

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

Contributors

Croydon (London, England). County Borough.

Publication/Creation

1909.

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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 1908,
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 Smallpox Hospital; School Medical Officer.

Croydon :

PRINTED BY S. H. PURNELL, 108, HIGH STREET.

1909.

REPORT OF THE COMMISSIONER OF THE

LAND OFFICE

FOR THE

YEAR ENDING 1890

ALBANY

AND NEW YORK

1891

THE COMMISSIONER OF THE LAND OFFICE

ALBANY

AND NEW YORK

1891

THE COMMISSIONER OF THE LAND OFFICE

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AND NEW YORK

1891

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Gentlemen,

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

The report presented to the Education Committee is also presented herewith, so that the Council may have particulars of the whole of the work undertaken by the Public Health Department.

I have also appended a short account of further observations on the ventilation of schools.

I am, Gentlemen,

Your obedient Servant,

H. MEREDITH RICHARDS, M.D.

May 18th, 1909.

Gentlemen,

I have the honor to acknowledge the receipt of your letter of the 10th inst. in relation to the proposed amendment of the laws of the State relating to the management of the State property and the management of the State property.

The report of the committee on the subject of the proposed amendment of the laws of the State relating to the management of the State property and the management of the State property is also presented herewith, and the committee has the honor to recommend the adoption of the same by the Legislature.

I am, gentlemen, very respectfully,
Your obedient servant,

J. M. MERRITT

Very respectfully,
J. M. MERRITT

J. M. MERRITT

May 10th 1892

COUNTY BOROUGH OF CROYDON.

Sanitary Committee (1907-8).

THE MAYOR—Councillor H. K. MOORE, B.A., B. Mus., J.P.

Mr. Alderman ALLEN, J.P. (*Vice-Chairman*).

„ Sir F. T. EDRIDGE, J.P.

„ KING, J.P.

„ LILICO, J.P.

„ PRICE.

„ RYMER, J.P.

Mr. Councillor DENNING, J.P.

„ HOLT.

„ MOSS (*Chairman*).

„ PAGE.

Mr. Councillor PECK.

„ SHIRLEY.

„ SOUTHWELL.

„ STEWART.

Staff of the Public Health Department:

Chief Sanitary Inspector and Inspector under Food & Drug Acts.

P. SAUNDERS (Cert. R. San. Institute).

THOS. H. CULVER (Cert. R. San. Institute), Deputy Chief and District Inspector.

J. C. EARWICKER „ „ District Inspector.

A. D. PECK „ „ „ „

F. RICHARDSON „ „ „ „

WILLIAM S. ADAMS „ „ „ „

W. H. STOKES (Cert. R. San. Institute) „ „

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.R.S.I., Inspector under the Factory and Workshops' Act and Shop Hours Act.

A. STANLEY, Disinfecter.

A. W. PINK

S. T. BROWN

F. H. LENNARD

A. C. LARCOMBE

} Clerks.

Mrs. NOLAN-SLANEY

Miss TAWNEY

Miss CHAPMAN

Miss RAW

Miss STOKES

} Health Visitors.

Matron of Borough Isolation Hospital.

MISS BOND.

Senior Resident Medical Officer and Bacteriologist.

E. D. PARSONS, M.R.C.S., D.P.H. (Lond.)

Assistant Medical Officer, Borough Hospital.

H. S. CHATE, M.B., B.S., B.Sc. (Lond.)

Assistant to Medical Officer of Health.

SOPHIE JACKSON, M.D., B.S. (Durh.)

Medical Officer of Health and School Medical Officer.

H. MEREDITH RICHARDS, M.D. (Lond.)

SUMMARY OF ANNUAL HEALTH REPORT FOR 1908.

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, 1908—157,698.

Estimated Inhabited Houses, June, 1908—32,236.

Rateable Value, £1,116,290.

General District Rate, 3s. 6d. in the £.

Poor Rate, including Education Rate, 3s. 6d. in the £.

VITAL STATISTICS, 1908.

Birth Rate, per 1,000 living, 25·5

Death Rate, per 1,000 living, 12·8

Infantile Mortality, per 1,000 births, 99

Isolation Hospitals—For fever at Waddon Marsh Lane. For smallpox 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 1908.

A.—VITAL STATISTICS.

THE POPULATION at the Census of 1891 was 102,625, and had increased at the Census of 1901 to 133,895.

The population at the middle of 1908, according to the estimate of the Registrar-General, was 157,698.

The number of inhabited houses cannot be ascertained with accuracy. At the last Census, in April, 1901, it was 25,726, while 1,354 houses were empty at that date. From this date until June 30th, 1908, 8,344 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 was larger than at the time of the census, being about 9 per cent., as compared with about 5 per cent. in 1901 and 9 per cent. in 1907. Taking this into consideration it is probable that the number of inhabited houses in June, 1908, was about 32,236. If the population per house remains the same as in 1901, this will give a total population of 167,627, which is considerably in excess of the Registrar General's estimate. The Registrar General's figure has, however, been used as the basis of the rates calculated for this report.

THE AREA of the Borough is 9,012 acres, and the density of the population 17·4 per acre.

The approximate acreage of the Wards is as follows :—

Areas in Acres	Wards,
1660	{ Upper Norwood (sub-division).
980	{ Thornton Heath do.
998	South Norwood.
1181	West.
404	North.
2209	Central.
1580	East.
	South.
<hr/> 9012	

THE BIRTHS during the year numbered 4,017, of which 2,059 were boys and 1,958 were girls. The birth rate equalled 25·5 per 1,000 as compared with 26·5 for England and Wales.

Of the total births, 184, or 4·6 per cent., were illegitimate.

The births were distributed as follows :—

	Total.	Birth rate per 1,000 estimated population.
South Ward	361	17·8
Upper Norwood Sub-division ...	*156	18·6
Central Ward	340	19·6
East "	388	20·8
BOROUGH	4017	25·5
South Norwood Ward	647	27·3
Thornton Heath Sub-division ...	492	28·1
North Ward	633	28·7
West "	917	30·9
The Workhouse	83	...

*Including 29 births at 89, Central Hill (Servants' Reformatory).

DEATHS.—During the year, 2,053 deaths were registered in the Borough, or 13·0 per 1000. Ninety-five of the deaths registered in the Borough were those of strangers dying at the Workhouse or Infirmary, 18 of strangers dying at the Croydon General Hospital, 4 at the Cottage Hospital, Purley, 12 at the Cottage Hospital, Upper Norwood, 2 at "Victoria House," 89, Central Hill (Servants' Reformatory), while 6 deaths at the Borough Hospital occurred among patients admitted from Sanderstead, Coulsdon, Penge and Kingston. Three of the deaths of strangers at the Borough Hospital were due to scarlet fever and three to diphtheria.

