading as Wholesale Dealers in Margarine without Registration... ..	Defendants subsequently Registered, and summons was withdrawn on payment of 5s. costs.

In 11 cases where the samples of Milk were slightly below the standard fixed by the Board of Agriculture, the vendors were written to calling their attention to the fact and asking for some explanation, further samples being taken subsequently.

Of these 11 samples 9 contained an excess of water to the extent of an average of 6 per cent., whilst 2 were deficient in fat to the extent of an average of 6.5 per cent.

One sample contained a trace of boric acid.

The following table has been prepared from figures kindly supplied by the Borough Analyst (Mr. Lester Reed):—

Total Number of Samples of Milk collected and percentage below standard.

1905.

	No. of Samples.	No. below Standard.	Percentage of Samples below Standard.	Average percentage of fat of Genuine Samples.
Wholesale taken in course of delivery at Railway Station. New Milk.	70	6	8.5	3.7
Wholesale taken in course of delivery at Railway Station. Separated Milk.	2	1	50.0	—
Retail taken on Milkmen's rounds. Sunday morning. New Milk. ..	73	6	8.2	3.6
Retail taken on Milkmen's rounds. Sunday morning. Separated Milk.	7	—	—	—
Retail taken on Milkmen's rounds. Week day. New Milk.	15	1	6.6	3.7
Retail taken on Milkmen's rounds. Week day. Separated Milk. ..	1	—	—	—

II.—DEFECTS FOUND.

Particulars.	Number of Defects.		Referred to H. M. Inspector.	Number of Prosecutions
	Found.	Remedied.		
Nuisances under the Public Health Acts*—	9	9		
Want of Cleanliness	—	—		
Want of Ventilation	—	—		
Overcrowding	—	—		
Want of drainage of floors ..	2	2		
Other Nuisances	8	8		
Sanitary accommodation { insufficient ..	4	4		
unsuitable or				
defective ..	11	11		
not separate for				
sexes ..	—	—		
Offences under the Factory and Workshop Act:—				
Illegal occupation of underground bakehouses (s. 101)				
Breach of special sanitary requirements for bakehouses (s.s. 97 - 100)	1	1		
Failure as regards list of out-workers (s. 107)	—	—		
Giving out work } unwholesome				
to be done on (s. 108) ..	—	—		
premises which				
are } infected (s. 110)	—	—		
Allowing wearing apparel to be made in premises infected by Scarlet Fever or Small Pox (s. 109)	—	—		
Other Offences	—	—		
Total	35	35		

III.—OTHER MATTERS.

Class.	Number.
Matters notified to H.M. Inspector of Factories ;—	
Failure to affix Abstract of the Factory and Workshop Act (s. 133)	4
Action taken in matters { Notified by H.M. In- referred by H.M. In- spected spectors as remediable under the Public Health Act but not under the { Reports (of action taken) Factory Act (s. 5) sent to H.M. Inspectors	
Other	
Underground Bakehouses (s. 101)	
Certificates granted during the year	
In use at end of the year	2
Homework—	Number of
List of Outworkers (s. 107)	Lists. Outworkers
Lists received	
Addresses of Outworkers { forwarded to other Authorities received from other Authorities	
	32
Homework in unwholesome or infected premises :—	Wearing Apparel. Other.
Notices prohibiting homework in unwholesome premises (s. 108)	
Cases of Infectious disease notified in homeworkers premises	1
Orders prohibiting homework in infected premises (s. 110)	
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Bakehouses	22

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

TO THE CHAIRMAN AND MEMBERS OF THE
PUBLIC HEALTH COMMITTEE.

MISS BOOBYER AND GENTLEMEN,

During the months of July and August, 10 cases of Typhoid Fever were notified to me as occurring in the parishes of Mitcham and Merton. Two cases occurring in the same family were undoubtedly contracted while on a visit to Margate, and that it was not until the return of the parents to Mitcham that it was recognised to be Typhoid Fever. Excluding these two cases, therefore, the remaining eight cases suggested, that, as they occurred much about the same time that there was a common cause for this outbreak. After much enquiry, I am able to determine the probable reason of this outbreak. I would mention here that in Wimbledon a certain number of cases also occurred during this period of which I have no full particulars, but I understand that the cause of that outbreak is probably identical with that in the parishes of Mitcham and Merton, namely, contaminated fish. A man named Jeffries, residing at 62, High Street, Merton (on the Wimbledon side of the road), has been for some time past in the habit of selling stewed eels outside local public houses, particularly "The Albion," "The Prince of Wales," and "The Nelson." Six of the patients undoubtedly ate these eels, another case denies having had any of them, and as it was extremely doubtful whether he had Typhoid Fever, it would be as well to exclude him from further consideration. Two cases, children, probably contracted the disease from their father, who in the light of subsequent events, seems undoubtedly to have had Typhoid

Fever, although it was not recognised as such, early in July. So far as can be ascertained, it is certain that on one evening early in July the eels that were then being sold were in such a condition that at any rate one purchaser could not eat them, and told Jeffries that they were bad, and Jeffries said that everybody was grumbling about them. In addition several men had stewed eels, which was followed by acute diarrhœa and vomiting. On enquiry being made by the Wimbledon Authorities, it was found that at Jeffries (the eel vendor's house), all the children had been suffering from diarrhœa, and that a child of lodgers occupying the first floor of Jeffries house was taken away while so suffering by its relatives, and several of them contracted Typhoid Fever from this case. Unfortunately, in three instances the cases ended fatally. These three cases died in the Isolation Hospital, Beddington Corner, and the type of disease was extremely severe. The Typhoid bacillus undoubtedly gained access to the stewed eels, and the gelatinous condition of this stew when cold would prove an almost ideal medium for the propagation of these bacilli. Possibly a larger number of cases of either true or abortive Typhoid Fever have resulted from eating these eels without having come to my knowledge.

C. M. FEGEN.

5th October, 1905.

TO THE CHAIRMAN AND MEMBERS OF THE
PUBLIC HEALTH COMMITTEE.

MISS BOOBYER AND GENTLEMEN,

In accordance with the instructions of the District Council, I beg to make the following report on the growing of watercress within the area of the Rural District.

Practically the whole of the watercress grown is derived from plants which are obtained early in each spring from France, and these plants are then set in properly prepared beds. The beds are kept in running water during the whole time of growth of the plants. This industry provides employment for a large number of hands during many months in the middle of the year, and the total area for the growth is 16 acres, 1 rood, 27 poles.

As certain diseases have been known to be produced through eating watercress grown either on sewage polluted soil, or watered with sewage contaminated water, it has been the custom during the time which I have been your Medical Officer of Health, to keep all watercress beds under careful observation, and in the event of intestinal disease, to make enquiries as to whether the patients have or have not had watercress to eat within a reasonable time before the onset of the attack, if the watercress has been eaten it has then been necessary to find out which bed the watercress was obtained from. Four years ago, a bed in the Parish of Mitcham, at Beddington Corner was gravely under suspicion. This bed occupied an area of $1\frac{1}{2}$ acres, and was fed entirely by the undiluted effluent from the Croydon Borough

Sewage Farm. Steps were taken immediately to do away with such a means of watering, and the use of this watercress bed was finally discontinued.

The following is a schedule of the watercress beds, together with their source of water supply ;

No. 1. Guy Road, Beddington, the area in actual growth is 1 acre 17 poles. The beds are supplied only by river water, which has not received any sewage effluent at all.

No. 2. 2, London road, Hackbridge, has an area of 15 poles, and the water supply is entirely from springs.

No. 3. Wandle road, Hackbridge, has an area of 3 acres, 37 poles, and is supplied by water coming from the previous beds, and also more extensively by local springs.

No. 4. Spencer road, Beddington Corner, has an area of 1 acre, 3 roods, 20 poles, and is fed by water from the River Wandle, just below the outfalls of the Croydon Borough Avenue Carrier, and the Carrier from the Carshalton Sewage Farm.

No. 5. Beddington Corner, in the Parish of Mitcham. These beds occupy an area of 3 acres, 2 roods, 23 poles, are also fed in a similar way to the previous, but the river water and local springs tend to materially increase the proportion of pure sewage contaminated water.

No. 6. Situate in Willow Lane, and

No. 7. At Willow Farm, occupy a total area of $6\frac{1}{4}$ acres, and are fed by the water that has passed through No. 5, together with water from springs rising on the beds of themselves.

No. 8. Is situated below the previous beds, and occupy an area of 3 acres, 35 poles, and the source of water is derived partly from water that has already passed from beds 5, 6 and 7, together with a fresh supply from a small stream which joins the Wandle close to these beds.

A further bed exists still farther down the Wandle at Merton, having an area of $1\frac{1}{8}$ acres, which is fed entirely by water from the Wandle. This bed was originally of much larger extent, being somewhere about 16 acres. However, it has been very largely curtailed during the past few years.

Samples of water from each bed have been examined, and the nitrogenous organic matter present was not of sufficient bulk to indicate that any danger was likely to occur to persons eating cress grown on these beds. Bacteriological examination showed that the bacillus Coli Communis was found in the cress grown on Beds 5, 7 and 8, but the number of Coli in each cubic centimetre was in no instance excessive. I would mention that in all samples of cress examined such cress was thoroughly washed in sterile water before examination.

I am, Miss Boobbyer and Gentlemen,

Your obedient Servant,

C. M. FEEN.

2nd November, 1905.

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County Borough of Croydon.

ANNUAL REPORT
ON THE
HEALTH
AND
SANITARY CIRCUMSTANCES
OF
CROYDON,
TOGETHER WITH
THE REPORTS OF THE BOROUGH HOSPITAL AND OF
THE BOROUGH LABORATORY,
AND
THE REPORT TO THE EDUCATION COMMITTEE
FOR THE YEAR 1905,
BY
H. MEREDITH RICHARDS, M.D., B.S. (Lond.),

Member of the Royal College of Surgeons, and Licentiate of the Royal College of Physicians; Fellow of University College, London, and of the Royal Sanitary Institute; Medical Officer of Health; Medical Superintendent of the Borough Hospital, and of the Croydon and Wimbledon Joint Small-pox Hospital; Medical Officer to the Croydon Education Committee.

Croydon:

PRINTED BY S. H. PURNELL, HIGH STREET.

1906.

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Gentlemen,

I beg to present my Sixth Annual Report on the Health and Sanitary circumstances of the Borough, together with a Report of the Borough Hospital and Borough Laboratory.

It will be seen that 1905 was a healthy year, especially as far as infants under one year of age were concerned, the mortality at this age being only 96 per thousand as compared with an average of 138 for the previous ten years.

My thanks are once more due to the Council and to the Staff of the Public Health Department and Borough Hospital, and especially to the successive Resident Medical Officers for the assistance they have at all times afforded me.

I am, Gentlemen,

Your obedient Servant,

H. MEREDITH RICHARDS, M.D.

April 11th, 1906.

COUNTY BOROUGH OF CROYDON.

Sanitary Committee (1904-5).

THE MAYOR—Alderman G. J. ALLEN, J.P.

Mr. Alderman LILICO (*Chairman*).

" Sir F. T. EDRIDGE, J.P.

" MORLAND.

" RYMER, J.P.

Mr. Councillor DENNING.

" HELPS.

" KING, J.P.

" MOORE.

" MOSS.

" PECK.

Mr. Councillor PRICE (*Vice-Chairman*).

" SMITH.

" STEWART.

" STRANKS.

" TRYTHALL.

Mr. Councillor WALLER.

Staff of the Public Health Department :

Drainage Inspectors.

THOS. H. CULVER (Cert. San. Institute). }

J. C. EARWICKER " " }

A. D. PECK " " }

F. RICHARDSON " " }

District Inspectors.

WILLIAM S. ADAMS. }

H. HUNTER (Cert. San. Institute). }

W. H. STOKES " " }

CHAS. J. VINCENT " " }

FREDK. F. FULKER " " }

(Inspector for Infectious Diseases).

A. LOW, C.S.A. (Inspector of Meat, Dairies, Cowsheds and Milkshops).

Jos. H. BULL, C.S.I. (Inspector under the Factory and Workshops Act and Shop Hours Act).

A. STANLEY (Disinfector).

A. W. PINK (Senior Clerk).

S. T. BROWN (Junior Clerk).

F. H. LENNARD

Miss E. EGGLESTON (Health Visitor).

Mrs. NOLAN-SLANEY "

Miss TAWNEY "

Matron of Borough Isolation Hospital.

Miss BOND.

Resident Medical Officer and Bacteriologist.

J. A. H. BRINCKER, M.B., D.P.H. (Cantab.)

Assistant Medical Officer.

T. EVANS, M.B. (Lond.)

Chief Sanitary Inspector and Inspector under Food & Drugs Act.

P. SAUNDERS (Cert. San. Institute).

Medical Officer of Health.

H. MEREDITH RICHARDS, M.D.

SUMMARY OF ANNUAL HEALTH REPORT FOR 1905.

COUNTY BOROUGH OF CROYDON.

Area—9,012 acres.

Soil and Situation—Croydon is situated in the County of Surrey, 10 miles south of London Bridge. The greater part of the Borough is in the watershed of the Wandle, the remainder draining towards the Effra and Ravensbourne. The subsoil in the north of the Borough is London clay, while the upper chalk comes to the surface in the south, the clay and chalk being separated by a strip of lower London tertiaries comprised of beds of clay, sand and pebbles. Both the London clay and chalk are in parts overlaid by irregularly disposed beds of gravel.

Altitude—The height above ordnance datum varies from 375 feet at All Saints' Church, Upper Norwood, to 110 feet at Mitcham Road; Average about 250 feet above ordnance datum.

Population—Census of 1901—133,895.

Estimated Population, June, 1905—147,704.

Estimated Inhabited Houses, 1905—29,397.

Rateable Value, £1,047,906.

General District Rate, 3s. 10d. in the £.

Poor Rate, including Education Rate, 3s. 10d. in the £.

VITAL STATISTICS, 1905.

Birth Rate, per 1,000 living, 26·4.

Death Rate, per 1,000 living, 12·7.

Infantile Mortality, per 1,000 births, 96.

Isolation Hospitals—For Fever at Waddon Marsh Lane. For Small-pox at North Cheam.

Water Supply—From the Thames, and from deep wells in the chalk.

County Borough of Croydon.

REPORT

OF THE

MEDICAL OFFICER OF HEALTH.

For the Year 1905.

A.—VITAL STATISTICS.

THE POPULATION at the Census of 1891 was 102,695, and had increased at the Census of 1901 to 133,895.

The population at the middle of 1905, according to the estimate of the Registrar-General, was 147,704.

The number of inhabited houses cannot be ascertained with accuracy. At the last Census, in April, 1901, it was 25,726. From this date until June 30th, 1905, 5219 houses have been passed by the Borough Engineer as fit for occupation. The total number of inhabitable houses has, therefore, been increased to that extent. It is, however, a matter of common knowledge that the number of vacant houses in Croydon is larger than for some years past, being about 10 per cent., as compared with about 5 per cent. in 1901. Taking this into consideration it is probable that the number of inhabited houses in June, 1905, was about 29,397. If the population per house remains the same as in 1901, this will give a total population of 152,864, or more than 5,000 in excess of the Registrar General's figure. This estimate, however, cannot be given with any great amount of confidence, and it is to be regretted that the Local Government Board has not arranged for a quinquennial census, in order that vital statistics might be prepared with greater accuracy. In the meantime the Registrar-General's figure is used as the basis of the rates calculated in this report.

THE AREA of the Borough is 9,012 acres, and the density of the population was 16·4 per acre.

The approximate acreage of the Wards is as follows :—

Areas in Acres.	Wards.
1660	{ Upper Norwood (sub-division).
	{ Thornton Heath do.
980	South Norwood.
2179	West.
404	Central.
2209	East.
1580	South.
<hr/> 9012 <hr/> <hr/>	

THE BIRTHS during the year numbered 3,894, of which 1979 were boys and 1915 were girls. The birth rate equalled 26·4 per 1,000 as compared with 27·2 for England and Wales.

Of the total births, 180, or 4·6 per cent., were illegitimate.

The births were distributed as follows :—

	Total.	Birth rate per 1000 estimated population.
Upper Norwood Sub-division ...	*134	... 16·1
South " ...	384	... 19·8
Central " ...	344	... 20·1
East " ...	387	... 22·8
BOROUGH ...	3894	... 26·4
South Norwood Ward ...	648	... 29·0
Thornton Heath ...	466	... 29·9
West Ward ...	1446	... 30·2
The Workhouse ...	85	...

*Including 11 births at 89, Central Hill.

DEATHS.—During the year, 1941 deaths were registered in the Borough or 13·1 per 1000. One hundred and five of the deaths registered in the Borough were those of strangers dying at the Workhouse or Infirmary, 210 of strangers dying at the Croydon General Hospital, 15 at the Cottage Hospital, Upper Norwood, while one death from scarlet fever at the Borough Hospital occurred among patients admitted from Penge.

If we deduct these 142 deaths and add 30 deaths at the Mental Hospital, Warlingham, and 53 deaths of Croydon residents known to have occurred outside the district during the same period, we get a nett total of 1,882 deaths, which is equal to 12·7 per 1,000, as compared with 15·2 for England and Wales, 15·7 for the 76 great towns, 14·4 for the 141 smaller towns, 14·9 for England and Wales less the 217 towns.

Corrections for deaths of strangers occurring within the Borough and of deaths of Croydon people dying outside the Borough are more complete than was formerly possible. This is due to returns being now available for the deaths of Croydon lunatics occurring at the Mental Hospital, Warlingham, and of Croydon people dying in London institutions. The latter return has been furnished by the courtesy of the Superintendent of Statistics, Somerset House, and has been available since 1903. Since these deaths have been added to those registered in the Borough, all deaths of strangers occurring at the General Hospital, Cottage Hospital, Upper Norwood, and other similar institutions in the Borough have been deducted. Formerly, these were included in the total number of deaths on the supposition that they were balanced by Croydon death in London institutions.

The nett death-rates for the four quarters of the year were:—

		1905.		Average for 1895-1904.
1st Quarter	... ..	15'2	.....	15'8
2nd Quarter	... ..	11'4	.....	12'4
3rd Quarter	... ..	10'5	.....	13'5
4th Quarter	... ..	13'5	.....	13'1
Year	... ..	12'7	.....	13'7

The death-rate for the year is satisfactory, being one per thousand less than the average for the years 1895—1904, and lower than that recorded in any previous year, except 1903 with a death-rate of 11'8 per thousand.

WARD DEATH-RATES.—Table II gives the number of deaths assignable to each district in the Borough. Institution deaths have been, as far as possible, debited to the Wards in which the deceased lived prior to admission to hospital. In as many as 21 cases of persons dying at the Workhouse Infirmary we were unable to do this, and I have again to call attention to the necessity of the Local Government Board making such changes in the Poor Law Registers as would enable the previous addresses of deceased paupers to be quickly and accurately obtained.

The Ward deaths for the year were as follows:—

		Deaths,	Death-rate per 1000,
East Ward	... ..	161	9'5
South Ward	... ..	197	10'2
Thornton Heath Sub-Division	...	159	10'2
Upper Norwood Sub-Division	...	105	12'6
BOROUGH	... ..	1882	12'7
South Norwood Ward	... ..	297	13'3
Central Ward	... ..	236	13'8
West Ward	... ..	706	14'7

The Registrar General has not yet published his Annual Summary for 1905. I am therefore unable to say what exact position will be assigned to Croydon in comparing the death-rate with that of the other 76 towns, but from an examination of the four quarterly reports, it would seem that Croydon maintains its position at the head of what were the 33 great towns. The death-rate, however, was considerably lower in many of the other 76 towns. For instance Hornsey had a recorded death-rate of 7·6, King's Norton 9·1, Handsworth 10·1, Leyton 10·3, Walthamstow 10·8, Willesden 11·6, and East Ham 11·7.

INFANTILE MORTALITY is measured by the proportion of deaths under one year to 1,000 births, and amounted to 96 as compared with 128 in 1904, 104 in 1903, 133 in 1902, and 140 in 1901. This is the lowest infantile mortality rate in Croydon of which we have any record. During the year 1905 the rate for England and Wales was 128, while in the 76 large towns it ranged from 66 in Hornsey, 80 in Handsworth, 83 in Bournemouth, 87 Burton-on-Trent, 89 in King's Norton, 94 in Leyton, to 153 in West Ham, 155 in Nottingham, 174 Grimsby, 193 in Merthyr Tydfil, 195 in Hanley, to 200 in Rhondda.

The figures for the various Wards were:—

		Births.		Deaths under 1 year.		Death-rate per 1000 Births.
Upper Norwood Sub-						
division ...	...	134	...	10	...	75
East Ward ...	...	387	...	30	...	78
Thornton Heath Sub-						
division ...	...	466	...	39	...	84
South Ward ...	...	384	...	34	...	89
South Norwood ...	...	648	...	60	...	93
BOROUGH ...	...	3894	...	372	...	96
Central Ward...	...	344	...	37	...	108
West Ward ...	...	1446	...	162	...	112

The following table shows the fluctuations since 1892 in the infantile mortality from "all causes," from "diarrhoeal diseases*," and from "causes other than diarrhoeal."

Years.		Total Infantile Mortality from all causes.		Infantile Mortality from "diarrhoeal diseases.		Infantile Mortality from other than "diarrhoeal" diseases
1893—1897	...	142	...	25	...	117
1898—1902	...	143	...	38	...	105
1903	...	104	...	9	...	95
1904	...	128	...	20	...	99
1905	...	96	...	14	...	82

*Under "diarrhoeal" diseases are included deaths from "diarrhoea," from epidemic and zymotic enteritis, and from enteritis, that is, from the causes classified in schedules 10, 11, and 107 of Table IV.

Though the yearly variations in the infantile mortality rate are largely due to variations in the number of deaths from "diarrhœal" diseases, it will be seen that the favourable rate in 1905 was not due to this alone, the infantile mortality rate from other than "diarrhœal" diseases being 17 per thousand less than in 1904, and 13 per thousand less than in 1903.

Table V has been added at the request of the Local Government Board to show the precise age at which infants under one year of age die from certain selected diseases.

DEATH CERTIFICATION.—All deaths in the Borough were certified by the Medical Attendant or by the Coroner.

INQUESTS were held in 145 instances, or 7.7 per cent of the total deaths.

THE ASSIGNED CAUSES OF DEATH are fully set out in Tables IV., V. and VI., but certain of them require special comment.

SMALL POX.—During the year 1905 no single case of small pox was notified in the Borough. This is the first year we have been so fortunate since 1899.

CROYDON AND WIMBLEDON JOINT SMALL POX HOSPITAL.—The Small Pox Hospital District now comprises the County Borough of Croydon, the Borough of Wimbledon, the Urban District of Penge, and the Croydon Rural District. Only five patients were admitted during the year, viz. :—Two from the districts owning the hospital, one from the Epsom Rural District, one from the Godstone Rural District, and one from the District of the Bromley and Beckenham Hospital Board. The last case was admitted under a temporary arrangement made with that Board pending the completion of their Small Pox Hospital. The case from the Godstone Rural District was admitted at the urgent request of that authority, and at considerable inconvenience to the hospital staff. Though the Urban and Rural Districts of Surrey have been combined under the Isolation Hospitals Acts in order to provide hospital accommodation for small-pox, no active steps seem to have been taken in the matter. In the meantime the Joint Board has, in 1905 and in previous years, come to the rescue of many of these authorities, who should now come to some permanent arrangement with the Board or provide a separate hospital.

VACCINATION.—During the year ending December 31st, 1905, the number of primary vaccinations in Croydon and Penge amounted to 4,033, as compared with 4,366, registered births.

MEASLES accounted for 24 deaths during the year as compared with 62 deaths in 1904. As measles is not notifiable in the Borough, the actual number of children who suffered from the disease is unknown, but must have been very considerable, as during the year no less than eight schools were closed for this disease and 1,267 notifications were sent to various elementary schools after enquiry into suspected cases by the Health Visitors. It is once more noteworthy that all the fatal cases occurred in small houses.

The influence of school attendance and measles is referred to in the report to the Education Committee.

SCARLET FEVER (see Tables III., IV. and VI.). Four hundred and sixteen cases were notified, of which 11 ended fatally, as compared with 291 cases and eight deaths in 1904. From Table VI. it will be seen that the disease was more prevalent than in any year since 1900, and the number of deaths was greater than in any year since 1897, when 13 cases ended fatally. The cases were pretty generally distributed throughout the Borough, but the East and West Wards had rather more than their share, while the Upper Norwood Sub-Division was singularly free from this disease. One of the elementary schools was closed on account of the disorganisation produced by a small outbreak.

Three hundred and thirteen cases or 75 per cent. were isolated at the Borough Hospital.

RETURN CASES OF SCARLET FEVER.—In 16 instances 23 other cases of Scarlet Fever arose in homes to which patients had been discharged from hospital.

The following are the chief particulars in reference to these cases:—

RETURN CASES OF SCARLET FEVER, 1905.

DISCHARGED PATIENT.						Notes as to any abnormality on Discharge.	Onset and number of return case.	Interval between discharge of patient and onset of return case.
No. in Register	Age.	Sex.	Date of Discharge.	Days in Hospital.	Length of illness.			
461	8	F	3/1/05	40	44	All normal.	6/1/05 (16) 10/1/05 (20) 2/2/05 (64)	3 days 7 " 30 "
370	4	M	24/1/05	101	107	Uvula? red, external nares red, head scurfy, tonsils +.	1/2/05 (60) 2/2/05 (65)	8 " 23 "
469	5	M	10/1/05	45	47	Tonsils +.	9/2/05 (78)	14 "
331	6	M	26/1/05	119	122	Tonsils +, external nares? little red.	16/2/05 (102)	12 "
322	5	M	4/2/05	132	134	All normal.	10 5/05 (204)	25 "
107	8	M	15/4/05	53	56	All normal, except for roughness on heels.	20/5/05 (220)	35 "
276	14	F	5/8/05	46	49	All normal, except for desquamation of feet.	8/8/05 (340) 30/8/05 (355)	3 " 25 "
308	6	F	29/8/05	47	48	Glands palpable.	1/10/05 (411)	33 "
400	6	F	7/11/05	43	45	All normal	11/11/05 (520)	4 "
405	4	M	11/11/05	44	48	All normal.	19/11/05 (549)	8 "
508	1½	M	16/12/05	42	45	Glands +, scar right side of neck.	22/12/05 (583) 29/12/05 (593)	6 " 13 "
509	7	F	30/12/05	56	57	Normal.	3/1/06 (6) 3/1/06 (7) 3/1/06 (8)	4 " 4 " 4 "
460	9	F	30/12/05	73	75	External nares a little rough.	4/1/06 (9)	5 "
465	4	M	30/12/05	70	71	All normal.	3/1/06 (10)	4 "
413	4	F	7/12/05	66	68	Throat a little red, tonsils +, glands palpable	4/1/06 (11)	28 "
464	5½	M	28/12/05	69	90	Remains of scab on left heel secondary to a blister, tonsils +.	7/1/06 (18)	10 "

In several instances the interval that elapsed between the discharge of the patient and the onset of the second case was considerable, and raises some doubt as to whether the discharged patient and the infected case were really cause and effect. From all one knows of the chronicity of scarlet fever, I am, however, disposed to believe that the return cases were really due to persistent infectiousness of the discharged patient in the majority of instances. It will be noticed that no less than 13 out of the 16 discharged patients, who were suspected of carrying infection, left the hospital either in January February, November, or December. During these four months 151 patients were discharged, and 9 per cent. were therefore suspected of carrying infection. During the remainder of the year 212 patients were discharged, and of these only 1 per cent. were

similarly suspected. It is impossible to be certain what this means, but various explanations suggest themselves :—

(1). During the winter months children are much more subject to "common colds." Should a child take "cold" on its way home from the hospital it will suffer from nasal discharge, and that nasal discharge will in all probability be capable of conveying to other children any residual infection remaining in the nose of the discharged patient. Similarly slight sore throats are potentially capable of re-lighting infection.

(2). It is possible that children do not throw off infection so rapidly in the winter time, when outdoor exercise is naturally somewhat curtailed.

(3). The wards are usually fuller during the winter months, and though there has never been any overcrowding, it is possible that the fact that ventilation not being so thorough as in the summer time acts prejudicially on scarlet fever patients. It is for this, among other reasons, that the Hospital Committee are considering the advisability of installing additional heating apparatus, so that freer ventilation may be maintained without any inconvenience to the inmates and with, it is hoped, advantage to their health.

EPIDEMIC INFLUENZA was the assigned cause of death in 30 instances as compared with 27 in 1904.

WHOOPIING COUGH accounted for 31 deaths, 30 of which occurred in children under five years of age. The number of cases is unknown, but 353 school notices were necessitated by those coming to the knowledge of the department.