If we deduct these 137 deaths and add 47 deaths at the Mental Hospital, Warlingham, and 58 deaths of Croydon residents known to have occurred outside the district during the same period, we

get a nett total of 2,021 deaths, which is equal to 12·8 per 1,000, as compared with 14·7 for England and Wales, 14·9 for the 76 great towns, 14·0 for the 142 smaller towns, 14·7 for England and Wales less the 218 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, Purley, and Cottage Hospital, Upper Norwood, have been deducted. Formerly, these were included in the total number of deaths on the supposition that they were balanced by Croydon deaths in London institutions.

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

			1908.		Average for 1898-1907.
1st Quarter	...	..	15·8	.....	15·8
2nd Quarter	...	...	12·7	.....	11·8
3rd Quarter	...	...	10·2	.....	12·9
4th Quarter	...	...	12·5	.....	13·1
Year	...	...	12·8	.....	13·4

Reference to Table I shows that the mortality for 1908, though below the average for the preceding ten years, was somewhat higher than in 1907. This resulted from a very extensive epidemic of measles that prevailed during the year.

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.

The Ward deaths for the year were as follows:—

			Deaths.		Death-rate per 1000.
East Ward	...	...	190	...	10·2
South Norwood Ward	...	...	267	...	11·2
North Ward	...	...	256	...	11·6
South Ward	...	...	237	...	11·7
Central Ward	...	...	209	...	12·1
BOROUGH	...	...	2021	...	12·8
Thornton Heath Sub-Division	...	...	231	...	13·2
Upper Norwood Sub-Division	...	...	119	...	14·2
West Ward	...	...	491	...	16·5

The Registrar General has not yet published his Annual Summary for 1908. I am therefore unable to say what exact position will be assigned to Croydon on comparing the death-rate with those 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 8·3; East Ham 10·3; Willesden 10·5; King's Norton 10·5; Reading 11·7; and York 12·6.

INFANTILE MORTALITY is measured by the proportion of deaths under one year to 1,000 births, and amounted to 99 as compared with 94 in 1907, 125 in 1906, 96 in 1905, 128 in 1904, and 104 in 1903. During the year 1908 the rate for England and Wales was 121, while in the 76 large towns it ranged from 63 in Hornsey, to 77 in Leyton, 96 in Tottenham, 99 in Willesden to 156 in Wigan, 158 in Middlesbrough to 168 in Stockport. Though the rate for 1908 is comparatively satisfactory, it is a little higher than 1907. A similar slight rise in the infantile mortality rate for the year was recorded for England and Wales as a whole.

The figures for the various Wards were:—

			Births.	Deaths under 1 year.	Death-rate per 1000 Births (all causes)	Death-rate per 1000 births from "diarrhoeal" diseases.		
†Upper Norwood Sub-division	156	...	6	...	38	...	—
Central Ward...	...	340	...	24	...	71	...	12
East Ward	388	...	30	...	77	...	18
South Norwood Ward		647	...	61	...	94	...	14
BOROUGH	4017	...	*398	...	99	...	12
South Ward	361	...	36	...	99	...	6
North Ward	633	...	63	...	99	...	13
Thornton Heath Sub-division	492	...	53	...	108	...	8
West Ward	917	...	122	...	133	...	17

†Including 29 births at "89, Central Hill" (Servants Reformatory).

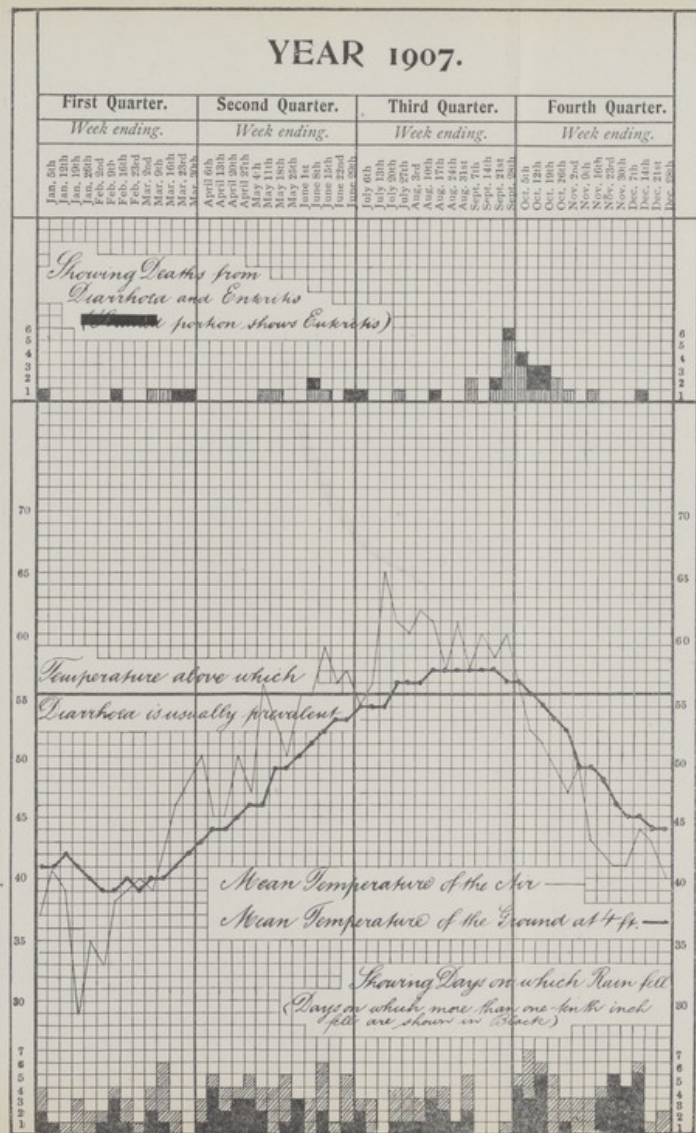
* Including 3 institution deaths which could not be distributed.