DIPHTHERIA AND MEMBRANOUS CROUP:—The number of cases notified amounted to 266 as compared with 312 in 1904, and 259 in 1903, while 25 cases terminated fatally. Seventy per cent. of the cases were isolated at the Borough Hospital.

The cases were fairly evenly distributed throughout the Borough but Thornton Heath and Upper Norwood had less than their share of this disease. The method of dealing with the cases is substantially the same as that prescribed in the last Annual Report.

Though the disease has been kept in check, and the result of dealing with special localised epidemics is usually quite satisfactory, we are still far from being able to stamp out the disease. This seems to be due to the large number of cases of mild diphtheria which escape recognition, and the still larger number of uncontrolled "contacts." School teachers could do much to lessen the number of unrecognised cases by reporting *every* case of sore throat, however mild, and however little resembling diphtheria. Were this done in every case where school children suffered from sore throat, there would be fewer missed cases and a smaller number of fatalities, as efficient treatment could be resorted to at an earlier stage of the disease. As stated in the report to the Education Committee 259 cases of "sore throat" were reported from the schools and many of them were found to be diphtheria.

ENTERIC FEVER:—Thirty-four cases were notified, and four deaths from this disease were registered during the year. Twenty-three cases were removed to hospital. Of these, nine were subsequently found to be suffering from some other complaint, viz:—two pneumonia, one influenza, one cirrhosis of liver, one colitis, one acute rheumatism, one septicaemia, one Malta fever, and one constipation. There were thus 25 cases of supposed enteric fever which required investigation. Of these, nine appeared to have contracted the disease outside the borough. Of the remaining 16 cases the origin was indefinite in no less than eight cases, while in six instances, shell-fish, and, in two instances, personal infection from preceding cases was the suspected cause of illness.

As epidemics of enteric fever are commonly traceable to infected water, and as Croydon has two distinct sources of water supply, it seemed useful to compare the incidence of the disease in the parts of the Borough supplied by Croydon, and by Lambeth (Metropolitan Water Board).

As the numbers for one year are small, the particulars have been taken out for the six years, 1900-1905, inclusive.

PARTICULARS OF ENTERIC FEVER CASES.

1900 TO 1905, INCLUSIVE.

Cases Notified.—270 (including 11 cases of Continued Fever).

Removed to Borough Hospital.—145 cases (including 2 cases of Continued Fever).

On removal to the Borough Hospital, thirty six (36) were found to be suffering from other diseases.

Water Supply of the Cases Notified:—

CROYDON	...	...	...	...	...	171
LAMBETH ..	...	...	...	...	...	95
Cases brought to Public Institutions in the						
Borough from outside Districts	...	...	...	...	...	4
Total	...	...	...	...	...	270

Concerning the Notified Cases, the following facts were ascertained:—

Suffering from other diseases, and not enteric fever	...	...	...	...	...	36
Home case, diagnosis subsequently amended	...	...	...	...	...	1
Infected outside the Borough	...	...	...	...	...	43
Probably infected by shellfish, watercress, &c.	...	...	...	...	...	32
Infected from other cases...	...	...	...	...	...	29
„ while unstopping of drains	...	...	...	...	...	1
„ by overflow of sewer	...	...	...	...	...	1
Total	...	...	...	...	...	143
Source of illness not traced	...	...	...	...	...	127

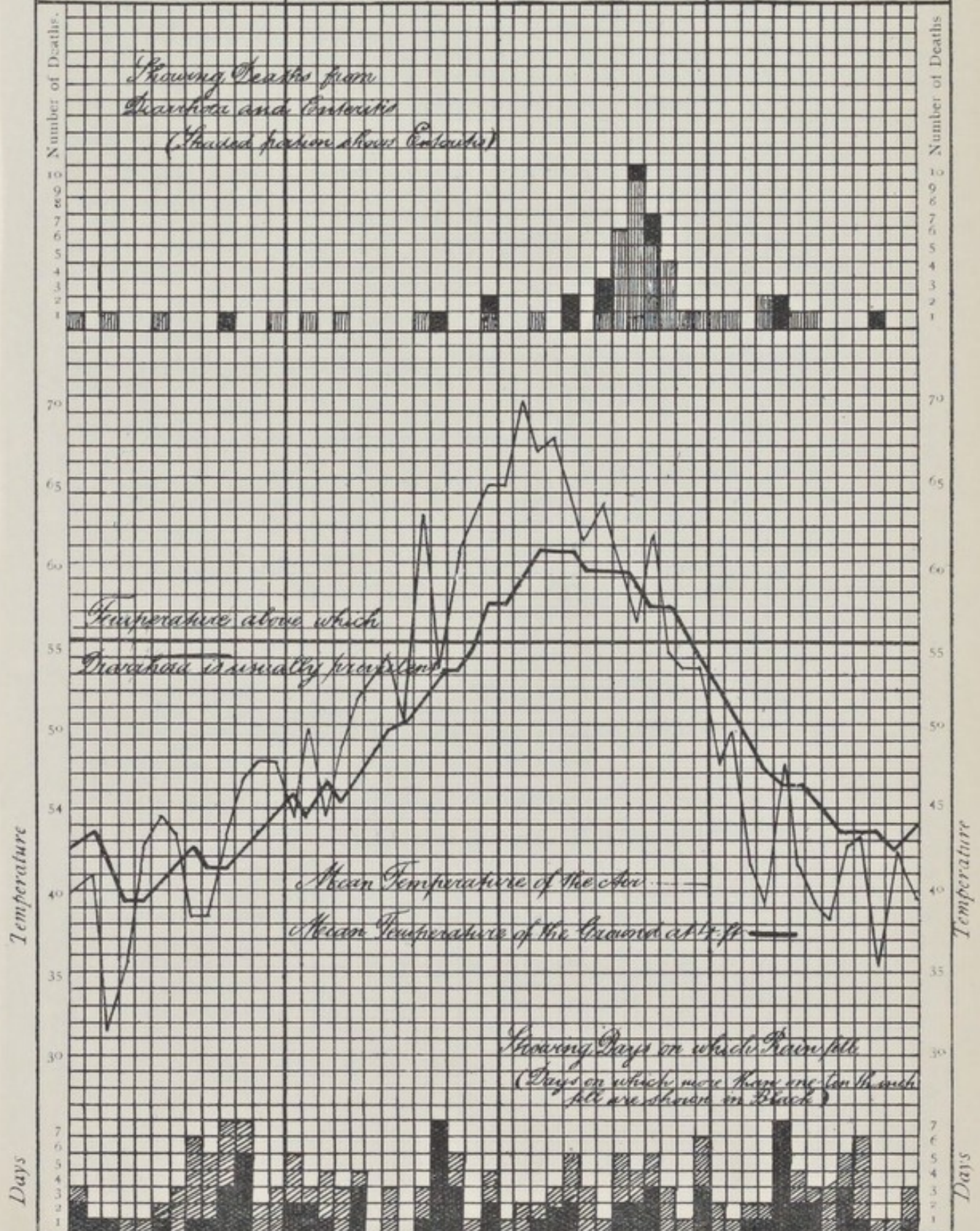
Of the 127 cases, the source of which was not traced, and which, therefore, might have been water-borne infection, 83 live within the area of the "Croydon" supply, and 44 in the "Lambeth" area. The enteric fever incidence in the two areas was, therefore, 7 per 10,000 in the "Croydon" area, and 12 per 10,000 in the "Lambeth" area for the six years. The numbers are in both cases, so small, as practically to exclude any suspicion or infection of either public water supply during the six years in question, and are sufficient to refute the suggestion that Croydon water has during recent years produced any ill effect.

DIARRHŒA AND EPIDEMIC ENTERITIS accounted for 52 deaths, of which 42 occurred in children under one year of age. There were also 22 deaths from other forms of enteritis, of which 13 were under one year of age. Thus of the total, 74 deaths from "diarrhœal" diseases, no less than 55 were those of infants under one year of age. It will be seen from Table VI. that "diarrhœal" deaths were considerably less than in any year for the past decade except 1903.

The accompanying chart shows the seasonal distribution of the deaths under one year from diarrhœal diseases. It will be seen that 35 out of the 55 deaths were in the third quarter. This curve again shows that a high mean temperature of the air does not in itself affect diarrhœal mortality as it should do if putrefaction of

YEAR 1905.

First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.
Week ending.	Week ending.	Week ending.	Week ending.
Jan. 7th Jan. 14th Jan. 21st Jan. 28th Feb. 4th Feb. 11th Feb. 18th Feb. 25th Mar. 4th Mar. 11th Mar. 18th Mar. 25th April 1st	April 8th April 15th April 22nd April 29th May 6th May 13th May 20th May 27th June 3rd June 10th June 17th June 24th July 1st	July 8th July 15th July 22nd July 29th Aug. 5th Aug. 12th Aug. 19th Aug. 26th Sept. 2nd Sept. 9th Sept. 16th Sept. 23rd Sept. 30th	Oct. 7th Oct. 14th Oct. 21st Oct. 28th Nov. 4th Nov. 11th Nov. 18th Nov. 25th Dec. 2nd Dec. 9th Dec. 16th Dec. 23rd Dec. 30th



insufficiently cooled milk from dirty farms were the main cause of the disease. It is also apparent that the connection between diarrhoeal prevalence and the temperature of the soil is not so close as Dr. Ballard supposed. Inverse relation of diarrhoea in wet weather is also manifest from the following figures. In the third quarter of 1903 there were 49 days on which rain fell, with only 22 deaths under one year from diarrhoeal diseases; in 1904 there were 28 wet days and 96 deaths under one year from diarrhoeal diseases, while 1905, with 41 wet days, occupies an intermediate position with 55 deaths.

It will be seen from Table V. that diarrhoeal deaths were more numerous at ages 0-3 months and 6-9 months than at other periods under one year of age. This is contrary to previous experience, and is perhaps the accidental result of dealing with a limited number of observations.

During the year investigations were made by the three health visitors into the method of feeding employed during the first six months of life in respect to 1,383 infants who survived this length of time.

The following is a summary of the figures :—

Entirely breast fed	...	...	864	=	62 per cent.
Breast and cow's milk	...	...	116	=	8 per cent.
Breast and other foods	...	...	246	=	18 per cent.
Cow's milk	...	...	70	=	5 per cent.
Condensed Milk	...	...	40	=	3 per cent.
Other prepared foods	...	...	47	=	4 per cent.
			1383		

Similar enquiries were made in respect to 110 deaths from all causes and 18 deaths from "diarrhoeal" diseases occurring among infants who survived for at least one week and died before reaching six months.

The following is a summary of the figures :—

Deaths from all causes.				Diarrhoeal and Enteritis deaths.	
Entirely breast fed	...	69 = 63 per cent.	...	6 = 33 per cent.	
Breast and cow's milk	10 = 9 per cent.	...	2 = 11 per cent.		
Breast and other foods	9 = 8 per cent.	...	0 = 0 per cent.		
Cow's milk	...	9 = 8 per cent.	...	3 = 17 per cent.	
Condensed milk	...	8 = 7 per cent.	...	7 = 39 per cent.	
Other prepared foods	5 = 5 per cent.	...	0 = 0 per cent.		
110			18		

Owing to the very large number of enquiries made by the Health Visitors concerning children absent from school on account of suspected infectious disease and to changes in the staff, only some of the deaths under one year were investigated. As, however, similar enquiries have been made during the last four or five years, and the total number investigated is now considerable, it has been thought well to summarise the results obtained up to and including the year 1905.

The following are the figures :—

During the years 1900, 1903 and 1905, investigations were made by the three health visitors into the method of feeding employed in respect to 800 deaths from all causes and 185 deaths from "diarrhœal" diseases occurring among infants who survived for at least one week and died before reaching six months.

The following is a summary of the figures :—

	Deaths from all causes.	Deaths from Diarrhœa and Enteritis.
Entirely breast fed ...	402 = 50 per cent.	29 = 16 per cent.
Breast and cow's milk ...	22 = 3 per cent.	4 = 2 per cent.
Breast and other foods ...	24 = 3 per cent.	4 = 2 per cent.
Cow's milk ...	181 = 23 per cent.	84 = 45 per cent.
Condensed milk ...	145 = 18 per cent.	59 = 32 per cent.
Other prepared foods ...	26 = 3 per cent.	5 = 3 per cent.
	<hr/> 800	<hr/> 185

During the three years 1903-5, investigations were made by the Health Visitors into the method of feeding employed during the first six months of life in respect to 4,446 infants who survived this length of time.

The following is a summary of the figures :—

Entirely breast fed ...	2745 = 62 per cent.
Breast and cow's milk ...	357 = 8 per cent.
Breast and other foods ...	872 = 20 per cent.
Cow's milk ...	232 = 5 per cent.
Condensed milk ...	92 = 2 per cent.
Other prepared foods ...	148 = 3 per cent.
	<hr/> 4446

Similar returns have been so fully discussed on previous occasions that it is only necessary to refer briefly to the inferences that may fairly be drawn from these figures.

(1) The death rate from all causes is nearly half as large again among children receiving more or less artificial food as compared with those that are entirely breast fed for the first six months of life.

(2) The mortality from diarrhoeal diseases is nearly eight times higher among those receiving artificial food as compared with that of children who are entirely breast fed.

(3) Though the number of children fed on condensed milk is comparatively small they furnish a considerable proportion of the deaths of infants from all causes and a still more considerable share of diarrhoeal deaths.

PUERPERAL FEVER was notified on 11 occasions. Five of these cases ended fatally. Three of the cases were attended by registered midwives. In every instance the disinfectant used by the midwife was only Condyl's fluid, which is practically useless for this purpose. Even where more efficient chemical substances are stated to be used it is doubtful whether any real disinfection of the midwife or of the patient is carried out. Efficient disinfection in every case means scrupulous cleanliness as a preliminary and the careful use for a definite time of a definite strength of an efficient disinfectant. Few midwives working among the poor attempt more than the wetting of their hands in a bowl of water to which they have added an unknown but extremely small portion of a disinfecting fluid whose name they have usually forgotten. In one instance a registered midwife made no pretence at disinfection, not even taking her bag to the case. Puerperal fever shortly developed, and the facts were reported to the Central Midwives' Board, who instituted an enquiry and removed the midwife's name from the roll. Though no longer registered, this midwife still continued her employment, and has already had another case of puerperal fever in her practice (January 11th, 1906).

In only three out of the 11 cases of puerperal fever was a medical man actually present at the confinement.

ERYSIPELAS was notified on 78 occasions, and five cases ended fatally.

MIDWIVES ACT, 1902.—During the year one of the registered midwives (P.B., No. on Roll 1,465) was removed from the roll, and her certificate cancelled for negligence and misconduct, and 24 remained on the register on December 31st. The case books and bags of appliances of all the midwives, with the exception of one (No. on Roll 20,936), whose present address is unknown, have been inspected.

The result of the inspection was much the same as last year, the majority of the women being very ignorant, and for the most part incapable of either understanding or carrying out the rules of the Board.

Certain midwives require special reference,

I.C. (No. on Roll 2,091). This midwife continued to keep her register in a very imperfect manner, though personally warned on this point last year. She is not worse than many of the other midwives, but as she is younger than most of them and likely to continue at her work for several years, she was asked to attend before the Committee so that she could show cause why she should not be reported to the Central Midwives Board for negligence. She apologised to the Committee, and undertook to adhere to the rules for the future.

M.A.W. (No. on Roll 2,105). This midwife had no appliances and no case book, and would not undertake to provide them. She preferred being removed from the roll to undertaking responsibility for which she did not feel fit. This was reported to the Central Midwives' Board, and in all probability her name will be removed from the roll.

S.H. (No. on Roll 20,373). This midwife also had no case book or bag of appliances, and would not undertake to provide them. She was also reported to the Central Midwives' Board, who will doubtless remove her name from the roll.

E.D. (No. on Roll 20,342).

E.M. (No. on Roll 2,991).

E.P. (No. on Roll 20,935).

Neither of these midwives were able to produce a case book. They have been warned that they will be required to keep a proper case book next year, and formal notice to this effect has been given them.

I may add that in many instances notifications that should have been sent to the supervising authority have not been received.

With regard to the midwife whose name has been removed from the roll, the facts are as follows :—

On June 19th, 1905, a notification was received from Dr. E. that M.T., of 2, Lion Road, was suffering from puerperal septicaemia.

On enquiry it seemed that M.T. was confined on June 15th, and was attended at her confinement by P.B. (No. on Roll 1,465). It was found that she had disobeyed the following rules framed by the Central Midwives' Board :—

E. 2. In that she attended the case without her bag and without any disinfectants.

E. 3. In that she did not disinfect her hands and fore-arms.

E. 7. In that she did not disinfect the patient.

E. 11. In that the patient was not kept in a cleanly condition.

E 17. In that she allowed more than 36 hours to elapse after the shivering fit before a doctor was sent for.

Furthermore, her case book was not properly kept, and she did not appear to have sent either to the doctor or myself the necessary notice required by Rule 19 (b).

On ascertaining these particulars she was requested to attend before the Committee, who found a *prima facie* case of malpractice and negligence established against her, and directed the same to be reported to the Central Midwives' Board. The Board summoned her to appear before it with a view to the removal of her name from the roll, should the charges made against her appear to be proved. The doctor in attendance was also requested to attend to give evidence.

After careful consideration of the facts of the case, and after hearing the midwife's defence, the Board cancelled her certificate and removed her name from the roll.

At the end of the year I received the following letter from the Midwives' Board :—

Central Midwives' Board,
6, Suffolk Street,
Pall Mall,
London, S.W.
December 19th, 1905.

SIR,

MIDWIVES' ACT, 1902.

RULES OF CENTRAL MIDWIVES' BOARD.

I am directed to advert to the fact that the period of validity of the present code of rules expires on the 12th August, 1906, and to state that the Board will be glad to have an opportunity of considering any amendments that your experience of the administration of the Act and Rules may have indicated as desirable.

As the Board proposes to commence the consideration of the revision of the Rules in January, I shall be much obliged if you will be good enough to let me have by the 10th of that month any amendments that you may wish to suggest for adoption by the Board.

I am, sir,

Your obedient servant,

G. W. DUNCAN,

Secretary.

The Medical Officer of Health
for Croydon.

In reply thereto I addressed the following letter :—

Public Health Department,
Town Hall,
January 6th, 1906.

SIR,

MIDWIVES' ACT, 1902.

RULES OF CENTRAL BOARD.

In reference to your communication of December 19th, 1905, I beg to make the following suggestions :—

(a.) I think it would be an advantage if Section E were printed separately. At present, midwives are given a copy of all the Rules, and finding Section A beyond their comprehension give up the attempt to understand them.

(b.) I think it would be an advantage if there were a rule that midwives should attend at the office of the Local Supervising Authority when required. This would facilitate inspections, and economise the time of the supervising medical officer.

(c.) It should be made clear that midwives are required to enter in their Case Book, the names and addresses of patients whom they attend under medical supervision.

(d.) Paragraph 3 of Rule 1 should also apply to midwives who have been attending any septic case. Many midwives are also District Nurses and go straight from dressing an ulcerated leg to a confinement. Possibly, this point could better be met by amending Rule 5.

(e.) Most of the midwives registered in Croydon are far too ignorant to be trusted to give vaginal douches. Rule 2 (Sub-section c.) refers to an antiseptic for douching in special cases. I think it would be well to define special cases as those which are under medical care.

(f.) If possible, provision should be made whereby the Local Supervising Authority could delegate to their executive officer the power of suspending a midwife pending a meeting of the Authority.

Yours faithfully,

H. MEREDITH RICHARDS.

G. W. Duncan, Esq.,
Central Midwives' Board.

TUBERCULOSIS of all forms was the assigned cause of death in 220 instances, or 1·49 per 1,000 persons living, while phthisis alone was responsible for 162 deaths, or 1·09 per 1,000.

It will be seen from Table VI that the deaths from phthisis were more numerous than in any of the ten preceding years. Phthisis has now been voluntarily notifiable in the borough since 1903. From that date until the end of the year 57 notifications were received. During 1904, 129 cases were notified, and in 1905, 75 cases were notified. It will be noticed the number of notifications is less than in 1904, and only corresponds to less than half the number of deaths. Probably, therefore, not more than one-sixth of the total cases came to the knowledge of the Health Department. All notified cases are visited by one of the medical officers from the Borough Hospital or myself, so that patients and their friends may be advised as to the precautions they

must take to prevent the infection of others. Subsequent visits with a like object are also made by the Health Visitors at quarterly intervals in the case of patients who seem to need this supervision. While notification, however, embraces such a small proportion of the actual cases of phthisis, it is hardly likely that any considerable progress can be made, and I can only repeat once more my opinion that measures for the prevention of phthisis will not become popular, nor, indeed, can be considered to have been seriously begun, until some amount of hospital accommodation has been provided for suitable cases. It is true that the Workhouse Infirmary already accommodates a considerable number of dying patients; thus, during the last five years we have the following figures:—

Year.	Total deaths of Croydon persons in Institutions.			Total deaths of Croydon persons from Phthisis.		
1901	23	...	...	123
1902	29	...	...	112
1903	35	...	...	151
1904	31	...	...	142
1905	43	...	...	162
Total			161	...	...	690

There remains, however, a need for the hospital treatment of advanced cases occurring in families somewhat above the pauper class. Beds are also needed for the reception of a limited number of moderately early cases occurring among the poor, who should be taken into hospital for a limited time, with the object of receiving training in personal hygiene on the lines followed at Brighton.

Provision should also be made for the segregation of the cases treated at the Infirmary. Until some such provision is made, I do not see that any further advance is possible, and I can only reiterate my opinion, that the Council and the Guardians should consider the advisability of making a combined effort to deal with these cases.

Disinfection of the premises for phthisis has been carried out in 87 instances, and is always offered after a fatal termination, or in any other cases where house infection appears likely to have taken place.

TUBERCULOSIS AND MILK.—No samples were taken under the Model Milk Clauses during the year. This course was adopted because previous experience had shown that it was almost impossible to take adequate precautions even when samples were found

to be tuberculous. With a view, however, of calling the attention of dairymen to the importance of producing milk free from tuberculous contamination, I propose taking further samples during the current year.

DISINFECTION.—During the year, 592 houses and 645 lots of clothing were disinfected. The latter number included 69 lots of infected material from the Urban District of Penge.

The articles disinfected were as follows :—294 Beds; 293 Mattresses; 710 Blankets; 90 Sheets; 730 Pillows; 225 Bolsters; 115 Palliasses; 1,604 Other Articles. Total, 4,061.

CUSTOMS AND INLAND REVENUE ACTS.—Under Sect. 26, 53, and 54 Vict., c. 8, exemption from inhabited house duty is granted to houses divided into tenements of the annual value of less than £20, provided the medical officer of health certifies that they afford suitable accommodation for each of the families or persons dwelling therein, and that due provision is made for their sanitary requirements.

By Sect. 11, 3 Edward VII., this provision was extended to houses of the annual value of not more than £40.

During the year applications were made in respect of the following flats :—

Houses examined and certified under the Customs and Inland Revenue Act, during 1905

Name of Street.	Number of Houses.	Number of Dwellings.	Number of Certificates Granted.	Date of Inspection
1 and 3, Cargreen Road ...	2	4	Nil.	Feb. 24th, 1905.
2, 3, 6, 7, 8, 9, 10, 11, 12, 13 14, 15, 16, 18, 19, 20, 23, and 25, Royal Parade, London Road	9	18	18	March 2nd, 1905.
21 and 22, Royal Parade, London Road... ..	2	4	4	April 19th, 1906.
82, South End	1	3	Nil.	May 18th, 1906.

GAS TESTING.—The following are particulars of Official Tests of Gas during the year 1905 :—

Date.		Gas Works, Croydon.			Gas Works, Lower Sydenham.			Testing Station, Beckenham.		
1905.		Illuminating Power, Candles.	Sulphur in Grains.	Sulphur'd Hydrogen.	Illuminating Power, Candles.	Sulphur in Grains.	Sulphur'd Hydrogen.	Illuminating Power, Candles.	Sulphur in Grains.	Sulphur'd Hydrogen.
January ...	5	...	...	...	15·30	28·95	none	...	...	...
" ...	6	...	...	...	15·76	30·12	none	...	...	...
" ...	23	...	...	...	...	...	...	14·7	19·8	none.
February	13	...	...	...	...	...	...	15·1	26·1	none.
" ...	14	...	...	...	...	...	...	...	28·6	...
" ...	15	...	...	...	...	...	...	...	31·2	...
" ...	16	...	...	...	...	...	...	...	31·1	...
" ...	17	...	...	...	...	...	...	16·1	31·9	none.
" ...	18	...	...	...	...	...	...	...	35·3	...
April ...	3	...	...	...	...	...	...	15·8	33·1	none.
" ...	18	...	...	...	14·85	33·51	none	...	...	...
May ...	15	...	...	...	...	...	...	16·0	35·1	none.
June ...	8	14·45	...	none.	...	...	...	...	...	...
" ...	15	15·54	...	none.	...	...	...	...	...	...
July ...	10	...	...	...	...	...	...	15·6	34·6	none.
August ...	14	...	...	...	...	...	...	15·3	35·3	none.
" ...	30	...	...	...	15·31	...	none.	...	...	...
September	18	...	...	...	...	...	...	15·3	...	none.
" ...	19	16·03	...	none.	...	...	...	...	...	...
" ...	29	...	...	...	15·4	...	none.	...	...	...
October	30	...	...	...	...	...	...	15·03	no test.	none.
November	14	...	...	...	...	...	...	15·4	no test.	none.
" ...	30	15·57	...	none.	...	...	...	...	...	...

The figures for the South Suburban Gas Company are from the London County Council's official tests.

TABLE I.

For whole District, for Calendar Year 1904.

Year.	Population estimated to Middle of each Year.	BIRTHS.		DEATHS UNDER ONE YEAR OF AGE.		DEATHS AT ALL AGES. TOTAL.		Deaths in Public Institutions.	Deaths of Non-residents registered in District.	Deaths of Residents registered beyond District.	DEATHS AT ALL AGES. NETT. <i>d</i> .	
		Number.	Rate.*	Number.	Rate per 1,000 Births registered.	Number.	Rate.*				Number.	Rate.*
1	2	<i>a</i> 3	4	<i>b</i> 5	6	7	8	<i>c</i> 9	<i>d</i> 10	<i>e</i> 11	12	13
1895.	114,923	2906	25.3	397	136	1687	14.7	271	58	15	1629	14.2
1896.	118,006	2964	25.1	457	154	1721	14.6	283	73	21	1669	14.1
1897.	121,171	3034	25.0	423	139	1622	13.4	315	64	10	1568	12.9
1898.	124,421	3150	25.3	482	153	1777	14.3	347	85	18	1710	13.7
1899.	127,759	3204	25.1	500	156	1993	15.6	431	101	7	1899	14.9
1900.	131,186	3270	24.9	432	132	1977	15.1	419	63	6	1920	14.6
1901.	134,665	3578	26.6	501	140	1829	13.6	383	83	2	1748	12.9
1902.	137,917	3576	25.9	476	133	1965	14.3	429	74	13	1904	13.8
1903.	141,157	3726	26.4	386	104	1740	12.3	454	129	57	1670	11.8
1904.	144,419	3769	26.1	483	128	2071	14.3	598	148	75	1998	13.8
Averages for years 1895—1904	129,562	3318	25.6	454	138	1838	14.2	393	88	22	1772	13.7
1905.	147,704	3894	26.4	372	96	1941	13.1	541	142	83	1882	12.7

* Rates calculated per 1,000 of estimated population.

a These are total births (uncorrected) for Institutions.*b* These are corrected for the Borough Hospital and Workhouse.*c* Includes all deaths of residents and non-residents in Workhouse, Workhouse Infirmary, Borough Hospital, General Hospital, Cottage Hospital, 89, Central Hill (Servants' Reformatory), and Court Royal Convalescent Home, South Norwood Hill.*d* Deaths of non-residents have been excluded in the case of the Workhouse, Workhouse Infirmary, Borough Hospital, General Hospital, Cottage Hospital, 89, Central Hill (Servants' Reformatory), and Court Royal Convalescent Home, South Norwood Hill. Prior to 1903 correction was only made for the first three institutions.*e* In 1903 arrangements were made for the first time whereby deaths of Croydon persons in the London district were notified to the Medical Officer of Health.

Area of District in acres (exclusive of area covered by water), 9,012.

AT CENSUS OF 1901.—Total population at all ages, 133,895; number of inhabited houses, 25,726; average number of persons per house, 5.2.