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

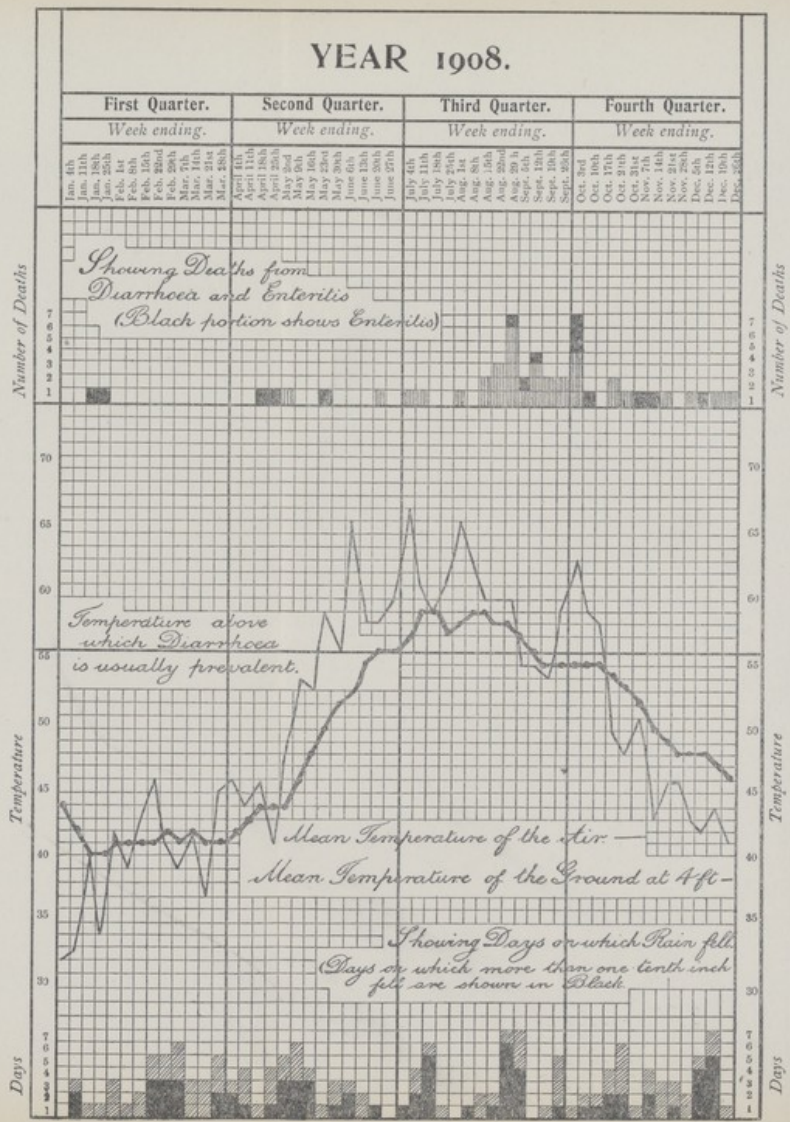
Years.	Total Infantile Mortality from all causes.	Infantile Mortality from "diarrhoeal" diseases.	Infantile Mortality from other than "diarrhoeal" diseases
1893—1897 ...	142	25	117
1898—1902 ...	143	38	105
1903 ...	104	9	95
1904 ...	128	29	99
1905 ...	96	14	82
1906 ...	125	42	83
1907 ...	94	10	84
1908 ...	99	12	87

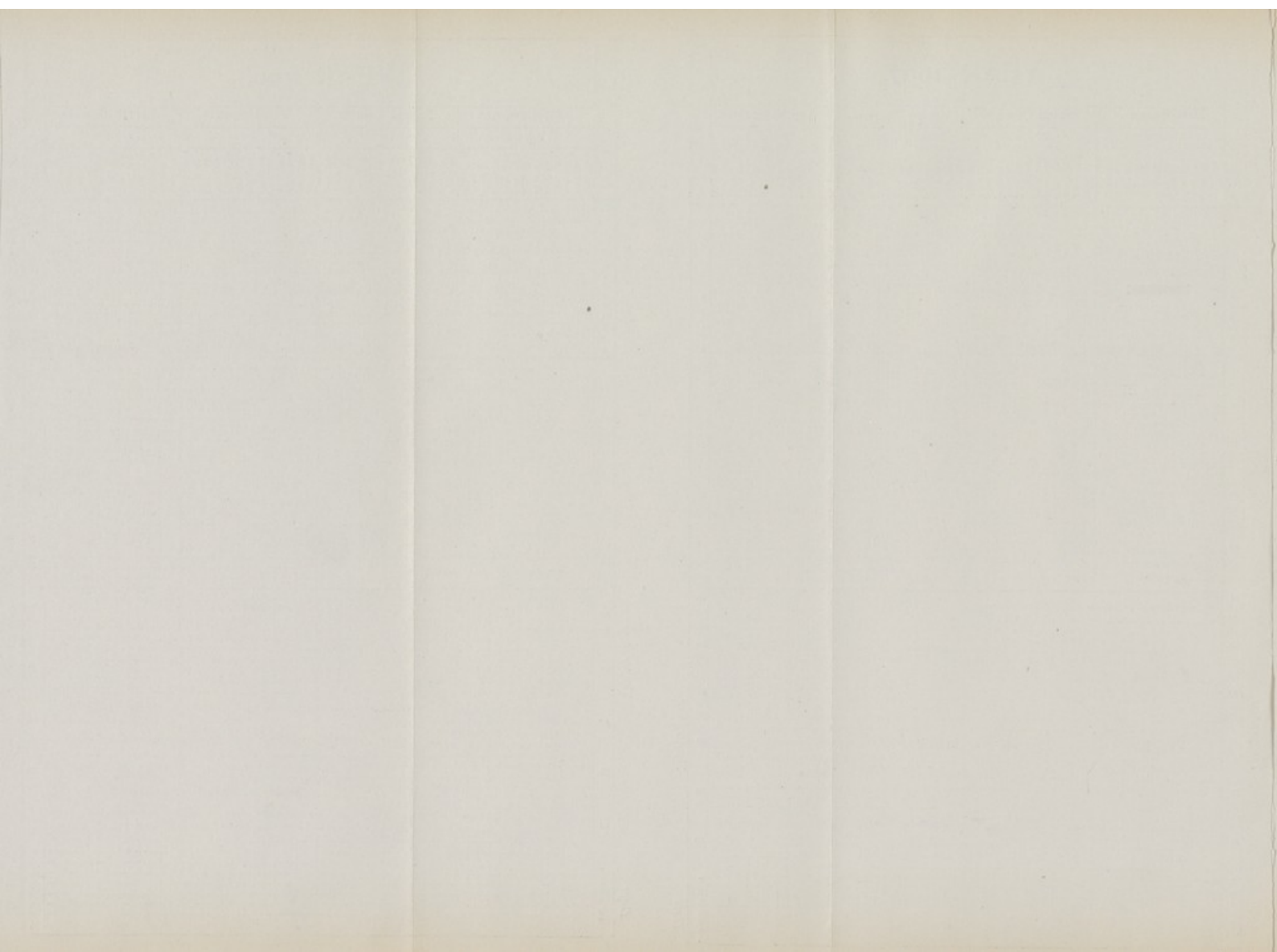
*Under "diarrhoeal" diseases are included deaths from "diarrhoea," from epidemic and zymotic enteritis, and from enteritis, that is, from the causes classified in schedules 10, 11, and 107 of Table IV.

YEAR 1907.



YEAR 1908.





DIARRHŒA AND EPIDEMIC ENTERITIS.—As these diseases are specially fatal in the first year of life they may conveniently be discussed in connection with infantile mortality. During 1908 diarrhœa and epidemic enteritis accounted for 52 deaths, of which 35 occurred in children under one year of age. There were also 23 deaths from other forms of enteritis, of which 15 were under one year of age. Thus 50 out of the 75 deaths from what are usually classified as “diarrhœal” deaths occurred in infants under one year of age.* It will be seen from Table VI. that “diarrhœal” deaths were considerably more numerous than in 1907 though the number was below the average for the previous 10 years.