TABLE II

NAMES OF LOCALITIES.	1. WEST WARD.				2. CENTRAL WARD.				3. EAST WARD.				4. SOUTH WARD.				5. SOUTH NORWOOD WARD.				6. UPPER NORWOOD SUB-DIVISION.				7. THORNTON HEATH SUB-DIVISION.				8. UNDISTRIBUTED INSTITUTION BIRTHS AND DEATHS.			
	Population estimated to middle of each year.	Births Registered.	Deaths at all ages.	Deaths under 1 Year	Population estimated to middle of each year.	Births Registered.	Deaths at all ages.	Deaths under 1 Year	Population estimated to middle of each year.	Births Registered.	Deaths at all ages.	Deaths under 1 Year	Population estimated to middle of each year.	Births Registered.	Deaths at all ages.	Deaths under 1 Year	Population estimated to middle of each year.	Births Registered.	Deaths at all ages.	Deaths under 1 Year	Population estimated to middle of each year.	Births Registered.	Deaths at all ages.	Deaths under 1 Year	Population estimated to middle of each year.	Births Registered.	Deaths at all ages.	Deaths under 1 Year	Population estimated to middle of each year.	Births Registered.	Deaths at all ages.	Deaths under 1 Year
YEAR.	a	b	c	d	a	b	c	d	a	b	c	d	a	b	c	d	a	b	c	d	a	b	c	d	a	b	c	d	Prior to 1900, Institution Deaths could not be distributed as the Registrar did not supply the necessary information.			
1895 *	35,778	1136	502	150	16,201	395	197	49	11,627	204	143	26	15,827	373	192	48	17,333	432	184	52	8,191	130	95	9	9,966	236	103	35	..	271	28	..
1896 *	36,955	1158	506	195	16,283	390	218	57	12,145	255	121	36	16,179	426	178	46	17,850	394	215	52	8,198	111	81	14	10,396	230	119	42	..	283	15	..
1897 *	38,162	1135	418	136	16,365	395	203	43	12,658	279	138	34	16,511	381	177	61	18,322	450	195	62	8,206	130	90	23	10,947	264	86	40	..	315	24	..
1898 *	39,379	1072	443	156	16,460	387	230	66	13,186	295	132	45	16,863	431	200	57	18,829	510	235	74	8,216	108	83	15	11,488	277	107	45	..	347	24	..
1899 *	40,606	1100	521	182	16,553	388	223	59	13,734	323	153	58	17,235	421	193	48	19,346	488	248	62	8,228	102	91	13	12,057	315	133	49	..	431	29	..
1900 *	41,839	1142	662	175	16,694	355	264	46	14,241	327	177	33	17,624	394	246	52	19,852	501	234	62	8,241	129	96	11	12,685	353	157	43	69	84	10	69
1901 *	43,136	1230	640	208	16,778	307	200	48	14,799	345	158	45	18,011	409	197	49	20,399	571	245	73	8,254	132	98	16	13,288	414	164	57	80	51	5	80
1902 *	44,361	1271	658	191	16,863	326	219	44	15,326	361	175	44	18,363	413	222	45	20,899	547	276	75	8,277	156	113	26	13,828	404	158	43	98	83	..	98
1903 *	45,540	1355	570	169	16,957	379	210	45	15,836	339	156	34	18,735	378	181	27	21,412	611	260	55	8,302	149	85	7	14,375	443	171	48	72	37	1	72
1904 *	46,741	1319	699	190	17,051	362	229	35	16,346	375	193	47	19,107	399	227	55	21,925	621	322	70	8,327	148	90	20	14,922	463	192	63	82	46	3	82
Averages of Years 1895 to 1904.)	41,249	1192	561	175	16,220	377	219	49	13,991	310	155	40	17,446	403	201	49	19,617	513	241	64	8,244	130	92	15	12,305	350	139	47	80	195	15	80
1905 †	47,944	1446	706	162	17,106	344	236	37	16,983	387	161	30	19,404	384	197	34	22,370	648	297	60	8,335	134	105	10	15,562	466	159	39	85	21	..	85

NOTES.—† For 1900, 1901, 1902, 1903, 1904 and 1905 deaths of residents occurring beyond the district are included in sub-columns c of this table, and those of non-residents occurring at the Workhouse, Workhouse Infirmary, Borough Hospital, General Hospital, "Court Royal," Upper Norwood, and 89, Central Hill (Servants' Reformatory) are excluded.

Deaths of residents occurring in Public Institutions are allotted to the respective localities, according to the addresses of the deceased, but deaths of strangers at the Workhouse, Workhouse Infirmary, General Hospital, Norwood Cottage Hospital, "Court Royal," Upper Norwood, and 89, Central Hill (Servants' Reformatory), and also all deaths of Croydon residents whose exact home could not be ascertained, are included in Block 8.

TABLE III.
Cases of Infectious Disease notified during the Year 1905.

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.						1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 & upw d.																	
								West.	Central.	East.	South.	South Norwood.	Upper Norwood.	Thornton Heath.	Institution cases which could not be distributed.	West.	Central.	East.	South.	South Norwood.	Upper Norwood.	Thornton Heath.	Institution Cases.	TOTAL.
Small pox .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria	266	5	73	150	20	18	..	100	32	34	27	33	5	15	20	70	20	25		20	3	10	20	185
Membranous Croup .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas	78	2	2	5	7	49	13	37	9	6	5	13	2	4	2	..	..	..	..	..	..	..	..	..
Scarlet Fever	416	3	112	250	35	16	..	149	30	77	32	50	4	58	16	109	21	69	20	35	2	41	16	313
Typhus Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	34	..	2	8	9	15	..	9	3	6	1	7	3	4	1	5	2	5	1	5	2	3	..	23
Relapsing Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever	11	..	..	..	2	9	..	5	1	1	..	4	..	..	..	..	..	..	..	..	..	..	..	..
Plague .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Phthisis	75	..	1	1	12	58	3	35	12	4	8	5	5	6	..	..	..	..	..	..	..	..	..	..
TOTALS	880	10	190	414	85	165	16	335	87	128	73	112	19	87	39	184	43	99	38	60	7	54	36	521

The Borough (Fever) Isolation Hospital is situated in the West Ward.
The Croydon and Wimbledon (Small-pox) Isolation Hospital is at North Cheam.

TABLE IV.

Causes of, and ages at, Deaths during Year ending December 31st, 1905, excluding Deaths of Strangers at the Workhouse, Workhouse Infirmary, Borough Hospital, General Hospital, Cottage Hospital, 89, Central Hill (Servants' Reformatory), and Court Royal Convalescent Home, South Norwood, and adding Deaths of Croydon Residents known to have occurred outside the District.

Schedule No.	Causes of Death in Croydon during the Year ending December 31st, 1904.	DEATHS IN WHOLE DISTRICT AT SUBJOINED AGES.								DEATHS IN LOCALITIES AT ALL AGES.							Institution and Street Deaths which could not be distributed.	Total Institution Deaths distributed and not distributed.	Inquest Cases.		
		ALL AGES.			Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	West.	Central.	East.	South.	South Norwood.	Upper Norwood.				Thornton Heath.	
		Total.	M.	F.																	
1	Small Pox	24	14	10	7	14	3	12	3	1	..	4	2	2	(2)	..
2	Measles	11	6	5	..	8	3	..	..	..	3	3	2	..	2	..	1	..	12(1)	..
3	Scarlet Fever	30	13	17	1	1	..	..	14	14	10	2	4	4	6	1	3	..	4(1)	..
5	Epidemic Influenza	31	14	17	21	9	1	..	..	..	11	5	..	5	6	..	4	..	3(2)	..
6	Whooping Cough	25	12	13	..	13	12	..	..	..	12	3	2	3	1	..	4	..	17	..
7	Diphtheria (Mem. Croup)	4	3	1	..	..	1	1	2	..	1	..	2	..	..	1	..	..	4	..
8	Enteric Fever	24	13	11	21	1	..	..	2	..	11	3	2	1	5	1	1	..	1	3
10	Diarrhoea, Dysentery	28	8	20	21	6	1	..	..	..	12	3	3	2	8	..	..	..	..	..
11	Epidemic Enteritis	1	..	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	1	..
12	Other Allied Diseases	1	..	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	1	..
15	Tetanus	1	1	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	2(1)	..
18	Syphilis	2	1	1	2	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..
19	Gonorrhoea .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
20	Phagedæna	1	..	1	..	..	..	..	1	..	1	..	..	..	..	..	..	..	2(1)	..
21	Erysipelas	5	2	3	2	..	..	1	1	1	2	1	..	..	2	..	..	..	3	1
22	Puerperal Fever	5	..	5	..	..	..	1	4	..	3	1	..	..	1	..	..	..	(1)	1
23	Pyæmia (Septicæmia)	3	1	2	1	1	..	..	1	..	2	..	..	1	..	..	..	..	1	1
24	Infective Endocarditis	3	..	3	..	..	..	1	1	1	..	..	3	..	..	..	..	..	..	..
25	Other Allied Diseases	11	8	3	2	..	..	..	5	4	2	1	..	2	2	1	1	2	8(1)	..
27	Rheumatic Fever	12	6	6	..	2	3	1	6	..	3	1	2	3	3	..	..	..	5(1)	..
29	Tuberculosis of Brain	21	11	10	7	8	4	..	2	..	10	2	..	3	2	1	3	..	5(1)	..	
30	Tuberculosis of Larynx .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	(1)	..
31	Phthisis	162	93	69	1	2	4	33	117	5	67	16	13	17	30	5	13	1	56(13)	3	
32	Abdominal Tuberculosis	9	4	5	2	1	3	2	1	..	4	..	..	1	2	..	1	1	4(2)	..
33	General Tuberculosis	17	6	11	6	2	3	3	3	..	9	4	1	1	1	1	..	..	5(2)	1
34	Other forms Tuberculosis	11	4	7	..	1	4	2	2	2	3	1	..	2	3	..	2	..	3	..	
38	Hydatid Diseases	1	..	1	..	..	..	..	1	..	..	..	1	..	..	..	..	..	1	..
39	Scurvy	1	..	1	1	..	..	..	..	..	..	..	1	..	..	..	..	..	(1)	..
41	Acute Alcoholism	2	2	..	..	..	..	..	2	..	..	..	..	..	1	1	..	..	1	..
42	Chronic Alcoholism	3	1	2	..	..	..	..	2	1	2	..	..	..	1	..	..	..	..	1
45	Osteo-arthritis	8	3	5	..	..	1	..	1	6	4	2	..	..	..	2	..	..	1	..
46	Gout	2	2	..	..	..	..	..	2	..	1	..	..	..	..	1	..	..	..	..
47	Cancer	140	55	85	..	1	..	4	86	49	45	22	10	16	24	13	9	1	58(18)	1	
48	Diabetes Mellitus	11	6	5	..	..	..	..	8	3	4	2	1	2	..	2	..	..	2	..
51	Anæmia	7	2	5	..	..	..	..	3	4	1	..	3	1	1	..	1	..	3(2)	1
52	Lymphadenoma	1	1	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..
53	Premature Birth	67	37	30	66	1	..	..	..	..	24	7	7	2	18	1	8	..	2(3)	4
54	Injury at Birth	3	1	2	3	..	..	..	..	..	..	..	..	1	1	..	1	..	..	..
55	Debility at Birth	9	6	3	9	..	..	..	..	..	5	1	..	2	..	..	1	..	..	..
56	Atelectasis	6	5	1	6	..	..	..	..	..	2	..	1	1	1	1	..	..	(1)	..
57	Congenital Defects	14	11	3	13	1	..	..	..	..	2	4	..	1	5	..	2	..	9(4)	1
58	Want of Breast Milk	3	2	1	3	..	..	..	..	..	..	..	1	..	2	..	..	..	..	..
59	Atrophy. Debility, Marasmus	49	28	21	47	1	..	..	1	..	22	5	2	5	6	2	7	..	12(4)	1
60	Dentition	3	2	1	3	..	..	..	..	..	1	1	..	..	1	..	..	..	..	..
61	Rickets	4	3	1	2	2	..	..	..	..	2	..	..	..	1	..	1	..	..	..
62	Old Age, Senile Decay	79	26	53	..	..	..	..	..	79	30	10	3	11	13	5	3	4	18(5)	1
63	Convulsions	30	13	17	25	4	..	..	..	1	18	2	1	3	2	2	2	..	..	8
64	Meningitis	14	7	7	3	6	1	2	2	..	4	2	3	2	3	..	..	..	(1)	..
65	Encephalitis	2	2	..	1	..	..	..	1	..	2	..	..	..	..	..	..	..	2	1
66	Apoplexy	35	15	20	..	..	..	..	12	23	12	3	4	6	4	3	3	..	7	..
67	Softening of Brain	3	3	..	..	..	..	..	1	2	1	..	..	1	1	..	..	..	1	..
68	Hemiplegia	1	1	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..
69	General Paralysis of Insane	10	8	2	..	..	..	..	10	..	4	2	1	..	1	1	..	1	10	..
70	Other forms of Insanity	11	4	7	..	..	..	..	8	3	3	1	1	..	1	1	3	1	11	1
71	Chorea .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
72	Cerebral Tumour	1	1	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..
73	Epilepsy	7	5	2	..	..	..	1	2	4	2	2	..	..	2	..	..	1	3	2
74	Laryngismus Stridulus	3	2	1	2	1	..	..	..	..	1	..	..	..	1	1	..	..	..	1
75	Locomotor Ataxy	3	2	1	..	1	..	..	2	..	2	..	..	..	..	1	..	..	..	..
76	Paraplegia	5	3	2	..	1	..	1	2	1	1	1	2	..	..	1	..	..	1(1)	..
77	Other forms, Brain Diseases	8	4	4	..	1	2	1	3	1	3	3	..	..	1	1	..	..	5(2)	..
78	Otitis	9	5	4	1	2	1	2	3	..	2	1	3	..	2	1	..	..	7(1)	..
81	Pericarditis	2	..	2	..	..	1	..	1	..	1	..	..	1	..	..	..	..	..	..
82	Endocarditis	87	47	40	..	1	7	5	40	34	38	12	8	7	12	2	7	1	28(8)	12	
83	Hypertrophy of Heart	4	1	3	..	..	..	..	2	2	..	..	..	1	2	1	..	..	1	1
84	Angina Pectoris	4	2	2	..	..	..	..	..	4	3	..	..	..	..	1	..	..	..	..
85	Aneurism	4	4	..	..	..	..	..	3	1	1	1	..	1	..	1	..	..	2	1
86	Senile Gangrene	3	1	2	..	..	..	..	3	1	2	..	..	..	..	..	..	..	2(1)	..
87	Embolism Thrombosis	8	3	5	..	..	..	..	3	5	3	1	2	1	1	..	..	..	1	1
88	Phlebitis	1	..	1	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..

TABLE IV—continued.

Causes of, and ages at, Death during Year ending December 31st, 1905.

Schedule No.	Causes of Death in Croydon during the Year ending December 31st, 1904.	DEATHS IN WHOLE DISTRICT AT SUBJOINED AGES.									DEATHS IN LOCALITIES AT ALL AGES.								Institution and Street Deaths which could not be distributed.	Total Institution Deaths distributed and not distributed.	Inquest Cases
		ALL AGES.			Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	West.	Central.	East.	South.	South Norwood.	Upper Norwood.	Thornton Heath.				
		Total.	M.	F.																	
90	Other Diseases, Heart and Vessels	189	85	104	..	1	1	1	57	129	68	29	12	17	35	10	14	4	69(16)	18	
91	Laryngitis	2	..	2	..	2	..	..	..	..	..	1	..	..	1	..	..	..	2(1)	..
92	Croup	1	1	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..
94	Acute Bronchitis	59	36	23	28	7	..	..	9	15	28	6	6	4	10	1	4	..	1	2
95	Chronic Bronchitis	89	35	45	..	..	..	..	16	64	28	11	1	11	11	4	5	..	22(6)	..
96	Lobar Pneumonia	36	15	21	3	4	1	3	16	9	7	5	4	5	4	2	8	1	15(6)	3	
97	Lobular Pneumonia	55	27	28	19	17	..	5	14	15	9	7	9	3	5	6	1	..	9(2)	..	
98	Pneumonia	52	27	25	8	7	3	3	22	9	19	8	8	7	4	3	3	..	11	4	
99	Emphysema, Asthma	6	2	..	..	..	..	..	3	3	3	1	..	1	..	..	1	..	2(1)	1
100	Pleurisy	11	5	..	1	..	..	..	8	2	2	3	..	1	2	2	1	..	5(3)	1
101	Other Diseases Respiratory System	3	1	2	..	..	1	..	1	1	2	1	..	..	..	..	..	..	1	..
102	Diseases of Mouth and Annexa	2	2	..	..	..	..	1	..	1	..	..	..	..	1	..	1	..	..	..
105	Ulcer of Stomach and Duodenum	11	5	6	..	..	..	1	9	1	5	1	1	3	1	..	..	..	4(2)	..
106	Other Diseases of Stomach	13	9	4	6	..	..	..	4	3	6	..	..	4	2	..	1	..	1(1)	..
107	Enteritis	22	12	10	13	2	..	..	2	5	11	3	2	2	..	1	3	..	2	1
108	Appendicitis	3	..	3	..	..	1	..	1	1	1	1	1	..	..	..	..	..	1(1)	1
109	Obstruction of Intestine	20	6	14	..	1	..	1	7	11	11	1	1	1	3	..	3	..	10(2)	..	
110	Other Diseases of Intestine	2	..	2	..	..	..	..	1	1	..	..	..	..	1	..	1	..	4(3)	..
111	Cirrhosis of Liver	30	17	13	..	..	..	..	20	10	14	..	1	1	5	1	6	..	5	..
112	Other Diseases of Liver	8	2	6	..	1	..	..	4	3	3	..	..	1	3	1	..	..	2(2)	..
113	Peritonitis	8	5	3	..	..	1	..	5	2	1	2	..	..	3	1	1	..	7(3)	2
114	Other Diseases, Digestive System	5	3	2	..	..	..	..	4	1	2	1	1	..	..	1	..	..	2	..
115	Diseases, Lymphatic System and Glands	7	2	5	..	..	1	1	4	1	2	..	..	1	..	2	2	..	2	..
116	Acute Nephritis	5	2	3	..	..	..	1	4	..	3	..	1	..	..	1	..	..	..	..
117	Bright's Disease	48	27	21	..	..	..	..	24	24	15	3	8	5	9	4	4	..	17(3)	..
118	Calculus	2	1	1	..	..	..	..	2	..	1	..	..	..	1	..	..	..	..	..
119	Diseases of Bladder and Prostrate	11	10	1	..	..	..	..	1	10	2	1	..	4	1	1	2	..	8(3)	..
120	Other Diseases, Urinary System	3	2	1	..	..	..	..	2	1	2	..	..	..	..	1	..	..	2(1)	..
121	Diseases of Testis & Penis .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
122	Diseases of Ovaries	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1	..
123	Diseases of Uterus and Appendages	3	..	3	..	..	..	..	3	..	1	..	..	..	1	..	1	..	2	..
128	Puerperal Convulsions	2	..	2	..	..	1	..	1	..	2	..	..	..	..	..	..	..	..	..
129	Placenta Prævia Flooding .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
131	Other Diseases, Pregnancy and Childbirth	1	..	1	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..
132	Arthritis, Otis, Periostitis	2	1	1	1	..	..	..	..	1	..	..	..	1	1	..	..	..	..	..
134	Ulcer, Bedsore	3	..	3	..	..	..	..	2	1	1	..	..	..	2	..	..	..	..	..
135	Eczema .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
136	Pemphigus	1	..	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..
ACCIDENTS.																					
139	In Vehicular Traffic	3	2	1	..	..	1	..	1	1	2	..	..	1	..	..	..	..	2	3
140	On Railways	1	1	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	1(1)	1
142	In Building Operations	2	2	..	..	..	..	..	2	..	1	1	..	..	..	..	..	..	..	2
143	By Machinery	1	1	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	1
145	Burns and Scalds	8	3	5	..	4	..	..	3	1	2	3	1	..	..	..	1	1	7(2)	8
150	Drowning	3	3	..	..	..	2	..	1	..	..	..	..	..	2	1	..	..	..	3
151	Suffocation, Overlaid in Bed	8	3	5	8	..	..	..	..	..	5	..	..	1	1	..	1	..	..	8
152	Otherwise	1	1	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1	1
153	Falls not specified	13	9	4	..	2	..	2	8	1	5	2	2	1	..	1	2	..	8(1)	13	
154	Weather Agencies	3	3	..	..	..	..	1	2	..	1	..	..	1	..	1	..	..	..	3
155	Otherwise, not stated	5	2	3	5	..	..	..	..	..	2	1	1	..	1	..	..	..	1(1)	5
156	Homicide	2	2	..	1	..	..	1	..	..	1	..	..	1	..	..	..	..	1	2
SUICIDES.																					
157	By Poison	5	3	2	..	..	..	..	5	..	2	..	1	..	..	1	1	..	1	5
161	By Drowning	1	..	1	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	1
162	By Cut or Stab .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
164	By Crushing	2	1	1	..	..	..	..	2	..	..	1	..	..	1	..	..	..	..	2
165	By other and unspecified methods	2	2	..	..	..	..	1	1	..	1	..	..	..	1	..	..	..	..	2
168	Ill-defined and unspecified causes	5	1	4	..	..	..	..	2	3	1	..	1	..	1	..	2	..	..	2
TOTAL		1882	926	956	372	144	69	79	633	585	706	236	161	197	297	105	150	21	541 (142)	145	

The total Institution Deaths include those of strangers occurring within the Borough. Deaths of such strangers occurring at the Workhouse, Workhouse Infirmary, General Hospital, Borough Hospital, 89, Central Hill (Servants' Reformatory), and Court Royal Convalescent Home, South Norwood Hill, are excluded from all other columns of the Table. The numbers so excluded are in brackets.

TABLE V.

Borough of Croydon—Whole District.

INFANTILE MORTALITY DURING THE YEAR 1905.

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total Number 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths Under One Year.
All Causes.																	
Certified	78	8	19	11	116	44	45	16	14	23	22	21	24	14	17	16	372
Uncertified ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Common Infectious Diseases.</i>																	
Small-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles ... ..	...	...	...	...	...	...	...	...	...	...	...	...	4	1	1	1	7
Scarlet Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria : Croup ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough ... ..	...	...	...	...	...	1	4	1	1	2	3	3	...	...	3	3	21
<i>Diarrhoeal Diseases.</i>																	
Diarrhoea, all forms ... ..	...	...	3	1	4	3	6	3	2	4	2	7	3	2	4	2	42
Enteritis, (not Tubercu- lous) ... ..	...	...	...	...	...	1	4	1	...	1	3	1	1	...	...	1	13
Gastritis ... ..	...	...	1	1	2	1	1	1	...	...	...	...	1	...	...	...	6
<i>Wasting Diseases.</i>																	
Premature Birth	41	5	7	2	55	6	2	2	...	1	...	...	...	...	...	...	66
Congenital Defects	5	2	1	...	8	1	1	...	...	1	...	1	...	...	1	...	13
Injury at Birth	3	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	3
Want of Breast-milk ... ..	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	3
Atrophy, Debility, Mar- asmus	8	...	2	4	14	12	13	3	4	4	1	2	2	...	1	...	56
<i>Tuberculous Diseases.</i>																	
Tuberculous Meningitis ... ..	...	...	...	...	...	...	...	...	...	1	4	...	...	1	...	1	7
Tuberculous Peritonitis : Tabes Mesenterica ... ..	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	2
Other Tuberculous Diseases ... ..	...	...	...	...	...	...	...	...	1	1	1	1	1	1	...	1	7
Erysipelas ... ..	...	...	1	...	1	...	...	...	...	1	...	...	...	...	...	...	2
Syphilis ... ..	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	2
Rickets ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	2
Meningitis (not Tuberculous) ... ..	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	1	3
Convulsions	6	...	2	...	8	1	5	4	1	2	...	...	2	1	1	...	25
Bronchitis ... ..	...	...	1	2	3	8	4	1	...	2	2	1	3	8	...	1	28
Laryngitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia	1	1	...	...	2	...	2	...	3	2	4	4	4	3	3	3	30
Suffocation, overlaying	2	...	...	...	2	3	2	...	1	...	...	...	...	...	...	...	8
Other Causes	12	...	1	1	14	3	...	...	1	...	1	1	3	...	2	1	26
	78	8	19	11	116	44	45	16	14	23	22	21	24	14	17	16	372

Births in the year { legitimate ... 3714
 illegitimate ... 180

Population.

Estimated to middle of 1905

Deaths from all Causes at all Ages ... 1882

147704

TABLE V.—*continued.**Borough of Croydon—West Ward District.*

INFANTILE MORTALITY DURING THE YEAR 1905.

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total Number 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths Under One Year.
All Causes.																	
Certified	34	...	10	3	47	15	20	10	7	18	8	9	12	3	7	6	162
Uncertified ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Common Infectious Diseases.</i>																	
Small-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles ... ..	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1	3
Scarlet Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria : Croup ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough ... ..	...	...	...	...	...	...	1	1	...	1	2	2	...	...	2	...	9
<i>Diarrhœal Diseases.</i>																	
Diarrhœa, all forms ... ..	...	...	...	1	1	2	2	3	1	2	2	2	2	...	2	1	20
Enteritis, (<i>not Tuberculous</i>) ... ..	...	...	...	...	...	1	2	1	...	1	...	1	...	...	...	1	7
Gastritis ... ..	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	...	2
<i>Wasting Diseases.</i>																	
Premature Birth	16	...	4	1	21	1	1	...	...	1	...	...	...	...	...	...	24
Congenital Defects	1	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	2
Injury at Birth ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Want of Breast-milk ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atrophy, Debility, Marasmus	6	...	2	1	9	1	6	1	4	3	...	1	1	...	1	...	27
<i>Tuberculous Diseases.</i>																	
Tuberculous Meningitis ... ..	...	...	...	...	...	...	...	...	...	1	2	...	...	...	...	...	3
Tuberculous Peritonitis : Tabes Mesenterica ... ..	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
Other Tuberculous Diseases ... ..	...	...	...	...	...	...	...	...	...	1	...	1	1	1	...	1	5
Erysipelas ... ..	...	...	1	...	1	...	...	...	...	1	...	...	...	...	...	...	2
Syphilis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rickets ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis (<i>not Tuberculous</i>) ... ..	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	2
Convulsions	5	...	1	...	6	1	3	2	...	2	...	...	...	...	1	...	15
Bronchitis ... ..	...	...	1	...	1	5	2	1	...	2	2	1	...	1	...	1	16
Laryngitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia	1	...	...	...	1	...	...	1	1	2	...	...	4	...	...	1	10
Suffocation, overlaying	1	...	...	...	1	1	2	...	1	...	...	...	...	...	...	...	5
Other Causes	4	...	...	...	4	1	...	...	...	...	...	1	3	...	...	...	9
	34	...	10	3	47	15	20	10	7	18	8	9	12	3	7	6	162

Births in the year ... 1,446.

Population.
Estimated to middle of 1905

47,944.

Deaths from all Causes at all Ages ... 706.

TABLE V.—*continued.**Borough of Croydon—Central Ward District.*

INFANTILE MORTALITY DURING THE YEAR 1905.

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths Under One Year.
All Causes.																	
Certified	5	2	3	1	11	5	2	3	2	2	3	3	1	3	2	...	37
Uncertified ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Common Infectious Diseases.</i>																	
Small-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria : Croup ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough ... ..	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	2
<i>Diarrhæal Diseases.</i>																	
Diarrhœa, all forms ... ..	...	...	1	...	1	...	...	...	1	1	...	1	1	...	...	...	5
Enteritis (<i>not Tuberculous</i>) ... ..	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	2
Gastritis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Wasting Diseases.</i>																	
Premature Birth	3	1	1	...	5	1	...	1	...	...	...	...	...	...	...	...	7
Congenital Defects	1	1	1	...	3	...	...	...	...	...	...	...	...	...	...	...	3
Injury at Birth ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Want of Breast-milk ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atrophy, Debility, Marasmus ... ..	...	...	...	1	1	3	...	1	...	...	...	1	...	...	1	...	6
<i>Tuberculous Diseases.</i>																	
Tuberculous Meningitis ... ..	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
Tuberculous Peritonitis : Tabes Mesenterica ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Syphilis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Rickets ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis (<i>not Tuberculous</i>) ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Convulsions ... ..	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Bronchitis ... ..	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Laryngitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia ... ..	...	...	...	...	...	...	...	...	...	...	1	1	...	2	2	...	6
Suffocation, overlaying ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Causes	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	2
	5	2	3	1	11	5	2	3	2	2	3	3	1	3	2	...	37

Births in the year ... 344.

Population
Estimated to middle of 1905.

17,106.

Deaths from all Causes at all Ages ... 236.

TABLE V.—*continued.**Borough of Croydon—East Ward District.*

INFANTILE MORTALITY DURING THE YEAR 1905.

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.			Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total Number 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths Under One Year.
All Causes.																			
Certified	...	...	6	2	1	2	11	3	2	...	2	1	...	2	2	2	2	2	30
Uncertified	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Common Infectious Diseases.</i>																			
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria: Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Diarrhœal Diseases.</i>																			
Diarrhœa, all forms	...	...	...	...	...	...	...	...	...	...	1	...	2	...	...	...	1	...	4
Enteritis, (<i>not Tuberculous</i>)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Gastritis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Wasting Diseases.</i>																			
Premature Birth	...	...	4	1	1	...	6	1	...	...	...	...	...	...	...	...	...	...	7
Congenital Defects	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Injury at Birth	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Want of Breast-milk	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1
Atrophy, Debility, Marasmus	...	...	...	...	...	1	1	1	...	...	...	...	...	...	...	...	...	...	2
<i>Tuberculous Diseases.</i>																			
Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculous Peritonitis:	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tabes Mesenterica	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Tuberculous D'ses	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Syphilis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis (<i>not Tuberculous</i>)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Convulsions	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1
Bronchitis	...	...	...	...	...	1	1	...	1	...	...	...	...	...	...	...	...	...	2
Laryngitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia	...	...	...	1	...	...	1	...	1	...	...	...	...	...	...	2	...	1	5
Suffocation, overlaying	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Causes	...	...	2	...	...	...	2	...	...	...	1	...	...	...	...	...	1	...	4
			6	2	1	2	11	3	2	...	3	1	...	2	2	2	2	2	30

Births in the year ... 387.

Population.
Estimated to middle of 1905

16,983.

Deaths from all Causes at all Ages ... 161.

TABLE V.—*continued.**Borough of Croydon—South Ward District.*

INFANTILE MORTALITY DURING THE YEAR 1905.

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total Number 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths Under One Year.
All Causes.																	
Certified	6	...	3	1	10	7	3	2	...	1	3	2	1	3	2	...	34
Uncertified ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Common Infectious Diseases.</i>																	
Small-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria: Croup ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough ... ..	...	...	...	...	...	...	1	...	...	...	...	1	...	...	1	...	3
<i>Diarrhoeal Diseases.</i>																	
Diarrhoea, all forms ... ..	...	...	1	...	1	...	...	...	...	...	...	...	...	1	1	...	3
Enteritis, (<i>not Tubercu- lous</i>) ... ..	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
Gastritis ... ..	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
<i>Wasting Diseases.</i>																	
Premature Birth	1	...	1	...	2	...	...	...	...	...	...	...	...	...	...	...	2
Congenital Defects	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Injury at Birth	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Want of Breast-milk ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atrophy, Debility, Mar- asmus	1	...	...	...	1	4	...	1	...	1	...	...	...	...	...	...	7
<i>Tuberculous Diseases.</i>																	
Tuberculous Meningitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Tuberculous Peritonitis: Tabes Mesenterica ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Tuberculous D'ses ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Syphilis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rickets ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis (<i>not Tuberculous</i>) ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Convulsions ... ..	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	2
Bronchitis ... ..	...	...	...	1	1	...	...	...	...	...	...	...	1	1	...	...	3
Laryngitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia ... ..	...	...	...	...	...	...	...	...	...	...	2	1	...	...	...	...	3
Suffocation, overlaying ... ..	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1
Other Causes	2	...	1	...	3	2	...	...	...	...	...	...	...	...	...	...	5
	6	...	3	1	10	7	3	2	...	1	3	2	1	3	2	...	34

Births in the year ... 384.

Population.
Estimated to middle of 1905

19,404.

Deaths from all Causes at all Ages ... 197.

TABLE V.—*continued.**Borough of Croydon—South Norwood Ward District.*

INFANTILE MORTALITY DURING THE YEAR 1905.

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths Under One Year.
All Causes.																	
Certified	18	3	1	4	26	7	10	1	1	1	1	2	4	...	3	4	60
Uncertified ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Common Infectious Diseases.</i>																	
Small-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Scarlet Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria: Croup ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough ... ..	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	2	4
<i>Diarrhœal Diseases.</i>																	
Diarrhœa, all forms ... ..	...	...	1	...	1	1	3	...	...	...	...	2	1	...	...	...	8
Enteritis (<i>not Tuberculous</i>) ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gastritis ... ..	...	...	...	1	1	...	...	...	...	...	...	1	...	...	...	...	2
<i>Wasting Diseases.</i>																	
Premature Birth	12	2	...	2	16	...	...	1	...	...	...	...	...	...	...	...	17
Congenital Defects	2	1	...	...	3	...	1	...	...	...	...	...	...	...	1	...	5
Injury at Birth	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Want of Breast-milk ... ..	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	2
Atrophy, Debility, Marasmus ... ..	...	...	...	...	...	1	4	...	...	...	...	...	...	...	...	...	5
<i>Tuberculous Diseases.</i>																	
Tuberculous Meningitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculous Peritonitis: ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tabes Mesenterica ... ..	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
Other Tuberculous Diseases ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Syphilis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rickets ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Meningitis (<i>not Tuberculous</i>) ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Convulsions ... ..	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	2
Bronchitis ... ..	...	...	...	...	...	3	...	...	...	...	...	1	...	...	...	...	4
Laryngitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia ... ..	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Suffocation, overlaying	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Other Causes	2	...	...	1	3	...	...	...	...	...	...	...	...	...	1	1	5
	18	3	1	4	26	7	10	1	1	1	1	2	4	...	3	4	60

Births in the year ... 648.

Population
Estimated to middle of 1905,

22,370.

Deaths from all Causes at all Ages ... 297.

TABLE V.—*continued.**Borough of Croydon—Upper Norwood Sub-Division District.*

INFANTILE MORTALITY DURING THE YEAR 1905.

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths Under One Year.
All Causes.																	
Certified	2	...	...	...	2	...	3	...	...	...	1	...	2	1	...	1	10
Uncertified ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Common Infectious Diseases.</i>																	
Small-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles ... ..	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	2
Scarlet Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria: Croup ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Diarrhæal Diseases.</i>																	
Diarrhœa, all forms ... ..	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Enteritis (<i>not Tuberculous</i>) ... ..	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
Gastritis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Wasting Diseases.</i>																	
Premature Birth ... ..	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Congenital Defects ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Injury at Birth ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Want of Breast-milk ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atrophy, Debility, Marasmus ... ..	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
<i>Tuberculous Diseases.</i>																	
Tuberculous Meningitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculous Peritonitis: ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tabes Mesenterica ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Other Tuberculous Diseases ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Syphilis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rickets ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis (<i>not Tuberculous</i>) ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Convulsions	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	2
Bronchitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Laryngitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Suffocation, overlaying ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Causes	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
	2	...	...	...	2	...	3	...	...	...	1	...	2	1	...	1	10

Births in the year ... 134.

Population
Estimated to middle of 1905
8,335.

Deaths from all Causes at all Ages ... 105.

TABLE V—*continued.**Borough of Croydon—Thornton Heath Sub-Division District.*

INFANTILE MORTALITY DURING THE YEAR 1905.

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total Number 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths Under One Year.
All Causes.																	
Certified	8	1	1	1	11	5	4	1	1	1	5	2	3	2	1	3	39
Uncertified ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Common Infectious Diseases.</i>																	
Small-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria : Croup ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough ... ..	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	1	3
<i>Diarrhoeal Diseases.</i>																	
Diarrhoea, all forms ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Enteritis, (<i>not Tubercu-</i> <i>lous</i>) ... ..	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Gastritis ... ..	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
<i>Wasting Diseases.</i>																	
Premature Birth	6	1	...	...	7	1	...	...	...	...	...	...	...	...	...	...	8
Congenital Defects ... ..	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	2
Injury at Birth	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Want of Breast-milk ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atrophy, Debility, Mar-	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
asmus	1	...	...	1	2	2	2	...	...	...	1	...	1	...	...	...	8
<i>Tuberculous Diseases.</i>																	
Tuberculous Meningitis ... ..	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
Tuberculous Peritonitis :	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tabes Mesenterica ... ..	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
Other Tuberculous D'ses ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Syphilis ... ..	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1
Rickets ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Meningitis (<i>not Tuberculous</i>) ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Convulsions ... ..	...	...	1	...	1	...	...	...	...	...	...	...	1	...	...	...	2
Bronchitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	2
Laryngitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia ... ..	...	...	...	...	...	...	...	1	...	1	1	...	...	...	1	1	5
Suffocation, overlaying ... ..	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1
Other Causes ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	8	1	1	1	11	5	4	1	1	1	5	2	3	2	1	3	39

Births in the year ... 466.

Population.
Estimated to middle of 1905
15,563.

Deaths from all Causes at all Ages ... 159.

TABLE VI.

Table showing the number of cases notified and deaths from the principal zymotic diseases for the Year 1905 and ten preceding Years.

DISEASE.	1905.		1904.		1903.		1902.		1901.		1900.		1899.		1898.		1897.		1896.		1895.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Notifiable.																						
Small Pox .. .. .	..	..	3	..	14	2	51	11	5	..	1	..	..	..	..	..	..	..	1	..	..	..
Scarlet Fever	416	11	291	8	215	2	295	6	391	1	432	5	350	3	301	9	563	13	284	4	157	4
Diphtheria and (1) Memb. Croup	266	25	312	24	259	18	285	29	448	23	187	25	127	17	162	19	131	7	172	30	132	22
(2) Erysipelas	78	5	68	2	79	4	102	5	79	4	71	6	..	7	..	6	..	4	..	11	..	5
Puerperal Fever	11	5	9	3	7	1	8	5	9	3	12	8	7	4	6	5	9	1	6	4	6	6
Enteric Fever	34	4	21	5	32	5	59	9	57	11	56	9	56	8	64	9	50	7	108	17	43	15
Simple Continued Fever	..	..	..	..	2	..	5	..	..	..	4	..	1	1	2	1	1	..	12	..	4	..
Diarrhoea and Epidemic or	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Non-notifiable.																						
Zymotic Enteritis .. .. .	..	52	..	95	..	37	..	73	..	129	..	88	..	195	..	200	..	127	..	72	..	64
Enteritis .. .. .	..	22	..	35	..	14	..	17	..	37	..	25	..	1	..	6	..	12	..	7	..	45
Measles .. .. .	..	24	..	62	..	26	..	30	..	21	..	20	..	18	..	32	..	17	..	67	..	16
Whooping Cough	31	..	..	15	..	58	..	31	..	25	..	56	..	40	..	36	..	32	..	62	..	27
Influenza	30	..	..	27	..	28	..	58	..	37	..	106	..	91	..	39	..	20	..	18	..	78
Bronchitis, Pneumonia, and	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pleurisy .. .. .	..	302	..	314	..	247	..	341	..	283	..	367	..	309	..	232	..	190	..	309	..	298
Phthisis .. .. .	..	162	..	142	..	151	..	112	..	123	..	135	..	154	..	133	..	115	..	142	..	149

(1) Notifiable since May, 1897.

(2) Notifiable since January, 1900.

In the above Table deaths of Non-residents occurring at the Workhouse, Workhouse Infirmary, Borough Hospital, General Hospital, Cottage Hospital, "Court Royal," Upper Norwood, and "89, Central Hill" (Servants' Reformatory), are excluded. Prior to 1903 correction was only made for the first three institutions.

B.—SANITARY WORK OF THE YEAR.

GENERAL SANITARY WORK.—The usual summary is given in Table VII., which gives a fair idea of the various matters engaging the attention of the Sanitary Inspectors.

During the year 6,293 house-to-house inspections were made, as compared with 5,816 in 1904. This is a satisfactory feature of the Report, as there is no doubt that the systematic inspection of smaller houses is the most useful work in which the inspectors can be engaged.

The number of combined drains dealt with during the year was 35. The cost of carrying out the necessary works amounted to about £341 19s. 11d., and was borne by the owners instead of by the inhabitants at large.

Most of the nuisances discovered were remedied on receipt of informal notices, but in 119 cases, Council Orders had to be applied for. Of the 119 legal notices 99 were complied with, and 20 were outstanding at the end of the year. Of the 20 outstanding Council Orders, 11 have now been complied with (March 31st, 1906).

No prosecution had to be undertaken for non-compliance with ordinary nuisance notices.

During the year, the Croydon Corporation Act, 1905, received Royal Assent. Under this Act, the Corporation obtained the following powers of public health interest :—

Provision in lieu of Section 19 of Public Health Acts (Amendment) Act 1890.

Where two or more houses or premises are connected with a single private drain which conveys their drainage into a public sewer the Corporation shall have all the powers conferred by Section 41 of the Public Health Act 1875 and the Corporation may recover any expenses incurred by them in executing any works under the powers conferred on them by that section from the owner or owners of such houses or premises and if there be more than one such owner in such proportions as shall be settled by the surveyor or (in case of dispute) by arbitration under the Public Health Act 1875 or by a court of summary jurisdiction and such expenses shall be recoverable summarily as a civil debt or the Corporation may declare them to be private improvement expenses and may recover them accordingly.

(2) Section 19 of the Public Health Acts (Amendment) Act 1890 shall cease to be in force within the borough.

(3) For the purposes of this section the expression "single private drain" includes any sewer or drain whether on private land or not and 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 hereafter 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 premises 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.

Corporation may order houses to be drained by a combined operation.

If it appear to the Corporation that two or more houses may be drained more economically or advantageously in combination than separately and a sewer of sufficient size already exists or is about to be constructed within one hundred feet of any part of such houses the Corporation may when the drains of such houses are first laid order that such houses be drained by a combined drain to be constructed either by the Corporation if they so decide or by the owner or owners in such manner as the Corporation shall direct and the costs and expenses of such drain and of the repair and maintenance thereof shall be paid by the owner of such houses (if there be only one) or shall be apportioned between the owners of such houses in such manner as the Corporation shall determine and if such drain is constructed by the Corporation such costs and expenses may be recovered by the Corporation from such owner or owners in a summary manner before a court of summary jurisdiction. Any combined drain constructed in pursuance of this section shall be deemed to be a single private drain within the meaning of the section of this Act the marginal note of which is "Provision in lieu of Section 19 of Public Health Acts (Amendment) Act 1890." Provided that the Corporation shall not exercise the powers conferred by this section in respect of any house plans for the drainage of which shall have been previously approved by the Corporation.

Power of entry for purposes of Section 75 of Act of 1900.

For the purposes of Section 75* of the Croydon Corporation Act 1900 the Corporation and their officers shall have the like power of entry on any premises as a local authority and their officers have under Section 102 of the Public Health Act 1875 for the purposes of that section.

* This section empowered the Corporation to disinfect, and, if necessary, destroy filthy bedding or body clothing.

Power of medical officer of health to examine school children.

The medical officer of health may enter any public elementary school within the borough at all reasonable times and examine the scholars attending the same and may exclude from attendance thereat for such period as he shall consider requisite any scholar who in his opinion is suffering from infectious disease or is likely to spread infection.

The medical officer of health shall upon the exclusion of any scholar in manner aforesaid give notice thereof in writing to the principal or person in charge of such school or (if such school is divided into separate departments and there is no principal or person in charge of the whole school) the person in charge of the department which such scholar attend and shall send a copy of such notice to the parent or guardian of the scholar.

Any person who obstructs the medical officer of health in carrying into effect the provisions of this section or who permits any scholar to attend school after he shall have been excluded as aforesaid and before the expiration of the period of exclusion shall be liable to a penalty not exceeding forty shillings.

Occupier to furnish information as to premises occupied by any person suffering from infectious disease.

(1) The occupier of any building in the borough which is used for human habitation and in which there is or has been any person suffering from a dangerous infectious disease shall on the application of the medical officer of health at any time during the illness of such person or within six weeks from the occurrence of such illness furnish such information within his knowledge as the medical officer of health may reasonably require for the purpose of enabling measures to be taken to prevent the spread of the disease.

(2) Any occupier knowingly furnishing false information shall be liable on summary conviction to a penalty not exceeding forty shillings.

(3) "Occupier" shall have the same meaning as in the Infectious Diseases (Notification) Act, 1889.

Registration of common lodging houses and keepers.

Notwithstanding anything in the Public Health Act 1875 or the Croydon Corporation Acts 1884 or 1895 the registration of a common lodging house or of the keeper of a common lodging house shall operate for one year only and application for the renewal of such registration shall be made to the Corporation on or previous to the 31st day of December in every year.

It is hoped that Section 34 will settle the question of "combined drain or sewer" as far as Croydon is concerned. Section 37 gives the Medical Officer of Health power to examine school children. This was required to enable the Medical Officer to carry out his school work with any hope of success. Until this Act was passed there was no legal warrant for the examination of school children.

MUNICIPAL COMMON LODGING HOUSE.—This Lodging House affords accommodation for 17 women and 84 men. The number of occupants during the year amounted to 25,004 men and 4,003 women. The average number of lodgers amounted to 68 men and 11 women per night.

The receipts and expenditure (exclusive of sinking fund and interest) for the past four years were :—

		Receipts.			Expenditure.	
		£	s.	d.		
1902 ...	766 0 0 ...	£734,	including £68 for alterations.			
1903 ...	790 0 0 ...	£570.				
1904 ...	800 17 7 ...	£679	1s. 6d.			
1905 ...	793 17 7 ...	£582	18s. 5d.			

OTHER COMMON LODGING HOUSES.—There are nine other houses on the register.

The following Table gives the situation of the nine registered houses and the accommodation provided therein.

Premises.	No. of Rooms.		Accommodation.
11 & 12, Princess Road ...	12	...	54 men and 8 married couples.
9, Bell Yard ...	6	...	14 men and 5 married couples.
19, 20, 21, 22, 23 & 24, Lahore Road ..	30	...	50 men, 10 women, and 6 married couples.

Nos. 19 to 24, Lahore Road.—These houses are under one management and worked as one establishment, as also are Nos. 11 and 12, Princess Road. Practically, therefore, only three common lodging houses now remain in the Borough, with a total accommodation for 166 adults, or if we add the Municipal Common Lodging House, a total of four houses with 229 single beds and 19 double beds. The number is 57 less than in 1902, and in my opinion

not sufficient for the needs of the town. There is still urgent need for additional accommodation in the neighbourhood of Old Town, though the Committee have not yet seen their way to make the necessary provision, and private enterprise shows no signs of doing so.

During the year common lodging houses received 446 visits and 18 night visits.

Minor infringements of bye-laws were detected on 10 occasions, but in no case were they sufficiently serious for legal proceedings to be taken.

HOUSES LET IN LODGINGS.—There are now 73 houses registered under the bye-laws. During the year these houses received 1801 visits, 81 having been made at midnight. On no occasion were offences discovered for which prosecutions were necessary.

At the present moment the following houses are registered as houses let in lodgings:—

	Houses.				
Wilford Road	43
Forster Road	12
Princess Road	4
Ely Road	8
Sundry Roads	6

The results of registration and inspection have, on the whole, been very satisfactory.

HOUSING OF THE WORKING CLASSES ACT.—Three houses were represented under Part II. Sect. 30, as unfit for human habitation. The six houses in Mercer Place, Gloucester Road, outstanding at the end of last year, were re-represented, as the outstanding notices had lapsed. As the result of the notices, all were voluntarily closed during the year and subsequently demolished.

FACTORIES AND WORKSHOPS.

FACTORY AND WORKSHOP ACT.—Section 132 of the Factory and Workshop Act, 1901, provides:

“The Medical Officer of Health of every District Council, shall in his Annual Report to them, report specifically on the administration of this Act in workshops and workplaces, and he shall send a copy of his Annual Report, or so much of it as deals with this subject, to the Secretary of State.”

The following is a summary of the work done under this Act in Croydon during 1905.

FACTORIES.—For the most part, the law relating to Factories is administered by the Home Office. 129 visits were, however, made to Factories, 122 being in reference to sanitary accommodation, five in reference to a complaint at a steam laundry, and one in reference to a manure receptacle. All the defects noted were remedied during the year.

WORKSHOPS.—The number of workshops on the register, the various trades carried on therein, the number of workpeople employed, and the number of visits paid by the Inspector, are shown in Table VIII.

The following is a list of the various matters requiring attention:—

	Factories.	Workshops	Laundries	Bake-houses.	Work-places.	Out-workers.	TOTAL.
Premises requiring repair	—	—	—	1	—	—	1
Cleansing, etc.	—	12	5	8	1	—	26
Insufficient W.C. accommodation	2	1	—	—	—	—	3
Defective ditto	5	10	1	3	—	—	19
Eaves and gutters ..	—	—	—	1	1	—	2
Ventilation	—	2	—	—	—	—	2
Dustbins	—	1	—	2	1	1	5
Paving	—	—	—	2	—	—	2
Offensive Accumulation	—	1	1	—	—	—	2
Stoppages	—	2	—	—	—	—	2
Sundry	—	13	1	1	1	—	16
	7	51	9	18	4	1	90

Notices served—

Factories	..	..	..	..	..	..	..	7
Workshops	..	..	..	..	..	..	..	31
Laundries	..	..	..	..	..	..	..	6
Bakehouses	..	..	..	..	..	..	..	13
Workplaces	..	..	..	..	..	..	..	1
Outworkers	..	..	..	..	..	..	..	1
								<hr/> 59 <hr/>

All were remedied during the year with the exception of four which have since been complied with (March 31st, 1906).

Sixty notices were sent to H.M. Inspector of Factories in accordance with the various requirements of the Act.

HOME WORK.—Ninety-nine lists were received from employers, containing the names of 247 outworkers residing in the Borough. Twenty-six further names were received from the Medical Officers of Health of various neighbouring districts, and the names of 45 outworkers residing outside the Borough were similarly despatched to the Medical Officer of Health for the district concerned.

Seventy-eight visits were paid to outworkers.

BAKEHOUSES.—At the end of the year there were 131 Bakehouses in occupation, of which 12 were underground. 695 visits were made by the Inspector during the year, and 18 nuisances discovered and abated.

WORKPLACES.—At the end of the year there were 72 workplaces on the register. 38 visits to eating-house kitchens have been made, and one notice served for the repair of roof, which has been complied with.

SHOP HOURS AND SEATS IN SHOPS ACTS entailed 277 visits, and resulted in the discovery of 22 infringements of the Acts, 12 being the non-exhibition of notices, five employing young persons excessive hours, and five the non-provision of seats.

Written cautions were sent to the 22 offenders and subsequently complied with.

SMOKE NUISANCES.—Eighty-one observations were made, and seven persons were cautioned.

DAIRIES AND COWSHEDS.—There were 37 cowsheds on the register at the end of the year, of which 34 were in occupation as against 44 sheds and 32 in occupation in 1904. Seven of the sheds formerly on the register are now used for other purposes. The occupied cowsheds provide accommodation for 538 cows with 800 cubic feet per head. The number of cows in the registered sheds in December was 438.

The number of Cowkeepers in the Borough is now 24 as compared with 22 in 1904.

During the year 15 dairies were removed from, and 31 added to the register, leaving 209 on the register at the end of the year.

Three applications for registration were refused, as the premises were unsuitable.

Thirty-six notices were served during the year for various matters requiring attention on the premises of dairymen, all of which were complied with at the end of the year.

ICE CREAM VENDORS.—All premises where ice cream was known to be made were regularly visited during the season. All were found in a fairly satisfactory condition, and there was no occasion to serve any notices during the year.

MEAT AND FOOD.—The following is a summary of the meat and other articles of food destroyed as unfit for consumption during the year.

ARTICLES.	Weight in lbs.			Remarks.
	Diseased.	Unsound.	Total.	
Beef	7,900	3,666	11,566	Including 15 carcasses.
Mutton	175	1,072	1,247	„ 16 „
Pork	4,252	314	4,566	„ 23 „
Veal	296	24	320	„ 3 „
Offal	3,815	1,191	5,006	
Fish .. ..	..	1,482	1,482	
Fruit .. ..	..	60	60	
Other Articles ..	..	681	681	Rabbits.
Total lbs. ..	16,438	8,490	24,928	Including 57 carcasses.

The whole carcasses condemned were affected as undernoted :—

	Tuber- culosis.	Periton- itis.	Jaundice.	Pneu- monia.	Diarrhoea	Emaci- ated and Dropsical	Unsound and Bruised.	Total No.	Weight in lbs.
Cattle	6	4	..	2	..	2	1	15	8,071
Sheep .. ..	..	1	..	1	..	3	11	16	816
Pigs	16	2	1	2	..	..	2	23	3,446
Calves .. ..	..	..	1	..	2	..	..	3	296
	22	7	2	5	2	5	14	57	12,629

In no cases had legal proceedings to be taken against the owner of any diseased or unsound meat. The large quantity destroyed was voluntarily submitted to the judgment of the Inspector, who, in cases of doubt, consults the Medical Officer.

OFFENSIVE TRADES.—Only two such trades are now carried on in the Borough, viz., one by a knacker and one by a gut scraper. The premises of both have been visited from time to time during the year and found in a satisfactory condition.

SLAUGHTERHOUSES.—There are 16 registered Slaughterhouses and one licensed Slaughterhouse, in addition to the Municipal Slaughterhouses at Pitlake. One registered Slaughterhouse has been removed from the register during the year.

The following are the approximate number of animals slaughtered at Pitlake :—

Municipal.	Beasts.	Sheep.	Pigs.	Calves.	Total.
Private Slaughterhouses ...	374	7,061	26,951	1,988	35,374
Public	261	718	728	298	2,005
Total	635	7,779	27,679	2,286	38,379

The visits paid by Inspector Low in connection with the milk and meat trades are shown in the following Table:—

NATURE OF PREMISES.	WARD.							TOTAL
	N ^O . OF INSPECTIONS.							
	West.	Central	East.	South.	S Nor.	U. N or.		
Slaughter-houses	932	422	15	364	69	66	1868	
Butchers	222	233	20	52	62	27	616	
Fishmongers	18	61	11	11	17	15	133	
Markets ... ..	...	49	...	50	...	...	99
Cowkeepers	74	16	36	53	24	52	255	
Milk Purveyors	145	25	47	61	45	77	400	
TOTAL	1391	806	129	591	217	237	3371	

FOOD AND DRUGS ACTS.—Table IX. gives the number of samples taken by Mr. Saunders during the year, the results of the analyses and the action taken thereon.

PROSECUTIONS, 1905:—

Date.	Defendant.	Charge.	Result.
Jan. 3	W. T. D.	Selling Butter adulterated with 89 per cent. Foreign Fat	Convicted, and Fined £5 and 7s. 6d. costs.
Feb. 14	W. E. E.	Selling adulterated Brandy	Convicted, and Fined £5 and £12 18s. 6d. costs.
May 9	K. H.	Selling Butter adulterated with 80 per cent. Foreign Fat	Convicted, and Fined £1 and 7s. 6d. costs.
June 24	H. G. W.	Selling Butter adulterated with 55 per cent. Foreign Fat	Convicted, and Fined 10s. and 7s. 6d. costs.
June 24	E. W. W.	Selling Butter adulterated with about 20 per cent. Foreign Fat	Convicted, and Fined £1 and 7s. 6d. costs.
Oct. 21]	F. W. G.	Selling Milk adulterated with about 11 per cent. Additional Water	Convicted, and Fined £5 and 7s. 6d. costs.
Oct. 21	J. E. C.	Selling Coffee adulterated with 80 per cent. of Chicory	Convicted, and Fined £1 and 7s. 6d. costs.
Dec. 9	W. S. R. S.	Selling Butter adulterated with 50 per cent. Foreign Fat	Convicted, and Fined £1 and 7s. 6d. costs.
Dec. 30	J. L.	Selling Butter adulterated with 95 per cent. Foreign Fat	Convicted, and Fined £1 and 7s. 6d. costs.
Dec. 30	Messrs. D. & C. ...	Trading as Wholesale Dealers in Margarine without Registration... ..	Defendants subsequently Registered, and summons was withdrawn on payment of 5s. costs.

In 11 cases where the samples of Milk were slightly below the standard fixed by the Board of Agriculture, the vendors were written to calling their attention to the fact and asking for some explanation, further samples being taken subsequently.

Of these 11 samples 9 contained an excess of water to the extent of an average of 6 per cent., whilst 2 were deficient in fat to the extent of an average of 6·5 per cent.

One sample contained a trace of boric acid.

The following table has been prepared from figures kindly supplied by the Borough Analyst (Mr. Lester Reed):—

Total Number of Samples of Milk collected and percentage below standard.

1905.

	No. of Samples.	No. below Standard.	Percentage of Samples below Standard.	Average percentage of fat of Genuine Samples.
Wholesale taken in course of delivery at Railway Station. New Milk.	70	6	8·5	3·7
Wholesale taken in course of delivery at Railway Station. Separated Milk.	2	1	50·0	—
Retail taken on Milkmen's rounds. Sunday morning. New Milk. ..	73	6	8·2	3·6
Retail taken on Milkmen's rounds. Sunday morning. Separated Milk.	7	—	—	—
Retail taken on Milkmen's rounds. Week day. New Milk.	15	1	6·6	3·7
Retail taken on Milkmen's rounds. Week day. Separated Milk. ..	1	—	—	—

REFUSE COLLECTION AND DISPOSAL.—During the year the weekly collection of house refuse has been maintained, and the daily collection has again been extended, while Lodging Houses, Schools, and other large establishments are cleared twice or three times a week.