The accompanying chart shews the seasonal distribution of the 50 diarrhœal deaths under one year of age. It will be noticed that in the week ending August 29th there were 7 deaths. Fortunately this and the succeeding week were wet and cold and there was a corresponding check in the “diarrhœal” mortality which remained low until the week ending October 3rd when there was a marked rise in the mean temperature of the air together with a spell of dry weather. On the whole this chart once more illustrates the fact that dry hot weather is necessary for fatal diarrhœa to become prevalent. How these meteorological conditions produce such serious results cannot altogether be explained. In all probability a hot dry season is prejudicial in more ways than one. It may be thought that a hot summer lowers the resistance of infants and renders them more liable to fatal diarrhœa. This is however improbable as the deaths under one year from other than “diarrhœal” diseases are not unduly numerous under such conditions. Again it has been suggested that hot weather increases the number of domestic flies and consequently the risk of contamination of milk and other infant foods. This question requires further elucidation, though hitherto no close connection appears to have been established between the prevalence of diarrhœa and the number of flies in a district. On the whole I am inclined to the opinion that summer diarrhœa is not a specific disease but may be due to one of several organisms derived from human or animal filth and that the prevalence of the complaint during hot summers is due, first to the amount of dust prevalent during a dry summer, and secondly to the opportunity afforded by high temperatures for the growth of the infecting organisms in milk and other infant foods. Hand-fed infants are specially liable to fatal attacks for two reasons, first because they run more risk of infective material being introduced with their food, and secondly because hand-feeding, unless conducted with the greatest circumspection, and with the most

* Deaths from Gastritis are sometimes classified as “diarrhœal.” If this were done a further addition of 12 deaths under one year must be made to the total “diarrhœal” deaths. It has not however been the practice to include these in former years and for the sake of comparison the figures have been prepared as in past years.

careful adaptation to the digestive capacity of the individual child, is apt to induce intestinal catarrh or other digestive disturbances, which render the bottle-fed babies unduly susceptible to diarrhoeal disease. The ill-effects of bottle feeding during the first six months are clearly brought out in the tables printed below.

The following are the particulars as to feeding of infants dying during the first six months of life :—

METHOD OF FEEDING.—Method of Feeding during the first six months of life of children who survived, and of children who **died between one week and six months old.** * Deaths of infants under one week have been excluded because it is unlikely that methods of feeding can have been responsible for a fatal issue in so short a time.

TABLE A.

	Infants dying from Diarrhoeal Diseases. — 0-6 months.*	Infants dying from other than Diarrhoeal Diseases. — 0-6 months.*	Infants surviving 6 months.	Total investigated.
Breast alone	9	63	953	1025
Breast supplemented by Cow's milk or other foods	4	29	241	274
Condensed Milk	8	7	47	62
Other prepared foods ...	1	6	38	45
Cow's Milk	10	24	119	153
Number investigated ...	32	129	1398	1559

Method of Feeding expressed in percentage.

TABLE B.

	All infants investigated under 6 months.	Infants dying from Diarrhoeal Diseases.	Infants dying from other than Diarrhoeal Diseases.
Breast alone	65·8	28	49
Breast supplemented by Cow's milk or other foods	17·6	13	22
Condensed Milk	3·9	25	5
Other prepared foods	2·9	3	5
Cow's Milk	9·8	31	19

The facts brought out by this table are interesting in several ways and especially because they demonstrate the relation between methods of feeding and "diarrhœal" disease. Thus it will be seen that diarrhœa is about seven times more prevalent among infants under six months of age fed on cow's milk than on those fed on the breast alone while the incidence on infants fed on condensed milk is twice as high as on those fed on ordinary cow's milk and fourteen times as high as on the breast fed. It cannot therefore be too strongly urged that breast feeding is by far the most important means of checking diarrhœa though under urban conditions it will not entirely prevent the disease unless all the other requirements of domestic hygiene are scrupulously attended to. It should also be noted that hand-fed babies succumb more readily to other than diarrhœal diseases, though the effect is not so marked as in the case of diarrhœa.

Attention was directed in my last annual report to the fact that the infantile mortality rate was on the whole becoming progressively more satisfactory during recent years. I have therefore thought it desirable to investigate this point in order that one may see exactly where improvement is taking place. During the three years 1906-1908, 1,254 deaths under one year of age were registered, while the number of births occurring during the same period was 11,870. For purposes of comparison, and in order to construct a short life table, the death rate per 10,000 births has been calculated at each week of the first month of life and for each succeeding monthly interval. The numbers so obtained are then comparable with those contained in a similar table prepared for the annual report of 1902, and based on the mortality of the three years 1900-2. The 1,254 deaths, under one year, registered in 1906-1908, were divided into age groups, and reduced in the proportion of *11,870 to 10,000. These numbers are comparable with similar figures for Croydon, for years 1900-1902, published in the Annual Report for 1902, Table G.

* The number of births in 1906-1908 inclusive.

TABLE C.

Ten thousand Births gave the following Deaths in each successive interval of age.

Age. Weeks.		Croydon 1900-1902.		Croydon 1906-1908.		Urban Counties 1907.		Rural Counties 1907.
0	...	246	...	199	...	246	...	234
1	...	63	...	48	...	64	...	50
2	...	62	...	45	...	62	...	52
3	...	44	...	40	...	47	...	40
Months.								
0	...	415	...	332	...	419	...	376
1	...	144	...	111	...	145	...	118
2	...	123	...	106	...	107	...	87
3	...	100	...	78	...	92	...	66
4	...	96	...	76	...	78	...	57
5	...	89	...	69	...	70	...	46
6	...	90	...	68	...	68	...	49
7	...	72	...	43	...	64	...	41
8	...	69	...	48	...	62	...	41
9	...	50	...	36	...	60	...	38
10	...	48	...	43	...	56	...	35
11	...	55	...	46	...	56	...	33
Total deaths		1351	..	1056	...	1277	...	987
Survivors ...		8649	...	8944	...	8723	...	9013

It will be noticed that whereas out of 10,000 children born during the first period, only 8,649 survived the first year of life, as many as 8,944 survived during the latter period. It is also noteworthy that the lowered death rate is found at each age period, and that the improvement is quite marked in the first few weeks of life.

With regard to the death rate in the first week of life, it is clear from Table V. and from figures in previous reports that the chief factor in the death rate at this time of life is premature birth. If the death rate for the first week in the two periods were further compared we get the following results:—

	1910-2.	1906-8.
Premature Birth	151	123
Other "Wasting" diseases of Table V. ...	48	48
Other causes of Table V.	47	28
	<u>246</u>	<u>199</u>

It is evident from this that there is some diminution in the number of deaths ascribed to prematurity, the rate having fallen from 151 per 10,000 births to 123. Various suggestions can be made to account for this fact, but for the present the number of observations is too scanty to warrant the adoption of any theory. It was also noticeable that there is a marked decline in the deaths ascribed to other causes in Table V. This is particularly satisfactory as the deaths recorded under these headings are for the most part preventible, and the decline is possibly an indication that greater care is being taken of newly born infants.

If similar comparison is made for the whole of the first year of life the following results are obtained :—

		Deaths under one year per 1,000 births.	
		1900-2.	1906-8.
Common Infectious Diseases	...	81	62
Diarrhoeal Diseases ...	...	318	228
Wasting Diseases ...	...	410	400
Tuberculous Diseases	...	72	39
Other causes ...	...	470	327
		<hr/> 1351	<hr/> 1056

It is satisfactory that there is a decline in the mortality rate of each group of diseases.