The refuse collected during the year consisted of

							Loads.
House Refuse	..	..	..	..	..	..	31 602
Trade "	..	..	..	..	..	..	928
Garden "	..	..	..	..	..	..	111
							<hr/>
							32,641

this was tipped

At Factory Lane	..	..	..	..	..	..	18,105
At various brick yards	..	..	..	..	..	..	9,596
At Pawson's Road and other places to raise low-lying ground for allotments and other gardens	..	..	..	..	..	..	4,940
							<hr/>
							32,641

In May last the Destructor at Factory Lane was completed. The plant was designed by the Borough Engineer, and consists of ten furnaces, a Babcock and Wilcox boiler, and an engine for producing the necessary forced draught and sufficient electrical energy for lighting the works. It is estimated that when working at its capacity the destructor can deal with about 500 tons of refuse per week, or 25,000 tons per annum. At present only about 280 tons per week are dealt with at this depot, as it is found more economical to deal with the refuse from the northern part of the borough by some other means.

Attached to the destructor is a chamber in which diseased meat or the carcasses of horses can be cremated.

The total cost of the destructor was as under :—

	£	s.	d.
The construction of ten furnaces, Babcock and Wilcox boiler, engine, dynamo and fans for forced draught	5,886	14	0
The erection of buildings	2,672	14	3
Ironfounders' work	955	18	5
Erection of chimney shaft	1,689	8	11
Drainage, water supply, installation of electric light, and approach road	1,495	4	5
<hr/>			
	£12,700	0	0
<hr/>			

HEALTH VISITORS.—The following is a summary of the work done and visits paid by the three Health Visitors.

Visits to Houses where the following Diseases have been reported.	Miss Eggleston.				Mrs. Nolan-Slaney.				Miss Tawney.				TOTALS.			
	School Cases.		Other Cases.		School Cases.		Other Cases.		School Cases.		Other Cases.		School Cases.		Other Cases.	
	1st Visits.	2nd Visits.	1st Visits.	2nd Visits.	1st Visits.	2nd Visits.	1st Visits.	2nd Visits.	1st Visits.	2nd Visits.	1st Visits.	2nd Visits.	1st Visits.	2nd Visits.	1st Visits.	2nd Visits.
Measles	352	35	..	..	422	47	..	..	317	4	..	..	1091	86	..	..
Mumps	24	1	..	..	106	14	..	..	7	..	..	..	137	15	..	..
Whooping Cough ..	151	1	..	..	147	32	..	..	157	13	2	..	455	46	2	..
Chicken-pox	111	23	..	..	71	18	..	..	100	3	2	..	282	44	2	..
Sore Throat	175	67	81	184	153	189	68	29	189	46	..	..	517	302	149	213
Ringworm	276	420	..	..	227	414	..	..	122	309	6	..	625	1143	6	..
verminous Heads..	15	5	..	..	10	10	..	..	..	..	..	..	25	15	..	..
verminous Bodies..	16	7	..	..	2	..	..	..	..	..	..	..	18	7	..	..
Impetigo	24	17	..	..	4	4	..	..	..	..	..	..	28	21	..	..
Itch	21	8	..	..	..	..	..	..	..	..	..	..	21	8	..	..
Ophthalmia	19	22	..	..	..	..	..	..	..	..	..	..	19	22	..	..
Other diseases ..	294	195	16	41	211	266	62	132	163	108	18	31	668	569	96	204
TOTAL	1478	801	97	225	1353	994	130	161	1055	483	28	31	3886	2278	255	417
	1st Visits.		2nd Visits.		1st Visits.		2nd Visits.		1st Visits.		2nd Visits.		1st Visits.		2nd Visits.	
Visits to houses where Infants have been born	886		593		520		595		872		383		2278		1571	
Addresses given <i>re</i> Infant feeding, etc.	17		..		23		..		17		..		57		..	
Visits to houses where Infants have died under one year of age	182		38		94		43		103		..		379		81	

HEALTH LECTURES.—In August, 1905, and in accordance with the precedent of 1904, the following circular letter was addressed to those responsible for the organisation of the various "Mothers' Meetings" held in the Borough—

31st August, 1905.

DEAR SIR OR MADAM,

During last winter a number of short addresses on Domestic Hygiene, with special reference to the Care of Infants, were given in connection with various organisations in the borough

Similar arrangements will be made for the coming winter, and I should be glad to hear whether you would wish me to arrange for such addresses to be delivered at your Mothers' Meetings, or similar gatherings.

It is proposed that the addresses should be given in sets of three, and that each should last for about half-an-hour.

An early reply on the accompanying form will oblige.

Yours faithfully,

H. MEREDITH RICHARDS, M.D.
Medical Officer of Health.

I am pleased to say that the suggestion was again very favourably received, and 58 addresses were arranged to be given between November, 1905, and April, 1906. Attendances have been very satisfactory, amounting to as many as 200 on some occasions. General satisfaction has been expressed at the way in which the Health Visitors performed their task. As far as possible, three talks or lectures were given at each place of meeting. In the appendix will be found the syllabus used for these talks.

TABLE VII.

Work done by the Drainage and Sanitary Inspectors during the Year ending
December 31st, 1905.

NATURE OF CASES DEALT WITH.	Insp. Culver.	Insp. Earwicker	Insp. Peck.	Ins. Richardson	Insp. Stanley.	Insp. Bull.	Insp. Adams.	Insp. Fulker.	Insp. Vincent.	Insp. Hunter.	Insp. Stokes.	TOTAL.
House to House Inspection	253	141	161	127	..	..	1199	477	1306	1357	1272	6293
Visits to houses where zymotic diseases have occurred .. .. .	..	..	..	..	..	..	..	1133	7	34	..	1174
Inspection of Premises where offensive trades are conducted .. .. .	..	..	..	..	..	..	..	..	..	..	..	..
Inspections of Factories, Workshops and Outworkers.. .. .	..	..	..	..	..	824	..	..	..	..	..	842
" " Greengrocers, Fishmongers & Ice Cream Shops .. .. .	..	..	..	..	..	..	1369	..	466	643	672	3150
" " Schools.. .. .	..	..	..	..	..	..	..	102	..	..	..	102
" " Shops .. .. .	..	..	..	..	..	277	..	..	..	..	..	277
" " Bakehouses .. .. .	..	..	..	..	..	695	..	..	..	..	..	695
" " Yards and Stables .. .. .	..	..	..	..	..	..	1438	..	1273	1364	1630	5705
" " Common Lodging Houses .. .. .	..	..	..	..	..	446	..	..	..	..	..	446
" " " " (night visits) .. .. .	..	..	..	..	..	9	..	..	..	..	9	18
" " Houses let in Lodgings .. .. .	..	..	..	..	..	..	..	..	1720	..	..	1720
" " " " (night visits) .. .. .	..	..	..	..	..	1	..	..	40	..	40	81
" " Urinals.. .. .	..	..	..	..	..	..	1147	..	1009	808	1678	4642
Smoke observations .. .. .	..	..	..	..	..	81	..	..	..	..	..	81
House drains tested with smoke	163	578	194	426	..	..	15	154	54	180	233	1997
" " " water	434	879	436	736	..	..	..	..	..	..	..	2485
" " on application	52	40	61	122	..	..	..	..	..	..	..	275
" drains re-laid	95	194	87	208	..	..	..	..	..	..	..	584
" " repaired	42	111	100	87	..	..	..	..	..	..	..	340
Re-inspections of work in progress	1038	950	1007	932	..	..	524	160	1160	1192	947	7910
Sundry inspections	676	66	395	275	..	335	..	5	341	73	377	2543
Complaints from public investigated .. .. .	..	..	..	..	..	..	75	5	156	185	56	477
Houses disinfected .. .. .	..	..	..	..	592	..	..	..	..	..	..	592
Lots of clothing and bedding disinfected .. .. .	..	..	..	..	645	..	..	..	..	..	..	645
NUISANCES DISCOVERED.												
Premises requiring repair	18	11	7	5	..	6	212	24	109	226	40	658
" " Cleansing and Whitewashing .. .. .	..	..	..	..	51	42	246	30	67	146	143	725
" " Overcrowded .. .. .	..	..	..	..	..	14	..	1	9	25	12	61
Drains found defective	353	157	105	105	..	1	27	41	9	28	120	946
" " stopped	52	50	33	58	..	11	167	25	116	89	61	662
Defective Sanitary Fittings	255	136	115	138	..	52	98	66	132	215	91	1298
" " Yard Surfaces	127	137	37	79	..	1	..	36	135	111	55	718
" " Eaves and Downspouts	76	93	25	46	..	4	..	25	90	127	53	539
" " Manure Receptacles .. .. .	..	..	..	..	..	..	..	2	1	16	3	22
" " Urinals .. .. .	..	..	..	..	..	..	102	..	1	..	2	105
" " Ashbins	33	3	7	19	..	5	159	37	172	132	141	708
Smoke Nuisances .. .. .	..	..	..	..	..	16	..	..	..	..	..	16
Animals improperly kept .. .. .	..	..	..	..	..	..	..	2	2	18	19	41
Infringements of Bye-laws and Regulations .. .. .	..	..	..	..	..	20	..	..	..	22	3	45
Offensive Accumulations .. .. .	..	..	..	..	..	10	..	9	12	29	9	69
Sundry other Nuisances .. .. .	..	..	5	..	..	65	..	7	..	13	12	97
Total number of Nuisances	914	587	329	450	51	247	1011	305	855	1197	764	6710
Informal Notices served	128	40	125	115	51	58	170	111	421	445	424	2088
Informal Notices complied with	57	45	96	155	51	57	175	101	384	439	419	1979*
In abeyance	22	8	31	31	..	5	10	10	76	39	5	237
Referred to Committee	8	14	18	7	..	8	4	..	34	26	..	119

* Including 54 from the year 1904.

TABLE VIII.

Workshops on Register, number of Employees, and visits paid during the year.

TRADE.	No. of Workshops.	No. of Employees.	No. of Visits.
Asphalte Works	1	2	1
Baking Powder Manufacturer ..	1	5	1
Blind Makers	2	5	3
Blacksmith.. ..	7	22	23
Bottlewasher	2	6	3
Boilersmith.. ..	1	2	2
Bootmakers	9	23	16
Brass Workers	1	3	16
Builders	5	11	3
Cabinet Makers & Upholsterers ..	20	92	35
Carriage Builders	7	50	11
Collar Maker	1	10	1
Confectioner	1	5	3
Cricket Outfitters	1	2	1
Cycle Works	17	38	16
Carpentry and Joinery Works ..	4	13	5
Dentists	5	11	8
Dressmakers	179	1022	223
Dye Works.. ..	1	5	1
Film Maker	1	5	1
Glass Works	2	7	7
Greenhouse Maker	1	6	2
Ironmonger	6	14	3
Ladder Maker	4	6	2
Laundries	52	297	87
Leather Works	1	2	1
Modeller	1	3	3
Pharmacy Works	1	6	1
Photographers	6	15	4
Plumber	2	2	2
Picture Frame Makers	7	15	5
Saddler	5	13	3
Shop Fitter	2	6	1
Sign Writer	1	7	1
Stonemasons	2	6	4
Scale Maker	1	3	1
Tailors	32	92	43
Tin Works	1	8	1
Undertaker	2	5	2
Umbrella Makers	2	5	3
Watchmakers	2	11	3
Wheelwrights	11	44	25
Wig Maker.. ..	1	2	1
Wood Merchants	1	8	1
Total	412	1915	579

TABLE IX.

FOOD AND DRUGS ACT.

Total number of Samples taken during the Year 1905.

Sample of	Total Samples.	Genuine.	Not Genuine.	Prosecutions.	Convictions.	Cautions
Milk	†158	145	13	1	1	10
Separated Milk	†10	9	1	..	..	1
Butter	106	100	6	5	5	1
Margarine	13	13	..	..	..	..
Lard	12	12	..	..	..	..
Cheese	3	3	..	..	..	..
Cocoa	1	1	..	..	..	..
Coffee	39	34	5	1	1	4
Brandy	13	2	11	1	1	10
Malt and Cod Liver Oil	1	1	..	..	..	..
TOTALS ..	356	320	36	8	8	26

† Country Milk taken in course of delivery at Railway Stations 64
† Sunday morning taken on Milkmen's rounds.. .. 88
† Week-day taken on Milkmen's rounds.. .. 16
168

TABLE X.
METEOROLOGICAL RECORD—YEAR 1905.

Rain Gauge 5-in. in diameter, 1-ft. above ground, 146-ft. above sea level. Temperature taken in the shade of a Stevenson's Screen, 4-ft. from the ground. The Ground Thermometer is suspended in an iron tube, the bulb being 4-ft. below the level of the ground.

Months.	Temperature of Air during the Month.				Mean Temperature of Air.	Difference from average 50 years at Greenwich.	Mean Temperature of Ground at 4-ft.	Mean Temperature of the Dew Point.	Mean Tensional Difference between Ground and Dew Point at 9 a.m. and 3 p.m.	Rainfall.		
	Highest.	Lowest.	Mean of							No. of Days on which Rain fell.	Amount collected in Inches.	Difference from average, 85 years at Greenwich
			All Highest.	All Lowest.								
January ..	54°	20°	43°·9	33°·1	38°·5	None.	42°·0	35°·0	in. 0·063	7	in. 1·21	in. — 0·59
February..	54°	31°	47°·0	38°·0	42°·5	+ 3°·0	41°·6	39°·2	·024	13	0·96	— 0·56
March ..	63°	27°	52°·4	38°·9	45°·6	+ 3°·9	43°·1	42°·1	·010	22	3·26	+ 1·74
April ..	66°	32°	54°·7	40°·7	47°·7	+ 0°·5	46°·0	43°·3	·031	16	1·70	+ ·09
May ..	82°	32°	65°·1	43°·3	54°·2	+ 1°·1	49°·5	46°·0	·044	8	0·95	— 1·00
June ..	81°	46°	68°·7	52°·4	60°·5	+ 1°·1	54°·5	56°·4	+ ·031	17	5·80	+ 3·83
July ..	87°	48°	77°·5	57°·2	67°·3	+ 4°·8	59°·6	60°·1	+ ·009	9	0·71	— 1·74
August ..	79°	46°	69°·3	53°·2	61°·2	— 0°·4	60°·1	56°·8	·058	17	2·64	+ ·31
September	74°	39°	63°·0	49°·5	56°·2	— 1°·0	56°·7	53°·8	·046	16	2·06	— ·19
October ..	59°	27°	52°·5	38°·0	45°·2	— 4°·8	50°·9	43°·4	·092	10	1·05	— 1·67
November	53°	23°	47°·2	36°·1	41°·6	— 1°·6	45°·9	40°·7	·055	19	3·96	+ 1·67
December	57°	26°	44°·8	36°·8	40°·8	+ 1°·1	43°·7	39°·4	0·044	11	0·55	— 1·40
Means and Totals for the Year.	87°	20°	57°·2	43°·1	50°·1	+ 0°·6	49°·5	46°·3	0·042	165	24·85	

The Rainfall for the Year was 0·92 inches *below*, and the number of days on which rain fell 5 *above* the average of 40 years at Croydon.

GEO. CORDEN, F.R. Met. Soc.

Croydon.

C.—THE WATER SUPPLY.

WATER SUPPLY OF CROYDON.—This important matter has on many occasions been the subject of special reports to the Water Sub-Committee, but hitherto it has not been thought desirable to refer to the matter in detail in my annual report, as it seemed that the scheme which the Sanitary Committee long had under consideration would afford sufficient guarantees for the future safeguarding of the supply. As, however, the burgesses have for the moment decided to content themselves with the present supply it is necessary to put on record certain conclusions which I have formed, after very careful consideration, concerning the purity and safety of the present supply to the "Croydon" water area.

SOURCE OF SUPPLY FOR THE "CROYDON" AREA.—As is well known the "Croydon" area is supplied by

- (1) The Surrey Street Wells.
- (2) The Addington Well.
- (3) Waddon Bore-hole.
- (4) Stroud Green Well.

THE SURREY STREET WELLS.—When the first Local Board was elected in 1849 there was no public water supply, and one of their first acts was to remedy this deficiency. Accordingly in the year 1850 the Surrey Street site was acquired, an existing well enlarged, a new well sunk and pumping machinery erected for raising the water to Park Hill Reservoir. Those works were completed in less than two years, so that the "Croydon" area (extending for a radius of two miles from the Town Hall) was first supplied from the Surrey Street Wells in December, 1851. A third well was added in 1867 and a fourth in 1876.

All these wells pass through three or four feet of made ground and about 11 feet of valley gravel before entering the chalk, which is therefore uncovered except by pervious strata, which offer no serious obstacle to the passage, under certain circumstances, of polluted water into subjacent fissures and so into the wells. Though this precaution was not taken in the first instances, three of the wells are said to be now provided with an impervious lining for from 50 to 75 feet from the surface. The fourth well (No. 2) which is lined for a distance of 37 feet only, has not been used since 1899, as the water which it yielded was found to be contaminated.

Each well is further bored to a depth varying from 150 to 264 feet from the ground level.

In the year 1887 the water supply of the "Croydon Area," was augmented by the Addington Well, which is situated at Hares Bank, half a mile south of Addington village. This well is in an area of uncovered chalk, has a diameter of 10 feet and is sunk to a depth of 200 feet, headings having been driven in three directions at a level of 142 feet from the surface. From the Addington well the water is pumped to the Mental Hospital and to the Addington Reservoirs for the supply of the higher portions of the Borough.

In the year 1897-8 application for a loan was made to the Local Government Board for permission to sink and equip another well near Waddon. A local enquiry was held and much evidence was given for and against the proposed scheme. Finally the Local Government Board declined to sanction a loan.

It was understood that this refusal was based on the fact that the site of the proposed well was in an area of uncovered chalk that might some day be built over and that there was also a possibility that fissures might extend from Purley and Caterham to Waddon.

In view, however, of the importance of getting more water, it was decided to make boreholes at the Waddon site, and to establish temporary pumping machinery pending the adoption of a more complete scheme.

It was also decided to endeavour to obtain water by sinking a well at Stroud Green Road, where the chalk is overlaid by impervious beds of London clay and other tertiary strata, to a depth of 140 feet from the surface, and therefore not open to the objection raised by the Local Government Board. These works were carried on until July, 1905, the well being sunk to a depth of 391 feet, passing through chalk and flint, and was bored to a further depth of 146 feet, making a total depth of 537 feet. Headings have been driven at 230 feet for 2,827 feet 6 inches, and also at 365 feet from the surface for 1,395 feet. Both upward and downward boreholes have been made in both sets of headings.

The yield of water from this well is about 700,000 gallons per day, which was made available during the summer of 1905 by means of temporary plant. At the present moment permanent machinery is being prepared for the equipment of this well.

The part of Croydon outside the "Croydon Water Area," which is, for convenience, termed the "Lambeth Area," was supplied by the Lambeth Water Company from the year 1850 to the year 1904, when the works within the Borough were purchased from the Metropolitan Water Board, who also undertook to supply 500 million gallons per annum at $2\frac{1}{8}$ d. per 1,000 gallons. This water is derived from the Thames at Hampton, and is purified by sedimentation followed by sand filtration.

SAFETY OF THESE SUPPLIES.—Practically the problem of the safety of a given water supply depends on what answer can be given to the following question. Is there any substantial reason for fearing that the water is or may become contaminated with the germs of enteric (typhoid) fever? In other words, can unpurified sewage gain access to the well? Unfortunately the answer to this question is specially difficult in the case of a well sunk in fissured strata such as chalk, and can only be given after careful weighing of the evidence afforded—(1) by the records of epidemics; (2) by inspection of the well and its gathering ground; (3) by regular chemical and bacteriological examinations of the water.

To discuss all these matters in detail is outside the scope of the present report, and I must therefore content myself with summarising certain of the more important conclusions to which I have been led.

SURREY STREET WELLS.—As already stated these wells were first used by the public in December 1851. From that time until now there have been two epidemics of "fever," one in 1853 and one in 1875.

Concerning the nature of the epidemic of 1853 considerable doubt exists. Probably diarrhoea and enteric fever were prevalent contemporaneously. How far these diseases may have been spread by the public water supply cannot now be estimated, as the records are too meagre. At the time the epidemic was thought to be due to the disturbance of the soil consequent on the sewerage of the town and to the emptying of cesspools. The possibility of pollution of the wells by these same sewerage works and by the Bourne, which was also flowing, cannot, however, be disregarded.

In 1875 a considerable epidemic of enteric fever occurred in the "Croydon" water area. Though drainage defects were thought at the time to have been largely concerned in the causation of the

epidemic, there can be little doubt that the disease was for the most part waterborne. It is not quite clear, however, whether pollution occurred centrally or peripherally. Both central pollution of the well itself and peripheral pollution of the watermains were shown to be possible. Probably both were concerned in the epidemic, though I should personally be inclined to ascribe the larger share to the central source of contamination.

Shortly after this epidemic steps were taken to line the wells for a greater depth, and, from that time till now, enteric fever has never been epidemic in Croydon. Comparison of the "Croydon" and "Lambeth" water areas of the Borough also shows that the small amount of enteric fever that has been prevalent during recent years has been fairly equally distributed over both areas. (See page 18.)

Unfortunately, however, the situation of the wells and certain analytical results render it very doubtful whether the reputation of the last thirty years can long be maintained. As already stated, Well No. 2 has had to be abandoned because it has become contaminated and the connection between all four wells is so intimate that there is no guarantee that the remaining wells may not suffer a similar misfortune, especially as the area from which the wells derive their supply is becoming more and more thickly populated. The reality of this risk is emphasised by the fact that bacteriological examinations already indicate occasional departures from the high standard of purity which should be maintained by wells in the chalk. A fissure is also known to exist from Surrey Street to the Addington Hills, and there must therefore be some increased risk of pollution on the growth of the town in that direction.

The demand for water always tends to overtake the supply and thus lead to over-pumping with the obvious risk of unduly extending the cone of depression, and so sucking sewage into the wells. It is true that the sewers and drains within a radius of a $\frac{1}{4}$ mile of the well have been carefully constructed, and are constantly inspected, but it is impossible that all should be watertight. Unfortunately, neither the capacity of the sewers to keep sewage in, nor the capacity of the well linings to keep sewage out, can be thoroughly tested while we are dependent on Surrey Street for the bulk of our water supply.

Should an intermittent supply have to be substituted for the present constant service there would also be some risk of the water mains being infected, as was said to have occurred in 1875.

For these, and other reasons, I am of opinion that the water from Surrey Street wells requires filtration, and that, as soon as an additional supply has been obtained, the whole of the wells should be overhauled, their linings examined and probably extended, and further tests made as to the risk of contamination from adjacent sewers and drains.

ADDINGTON WELL.—On no occasion has this well been suspected of conveying disease. Water from this well is usually extremely satisfactory from both a chemical and a bacteriological standpoint. Unfortunately, however, during recent years it has been found that the well is subject to intermittent pollution within 24 to 48 hours after excessive rainfalls. For reasons which need not now be discussed it is believed that this pollution is due to surface water, which finds its way into a fissure extending over two miles to the south of the well. Now where surface water finds its way to-day there is considerable risk in a populous district that infected sewage may get to-morrow, and it is clear that this risk is increased by the considerable growth which is taking place in the population on the gathering ground. I have, therefore, no hesitation in recommending that steps should be taken by sand filtration or otherwise to purify Addington water before distribution and thus avoid the risks attendant on the intermittent pollution which we know to exist.

WADDON BORE-HOLE.—The report of the Local Government Board has already been quoted. Taking all the facts into consideration, and especially our complete ignorance as to the course of any fissures that may communicate with this well, I am of opinion that this water should eventually be filtered. The possible existence of such fissures is, indeed, in all probability, of more significance than the mere fact that the Waddon site is situated on bare chalk. Indeed it is probable that less risk attaches to a gathering ground of uncovered chalk than to one which is partially covered like that at Warlingham, where in times of heavy rainfall a large volume of water collects on the overlying impervious clay, forces its way through some defect in this stratum into the chalk which is thus undermined, producing more or less defined underground channels which may carry pollution to some distant well.

STROUD GREEN WELL.—The site of this well is covered by many feet of impervious strata, and there is therefore no risk of contamination from any source of pollution in the immediate neighbourhood.

It is possible however that fissures may extend from the well to some point in the uncovered chalk where contamination might take place. Careful bacteriological examinations at frequent intervals and especially after heavy rains will show whether any steps need be taken to further safeguard this well. These frequent examinations of this and of the other wells are especially desirable, because we know that contamination, should it occur, is likely to be intermittent, and might therefore pass unrecognised if the examinations are made at long intervals.

GENERAL CONSIDERATIONS.—It further seems to me that while the Council will be well advised to proceed at once with a scheme for safeguarding and extending the present supply, they may reasonably look to the Local Government Board for assistance and advice on the whole question of water supply from the chalk. In this matter Croydon does not stand alone, as it is common knowledge that other than Croydon wells have given rise to anxiety in recent years. In fact to my mind the time has arrived when the whole question of water supplies derived from the North Downs and the sewerage and sewage disposal of the gathering ground should be minutely investigated by some independent authority, which should not only advise as to the purification of present supplies but take steps to prevent the culpable contamination of our underground reservoirs which certain sanitary authorities not only permit but encourage.* Probably a Joint Water and Sewerage Board with extensive powers over a large area will be the final solution of this extremely important and difficult problem.

* In one district in the North Downs builders are permitted to dig cesspools thirty or forty feet deep so as to get well into the chalk and avoid the trouble of emptying the sewage.

D—REPORT OF THE WORK OF THE BOROUGH HOSPITAL.

The following table shows the number of patients under treatment, and their average stay in Hospital during the year:—

1.—*Total cases in Hospital, 1905, and average residence in Hospital.*

Disease.	Remaining at end of 1904.	Admitted during 1905.	Discharged during 1905.	Died during 1905.	Remaining at end of 1905.	Average Residence in days.		Probable detention in Hospital in days.	
						Fatal Cases.	Non-Fatal Cases.	Non-Fatal Cases.	Fatal Cases.
Scarlet Fever	47	348	335	13	47	24·23	64·68	52	11
Cases admitted to Hospital as but subsequently found not to be Scarlet Fever	—	24	24	—	—	—	13·66	—	—
Diphtheria	43	178	177	18*	26	11·66	70·18	59	9
Cases admitted to Hospital as but subsequently found not to be Diphtheria	1	28	28	1	—	1·0	7·32	—	—
Enteric Fever	1	15	10	2	4	25·5	63·6	63	—
Cases admitted to Hospital as but subsequently found not to be Enteric Fever	—	10	9	1	—	18·0	44·88	29	—
Other Diseases	—	6	6	—	—	—	58·16	—	—
Total	92	609	589		77	17·0	61·43	51	11

2.—*The following comparative table shows the admissions of the various diseases during 1901, 1902, 1903, 1904 and 1905.*

	Cases admitted during 1901.	Cases admitted during 1902.	Cases admitted during 1903.	Cases admitted during 1904.	Cases admitted during 1905.
Scarlet Fever	304	231	172	235	352
Diphtheria	286	198	178	233	178
Enteric Fever	38	30	19	12	15
Puerperal Fever	—	—	—	1	—
Pulmonary Phthisis	—	—	—	1	—
Other diseases	2	22	28	51	64
Total	630	481	397	533	609**

* This includes a case which was admitted with mild Diphtheria but died from Phthisis.

** Including four cases sent in as diphtheria.

3.—*The fatality of the various diseases was as under* :—*

	1904.	1905.
Scarlet Fever	4'65	3'73
Diphtheria	10'24	9'09
Enteric Fever	26'66	14'28
Enteric Fever for last 4 years (114 cases)	—	20'17†
Other diseases	13'20	4'3
All cases	8'14	5'6

* The fatality is calculated according to the Registrar-General's formula, *i.e.*, by dividing the number of deaths multiplied by 100 by half the sum of the admissions, discharges and deaths.

† Four years, 114 cases.

4.—*Under "Other diseases" are included the following :—*

	No. of Cases.	Result.
Cases notified as Scarlet Fever but not Scarlet Fever—Total	24	No death.
Rötheln	6	Discharged.
Measles	6	"
Acute Rheumatism ...	1	"
Erythema Scarlatiniforme	1	"
Acute Follicular Tonsillitis	2	"
No disease observed ...	6	"
Septic wound of scalp with depressed fracture of skull	1	"
Drug rash	1	"
	No. of Cases.	Result.
Cases admitted as, but found not to be Diphtheria—Total ...	28	—
Scarlet Fever	4	Transferred.
Acute Follicular Tonsillitis	14	Discharged.
Acute Septic Throat ...	1	"
Influenza	2	"
Epidemic Diarrhoea complicated with Thrush ...	1	Died.
Angina Ludovici	1	Operated on.
Broncho-pneumonia ...	1	Discharged.
No apparent disease ...	4	"

	No. of Cases.		Result
Cases admitted as, but found not to be Enteric Fever—Total ...	10	...	—
Acute Septicæmia, secondary to Otitis Media ...	1	...	Died.
Pelvic Cellulitis (? Secondary to Appendix) ...	1	...	Transferred.
Constipation ...	1	...	Discharged.
Influenza ...	2	...	"
Ulcerative Colitis ...	1	...	"
Lobar Pneumonia ...	2	...	"
Cirrhosis of Liver ...	1	...	"
Mediterranean (or Malta) Fever ...	1	...	"

	No. of Cases.		Result.
Other Diseases—Total ...	6	...	—
Tonsillitis ...	2	...	Discharged
Injury to a Hip (previously Tuberculosis) ...	1	...	"
Appendicitis ...	1	...	"
Gastric Ulcer ...	1	...	"
Neurasthenia ...	1	...	"

5.—Cases admitted from the Croydon Union and from Outside Districts under Hospital treatment during 1904.

Districts.	Remaining at end of 1904.	Admitted during 1905.	Discharged during 1905.	Died during 1905.	Remaining at end of 1905.
*The Croydon Union, cases admitted from Penge	—	1	1	—	—
Penge Urban D.C., non-pauper cases	2	49	38	—	13
The Borough of Kingston upon Thames	1	11	9	—	3
The Borough of Wandsworth	—	1	1	—	—
Private Cases	—	—	—	—	—
The Borough of Croydon	89	547	540	35	61

* In the above table cases included under the Croydon Union are only those pauper patients who have contracted the disease in Penge. Patients resident in the Infirmary or Workhouse who become infected whilst residents in these Institutions are reckoned as Croydon cases.

The patient from Wandsworth was admitted via the General Hospital, having been brought to that institution for tracheotomy. After operation this patient was removed to the Borough Hospital.

6.—Analysis of 351 completed Scarlet Fever cases under treatment during 1905.

	No. of cases affected.	Percentage of completed cases.
1. Complications :—		
Abscess	13	3.70
Adenitis—primary	121	34.47
„ secondary	92	26.21
Albuminuria	30	8.54
Bronchitis	2	0.57
Broncho-pneumonia	18	5.13
Endocarditis	3	0.85
Pericarditis	1	0.28
Chorea	1	0.28
Conjunctivitis	1	0.28
Acute Delirium	3	0.85
Severe Diarrhœa	4	1.14
Eczema of Face	6	1.72
Epistaxis	3	0.85
Laryngeal Obstruction	1	0.28
Mastoiditis	6	1.72
Meningitis	2	0.57
Nephritis	9	2.56
Otorrhœa	55	15.67
Phagedænic ulceration of Fauces	3	0.85
Psoriasis	1	0.28
Pyæmic Abscesses	1	0.28
Relapse	11	3.13
Rheumatism	20	5.70
Rhinorrhœa	125	35.61
Septicæmia	3	0.85
Secondary Sore Throat	5	1.42
Secondary Rash	7	1.99
Tonsillar Abscess	2	0.57
„ Membrane	4	1.14
„ Sloughing	3	0.85
Uræmic Fits	1	0.28
B. Diphtheriæ present in Throat	62	17.76
B. Pseudo-diphtheriæ present in Throat	119	33.90
2. Scarlet Fever complicated with :—		
Clinical Diphtheria	34	9.69
Whooping Cough	2	0.57
Chicken-pox	8	2.28
Measles	8	2.28
Rötheln	5	1.42
Ringworm	25	7.12
3. Operations performed for :—		
Cervical Abscess	11	3.13
Other Abscesses	2	0.57
Tonsils and Adenoids	13	3.70
Mastoid	6	1.72

7.—Analysis of 195 completed Diphtheria cases under treatment during 1905.

	No. of cases affected.	Percentage of completed cases.
1. Complications :—		
Severe Anæmia	1	0·51
Abscess	3	1·53
Adenitis - primary	29	14·87
" secondary	21	10·77
Albuminuria	11	5·64
Broncho-pneumonia	8	4·10
Endocarditis	1	0·51
Epistaxis	5	2·56
Cardiac failure	13	6·67
Severe Diarrhœa	2	1·02
Extensive Gangrene of Fauces	11	5·64
Hæmorrhage from Mucous Membrane	2	1·02
Diphtheritic Rhi-nitis	2	1·02
Nephritis	1	0·51
Otorrhœa	13	6·67
Paralysis—Loss of Kneejerks	6	3·08
" Faucial	4	2·05
" Palatal	18	9·23
" Ocular	4	2·05
" Muscular	1	0·51
Relapse	7	3·59
Second Relapse	1	0·51
Joint Pains	11	5·64
Rhinorrhœa	31	15·90
Secondary Sore Throat	1	0·51
Rash - Antitoxin	76	38·97
" Septic	2	1·02
Persistent Vomiting	14	7·18
2. Diphtheria associated with :—		
Scarlet Fever	25	12·8
Measles	1	0·51
Rötheln	1	0·51
Enteric Fever	1	0·51
Ringworm	14	7·18
3. Operations performed for :—		
Cervical Abscess	4	2·05
Intravenous injection of Antitoxin	8	4·10
Intubation	4	2·05
Mastoid disease	1	0·51
Tonsils and Adenoids	6	3·08
Ludwigs Angina	1	0·51
Tracheotomy, with and without previous Intubation	13	6·67
Tracheotomy Cases—recovered	8	61·60
Intubation Cases—recovered	4	100 %

8.—*Analysis of 12 completed cases of Enteric Fever under treatment during 1905, and 114 completed Enteric Fever cases under treatment during 1901—1905.*

	No. of cases affected in 12 completed cases for 1905.	No. of cases affected in 114 completed cases for 1901—1905.	Percentage of 114 completed cases.
1. Complications :—			
Adenitis	1	—	0·9
Abscess	1	6	5·3
Bronchitis	2	4	3·5
Hæmorrhage	2	20	17·5
Perforation	2	7	6·2
Peritonitis	1	7	6·2
Pleurisy	1	4	3·5
Pneumonia	3	22	19·3
Relapse	3	11	9·4
Venous Thrombosis	1	2	1·8
2. Diagnoses :—			
Widal's reaction—positive	12	—	100%
3. Enteric Fever complicated with :—			
Diphtheria	1	—	8·3
Phthisis	1	—	8·3
4. Operations performed for :—			
Perforation	—	—	8·3
Abscess	1	—	8·3
5. Disease possibly traced to :—			
Cockles	4	—	33·2
Watercress	1	—	8·3
Winkles	1	—	8·3
Previous case in house	1	—	8·3
Cause undetected	5	—	41·6

9.—The following Table shows the Highest and Lowest number of beds occupied on any one night during each month of the year 1905 :—

Month.	Beds Occupied.		Month.	Beds Occupied.	
	Highest.	Lowest.		Highest.	Lowest.
January ..	109	90	July	95	74
February ..	120	92	August	75	50
March	118	94	September ..	69	50
April	94	85	October	123	68
May	98	81	November ..	129	110
June	97	86	December ...	115	74

The average number of beds occupied per day during the year was 91'3.

10.—Illness amongst staff, 1905 :—

Scarlet Fever	...	...	...	...	5 cases.
Diphtheria	...	...	...	...	1 case.
Other illnesses necessitating treatment in Hospital	...	...	...	...	6 cases.
Total					12 cases.

AMBULANCE.—During the year 536 journeys were made in removing patients to the Borough Hospital, and one journey to the Joint Smallpox Hospital at Cheam. The ambulance also made sundry other journeys in connection with the removal of patients to their homes, in addition to the collection of parcels from the Town Hall.

The sum of £44 2s. was received from the Penge Urban District Council, the Croydon Guardians, and the Epsom Rural District Council, and others, for ambulance services rendered during the year.

MAINTENANCE OF BUILDINGS.—No important alterations were carried out during 1905.

The following painting and repairs were done :—

Ward A.—Corrugated iron roof painted (iron building).

Ward C.—Inside, distempering ; outside, painted and sundry small repairs.

Ward D.—Inside, painted and sundry small repairs.

Ward E.—Outside, corrugated iron roof painted (iron building).

Ward F.—Inside, some painting and small repairs.

Ward G.—Outside painted, with exception of roof (iron building).

Ward H.—Outside painted, including roof.

Administrative Block, inside.—Vestibule, Corridor, and Nurses' Dining Room painted and distempered.

Emergency, all painting, Administrative Block.—Inside, walls and ceilings of bedrooms distempered, corridor, staircase and dado painted ; outside, painted

Discharging Block.—Some painted, outside.

Entrance Lodge.—Inside, distempering and small repairs.

The floor of half of Pavilion B was laid with Euboelith on top of the existing deal boards which had become worn and roughened.

The roads within the Hospital gates were also repaired, the main road being laid with flint and gravel. A roller was also purchased during the year so that the gardeners can now maintain the paths in good condition.

Additional surface water gullies were also fixed along the road leading from the entrance gate to Pavilion C.

Numerous minor repairs were very efficiently carried out by the engineer (Levey).

TABLE XI.
CROYDON BOROUGH HOSPITAL.

Detailed Analysis of Expenditure under all Heads for the Year ending March 25th, 1905, and four preceding Years.

Year ending March.	Average No. of Patients.	Provisions.		Alcohol.		Surgery and Dispensary.		Domestic, including Coal and Gas.		Establishment and Miscellaneous Charges.				Salaries and Wages.				Total Ordinary Expenditure.	Total Average Cost per Bed.
		Total.	Average Cost per Bed occupied.	Total.	Average Cost per Bed occupied.	Total.	Average Cost per Bed occupied.	Total.	Average Cost per Bed occupied.	Establishment Charges and Repairs.	Miscellaneous Charges.	Total.	Average Cost per Bed occupied.	Medical Dispensing, Nursing & other.	Average Cost per Bed occupied.	Total Ordinary Expenditure.	Total Average Cost per Bed.		
1901	77	£ s. d. 1435 10 3 18 12 10	£ s. d. 19 0 0 2 4	£ s. d. 307 9 9 3 19 10	£ s. d. 1024 19 6 13 6	£ s. d. 1024 19 6 13 6	£ s. d. 1024 19 6 13 6	£ s. d. 1024 19 6 13 6	£ s. d. 1024 19 6 13 6	£ s. d. 3479 8 6 140 15 8	£ s. d. 6 20 4 2 8 1	£ s. d. 6 20 4 2 8 1	£ s. d. 6 20 4 2 8 1	£ s. d. 1426 10 9 18 10	£ s. d. 7 4823 14 5	£ s. d. 62 12 11	£ s. d. 62 12 11	£ s. d. 62 12 11	£ s. d. 62 12 11
1902	88	£ s. d. 1954 15 9 22 4	£ s. d. 326 18 3 6 1	£ s. d. 400 5 5 4 11	£ s. d. 0 1281 15 5 14 11	£ s. d. 0 1281 15 5 14 11	£ s. d. 0 1281 15 5 14 11	£ s. d. 0 1281 15 5 14 11	£ s. d. 0 1281 15 5 14 11	£ s. d. 4904 14 3 105 7 5	£ s. d. 1 8 11 9	£ s. d. 1 8 11 9	£ s. d. 1 8 11 9	£ s. d. 6 1611 19 11 18 6	£ s. d. 4 6285 19 5	£ s. d. 71 8 7	£ s. d. 71 8 7	£ s. d. 71 8 7	£ s. d. 71 8 7
1903	68	£ s. d. 1905 19 8 28 0	£ s. d. 720 11 0 6 0	£ s. d. 403 8 4 5 18	£ s. d. 8 1135 11 11 16 14	£ s. d. 8 1135 11 11 16 14	£ s. d. 8 1135 11 11 16 14	£ s. d. 8 1135 11 11 16 14	£ s. d. 8 1135 11 11 16 14	£ s. d. 7123 16 9 1078 15 4	£ s. d. 15 4 15 17	£ s. d. 15 4 15 17	£ s. d. 15 4 15 17	£ s. d. 3 1603 4 9 23 11	£ s. d. 7 6147 11 9	£ s. d. 90 8 1	£ s. d. 90 8 1	£ s. d. 90 8 1	£ s. d. 90 8 1
1904	53	£ s. d. 1728 7 7 32 12	£ s. d. 329 9 2 11 1	£ s. d. 394 9 0 7 8	£ s. d. 10 936 11 9 17 13	£ s. d. 10 936 11 9 17 13	£ s. d. 10 936 11 9 17 13	£ s. d. 10 936 11 9 17 13	£ s. d. 10 936 11 9 17 13	£ s. d. 5755 13 10 129 11 0	£ s. d. 4 885 4 10 16 14	£ s. d. 4 885 4 10 16 14	£ s. d. 4 885 4 10 16 14	£ s. d. 1 1581 14 2 29 16	£ s. d. 11 5555 16 6	£ s. d. 6104 16 7	£ s. d. 6104 16 7	£ s. d. 6104 16 7	£ s. d. 6104 16 7
1905	85	£ s. d. 2297 6 7 27 0	£ s. d. 616 13 8 4 0	£ s. d. 744 4 1 8 15	£ s. d. 1 1160 14 9 13 13	£ s. d. 1 1160 14 9 13 13	£ s. d. 1 1160 14 9 13 13	£ s. d. 1 1160 14 9 13 13	£ s. d. 1 1160 14 9 13 13	£ s. d. 2200 15 10 840 0 0	£ s. d. 0 0 0 0 0	£ s. d. 0 0 0 0 0	£ s. d. 0 0 0 0 0	£ s. d. 6 318 14 8	£ s. d. 6 6651 5 4	£ s. d. 78 5 0	£ s. d. 78 5 0	£ s. d. 78 5 0	£ s. d. 78 5 0

During the Year 1904-5 the sum of £1,211 0s. 8d. was receivable from other Local Authorities and Private Patients.

E.—REPORT ON THE BACTERIOLOGICAL AND CHEMICAL LABORATORY.

In the year 1896, a small bacteriological laboratory was fitted up at the Borough Hospital. This was designed to assist in the recognition of obscure cases of diphtheria or phthisis occurring in the Borough. Subsequently, this assistance was extended to the examination of blood from doubtful cases of enteric fever.

For the first few years of its existence comparatively little use was made of the laboratory as is shown by the following table :—

Year.	Specimens examined for Diphtheria, Enteric Fever, and Tuberculosis.					Total
	Borough Cases (outside the Hospital).		Hospital Cases.			
1897	...	85	...	not recorded.	...	—
1898	...	125	...	not recorded.	...	—
1899	...	not recorded.	...	not recorded.	...	—
1900	...	199	...	248	...	447
1901	...	784	...	885	...	1669
1902	...	698	...	859	...	1557
1903	...	1089	...	1322	...	2411
1904	...	2027	...	2494	..	4521
1905	...	2276	...	4164	...	6440

The figures for the year 1905 again show a very large increase in the number of specimens examined at the Laboratory.

For the following account of the results obtained in the laboratory during the year, I am indebted to Dr. Brincker, the Borough Bacteriologist and Senior Resident Medical Officer of the Borough Hospital.

BACTERIOLOGY (1).—Material from suspected cases of diphtheria, enteric fever, and phthisis, is examined free of cost for all medical

men in the Borough. For this purpose suitable "outfits," containing the necessary apparatus for transmitting material to the laboratory have first to be prepared. These "outfits" can be obtained on application at the Town Hall, or at any of some six depots situated in various parts of the town.

Accompanying these "outfits" are printed directions as to how the material should be obtained and forwarded to the laboratory. On arrival at the laboratory the contents of the "outfit" are examined bacteriologically, and the result communicated to the medical attendant, either by telephone or by telegram, if the result is positive, and the case be one of diphtheria or enteric fever. All other reports are sent by post, unless there is any special urgency.

(2).—Similar examinations are made of cases of "sore throat" reported to the medical officer by school teachers, and of a large proportion of "contacts" in invaded houses.

(3).—Specimens of milk are examined from time to time for special purposes. Should inoculation be necessary, the samples are sent to the Lister Institute.

(4).—Specimens of the public water supply are examined from time to time. Arrangements should also be made for this to be done periodically, though under present conditions this is not practicable on account of the large amount of other routine work.

(5).—Sundry specimens from cases of suspected glanders and other rare diseases, and specimens of diseased meat are also examined when required.

MICROSCOPICAL EXAMINATIONS are made in cases of suspected ringworm; also in certain cases of the tissues of diseased animals slaughtered for human consumption.

CHEMICAL EXAMINATIONS are made in connection with special investigations of the *public water supply, and of various sewage effluents.

* Specimens from the various wells are also examined periodically by Mr. Dibdin.

CLINICAL BACTERIOLOGY.—The following is a summary of the number of specimens examined for suspected diphtheria, enteric fever, or tuberculosis :—

	Suspected Diphtheria.				Serum reaction for suspected Enteric Fever.				Sputum for suspected Tuberculosis.			
	1904.		1905.		1904.		1905.		1904.		1905.	
	Boro.	Hosp.	Boro.	Hosp.	Boro.	Hosp.	Boro.	Hosp.	Boro.	Hosp.	Boro.	Hosp.
January ..	70	105	278	387	3	3	..	2	13	1	17	..
February ..	68	101	232	235	5	..	1	..	15	..	18	..
March ..	104	127	262	318	3	..	4	..	11	3	18	..
April ..	49	163	193	260	2	..	1	2	7	5	11	3
May ..	77	59	158	409	1	..	5	5	12	3	16	..
June ..	163	131	52	366	3	..	3	7	16	..	10	..
July ..	141	131	89	381	4	4	1	1	13	3	22	..
August ..	190	141	93	259	4	4	15	2	7	3	7	2
September ..	219	194	93	215	10	1	3	12	11	1	14	..
October ..	294	379	237	455	5	4	1	4	12	..	9	1
November ..	239	428	194	327	2	..	..	6	13	2	17	..
December ..	220	491	186	501	3	5	6	4	18	2	10	..
First Quarter ..	242	333	772	940	11	3	5	2	39	4	53	..
Second „ ..	289	353	403	1035	6	..	9	14	35	8	37	3
Third „ ..	550	466	275	855	18	9	19	15	31	7	43	2
Fourth „ ..	753	1298	617	1283	10	9	7	14	43	4	36	1
Yearly Total ..	1834	2450	2067	4113	45	21	40	45	148	23	169	6
Grand Total ..	4284		6180		66		85		171		175	

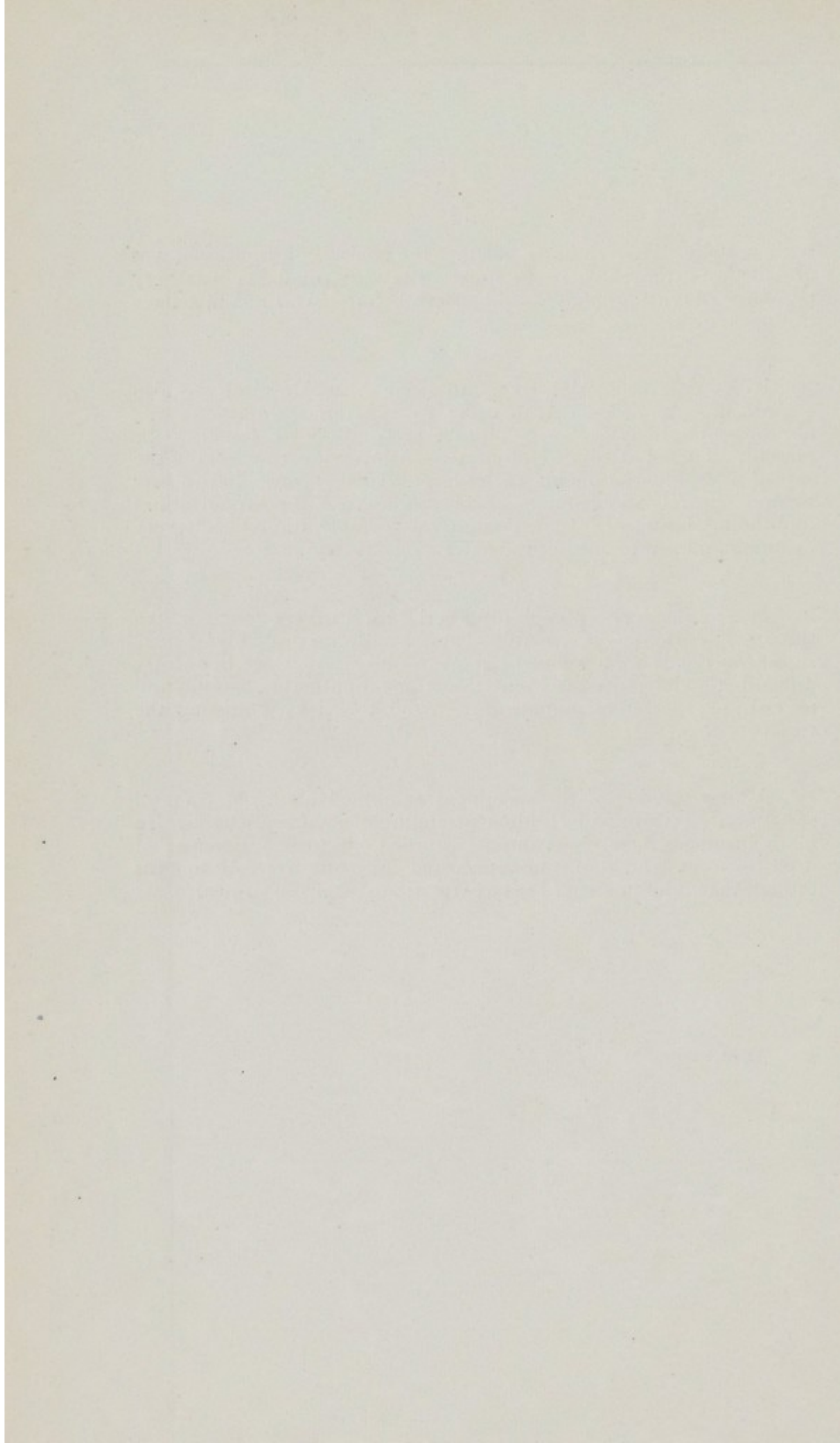
Diphtheria.—During 1905, 6,180 specimens were examined in the Laboratory. Of these specimens about one sixth (1024) were primary examinations for diagnostic purposes. The remaining specimens were from “contacts” who had been exposed to diphtheria, or from the throats of convalescents. The latter were examined

with a view of ascertaining whether the bacillus of diphtheria was absent from the throat. In some cases this organism was very persistent, requiring many examinations before it was found to have disappeared.

Every case of scarlet fever admitted to the Hospital was also examined bacteriologically, in order to ascertain if diphtheria was also present. In 62 instances diphtheria bacilli were found to be present. These patients were isolated with a view to checking the spread of diphtheria among scarlet fever convalescents. In this way we were entirely successful, as there was no case of post-scarlatinal diphtheria during the year, though this complication was a very common and severe one in pre-bacteriological days.

In 119 instances pseudo-diphtheria bacilli were found in the throats of scarlet fever patients. These bacilli are probably of little significance, but are a source of great trouble, as they are frequently difficult to differentiate from the true diphtheria bacilli and necessitate repeated examinations to avoid the risk of missing the true bacillus.

A large number of the specimens examined are from cases of sore throat occurring in children attending elementary schools. In many instances these "sore throats" turned out to be mild cases of diphtheria in which infection persisted for many weeks or months though the children showed very little, if any, signs of ill-health.



RESULTS OF BACTERIOLOGICAL EXAMINATION: I.—DIPHTHERIA.

1906.	EXAMINATIONS OF SPECIMENS FROM BOROUGH.																EXAMINATIONS OF SPECIMENS FROM HOSPITAL.																Total Examination from all sources.											
	Specimens from Primary Cases.								Specimens from Contacts.								Total Examinations from Borough.				Examinations from Cases admitted for Diphtheria.								Examinations from all other Cases.								Total Examinations from Hospital.							
	1st Examination.				2nd Examination.				1st Examination.				2nd Examination.								1st Examination.				Subsequent Exam'n.				1st Examination.				Subsequent Exam'n.											
	R.	Pseudo.	Negative.	Total.	R.	Pseudo.	Negative.	Total.	R.	Pseudo.	Negative.	Total.	R.	Pseudo.	Negative.	Total.	R.	Pseudo.	Negative.	Total.	R.	Pseudo.	Negative.	Total.	R.	Pseudo.	Negative.	Total.	R.	Pseudo.	Negative.	Total.	R.	Pseudo.	Negative.	Total.	R.	Pseudo.	Negative.	Total.				
	Diphth.				Diphth.				Diphth.				Diphth.				Diphth.				Diphth.				Diphth.				Diphth.				Diphth.				Diphth.				Diphth.			
Jan. ...	17	3	55	75	4	2	10	16	7	23	32	62	13	22	90	125	41	50	187	278	15	1	2	18	31	77	160	268	5	11	17	33	1	23	44	68	52	112	223	387	93	162	410	665
Feb....	26	4	42	72	2	3	16	21	6	5	26	37	16	15	71	102	50	27	155	232	25	1	5	31	35	54	36	125	7	14	26	47	2	4	26	32	69	73	93	235	119	100	248	467
Mar....	23	5	55	83	8	7	24	39	4	4	16	24	15	49	52	116	50	65	147	262	20	2	7	29	53	41	131	225	2	3	7	12	2	5	45	52	77	51	190	318	127	116	337	580
April	13	8	33	54	7	3	16	26	1	2	5	8	8	57	40	105	29	70	94	193	11	—	9	20	31	37	84	152	1	6	10	17	—	13	58	71	43	56	161	260	72	126	255	453
May...	8	2	39	49	—	1	15	16	3	1	14	18	4	33	38	75	15	37	106	158	8	2	17	27	44	40	169	253	3	16	27	46	2	11	70	83	57	69	283	409	72	106	389	567
June...	9	4	19	32	1	—	2	3	2	—	9	11	—	1	5	6	12	5	35	52	15	—	13	28	85	27	62	174	9	16	15	40	3	39	82	124	112	82	172	366	124	87	207	418
July..	10	3	23	36	2	—	4	6	4	5	8	17	5	3	22	30	21	11	57	89	13	1	12	26	57	29	125	211	—	11	18	29	—	31	84	115	70	72	239	381	91	83	296	470
Aug. ...	9	3	26	38	6	—	8	14	—	3	17	20	4	3	14	21	19	9	65	93	3	1	6	10	34	8	97	139	2	7	13	22	3	8	77	88	42	24	193	259	61	33	258	352
Sept.	8	5	33	46	5	2	9	16	1	3	7	11	6	2	12	20	20	12	61	93	18	—	7	25	25	3	41	69	7	10	36	53	—	5	63	68	50	18	147	215	70	30	208	308
Oct....	24	9	64	97	13	7	37	57	6	—	25	31	12	6	34	52	55	22	160	237	20	4	14	38	61	3	94	158	21	23	37	81	14	68	96	178	116	98	241	455	171	120	401	692
Nov...	12	8	68	88	8	2	9	19	3	3	13	19	23	10	35	68	46	23	125	194	20	—	10	30	101	9	89	199	2	14	33	49	1	18	30	49	124	41	162	327	170	64	287	521
Dec....	8	5	37	50	1	—	7	8	9	1	9	19	39	10	60	109	57	16	113	186	14	—	8	22	161	37	158	356	3	8	25	36	4	3	80	87	182	48	271	501	239	64	384	687
1st Q.	66	12	152	230	14	12	50	76	17	32	74	123	44	86	213	343	141	142	489	772	60	4	14	78	119	172	327	618	14	28	50	92	5	32	115	152	198	236	506	940	339	378	995	1712
2nd Q.	30	14	91	135	8	4	33	45	6	3	28	37	12	91	83	186	56	112	235	403	34	2	39	75	160	104	315	579	13	38	52	103	5	63	210	278	212	307	616	1035	268	319	851	1438
3rd Q.	27	11	82	120	13	2	21	36	5	11	32	48	15	8	48	71	60	32	183	275	34	2	25	61	116	40	263	419	9	28	67	104	3	44	224	271	162	114	579	855	222	146	762	1130
4th Q.	44	22	169	235	22	9	53	84	18	4	47	69	74	26	129	229	158	61	398	617	54	4	32	90	323	49	341	713	26	45	95	166	19	89	206	314	422	187	674	1283	580	248	1072	1900
Total	167	59	494	720	57	27	157	241	46	50	181	277	145	211	473	829	415	347	1305	2067	182	12	110	304	718	365	1246	2329	62	139	264	465	32	228	755	1015	394	744	2375	4131	1409	1091	3680	6180

The Bacteriological (Serum) Diagnosis of Enteric Fever.—The value of this test was again manifested. During the year there were 12 completed cases of enteric fever, and all these gave a positive serum reaction.