The mortality from diarrhoeal diseases has already been discussed.

MORTALITY AS TO SEX.—During 1906-8, 6,090 boys and 5,780 girls have been born, while 735 boys and 519 girls died. The mortality rate has therefore been 121 per 1,000 for boys and 89 per 1,000 for girls as compared with 158 per 1,000 and 112 per 1,000 in 1900-2.

ILLEGITIMACY AND INFANTILE MORTALITY.—During 1906-8, 577 illegitimate children have been born and 157 have died. This is equivalent to a death rate of 273 per 1,000 as compared with 97 per 1,000 for legitimate children.

SOCIAL STATUS AND INFANTILE MORTALITY.—As pointed out in previous reports the social status of the parents naturally affects the prospects of a town baby passing safely through the perils of the first year of life.

It is impossible to define social status very accurately, but for some time past it has been our custom to divide the births in the borough into two groups, namely, those occurring in large houses and those occurring in small houses. Generally speaking, every tenement of six rooms and over is considered a large house. Adopting this more or less artificial grouping it is found that during 1908 there were 1,113 births in large houses, and of these only 49 died, a rate of 44 per 1,000 as compared with 2,884 with 349 deaths in the smaller houses, a rate of 121 per 1,000. The low rate of 44 per 1,000 recorded in the larger houses is an interesting corroboration of the view that, with adequate care and sufficiently good environment, an infantile mortality rate of 50 per 1,000 is not an impracticable ideal.

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

INQUESTS were held in 163 instances, or 8·1 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.—Small-pox has been absent from the Borough for over two years, no cases having been notified since April, 1906.

CROYDON AND WIMBLEDON JOINT SMALLPOX HOSPITAL.—The Smallpox Hospital District comprises the County Borough of Croydon, the Borough of Wimbledon, the Urban Districts of Penge and of Merton, and the Croydon Rural District. No patient was admitted during the year. The last occasion on which the hospital was occupied was August 11th, 1906.

VACCINATION.—During the year ending December 31st, 1908, the number of primary vaccinations in Croydon and Penge amounted to 2,766, as compared with 4,445 registered births.

The number of infants vaccinated, therefore, amounted to 62 per cent. of the registered births as compared with 90 per cent. in 1907, and 82 per cent. in 1906.

The increase in the proportion of unvaccinated infants is doubtless due to the increased facilities offered to conscientious objectors by the last amendment of the Vaccination Acts,

MEASLES accounted for 92 deaths, which is the largest number in any one year of which I have any record. I have no means of estimating the number of children who suffered from the disease, but, judging from the number of cases known to have occurred among elementary school children, it is clear that the epidemic was extensive and wide-spread. Indeed, no less than 14 infants' schools were closed during the year on account of this disease. The extent of the epidemic may be partly gauged from the following figures :—

Year.	Cases reported to Elementary Schools.					Deaths.
1904	1,335	...	...	62
1905	1,267	...	...	24
1906	595	...	...	37
1907	363	...	...	8
1908	2,335	...	...	92

The number of cases reported to the teachers of elementary schools does not by any means include all the children affected. Many children were below school age, others attended private schools, many failed to come to the knowledge of the attendance officers or health visitors, and many occurred during times of school closure or vacation when the information derived from school officials is no longer available. It is probable, however, that the proportion of cases coming under the observation of the public health department has not varied widely within recent years, and it is therefore clear that there was a much larger number of children infected with measles in 1908 than has been the case in any other of the last five years. This fact is partly to be explained by the comparative freedom of measles enjoyed by the borough in 1906 and 1907, and the consequent growth of a large child population unprotected by previous attack.

Though the information concerning attacks is incomplete, this does not apply to the notification of deaths, and the study of the death returns may therefore afford some useful information. From them it is found that the seasonal prevalence was as follows :—First quarter, 38 deaths ; second quarter, 36 deaths ; third quarter, 7 deaths ; and fourth quarter, 11 deaths.

During the third and fourth quarters there were many weeks in which no death occurred, and many parts of the town were apparently free from the disease. It is this sudden rise and fall in the number of cases, among other reasons, which renders the hospital treatment of measles impracticable.

The mortality at age periods was as follows :—

Age.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter	
0—1	...	7	...	8	...	1	...	5
1—2	...	8	...	10	...	4	...	3
2—3	...	9	...	6	...	1	...	1
3—4	...	5	...	7	...	—	...	2
4—5	...	3	...	—	...	—	...	—
5—6	...	2	...	3	...	—	...	—
6—7	...	4	...	1	...	—	...	—
7—8	...	—	...	—	...	1	...	—
30—40	...	—	...	1	...	—	...	—
		—		—		—		—
		38		36		7		11

It will be seen that 63 out of the 92 deaths occurred under three years of age, *i.e.*, before attendance at school. This does not, however, necessarily mean that school attendance is a minor factor in the spread of fatal measles. Probably many of the children under three contracted the disease from older brothers or sisters. It will be seen from Table IV. that the number of deaths in different localities vary considerably, being as large as 33 in the West Ward, and as small as 1 in the Upper Norwood Ward. As fatal measles is almost entirely a disease among young children, the local death rates are best estimated per 1,000 births, as Dr. Newsholme suggested should be done for diarrhoea. Calculated on this basis, we get the following Ward death rates :—

Ward.	Deaths at all ages per 1,000 Births in 1908.
Upper Norwood (Sub-division)	6
Thornton Heath „ „	12
South Norwood	17
Central	18
BOROUGH	23
East	26
West and North	28
South	42

The unfavourable position of the South Ward in 1908 is largely due to the fact that a children's home has been established in this ward during recent years. No less than 6 of the 15 deaths occurred among infants belonging to this institution. If these were excluded, the deaths in the South Ward would only average 25 per thousand, being only slightly above that for the borough generally. For a second com-

parison the average deaths per thousand from measles in the ten years 1898—1907 has also been ascertained for each of the wards.

Ward						Average Deaths at all ages per 1,000 births. 1898—1907.
Upper Norwood (Sub-division)	..	...	...	...	...	2.9
East	..	...	...	...	...	5.7
Thornton Heath (Sub-division)	...	...	...	...	...	6.2
South Norwood	...	...	..	...	...	6.8
BOROUGH	...	..	...	...	...	7.7
Central	...	...	...	...	...	8.2
West and North	...	...	...	...	...	8.7
South	...	...	...	...	...	9.1

It will be noticed that there are similar variations in the figures and that the order in which the various wards appear is on the whole similar to that for 1908. The satisfactory position of the Upper Norwood Sub-division is to be explained by the isolation of this district, and as a consequence freedom from epidemic diseases for comparatively long intervals of time. Under such conditions the attacks of measles are postponed until the children are able to resist the disease.

SOCIAL STATUS AND MEASLES.— In 1908 it is noteworthy that 9 deaths occurred in larger houses compared with 83 deaths in smaller houses, or approximately one death in a large house to every nine in a small house.

As the number of children living in large houses is about in the proportion of one to two-and-a-half living in smaller houses, it is evident that the mortality is very much higher among the poorer section of the community. This fact has even been more noticeable in former years. Thus, during the six years 1902-7, there were only three deaths in larger houses as compared with 184 in smaller houses. The fact that measles was not only more prevalent in 1908 but also accounted for a larger number of deaths among children living under comparatively favourable conditions, points to the severity of the epidemic.

The reason why measles is so much more fatal among children living in smaller houses requires further investigation. Personally I believe it to be the resultant of two factors. First, that the poorer children live under less hygienic conditions. Under these circumstances an attack of measles is likely to be accompanied from the very onset by pulmonary complications, for the simple reason that the germs

which give rise to these diseases are likely to be widely distributed, not only in the homes but even in the mouths and nasal passages of the children. Secondly, an attack of measles is either disregarded or badly nursed in a large proportion of instances, and opportunities are thus afforded for primary or secondary complications.

SCARLET FEVER (See Tables III., IV. and VI.).—Five hundred and thirty-four cases were notified, of which five ended fatally. The disease was less prevalent and also less fatal than in 1907, when there were 661 cases with 11 deaths. The incidence of the South Norwood district was again remarkably high, no less than 182 cases having been notified in this Ward.

I am unable to offer any explanation of the high incidence in the South Norwood district beyond the fact that the disease was of an extremely mild type as shown by the case fatality and the consequent occurrence of mild and unrecognisable cases.

RETURN CASES OF SCARLET FEVER.—In 33 instances 54 other cases of Scarlet Fever arose in homes to which patients had been discharged from hospital. The number of these cases was exceptionally high during 1908, both in Croydon and elsewhere. A considerable number of the secondary cases arose at long intervals, subsequent to the discharge of the infecting cases. This supplies further evidence of the fact that scarlet fever infection is in certain children a very chronic process. At the moment we are making further enquiries into the whole question of return cases, but the material available is not sufficient for adequate discussion at the present moment.

EPIDEMIC INFLUENZA was the assigned cause of death in 52 instances, as compared with 31 in 1907. The majority of the deaths occurred in the first half of the year, 32 deaths being registered in the quarter ending March 31st and a further 12 in the second quarter, while only two occurred in the third quarter and six in the fourth quarter.

WHOOPING COUGH accounted for 29 deaths, all of which occurred in children under five years of age. The number of deaths is slightly smaller than in 1907, when 32 were registered. The number of cases is unknown, but was in all probability smaller than in the previous year, as only 458 school notices were issued in reference to this disease as compared with 578 in 1907.

DIPHTHERIA AND MEMBRANOUS CROUP.—The number of cases notified amounted to 405, as compared with 286 in 1907, while 37 cases terminated fatally, as compared with 40 deaths in 1907.

The quarterly incidence of cases and of deaths in 1908 and previous years is shown in the following table :—

		DIPHTHERIA.					Year.				
		1904.	1905.	1906.	1907.	1908.					
Notified Cases—											
1st quarter	50	...	101	...	52	...	93*	...	101
2nd	„	...	35	...	42	...	42	...	49	...	89
3rd	„	...	98	...	44	...	54	...	59	...	92
4th	„	...	126	...	80	...	148	...	85	...	123
Registered deaths—											
1st quarter	5	...	12	...	13	...	21*	...	11
2nd	„	...	5	...	2	...	5	...	3	...	7
3rd	„	...	6	...	2	...	9	...	5	...	7
4th	„	...	9	...	7	...	13	...	11	...	12

* Not including a fatal case admitted to General Hospital from Mitcham and thence transferred to the Borough Hospital.

As usual, the larger proportion of cases occurred in the first and fourth quarters of the year, though the difference is not so marked as is usually the case. It will be seen from Table III. that all parts of the borough were fairly equally affected. Though a certain proportion of the cases were associated with school attendance, there was no marked incidence at any one school, with the exception of Rockmount Road Infants' School, where 20 cases occurred in the first quarter of the year. Of these three ended fatally. Of the 20 children 16 attended the infants' school, the large majority being in the second class. In four other instances diphtheria attacked children attending the Mixed School. The spread to the Mixed School was accounted for by the fact that the disease spread from an infant to an older child, who continued attendance at school until this fact was discovered by investigations made in the district. On this occasion considerable pressure was brought on the medical officer to induce him to close the school, but it was decided to adopt the far more satisfactory plan of examining every child attending the infants' school, and of permitting the continued attendance of those found free from diphtheria. Arrangements were simultaneously made for the inspection and bacteriological examination of all absentees, and especially of those who had been closely associated with the diphtheria patients. These administrative procedures entailed considerable work, both for the health visitors and for the medical staff, but appeared to be eminently satisfactory in bringing the outbreak to a close. Of the 20 cases at least seven were discovered by the examinations just referred to. Arrangements were also made for the examination of all children who were sent back to school after temporary absence. Of the 20 cases the onset of not

less than 19 occurred between January 12th and February 13th. The 20th, and final case in the outbreak failed on April 2nd. The origin of this last case was not clearly traced, but it should be noted that the child lived in a house which had been infected earlier in the epidemic, though the first case was, as far as could be ascertained, free from infection by March 4th. Subsequent to April 2nd no case of diphtheria occurred at this school until the following October. Rockmount Road is a specially favourable school for the successful control of diphtheria, as nearly all the children in this part of the borough live in a comparatively isolated district and attend the same elementary school. It is thus possible to exercise more complete supervision of the children than is possible in districts where children from the same family may be attending two or three schools, and where the opportunities of infection from other groups of children are more frequent.

RELATION OF DIPHTHERIA TO DRAINAGE DEFECTS.—Our views as to the relation of diphtheria to drainage defects have undergone modification during the last quarter of a century. At a time when only the more serious cases of diphtheria were recognised, it was thought they were associated in the majority of instances with drainage defects. The general opinion on this question has now been modified. In all probability poisoning by drain or sewer gas must be considerable in intensity and prolonged in time before it need be taken into consideration. Even then it appears only to act as a predisposing cause which is not operative unless there is contemporaneous or previous exposure to specific infection from an actual case of diphtheria. During 1908 the drains of all the houses in which diphtheria occurred were tested. If we deduct houses where the diagnosis of diphtheria was subsequently withdrawn, and houses where diphtheria infection are shown to have been imported from neighbouring districts, we get a nett total of 310 infected houses.

The following is the result of the examination of the drains of these premises :—

Houses tested...	...	...	...	310
Number of houses where no defects were found	...	...	...	231 or 74.5 per cent.
Number of houses where serious defects were found	...	...	...	27 or 8.7 „
Number of houses where slight defects were found...	...	...	...	52 or 16.8 „

The percentage of houses where no defects were found is somewhat larger than the proportion of similar houses included in the list of premises where the drains were tested in house to house inspection during the same year (see page 28). These particulars

are not strictly comparable because the drainage of every house where diphtheria has occurred is tested, whereas in house to house inspection the drainage is not tested unless there is some *prima facie* evidence that this is necessary. I consider, however, that the figures fairly demonstrate that there is no close connection between diphtheria and domestic drainage defects.