In one instance a nurse (E.R.), suffering from fever was admitted with the following history:—She left Malta with her mistress who was suffering from Malta fever, on July 2nd, and arrived in England July 10th. After arrival in England, the mistress had a relapse and E.R. was in attendance on her at intervals until August 1st., when she failed, with symptoms which suggested enteric fever. On admission it was found that E.R.'s symptoms were anomalous, and a specimen of blood was therefore examined to see if it would agglutinate a culture of *Micrococcus melitensis*. This was found to be the case, and the subsequent progress of the patient quite confirmed the diagnosis of Malta fever. This is a disease of which we had no previous experience, and it is not easy to understand how the patient became infected. If she brought the disease with her from Malta the infection is longer than is commonly supposed, whilst if she acquired the disease from her mistress in England personal infection must occur, though this has been thought to be impossible.

The following table gives a summary of serum reactions performed in this Laboratory during 1905:—

RESULTS OF EXAMINATIONS FOR DISEASES SIMULATING
ENTERIC FEVER.

1905.	Examinations for Borough.						Examinations in Hospital.						Total.		
	Agglutinative Reactions conducted with B. Typhosus.			Agglutinative Reactions conducted with other Micro-organisms.			Agglutinative Reactions conducted with B. Typhosus.			Agglutinative Reactions conducted with other Micro-organisms.			Agglutinative Reactions for all purposes.		
	+	—	Total	+	—	Total	+	—	Total	+	—	Total	+	—	Total
January ..	—	—	—	—	—	—	—	2	2	—	—	—	—	2	2
February ..	1	—	1	—	—	—	—	—	—	—	—	—	1	—	1
March ..	1	3	4	—	—	—	—	—	—	—	—	—	1	3	4
April ..	—	1	1	—	—	—	—	2	2	—	—	—	—	3	3
May ..	1	4	5	—	—	—	2	3	5	—	—	—	3	7	10
June ..	—	3	3	—	—	—	2	5	7	—	—	—	2	8	10
July ..	—	1	1	—	—	—	1	—	1	—	—	—	1	1	2
August ..	4	8	12	3	—	3	2	—	2	—	—	—	9	8	17
September	3	—	3	—	—	—	8	—	8	3	1	4	14	1	15
October ..	1	—	1	—	—	—	1	2	3	1	—	1	3	2	5
November	—	—	—	—	—	—	3	3	6	—	—	—	3	3	6
December	5	1	6	—	—	—	4	—	4	—	—	—	9	1	10
First Qu't'r	2	3	5	—	—	—	—	2	2	—	—	—	2	5	7
Second „	1	8	9	—	—	—	4	10	14	—	—	—	5	18	23
Third „	7	9	16	3	—	3	11	—	11	3	1	4	24	10	34
Fourth „	6	1	7	—	—	—	8	5	13	1	—	1	15	6	21
Total	16	21	37	3	—	3	23	17	40	4	1	5	46	39	85

Examination for the Bacillus Tuberculosis in Sputum, Urine, and other specimens.

The following table shows the number of specimens sent for the detection of B. Tuberculosis during 1905 :—

RESULTS OF EXAMINATIONS FOR TUBERCULOSIS.

1905.	Examinations for the Borough.						Examinations for the Hospital.			Total.		
	Primary Examinations (for diagnosis).			'Secondary Examinations (for cure).			All Examinations.			All Examinations.		
	+	—	Total	+	—	Total	+	—	Total	+	—	Total
January	1	13	14	1	2	3	—	—	—	2	15	17
February	8	9	17	1	—	1	—	—	—	9	9	18
March	6	12	18	—	—	—	—	—	—	6	12	18
April	1	10	11	—	—	—	—	3	3	1	13	14
May	3	11	14	1	1	2	—	—	—	4	12	16
June	1	5	6	—	4	4	—	—	—	1	9	10
July	8	13	21	1	—	1	—	—	—	9	13	22
August	5	2	7	—	—	—	1	1	2	6	3	9
September	6	6	12	1	1	2	—	—	—	7	7	14
October	3	6	9	—	—	—	—	1	1	3	7	10
November	6	8	14	3	—	3	—	—	—	9	8	17
December	1	8	9	—	1	1	—	—	—	1	9	10
First Quarter ..	15	34	49	2	2	4	—	—	—	17	36	53
Second „ ..	5	26	31	1	5	6	—	3	3	6	34	40
Third „ ..	19	21	40	2	1	3	1	1	2	22	23	45
Fourth „ ..	10	22	32	3	1	4	—	1	1	13	24	37
Total	49	103	152	8	9	17	1	5	6	58	117	175

Miscellaneous Examinations.—Examinations were also conducted during 1905 in the Borough Laboratory on the following :

1. *Urines*—

(1) Chemical examinations (6).

(2) Bacteriological

For detection of *B. Typhosus* in cases convalescent of Enteric Fever. Thirty specimens, of which eight gave positive results.

2. *Blood*—

(1) Blood from three patients ; the examination of their blood was of great assistance in diagnosis and prognosis.

The one led to an operation for an abscess, and recovery, and the second was one of Splenic Anæmia followed rapidly by death. A third case shewed Lencocytosis after Pulmonary Tuberculosis, but as death occurred from a subsequent complication, the examination was not of great help.

(2) Blood and tissues from a supposed case of Anthrax in a bullock gave negative results. The bullock had died from advanced Tuberculosis of the lungs and internal organs.

(3) Several specimens of blood were also examined of a case of Malta Fever, but this gave no definite results.

(4) Further investigations were also conducted on the blood of severe and malignant cases of Scarlet Fever.

3. *Pus*.—

(1) Three for gono-coccus (all positive).

4. *Water*—

(1) The experiments on the softening of the Croydon Water Supply were continued during the earlier part of the year. Altogether 20 samples of water were analysed. In artificially polluted water it was shown that the bacteria could be diminished in the water (by softening and sedimentation) by 92 to 96 per cent.

5. *Ringworm*—

Thirty-six specimens of hair were examined microscopically ; of these, 26 shewed Ringworm spores (all small spored—*M. Audouini*) and 10 shewed no spores.

F.—REPORT TO THE EDUCATION COMMITTEE.

HEALTH OF THE SCHOLARS.—During the year the undermentioned cases have been dealt with on notification by the Education Committee or Public Health Department :—

Cases of illness as reported by Attendance Officers or School Teachers :—

Illness.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Totals.
Measles ...	22	144	78	887	1131
Mumps ...	110	31	6	73	220
Whooping Cough	77	82	86	42	287
Chicken Pox ...	37	91	20	77	225
Sore Throat ...	58	27	56	118	259
Ringworm ...	145	141	85	102	473
Other Cases ...	85	93	81	154	413
Totals ...	534	609	412	1453	3008

Cases of illness reported to Education Committee by the Public Health Department :—

Illness.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Total.
Scarlet Fever ...	54	67	60	69	250
Diphtheria ...	27	31	26	38	122
Enteric ...	—	2	2	2	6
Measles ...	33	186	81	967	1267
Mumps ...	126	49	17	33	225
Whooping Cough	92	118	98	45	353
Chicken Pox ...	48	105	34	113	300
Sore Throat ...	67	40	69	109	285
Ringworm ...	149	159	91	110	509
Impetigo ...	28	24	11	27	90
Itch ...	8	11	2	14	35
Vermin ...	3	9	—	7	19
Ophthalmia ...	21	5	5	15	46
Other Cases ...	2	17	24	38	81
Totals ...	658	823	520	1587	3588

STANDING ORDERS AS TO HEALTH.—No changes have been made during the year, and on the whole few difficulties have been encountered.

Towards the end of the year the Committee authorised me to obtain medical certificates in reference to those children excluded from school on account of suspected infectious disease. It is found in practice that for one reason or another only a small number of cases have thus to be dealt with, but the new arrangement has already proved useful on several occasions. Sometimes it has resulted in the prompt return to school of the suspected case, and in other times infectious cases have been diagnosed when they would otherwise have been missed. A fee of 2s. 6d. is paid for these medical certificates.

The procedure in relation to the following diseases, however, requires modification :—

OPHTHALMIA CASES.—No special mention is made of inflammatory diseases of the eye in the Standing Orders. Some of these complaints are communicable, though the majority of them are only so to a very limited extent. Hitherto, teachers have been in the habit of reporting most of these cases to me under Standing Order 1, which includes "other communicable diseases." On visiting these cases the Health Visitors often find that no medical man has been called in, and they are therefore unable to say for what period the children need be excluded from school. I am of opinion that it would be an advantage if the assistance of the Ophthalmic Surgeon could be obtained in these cases.

VERMINOUS CONDITIONS.—Teachers continue to make use of the advisory cards referred to in the report for 1904. Though I believe some improvement has been effected the result has not been as marked as I had hoped. This partial failure is due to two causes. First and foremost, to the fact that in many of the schools systematic inspection of the children's heads is not undertaken, and only the grossest and more obvious cases are given warning cards. I am therefore of opinion that the time has come when a Nurse should be appointed to visit each school in rotation and seek out and, if necessary, exclude all children suffering from verminous conditions. The matter is not a trivial one, as in some schools about half the children appear to be infected, and it is certainly not fair that the remaining half of the school should run the risk of suffering from such an extremely disagreeable complaint. Personal cleanliness must also be regarded as the first step in school hygiene, and it would be the duty of the school nurse to devote her energies to promoting this first essential.

Similar remarks apply to verminous conditions of the body.

RINGWORM.—This disease was discussed in my last annual report, and has been the subject of several special reports to the Elementary Education Sub-Committee, who, in February, 1906, resolved that a representation be made to the Sanitary Committee as to the desirability of the Council undertaking the treatment of ringworm.

This resolution was duly considered by the Borough Hospital Committee and by the Sanitary Committee, but further action was postponed pending a full report which was to embody the results of enquiries as to the success of recent methods of treatment. It is for this reason that it is necessary, at the risk of some repetition, to discuss the question in some detail on this present occasion.

THE CAUSE OF RINGWORM is a minute fungus which grows readily on the surface of the skin or in the hair of young people. When the body is affected it is only the superficial layers of the skin that are invaded by the fungus. On the other hand, when the scalp is attacked the fungus penetrates to the roots of the hair and invades the hairs themselves, which in consequence lose their vitality, break off and produce the characteristic partially bald patches. Ringworm is for the most part spread by contact of healthy with diseased children, by changing caps and by imperfectly cleansed brushes at barbers' shops.

TREATMENT OF RINGWORM. — Ringworm of the body can be readily cured by numerous ointments and lotions, which need only to be applied to the affected part until the fungus has been destroyed. This usually requires only a few days, and ringworm of the body may therefore be regarded as a comparatively trivial ailment. Ringworm of the scalp, on the other hand, is an entirely different matter. For while quite recent cases may occasionally be rapidly cured by the application of suitable lotions and ointments, this is quite impracticable when the disease has penetrated deep down to the roots of the hair. The reason for this difficulty is not far to seek. Ointments and lotions which are sufficiently strong to destroy the fungus in the deeper layer of the skin and to penetrate to the roots of the hair, in many instances produce so much irritation as to produce considerable local inflammation and risk of permanent injury. Individuals also differ materially in their reaction to different drugs, and an application which will be quite satisfactory in one child will excite a dangerous amount of inflammation in another. No routine treatment is therefore available for the cases usually met with in practice, and the prolonged application of drugs, made just as strong as the patient can stand, was until recently the only known method

of dealing with ringworm. True that from time to time one or another nostrum has been vaunted as a speedy and safe specific, but, as has been pointed out by others, these specifics owe their popularity to the fact that they have been used for the readily curable ringworm of the body or for the treatment of *very recent* cases of ringworm of the scalp, or for chronic cases that have almost yielded to other drugs. In any case, the drug treatment of ringworm can only be described as extremely unsatisfactory, entailing, as it does, prolonged medical supervision, considerable expenditure of time in the daily application of drugs and dressing, and frequent disappointing results. Relapses, too, are quite common, and after many years experience in treating children I know of few questions calling for more caution than the apparently simple query—when is a given case fit to return to school? In many instances this can only be answered by a microscopic examination of some of the doubtful hairs. Within the last few years, however, it has been found that exposure of the scalp for a certain time to what are known as the X rays results in temporary baldness, and this observation has been applied to the treatment of ringworm. Within a week to a fortnight after exposure the diseased hairs, and the fungus contained therein, fall out, and the portion of the scalp that has been treated remains bald for some weeks. During this time any fungus in the superficial layers of the skin can readily be destroyed, so that when the new hair begins to grow it cannot be re-infected.

ADVANTAGES OF THE X-RAY TREATMENT.—If skilfully applied the X-Ray treatment appears perfectly effectual, and at the same time, as safe as any efficient local application. At first, difficulties were experienced in measuring the activity of the rays, but this has been surmounted, and after consultation with several of the most prominent London specialists and visits to several hospitals, I am convinced that the electrical treatment fulfils the requirements of curing “quickly, safely, and pleasantly.”

With regard to speed there is much to be said. If neglected cases of ringworm may persist for years, while even when under skilled treatment, the cure is usually tedious. Dr. Crocker, whose authority on ringworm is second to none, when discussing drugs, says :—“ In a very recent case, six weeks to three months would be a reasonable time for a cure. . . . For many chronic cases, six months is a short, and twelve months, a fair time ; but some cases take longer even in the most experienced and skilful hands, and a large proportion of the cases reported as cured in a month or six weeks, are only examples of unskilled observation.” With this, my own comparatively limited experience is in entire agreement. Fictitious cures after a few weeks’ treatment are specially common

among school children, as parents will insist that the disease is cured as soon as it is checked. With X-Ray treatment, infection would be at an end in one month, and return to school might even take place sooner if suitable precautions were taken.

EXTENT OF RINGWORM AMONG ELEMENTARY SCHOOL CHILDREN.—At the moment of writing this Report (March 23rd, 1906), no less than 180 children are excluded from school on account of ringworm. Many other less obvious cases would also be found to be still attending school were the children systematically examined. Of the 180 children:

2	have been excluded since	November, 1904	=	17 months.
2	"	January, 1905	=	15 "
1	"	February, 1905	=	14 "
3	"	March, 1905	=	13 "
4	"	April, 1905	=	12 "
5	"	May, 1905	=	11 "
1	"	June, 1905	=	10 "
7	"	July, 1905	=	9 "
4	"	August, 1905	=	8 "
10	"	September, 1905	=	7 "
11	"	October, 1905	=	6 "
130 for periods less than 6 months.				

REASONS WHY THE COUNCIL SHOULD UNDERTAKE THE TREATMENT OF RINGWORM.—(1) School attendance is compulsory, and it is therefore incumbent on the local authorities to check, and, if possible, to stamp out all communicable diseases of school children. They also have some moral responsibility for the treatment of a complaint which has probably been contracted in a school.

(2) The parents cannot afford to pay for the prolonged treatment necessary if drugs alone are used.

(3) The X-Ray treatment, cannot, at present, be obtained in Croydon, nor is it likely to be placed within reach of the poor.

(4) It is a serious matter, from the financial point of view, that 180 children should be excluded from school and consequently unable to earn the Exchequer grant of £2 per child per annum. It is still more serious that so many children should be deprived for many

weeks or months, of the educational advantages which are provided at such cost to the ratepayers.

RECOMMENDATIONS RESPECTING RINGWORM.—I have, therefore, most strongly to recommend:—(1) That a systematic examination for suspected early cases of ringworm should be made by the school nurse, whose appointment has already been suggested. The salary of such nurse would be £80 to £100 per annum.

(2) That the Borough Hospital House Sub-Committee should be empowered to arrange for the X-Ray treatment of ringworm occurring among Elementary School children at a further expense of not exceeding £100 per annum. This treatment might, at the discretion of the Committee, be undertaken either by installing an apparatus at the Town Hall, or by arrangement with some medical man who possessed the necessary equipment. From enquiry, I find that the latter suggestion is practicable, and would have the advantage of allowing me more time to examine the cases submitted by the nurse. The ground would thus be covered more quickly, and the disease be sooner checked.

EXAMINATION OF PUPIL TEACHER CANDIDATES.—Seventy-five young persons, who desired to become pupil teachers, were medically examined during the year. Of these 67 were passed and eight rejected. Six re-examinations were also made.

A record of each physical examination together with the family history of the candidate is entered on a card and filed for subsequent reference. This system has been found most useful when, for various reasons, it has been found necessary to re-examine candidates or pupil teachers.

SPECIAL EXAMINATION OF TEACHERS.—Thirteen teachers were interviewed on one or more occasions by the Medical Officer. In six instances the interview had reference to the existence of infectious disease at the home of the teacher, while in seven cases the Committee required special reports concerning the health of the teacher.

BLIND, DEAF, AND DEFECTIVE CHILDREN.—The children attending the Deaf Class were examined during the year and a

special report made as to their physical condition. Seven other children were also examined at the Town Hall and reported upon. Many other children were examined at the schools, but as no certificates were required no record was kept of these examinations.

TRUANTS.—Thirty-four children were examined before despatch to truant schools, and the necessary certificates given to the Police.

EXAMINATION OF CHILDREN UNFIT TO ATTEND SCHOOL.—Eighty-three children alleged to be physically unfit for school attended at the Town Hall for examination. Recommendations were made in each case as to school attendance.

SCHOOL CLOSURE.—The following schools were closed during 1905 on account of Measles:—

Upper Norwood	Mixed School.
Whitehorse Road	(Infants' Department).
St. Mary's	do.
Parish Church	do.
British	do.
Ecclesbourne Road	do.
All Saints'	do.

Owing to certain special circumstances St. Saviour's School was also closed on account of scarlet fever.

During the year I have seen no reason to modify my opinion that school closure is rarely of much, if of any, avail in combating an epidemic of measles. Probably some good would be done if prompt notice were given of the very first case, and the class in which that case had occurred were closed for a week at about the time when the secondary crop of cases might be expected. This is not done, partly because one does not always get early intimation of the first case, and partly because there is a natural inclination not to interfere unduly with the grant earning capacity of the school. Were Article 101* of the old Code re-instated, teachers and all concerned would be more ready to close classes on the occurrence

of one or two cases as no grant would be lost by so doing. † Under present conditions, however, school managers find it more profitable to close the whole school than to lower the average attendance by closing one or more classes. Thus the Board of Education places a high premium on antiquated and unsatisfactory methods of dealing with school epidemics. To illustrate how the present method works out, I obtained from the Head Teacher of the British Infants' School certain particulars relating to the epidemic of measles prevalent in that school at the end of the year. One hundred and thirty-five children attended this school of whom 59 were stated to have suffered from measles at some previous epidemic, 75 were stated not to have had measles, and concerning one no statement was made. On October 3rd one of those who had not previously suffered from the disease was attacked with measles and his illness was followed by the following cases :—

1905.						No. of Cases.	
October	26.	...	...	...	...	...	1
"	27.	...	...	...	...	...	3
"	28.	...	...	...	...	...	3
"	30.	...	...	...	...	...	1
November	1.	...	...	...	...	...	1
"	4.	...	...	...	...	...	1
"	5.	...	...	...	...	...	1
"	7.	...	...	...	...	...	4
"	9.	...	...	...	...	...	2
"	10.	...	...	...	...	...	3
"	11.	...	...	...	...	...	4
"	12.	...	...	...	...	...	5
"	13.	...	...	...	...	...	6
"	17.	...	...	...	...	...	4
"	19.	...	...	...	...	...	3
"	20.	...	...	...	...	...	17
School Closed.							
"	21.	...	...	...	...	...	4
"	22.	...	...	...	...	...	1
"	23.	...	...	...	...	...	2
"	28.	...	...	...	...	...	2
1906.							
January	28.	...	...	...	...	...	2

† Article 101* read :—" Where the Department are satisfied that by reason of a notice of the Sanitary Authority under Article 88 or any provision of an Act of Parliament requiring the exclusion of certain children, or by reason of the exclusion under medical advice of children from infected houses, the average attendance has been seriously diminished and that consequently a loss of grant would, but for this Article, be incurred, the Department have power to make a special grant not exceeding the amount of such loss in addition to the ordinary grant."

Thus from October 3rd to January 28th, 1906, there were 70 attacks, of which 63 occurred in children who were stated not to have previously suffered from the disease, while seven were stated to have suffered from measles at some previous epidemic. It is, however, doubtful whether these seven children really suffered from second attacks as we can only be guided by the statements of the parents, who, in many instances, give the name of measles to any rash from which their children may suffer. The figures are in any case interesting as showing that the history as to previous illness obtainable by the teachers is for the most part reliable, and could be fairly used in administrative work.

On November 20th the school attendance had dropped to 33 per cent., and the managers were then anxious to close the school as the work was disorganised and the grant consequent on a high average attendance in jeopardy. At that time 21 children were stated not to have had the disease in any previous year, and of these seven were attacked during the next eight days, while two failed a couple of months later when the school was open again. Thus at the most only about 12 children could possibly have been benefitted by school closure, while it is probable that several of these were naturally insusceptible and would not have been attacked even had the school been allowed to remain open.

There are several other points of interest in connection with this outbreak. First, it will be noticed that there is an interval of 23 days between the first and second case reported from the school. Now, as the incubation period of measles is usually something under a fortnight, it is almost certain that there must have been one or more missed cases about October 12th to 17th, and if the class in which the first case had occurred had been closed from October 10th to October 21st, it is very likely that the epidemic might have been checked.

Secondly, it is sometimes stated that school closure should be resorted to when 10 per cent. of the children have been attacked. Had this rule been followed the school would have been dismissed on November 7th, but it is fairly certain that such a step would have had practically no effect, as 47 out of the 54 subsequent cases were attacked on or before November 21st, and were therefore in all probability infected on November 7th or earlier.

I am therefore strongly of opinion that representations should once more be made to the Board of Education to re-enact Article

101* of the old Code, so that one might have a greater amount of freedom in closing classes, or temporarily excluding children who are known to be susceptible to measles. In default of closure, I am of opinion that it would be useful to issue a warning notice, such as the following, which is now used in the London County Council Schools :—

LONDON COUNTY COUNCIL.

<i>Notice to</i> The Parent or Guardian of _____	<i>From</i> WOOLWICH. The Head Teacher (Infants' Dept). _____ <i>School.</i>
--	--

As a case of measles has occurred among the scholars in the class which your child attends, it is possible that.....may have contracted the disease. As it requires about twelve days for measles to develop after infection, you are requested to pay particular regard to the state of your child's health during the NEXT THREE WEEKS, and upon the slightest sign of illness to abstain from sending.....to school.

<i>Date</i> _____	<i>Signature</i> _____
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NOTE.

Measles may be a very serious illness in young children, and many die from it. The early symptoms are those of a cold, which may be at first slight; there is generally running at the eyes and nose, sneezing and possibly cough. Many children lose their lives because parents allow them to go out of the house, thinking that the indisposition is only a slight cold, when it is really measles.

Were this notice sent to the parents of every child attending class in which measles has occurred some benefit would undoubtedly result, as parents would gradually be induced to take a more serious view of measles, and by proper treatment, diminish the risk of a fatal issue.

The following form, for which I am also indebted to the Medical Department (Education) of the London County Council, might also usefully be employed in all cases when classes or schools are closed for measles :—

LONDON COUNTY COUNCIL.

<i>Notice to</i> The Parent or Guardian of _____	<i>From</i> The Head Teacher (Infants' Dept), _____ <i>School.</i>
--	--

As a case of measles has occurred among the scholars in the class which your child attends, it has been decided to close the class till _____. Measles is an infectious disease. You are therefore cautioned, in the event of your child showing any signs of this disease, to keep.....from contact with other children or from exposure in public places until a fortnight shall have elapsed after exposure to the infection. A child who appears only to have a slight cold may have contracted measles and be dangerous to others. Any child who has contracted measles must not resume school attendance for one month.

Date _____ *Signature.* _____

School closure for scarlet fever was resorted to on one occasion. As stated in previous Reports, school closure is rarely warranted when dealing with this disease, as it is quite sufficient to visit the school on the occurrence of more than one case in the same class, and by an inspection of the children, to exclude any suspicious cases that may be found to be in attendance. This course was followed in the case of St. Saviour's School, and resulted in the discovery of several missed cases of scarlet fever. These children were promptly excluded, but, as several cases of scarlet fever were of a very severe type, parents became alarmed and refused to allow their children to resume attendance, and it was therefore thought wise to close the school until the premises had been disinfected and alarm had subsided.

AGE OF SCHOOL ATTENDANCE.—The desirability of admitting children under five years of age was the subject of a special report during the year. It will be seen from the following figures the

problem is not one of very considerable importance in Croydon, as only 25 per cent. of the population aged 3-5 are at present attending school :—

Children aged.		Population March, 1904.		Attending School.		Percentage.
3-5	...	6064	...	1516	...	25
5-10	...	14792	...	11553	...	78
10-13	...	8540	...	6751	...	79
13-14	...	2822	...	1356	...	48

Stated shortly, I am of opinion that in a town like Croydon it is only exceptionally that children under five years of age would not be better off in their own homes, and I should like to have seen the admission of children under five years of age generally discouraged and only permitted under certain conditions. It must be acknowledged that the question is one of great difficulty, but these conclusions are based on the following grounds :—Firstly, only 11 per cent. of mothers of the artizan class are employed from home in Croydon, in some parts of the town the proportion is less, thus, of 54 children aged 3-5 attending Oval Road School it was found that only in four instances was the mother employed from home. Of the 50 mothers not employed

- 2 had 3 younger children not attending school.
- 14 had 2 younger children not attending school.
- 17 had 1 younger child not attending school.
- 17 had no younger children.

Thus of the 50 mothers at least 34 could reasonably be expected to give the necessary care to their children.

At Princess Road School, on the other hand, 20 out of 40 mothers were employed, and of the 20 not employed

- 8 had 2 younger children not attending school.
- 9 had 1 younger child not attending school.
- 3 had no younger children.

Thus even in this district there were a considerable number of mothers who were perfectly capable of looking after their children.

With regard to the children of mothers who are employed from home, it is doubtless better for the children to attend school rather

than to be unattended at home, and on the other hand, it is doubtful whether more harm than good is not being done by the facilities thus afforded for the employment of married women.

Secondly, the aggregation of infants in schools tends to assist in the spread of measles and whooping cough, and to the infection of children at a somewhat earlier age than would take place if the age of school attendance were raised.

Forty-eight fatal cases of measles were recently enquired into. In eleven instances parents had moved, or for some other reasons the information could not be obtained; in eleven instances the history was indefinite; eight fatal cases were probably infected at school, while in eighteen other instances, measles was introduced into the household by some other school child who was suffering from the disease and subsequently infected the deceased.

Similarly of 33 fatal cases of whooping cough; one was stated to have been infected at school, and fifteen were stated to have been infected by another member of the family who caught the disease while attending school. In the remaining seventeen other instances, no connection with school could be traced, or no statement could be obtained.

Were the school age raised, epidemics of measles and whooping cough would still occur, but those infected at school would be older and less likely to suffer severely, and the introduction of measles and whooping cough into the family would, in most cases, occur at less frequent intervals so that the ages of the susceptible children not attending school would be rather greater. In the case of measles and whooping cough the question of age incidence is of vital importance, as practically all the fatal cases occur in children under five years of age.

Thirdly, in the past the work in the baby rooms has not been conducted on satisfactory lines. Too much formal teaching has been attempted, free movements have been restrained, and overcrowding has frequently been permitted. The hours of school attendance are also, in my opinion, too long for infants, who should be encouraged to sleep during part of the morning or afternoon at this early age.

The whole question was fully considered by a Sub-Committee, who were more impressed by the educational value of attendance under five years of age than I have been, and the following recommendations of this Sub-Committee were adopted by the Council:—

“The Sub-Committee are convinced that while in many parts of Croydon the baby school is a boon to both parent

“and child, and the expense to the rates of maintaining such schools is very small, the lessons given to such children should not be of a formal character, but that the aim of the teacher should be to utilise and direct natural tendencies and activities rather than to impart definite instruction in any of the subjects taught to older children.”

The Sub-Committee therefore recommend :—

“(1) That children under five be only admitted to those schools where a properly equipped baby-room is provided and only to the extent of the accommodation of such room

“(2) That in schools where a suitable room is available, baby-rooms, arranged and furnished as at Ingram Road be provided.

“(3) That the Attendance and School Accommodation Sub-Committee be authorised to refuse admission to children under four or under five in any school.

“(4) That in certain schools the experiment be tried of admitting children under five as half-time scholars for morning only and afternoon only.

“(5) That no children at present in the schools be excluded, and that the proposed alterations to the rooms be made in the next summer holidays.