RETURN CASES OF DIPHTHERIA.—In four instances diphtheria occurred in houses to which patients had returned from hospital during the previous month. In each instance steps were immediately taken to test the condition of the discharged patient. In no case was there any evidence that the discharged patient remained infectious.

NECESSITY FOR PROMPTNESS IN DEALING WITH DIPHTHERIA.—In my last Annual Report I called attention to the fact that many patients die from diphtheria because they do not come under treatment sufficiently early in the course of the disease. The following are the approximate times at which patients came under treatment during 1908:—

Day of Disease.		Patients.		Deaths.		Mortality per cent.
1	...	8	...	0	...	—
2	...	61	...	2	...	3'3
3	...	80	...	6	...	7'5
4	...	55	...	9	...	16'4
5	...	37	...	9	...	24'3
6	...	17	...	1	...	5'9
7	...	12	...	0	...	—
8 & upwards		18	...	2	...	11'1

It is noteworthy that none of the cases admitted on the first day died, and that the mortality of those admitted on the second day of the disease is small, while there is a considerable rise on the third day and a still larger on the fourth and fifth days. These are facts that cannot be too widely known, as they emphasise the well ascertained fact that almost every case of diphtheria could be saved if anti-toxin treatment was begun sufficiently early. It is true that two deaths occurred among children treated on the second day of the disease, but I am inclined to think that even this number is an over-statement. Diphtheria is essentially an insidious disease, but, with greater care on the part of all concerned, the disease could be recognised at an earlier date. At any rate, there could be no question that the best results will not be attained at the hospital until the patients are brought in on the first day of the disease. Every case of possible diphtheria should therefore be reported without a moment's delay, and removal to hospital should be encouraged without the dangerous delay that ensues from waiting for the result of a bacteriological examination. The latter is unnecessary when the clinical symptoms are definite.

ENTERIC FEVER.—Fifty-two cases were notified, and five deaths from this disease were registered during the year. Thirty-seven cases were removed to hospital. Of these five were subsequently found to be suffering from some other complaint, viz.:—Three from bronchitis, and two from paratyphoid. There were thus 47 cases of supposed enteric fever which required investigation. Of these three appeared to have contracted the disease outside the Borough. Of the remaining 44 cases the origin was indefinite in no less than 26 cases, in 11 instances personal infection from preceding cases was the cause of illness; while in five instances watercress, and in two instances shellfish had been eaten at the time of probable infection.

As epidemics of enteric fever are commonly traceable to infected water, and as Croydon has two distinct sources of water supply, I have once more compared the incidences of the disease in the parts of the Borough supplied by Croydon and by Lambeth (Metropolitan Water Board) water.

As the numbers for one year are small, the particulars have been taken out for the nine years, 1900-1908 inclusive.

PARTICULARS OF ENTERIC FEVER CASES.

1900 TO 1908 INCLUSIVE.

Cases Notified.—375 (including 13 cases of Continued Fever).

Removed to Borough Hospital.—219 cases (including four cases of Continued Fever).

On removal to the Borough Hospital forty-nine (49) were found to be suffering from other diseases.

Water Supply of the Cases Notified:—

CROYDON	...	...	...	...	...	251
LAMBETH	...	...	...	...	...	119
Cases brought to Public Institutions in the						
Borough from outside Districts	...	...				5
						<hr/>
Total	...	...				375
						<hr/>

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

Suffering from other diseases, and not enteric fever	49
Doubtful diagnosis	1
Home case, diagnosis subsequently amended...	2
Infected outside the Borough	50
Possibly infected by shellfish, watercress, &c....	45
Infected from other cases	50
„ while unstopping of drains	1
„ by overflow of sewer	1
	<hr/>
Source of illness not traced	199
	176
	<hr/>
Total	375
	<hr/>

Of the 176 cases, the source of which was not traced, and which, therefore, might have been water-borne infection, 122 live within the area of the "Croydon" supply, and 54 in the "Lambeth" area. The enteric fever incidence in the two areas was, therefore, 10 per 10,000 in the "Croydon" area, and 15 per 10,000 in the "Lambeth" area for the nine years. The numbers for both water supplies are small, and conclusively disprove the suggestion that there has been any water-borne epidemic in Croydon during recent years.

When the figures for 1908 are examined separately it is found that of the 26 cases, for which no definite cause could be assigned, that 21 were in the Croydon area, and the remaining five in the "Lambeth" area. Here again the totals for the year are fairly proportional to the number of inhabitants in the two areas.

When the numbers of cases of enteric fever are so small as they were in Croydon in 1908, the question of a water epidemic does not arise, but knowing what we do of the potential dangers of water infection, it is still essential that the efforts made by the Water Committee to further safeguard the public supplies should be in no way relaxed. This is a matter, however, which is dealt with more fully in a subsequent section of this report.

Investigation was also made into the sanitary condition of all premises in which cases of enteric fever occurred, which could not be traced to infection outside the borough. As the numbers for 1908 are small, particulars have been extracted for the four years 1905—1908.

ENTERIC FEVER.

(Deducting wrong diagnosis and definitely imported cases.)

Year.	Houses Infected.	Houses Tested.	Serious defects, i.e. bad stoppages, and drains requiring to be re-laid.	Slight defects, i.e. defective joints of ventilation pipes, &c.	Remarks.
1905	16	16	2	4	
1906	27	27	4	6	
1907	12	12	—	2	
1908	31	30	5	6	The Convent at Upper Norwood was not tested.
	86	85	11	18	

For comparison with these figures I have extracted the results obtained on testing 500 consecutive houses where illness had not occurred.

PARTICULARS OF HOUSE DRAINAGE.

(House to House Inspections.)

Houses Tested	...	...	500		
Number of houses where no defects were found...	...	331	...	=	66.2 per cent
Serious defects, i.e. drains requiring to be re-laid, stoppages	...	...	104	...	= 20.8 „
Slight defects, i.e. defective joints of ventilation pipes, &c.	...	...	22	}	65 ... = 13 „
Ventilation pipes stopped	43				

The following table shows the results of both the above tables expressed in percentages.

PARTICULARS OF HOUSE DRAINAGE.

	House to House Inspection.	Houses where Enteric fever occurred.
Houses tested	500	85
Houses where no defects were found	66.2 per cent.	66.0 per cent.
Serious defects, <i>i.e.</i> drains requiring to be re-laid, stoppages	20.8 „	13.0 „
Slight defects, <i>i.e.</i> defective joints of ventilation pipes, &c. Ventilation pipes stopped	13.0 „	21.0 „

It is obvious that certain allowances have to be made in interpreting these figures. Thus the houses tested during house-to-house inspections are a selected group, as it is not our custom to test the drains during house-to-house inspection unless the property is very old, or there is some reason to suspect defect. In spite of this it is clear that the sanitary condition of the houses in Croydon is such that the defects found cannot be regarded as sufficient cause for isolated cases of enteric fever. I believe that this holds true in all districts where the sanitary arrangements are on modern lines. Naturally, it is quite otherwise in towns where conservancy systems are still found, or where gross defects of one kind and another offer opportunities for infected sewage to contaminate water and food.