“(6) That in these recommendations, and in all questions arising under any regulations adopted in pursuance of them, the term ‘under five’ shall be taken to mean ‘under five at the end of the current school term.’ ”

Recommendation (1) will, if strictly adhered to, remove, to some extent, the objection as to overcrowding, and the decision to abandon any attempt to impart formal instruction to the babies will remove another objection.

The Recommendation (4) obviates the difficulty as to sleep. In schools where half-time is not tried an afternoon's nap should find its place in the time-table. One of the teachers has already told me that she intends trying this.

I would also add that the Council's decision to continue the baby classes makes it imperative that Article 101* should be re-instated in the Code, so that young infants may be excluded from school without affecting the grant-earning power of the department.

PHYSICAL EXAMINATION OF CHILDREN.—In December, 1905, I presented a special report on the physical examination of the children attending Princess Road and Oval Road Schools. Since then I have been able by the kindness of Mr. Andrew (Whitgift Grammar School), Mr. Jones (Whitgift Middle School), Mr. Scott (Elmhurst School), Miss Leahy (High School for Girls), and Miss Walford (Woodford House School) to obtain comparative figures for boys and girls attending certain of the Secondary Schools. As the comparison between height and weight of Secondary and of Elementary School children was of interest, and many inquiries have been made as to the results obtained, I have reprinted the tables previously presented, together with similar tables of heights and weights for children attending Secondary Schools.

I should also like to thank the Head Mistresses and Head Masters named for their kind assistance in permitting me to take the necessary measurements of their children.

LIMITS AND METHODS OF ENQUIRY.—As a complete physical examination was for obvious reasons impracticable, it was decided to limit the enquiry to the following points:—

Age in years and months.

Height in inches and quarter inches without shoes.

Weight in pounds and quarter pounds in ordinary clothes, but without boots.

The date of inspection, name of child, standard, and sufficiency of clothing was also noted in each instance.

Though the metric system offered many advantages, it was thought better to use standards with which the teachers had greater practical familiarity.

The observations were all entered on cards, white cards being used for boys and red cards for girls. This method minimises the considerable labour involved in tabulating the results, and supplies a convenient permanent record.

It is useful to note that the actual weighing and measuring did not take very long. In one school 1,005 children were weighed and measured in 22 hours.

METHOD OF TABULATION.—As at Dundee, Mr. Francis Galton's method has been preferred to that of simple averages.

This is fully described in the British Association Report for 1881, but is shortly as following:—Each series is arranged in order of magnitude, the middle number of the group is then tabulated as the median average of the group. This can be done somewhat more quickly than when averages have to be estimated, and also avoids the introduction of error from the inclusion of extreme cases in the group under discussion. Thus in the Oval Road Boys' School (Table I.) at the age 11 to 12 years 55 observations were made, and of these the median height was $54\frac{1}{2}$ inches, *i.e.*, there were 27 boys who were taller and 27 shorter than the $54\frac{1}{2}$ inches. Each group was also further analysed by ascertaining the lower and upper quartiles, but it is not proposed to discuss these figures at the present moment.

In all 1,474 boys and 975 girls were examined, but in the following tables groups containing less than ten observations have been omitted.

BOYS' HEIGHTS.—It will be seen that at every age period the Princess Road boys are shorter than those attending Oval Road, while the latter conform fairly closely to the British Association Committee's figures for all classes. The height of the children attending certain Secondary Schools is at each age period as much in excess of that of the Oval Road boys as those exceed Princess Road.

TABLE I.—BOYS.
HEIGHT.

Age last Birthday	Certain Secondary Schools.		Oval Road School.		Princess Road School.		B.A. Anthropometric Committee, 1883. All Classes.	
	Number Examined.	Median height.	Number Examined	Median height.	Number Examined.	Median height.	Number Examined.	Average height.
		Inches.		Inches.		Inches.		Inches.
4	..	..	29	39.25	29	35.00	107	38.46
5	..	..	39	41.00	15	40.50	201	41.03
6	10	45.75	45	43.00	29	42.00	266	44.00
7	12	48.50	61	46.25	24	44.25	307	45.97
8	17	49.50	49	48.50	31	46.00	1524	47.05
9	33	52.00	63	49.75	33	48.25	2278	49.70
10	63	54.25	57	52.25	33	50.00	1551	51.84
11	87	55.00	55	54.50	23	51.00	1766	53.50
12	97	57.50	73	55.00	30	53.50	1981	54.99
13	120	59.00	35	56.25	23	55.00	2743	56.91
14	118	61.00	..	..	..	..	3428	59.33
15	81	62.50	..	..	..	..	3498	62.24
16	41	66.25	..	..	..	..	2780	64.31

GIRLS' HEIGHTS.—Similar remarks apply, but the differences between the two Elementary Schools are less marked, though the Secondary School girls are individually taller than Oval Road girls or the B.A. Committee's average.

TABLE II.—GIRLS.

HEIGHT.

Age last Birthday.	Certain Secondary Schools.		Oval Road School.		Princess Road School.		B.A. Anthropometric Committee, 1883. All Classes.	
	Number Examined.	Median height.	Number Examined.	Median height.	Number Examined.	Median height.	Number Examined.	Average height.
		Inches.		Inches.		Inches.		Inches.
4	..	..	22	38.13	16	37.50	99	38.26
5	..	..	41	41.00	29	40.00	157	40.55
6	11	46.75	45	44.00	32	41.63	189	42.88
7	10	49.00	54	45.75	28	44.00	173	44.45
8	14	50.50	52	46.75	26	46.25	432	46.60
9	11	52.50	57	49.75	33	48.00	499	48.73
10	21	54.00	51	51.00	25	50.50	480	51.05
11	28	55.50	57	53.00	20	52.86	441	53.10
12	30	58.25	52	54.00	20	54.00	225	55.66
13	45	61.25	35	56.50	14	55.50	206	57.77
14	44	62.25	..	..	..	..	240	59.80
15	32	63.50	..	..	..	..	201	60.93

BOYS' WEIGHTS.—Here again the Princess Road Boys are inferior at all ages to those attending Oval Road School. The Oval Road children are also below the B.A. standard for all classes, though this was not so when height was compared. The Secondary School boys are for the most part well in excess of all the other groups.

TABLE III.—BOYS.

WEIGHT.

Age last Birthday.	Certain Secondary Schools		Oval Road School.		Princess Road School.		B.A. Anthropometric Committee, 1883. All Classes.	
	Number Examined.	Median weight.	Number Examined.	Median weight.	Number Examined.	Median weight.	Number Examined.	Average weight.
		Pounds.		Pounds.		Pounds.		Pounds.
4	..	..	29	36.75	29	35.75	102	37.3
5	..	..	39	40.00	15	38.00	193	39.9
6	10	49.50	45	43.00	29	42.00	224	44.4
7	12	50.50	61	49.00	24	46.50	240	49.7
8	17	60.00	49	52.50	31	52.00	820	54.9
9	33	64.00	63	57.25	33	56.00	1425	60.4
10	63	68.00	57	62.86	33	61.00	1464	67.5
11	87	71.50	55	69.00	23	65.00	1599	72.0
12	97	77.00	70	71.75	30	71.50	1786	76.7
13	120	85.50	35	76.50	23	75.00	2443	82.6
14	118	94.00	..	..	..	..	2952	92.0
15	81	107.00	..	..	..	..	3118	102.7
16	41	124.00	..	..	..	..	2235	119.0

GIRLS' WEIGHTS.—Similar remarks apply, but the differences between the three schools are greater than in the case of the boys' schools.

TABLE IV.—GIRLS.
WEIGHT.

Age last Birthday.	Certain Secondary Schools.		Oval Road School.		Princess Road School.		B.A. Anthropometric Committee, 1883. All Classes.	
	Number Examined.	Medium weight.	Number Examined.	Median weight.	Number Examined.	Median weight.	Number Examined.	Average weight.
		Pounds.		Pounds.		Pounds.		Pounds.
4	...	...	22	34.50	16	32.86	97	36.1
5	...	...	41	38.50	29	37.25	160	39.2
6	11	47.00	45	42.25	32	40.25	178	41.7
7	10	52.00	54	46.00	28	44.25	148	47.5
8	14	56.25	52	49.50	26	48.25	330	52.1
9	11	62.10	57	56.00	33	52.50	535	55.5
10	21	67.00	51	59.00	25	56.00	495	62.0
11	28	74.00	57	65.50	20	63.00	456	68.1
12	30	82.50	52	71.25	20	63.00	419	76.4
13	45	95.00	35	82.00	14	75.00	209	87.2
14	44	101.50	...	...	...	...	229	96.7
15	32	117.25	...	...	...	...	189	

HEIGHT AND WEIGHT OF ELEMENTARY SCHOOL CHILDREN IN VARIOUS STANDARDS.—This was investigated to see if there were any relation between the place taken in school and the physical condition of the scholars, as ascertained by measurement of height and weight. I do not propose at the present moment to report the results *in extenso*, as the number of observations are possibly not sufficiently large. It is notable, however, that the boys and girls in Standards VI. and VII. were superior in height and weight to other children of the same age. It would seem, therefore, that the conditions which favour physical growth are also favourable to intellectual development.

SUFFICIENCY OF CLOTHING IN ELEMENTARY SCHOOLS.

—Teachers were asked to mark on the card whether in their opinion the clothing of the children was above or below the average of the school. The children at each school were then divided into three groups, namely, those possessing an average amount of clothing and those above and those below that standard. The height and weight of each of these groups was

then investigated in the light of the information tabulated in Tables I., III., II, and IV. The following are the results :—

PRINCESS ROAD SCHOOL.—BOYS.

SUFFICIENCY OF CLOTHING.

	Total Number.	Proportion below height for age of child.	Proportion below weight for age of child.
Below Average	70	61%	60%
Average	151	44%	44%
Above Average	51	27%	35%

OVAL ROAD SCHOOL.—BOYS.

SUFFICIENCY OF CLOTHING.

	Total Number.	Proportion below weight for age of child.	Proportion below height for age of child.
Below Average	29	55%	62%
Average	438	38%	38%
Above average	56	23%	28%

PRINCESS ROAD SCHOOL.—GIRLS.

SUFFICIENCY OF CLOTHING.

	Total Number.	Proportion below height for age of child.	Proportion below weight for age of child.
Below Average	39	72%	60%
Average	164	43%	50%
Above Average	44	41%	25%

OVAL ROAD SCHOOL.—GIRLS.

SUFFICIENCY OF CLOTHING.

	Total Number.	Proportion below height for age of child.	Proportion below weight for age of child.
Below Average	23	49%	52%
Average	389	56%	58%
Above Average	70	31%	36%

This investigation was made with a view of ascertaining whether poverty, or neglect were the probable causes of the deficient height and weight of the children. If poverty and neglect can be gauged by insufficiency of clothing (as I think they may well be), it will be noticed that the relation between sufficiency of clothing and height and weight is clearly brought out. Thus in the case of the Princess Road Boys 61 per cent. of the children classified as insufficiently clothed were below the average height for their age and 60 per cent. were below the average weight. On the other hand, 73 per cent. of those who were said to have more than the average of clothing were above the average height for their age, while 65 per cent were also above the average weight.

GENERAL CONCLUSIONS.—The most obvious fact ascertained during the enquiry is the inferiority of the Princess Road children. This fact, of course, was previously familiar to anyone who had had an opportunity of visiting both schools. It was, however, well worth putting the matter to the test of the measuring rod and the balance, as it is only by the tabulation of actual facts that knowledge can be advanced and trustworthy conclusions drawn. With regard to the cause of the physical inferiority of Princess Road children, I think we have a valuable indication in the fact just noted as to the correlation of inferior height and weight with insufficient clothing. It may, I think, be taken for granted that children who are insufficiently clothed come from poor homes, but the cause of poverty could only be ascertained by careful investigation of each case. This, however, is beyond the limits of our present enquiry.

I believe it would also be found that much of the deficiency in height and weight of the Princess Road children is due to imperfect cooking and to the selection of articles of diet that for their cost are comparatively deficient in nutritive value. Were the principle of co-operative meals adopted in the schools, it would have the great advantage of teaching the next generation how cheap and nutritious food may be selected and palatable meals prepared therefrom.

In the meantime the most useful results of this investigation have been:—

- (1) To demonstrate the practicability of measuring the children.
- (2) Demonstration of the fact that simple measurements are trustworthy indications of the physical condition of the children.

Before extending these measurements to other schools, it has been decided that at the end of about six months the children attending the Oval Road and Princess Road Schools shall be remeasured and reweighed. When this is done the children at each age group will be arranged in order of weight, and the lower quartile, *i.e.*, the children who form the lowest quarter in each group will be subjected to further special examination. By this means it is hoped that attention will be directed to those most requiring it. It is indeed, as a means of selecting children for further examination that these physical measurements seem to be most likely to prove useful. Were they extended to the rest of the schools they would also serve to call the attention of the head teachers to departures from health that might otherwise pass unnoticed.

SCHOOL HYGIENE FOR TEACHERS.—During the winter months, Dr. Thomas has given two courses of lectures to head teachers on Hygiene, with special reference to School Life. The lectures have been thoroughly appreciated, and I hope that in future years similar lectures will be given to assistant and pupil teachers, who might, I think with advantage, be required to attend. The Committee might also consider whether it would not be as well to encourage the assistant teachers to pass some examination in School Hygiene.

TEACHING OF HYGIENE TO SCHOOL CHILDREN.—The teaching of Hygiene in elementary schools, must, in the main, be indirect. I believe that more can be done by a teacher with a keen appreciation of first principles, and working in a clean and healthy schoolroom, than by all the text books and syllabuses ever printed. If the laws of health are to be brought home to children it must be by practical example rather than by committing to memory a few sanitary shibboleths. It was felt, however, that teachers should have some guidance as to the various points in relation to the care of the body on which they should talk to their scholars. A brief outline scheme was therefore drawn up in collaboration with the Committee's School Inspector, Mr. Robertson, and the Committee thereupon directed that this outline, together with that issued by the Board of Education, should form a basis of a scheme of instruction to be given in all the schools. I repeat, however, that it will be very little good teaching about the cleanliness of the homes if the school floors are as dirty as some that I have seen in Croydon, or of fresh air, if ventilation of the school-room is consistently omitted.

SCHOOL BUILDINGS.—There are no features requiring mention on this occasion. Any minor defects found on visiting schools are

at once reported to the Surveyor. Particulars as to the cubic capacity, heating, lighting, etc., of each school, are also being tabulated on special cards, and it is hoped that this thorough sanitary inspection of the buildings will be completed during the next few months.

TESTING OF VISION.—This has been continued as heretofore by the Ophthalmic Surgeon.

APPENDIX.

COUNTY BOROUGH OF CROYDON.

SCARLET FEVER OR SCARLATINA.

HOME CASE.

Children from this house must not attend day or Sunday School until permission is given by the Medical Officer of Health.

All cases of "sore throat," "lumps in the neck," or of "peeling skin" occurring in the household are probably scarlatinal and should be immediately reported to your Medical Attendant. Suspicion should also be aroused by any sudden attack of illness, especially if beginning with vomiting.

Public Library Books must be taken to the Public Health Department, Town Hall, and no books borrowed until the house has been disinfected.

If treated at home the patient must be confined to one room, and *no one except the person in charge allowed to enter the room.* All unnecessary furniture should be removed from the sick room forthwith, and the floor and furniture should be frequently wiped with a damp cloth. *Fresh air* must be freely admitted, a fire being lighted if necessary.

Attendants should wear washable dresses, should wash their hands immediately after attending the sick person, and should always wash their hands and faces and change their shoes and outer clothes before going off duty.

No domestic animal should be allowed to enter the sick room.

No children should be allowed to visit the infected house.

A patient suffering from this disease is generally DANGEROUS TO OTHERS for six to eight weeks, and must not be allowed to mix with other people until the Medical Attendant certifies that there is no danger. There is risk of infection while there is any discharge from ear or nose, or while the throat remains sore or unhealthy.

DISINFECTION.

1.—All soiled linen should be at once placed in a tub of water to which a handful of ordinary washing soda has been added, soaked for twelve hours, and then boiled in a copper. Materials which cannot be boiled should be soaked for one hour in liquid disinfectant, and then washed.

2.—Special cups, saucers and spoons should be used for the patient, and any spare food from the sick room destroyed.

3.—Discharges from ear, nose or mouth should be received on a rag, which should be at once burnt, as also should any dust collected in the room.

4.—During recovery the patient should have a warm bath every day, unless the doctor orders otherwise. The body should be freely lathered with soap, special precaution being taken to thoroughly cleanse the hair and scalp.

5.—When the patient is free from infection, the Corporation undertake the disinfection of the sick room, bedding, &c., free of cost. The accompanying card should be returned when the patient is free from infection.

Disinfectants are supplied free to home cases once a week on application to the Public Health Department, Town Hall, between the hours of 9 a.m. and 5 p.m. (Saturdays 9 a.m till 1 p.m.).

H. MEREEDITH RICHARDS, M.D.,

Medical Officer of Health.

TOWN HALL,
CROYDON.

The following handbill is used in those cases in which the primary case is removed to hospital. Similar leaflets are issued for diphtheria and enteric fever :—

COUNTY BOROUGH OF CROYDON.

SCARLET FEVER OR SCARLATINA.

Hospital Case.

Children from this house must not attend day or Sunday School until permission is given by the Medical Officer of Health.

All cases of "sore throat," "lumps in the neck" or of "peeling skin" occurring in the household are probably scarlatinal, and should be immediately reported to your medical attendant. Suspicion should also be aroused by any sudden attack of illness, especially if beginning with vomiting.

Public Library books must be taken to the Public Health Department, Town Hall, and no books borrowed until the house has been disinfected.

All articles exposed to infection should be placed in the room occupied by the patient before removal to the Hospital, and the room then locked until the Inspector calls to arrange for disinfection. He will instruct you what to do.

The Hospital is in Waddon Marsh Lane, Croydon. Information as to the condition of patients may be obtained at

THE HOSPITAL GATE,

THE PUBLIC HEALTH DEPARTMENT, TOWN HALL (during office hours), and THE FIRE STATION (after 10 a.m.).

Enquiries may also be made by telephoning to the Hospital (No. 6 Croydon) between 2 and 4 p.m. The Resident Medical Officer can be seen at the Hospital between 1 and 1.15 each day.

H. MEREDITH RICHARDS, M.D.,

Medical Officer of Health.

Town Hall, Croydon.

A penalty of £5 is attached to the exposure of infected persons and things.

COUNTY BOROUGH OF CROYDON.

DIPHTHERIA AND MEMBRANOUS CROUP.

HOME CASE.

Children from this house must not attend day or Sunday school until permission is given by the Medical Officer of Health.

All cases of "sore throat," "croupy cough," or "lumps in the neck" occurring in the household are probably diphtheritic, and should be immediately reported to your Medical Attendant. Any suspicious cases can be examined bacteriologically at the Borough Laboratory, free of charge.

Public Library Books must be taken to the Public Health Department, Town Hall, and no books borrowed until the house has been disinfected.

If treated at home the patient must be confined to one room, and *no one except the person in charge allowed to enter the room.* All unnecessary furniture should be removed from the sick room forthwith, and the floor and furniture should be frequently wiped with a damp cloth. *Fresh air* must be freely admitted, a fire being lighted if necessary.

Attendants should wear washable dresses, should wash their hands immediately after attending the sick person, and should always wash their hands and faces and change their shoes and other clothes before going off duty.

No domestic animal should be allowed to enter the sick room.

A patient suffering from this disease is generally DANGEROUS TO OTHERS for a period of at least Three Weeks, and must not be allowed to mix with other people during that period, or while there is any sore throat, or any discharge from ear or nose, or while diphtheria germs can be detected in the throat.

Examinations for the detection of diphtheria germs are made at the Borough Laboratory, free of cost. The necessary arrangements will be made by your Medical Attendant.

DISINFECTION.

1.—All soiled linen should at once be placed in a tub of water to which a handful of ordinary washing soda has been added, soaked for 12 hours, and then boiled in a copper. Materials which cannot be boiled should be soaked for one hour in liquid disinfectant, and then washed.

2.—Special cups, saucers and spoons should be used for the patient, and any spare food from the sick room destroyed.

3.—Discharges from ear, nose and mouth should be received on a rag, which should be at once burnt, as also should any dust collected in the room.

4.—When the patient is free from infection, the Corporation undertake the disinfection of the sick room, bedding, etc., free of cost. The accompanying card should be returned when the patient is free from infection.

Disinfectants are supplied free to home cases once a week on application to the Public Health Department, Town Hall, between the hours of 9 a.m. and 5 p.m. (Saturdays 9 a.m. till 1 p.m.)

H. MERIDITH RICHARDS, M.D.,

Medical Officer of Health.

TOWN HALL,
CROYDON.

A penalty of £5 is attached to the exposure of infected persons and things.

COUNTY BOROUGH OF CROYDON.

TYPHOID (ENTERIC) FEVER.

HOME CASE.

All cases of "diarrhoea," "severe headache," or "feverishness" occurring in the household should be immediately reported to your Medical Attendant. Any suspicious cases can be examined bacteriologically at the Borough Laboratory, free of charge.

Public Library books must be taken to the Public Health Department, Town Hall, and no books borrowed until the house has been disinfected.

If treated at home, the patient must be confined to one room, and *no one, except the person in charge, allowed to enter the room.* All unnecessary furniture should be removed from the sick room forthwith, and the floor and furniture should be frequently wiped with a damp cloth. *Fresh air* must be freely admitted, a fire being lighted if necessary.

Attendants should wear washable dresses, and should always wash their hands and faces and change their shoes and outer clothes before going off duty. Scrupulous cleanliness is essential. Nurses should keep their nails short, and should scrub their hands and disinfect them immediately after attending the patient.

No domestic animal should be allowed to enter the sick room.

A patient suffering from this disease is generally DANGEROUS TO OTHERS for a period of a fortnight after return to ordinary food.

DISINFECTTON

1.—All soiled linen should be at once placed in a tub of water to which a handful of ordinary washing soda has been added, soaked for 12 hours, and then boiled in a copper. Materials which cannot be boiled should be soaked for one hour in liquid disinfectant, and then washed.

2.—Special cups, saucers and spoons should be used for the patient, and any spare food from the sick room destroyed.

3.—Everything passing from the patient should be received into a mixture of water and disinfectant, sufficient being used to completely cover it, and be allowed to stand for half-an-hour before being thrown away, the vessel being covered with a cloth soaked in the disinfectant. Nothing coming from the patients must be thrown into the ash-bin, or upon the surface of the soil, or into the drains, without disinfection.

4.—Discharges from ear, nose or mouth should be received on a rag, which should be at once burnt, as also should any dust collected in the room.

5.—When the patient is free from infection, the Corporation undertake the disinfection of the sick room, bedding, &c., free of cost. The accompanying card should be returned when the patient is free from infection.

Disinfectants are supplied free to home cases once a week on application to the Public Health Department, Town Hall, between the hours of 9 a.m. and 5 p.m. (Saturday 9 a.m. till 1 p.m).

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COUNTY BOROUGH OF CROYDON.

PUERPERAL FEVER AND OTHER ACCIDENTS OF CHILDBIRTH.

These are best avoided by attention to the following simple rules during pregnancy :—

Diet should be plain, easy of digestion, nutritious, and taken at regular intervals. Milk should be taken freely, and beer, wine, or spirits, only sparingly, and under medical advice.

Exercise should be moderate in amount, and in the fresh air. Violent exercise and fatigue should be avoided.

Rest should be taken daily in the afternoons, and mental excitement avoided.

Clothing should be loose and warm, woollens being worn next the skin.

Bathing should be carefully attended to, especially towards the end of pregnancy.

The Bowels should act daily—cascara is a useful, simple laxative.

Infectious Disease. Pregnant women should avoid contact with any kind of infectious disease, and with patients suffering from discharging sores.

The Nipples during the last two months of pregnancy should be bathed with boiled warm water, and glycerine of borax applied daily. When taken in labour, the patient should have a warm bath, plenty of soap and water being used, and fresh clean underclothing be put on.

The Lying-in Room.

The room should be scrupulously clean, the window and grate register opened. In cold weather a small fire is necessary. The room should not have been recently used for any case of infectious disease. If there is any doubt about this, the room will be disinfected free of charge on application to the Medical Officer of Health.

Two wash basins, a nail brush, soap and hot water, an efficient antiseptic, scissors, thread, and plenty of clean towels, and a binder with safety pins, should be prepared ready beforehand.

The patient should lie on a firm mattress with a clean mackintosh and sheets.

The Maternity Nurse.

The nurse must be scrupulously clean in every way, and should not have been recently engaged in nursing any case of puerperal fever or other infectious disease. All maternity nurses are advised to procure a copy of the instructions issued by the Central Midwives' Board, and to follow the rules given therein in respect to clothing, disinfection of hands, disinfection of appliances, and disinfection of the patient.

COUNTY BOROUGH OF CROYDON.

PUERPERAL FEVER.

Directions as to the Disinfection of Midwives and Maternity Nurses.

No Midwife or Nurse in attendance on a patient suffering from Puerperal Fever or other infectious illness should visit or attend any other patient.

Whenever a Midwife or Nurse has been in attendance upon a patient suffering from Puerperal Fever or from any other illness supposed or suspected to be infectious, she should conform to the following methods of disinfection at the conclusion of the case :—

1. All washable clothing should be steeped in water to which a little soda has been added and then boiled. Gloves should be boiled.
2. All other clothing should be disinfected at the Public Disinfecting Station. This will be done free of cost by the Corporation. Application should be made at the Town Hall.
3. The Nurse's bag should be disinfected by washing thoroughly inside and out with 1 in 1,000 perchloride of mercury solution.
4. All instruments and nail-brushes should be boiled.
5. A complete bath should be taken, soap being freely used. The nails should be cut short and the hands first scrubbed and then immersed for five minutes in 1 in 1,000 perchloride of mercury solution.

Midwives and Nurses should not resume work until they have satisfied the Corporation that the requirements of the Medical Officer of Health as regards disinfection and other precautions have been complied with.

H. MEREDITH RICHARDS, M.D.

COUNTY BOROUGH OF CROYDON.

HEALTH TALKS.

I. HEALTHY HOMES.

1.—*The Ideal House.*

Site—Clean, dry, elevated. *Aspect*—open space. *Paved Yard.*

Large living room—no useless parlour—number of bedrooms.

Windows, floors, walls, and fittings that can be readily cleansed.

Cupboards.

Drainage and sanitary fittings—simplicity and efficiency. No smells, no leaks, no stoppages.

2.—*Duty of the Householder.*

Health depends more on the use to which the house put than on its construction.

It is the ideal tenant which makes the “ideal home.”

Care of the house and fittings. Use of ashbin.

Site improved by avoiding useless temporary buildings, dirty fow runs, and collections of refuse.

Yard to be swept and swilled.

Smallness of rooms compensated by open windows, and by absence of unnecessary furniture.

No useless old clothes.

Walls, floors, and fittings to be regularly cleansed.

3.—*Causes of Bad Smells.*

Insufficient Ventilation—Old clothes and other rubbish.

Improper use of dustbin. Rats and mice. Domestic animals.

Stopped drains, dry rot, mildew.

4.—*Occasions for seeking assistance of the Health Department.*

Dampness of ceilings, floors or walls.

Dirty or Broken Walls, not due to the carelessness of the tenant.

Unpaved Yards.

Obstructed Drains and sanitary fittings.

Defective w.c. cisterns and *Leaky Taps.*

Failure to remove refuse,

In any of these emergencies send a postcard to the Health Department, Town Hall.

2. THE FIRST BABY.

1. *Preparation for the Confinement*—The Mother. The Room.
The Bed.
2. *What to do, and what not to do*, during labour. During delivery.
After delivery.
3. *Care of new-born Infant*—The eyes. The bath. Baby's clothes.
To be suckled after bath, or after mother's first nap. The cot.
4. *Advantages of breast feeding*—No danger in mixing milks.
5. *Comparison of mother's milk*, cow's milk, and condensed milk.
Uselessness and risk of starchy food for young infants. Best
substitute for mother's milk. Kind of bottle.
6. *Baby's ailments.*

<i>"Wasting."</i> <i>Thrush.</i> <i>Bronchitis.</i> <i>Diarrhoea.</i> <i>Spasmodic Croup.</i>	}	<i>How avoided.</i> Careful dieting, regular meals, fresh air, warm clothes, cleanliness.
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3. HINTS ON THE MANAGEMENT OF INFANTS IN HEALTH AND DISEASE.

Baby's Habits—Soon formed. Important as regards sleep, meals, excretions, bath.

Necessity for tact, firmness, and especially of consistency in the mother.

Bad Temper.

Don't Frighten Children. Don't say "Don't."

Meaning of Lumps in the Neck.

Care of the Hair.

Hints concerning Measles, Whooping Cough, Chicken-pox, Sore throat, Sores on face and head, Ringworm, Itch.