As stated in former years, I am of opinion that the residual amount of enteric fever that still persists in the borough is, in all probability, to be ascribed to personal infection from missed cases and other direct human sources.

Considerable attention has recently been paid to this aspect of the question, and especially to what are known as "carrier" cases of enteric fever. By this is meant persons not obviously suffering from enteric fever, but nevertheless carrying the germs of the disease in their system, and under favourable circumstances capable of infecting others. In the majority of instances, these "carriers" are persons who have previously suffered from the disease, but have not been able to free themselves from infection. Several instances of this were under observation at the Borough Hospital in 1908. Thus two of the patients admitted to the Borough from the Urban District of Penge on July 4th and August 8th, were duly discharged on August 18th and October 6th. At the time of discharge they appeared quite convalescent, and the urine free from infection.

Subsequent examination of the faeces, however, showed that their excretions were infectious as late as January, 1909, and December, 1908.

Facts like these, together with investigations made by Dr. Davies, of Bristol, and a special enquiry set on foot by the Local Government Board, have directed renewed attention to the subject of personal infection. In respect, therefore, to every notified case, enquiry has been made as to whether any other inmate of the house had previously suffered from enteric fever. In only one instance could we hear of such an occurrence. The facts are briefly as follows:—

“T. J. V.” failed with enteric fever on October 6th, 1908. No clue to the origin of the disease could be found beyond the fact that his brother had suffered from this same disease in July, 1902. An endeavour was made to get his brother examined, but he refused to submit. This family was living in the same house for nine years, and a careful inspection of the premises revealed no insanitary condition.

Attention was similarly directed to multiple cases occurring in the same house. Of these we had five examples during 1908:—

Group 1.—Mrs. “B.” failed with enteric fever on September 13th. On enquiry it was found that her husband had been taken ill on August 28th and was under treatment at the Croydon General Hospital. The staff at the Croydon Hospital were then communicated with and a specimen of the husband’s blood examined, with the result that he was found to be suffering from a mild attack of the same disease. Though the source of the husband’s infection could not be traced, there is little doubt that the wife derived her infection from the husband.

Group 2.—Ernest “F.” aged 34 failed with enteric fever on September 21st and was removed to the Infirmary for “influenza” on October 5th. He was subsequently found to be suffering from enteric fever and was notified on October 16th. On October 26th Elsie “F.” aged 5 failed with enteric fever and was removed to the Borough Hospital on October 30th where she remained until December 31st. On January 4th, 1909, Clara “G” occupying the upper floor of the same house failed with the same disease. The association between these three cases is obscure, the interval between the removal of the first patient to the infirmary and the onset of the second case was as long as twenty-one days, a period that renders direct personal infection unlikely. The third patient failed four days after the return home of the second patient from hospital. This period on the other hand is so short that infection can hardly have taken place from the discharged patient.

By the kind co-operation of the medical department of the Local Government Board I was enabled to have specimens of the excreta of the discharged patient and three other members of the household examined by Dr. Ledingham of the Lister Institute. In no instance however was the bacillus of enteric fever discovered. Possibly one of the inmates of the house may be an intermittent "carrier", *i.e.*, a person who harbours the germs of the disease but only voids them intermittently. It should also be noted that the premises were in a neglected condition and it is quite possible that some of the contents of the room may have been infected by the first patient and not subsequently submitted for disinfection.

Group 3.—Ivy "B." failed with enteric fever on September 9th, and was removed to the Borough Hospital on September 21st. Ellen "B.," aged 12, failed on September 30th. Albert "B.," aged 3, failed on October 2nd. The intervals between the removal to hospital of the first case and the onset of the second and third were respectively nine and eleven days. These periods correspond with what is known as to the incubation of enteric fever and this group may therefore be regarded as an instance of personal infection.

Group 4.—Mrs. "Z." (case 1.) aged 25 and her brother "R. H." (case 2), aged 19 failed with enteric fever on August 29th. "R. H." was admitted to the Borough Hospital on the 15th September but Mrs. "Z." was too ill to bear removal. "G. H." (case 3), aged 18 failed with enteric fever on September 10th and "V. Z." (case 4), aged 27 on September 11th. Cases three and four may easily have acquired their infection from case one or case two. Special interest however attaches to cases one and two for the following reasons:—Mrs. "Z." (case 1.) only arrived in Croydon on August 21st and as she failed on the same day as her brother who had not been out of Croydon, there is very great probability that both case one and case two were infected in Croydon on or about the date of her arrival as the incubation period is rarely less than eight or nine days. In spite of the most careful enquiry into the food supply of the house, no history could be obtained of the consumption of any article of diet likely to have caused infection. Moreover "R. H." was almost bedridden and was therefore only occasionally brought into contact with the outside world. Further careful investigation was therefore made into the past history of the other inmates of the house. These were six in number and none of them were known to have previously suffered from enteric fever. Excreta of all six were examined on two occasions by Dr. Ledingham but in no instance could the enteric fever bacillus be found. It is however interesting to note that one of the six inmates formerly lived in India., where he had suffered in 1907

from an attack of "cholera" which lasted two months. From the description of the symptoms it seemed to me not improbable that the past attack of "cholera" might really have been enteric fever. This however must remain an open question though it is the only clue that could be obtained.

Group 5.—Mrs. "S." aged 31 failed with enteric fever on the 28th September and was removed to the Infirmary on October 13th. Louisa "S." aged 11 failed on the 6th October and was removed to the Infirmary on October 13th where she and her mother remained until November 21st when they were sent home. Some difficulty was experienced in tracing the family but it was subsequently found that another child Alfred "S." aged 7 had failed with an undetected attack of enteric fever on September 7th. He was taken into hospital on the 26th October. The fourth case George "S." aged 4 was removed to hospital on November 2nd and the father "A. S." aged 37 was admitted to hospital on December 12th having probably been ill since November 28th. In all probability the 2nd, 3rd, and 4th cases were directly infected by the first. This would not however account for the 5th case as the interval was too long. It should however be noted that Mrs. "S." and Louisa "S." had been discharged from the Infirmary about a week before the onset of the 5th case. It was therefore arranged to have the excreta of these two patients examined and Dr. Ledingham isolated the enteric fever bacillus from the excreta of the younger patient. In all probability therefore we had an instance of infection from a convalescent patient. The evidence was not however quite conclusive as the last patient suffered from a chronic disease which rendered it difficult to fix with accuracy the date on which he failed with enteric and his attack may really have been anterior to the return of his child (Louisa S.) from the Infirmary.

The part played by "carrier" cases in the dissemination of enteric fever is doubtless larger than most of us have been led to believe. The problem has not however been studied in sufficient detail to allow of our modifying our administrative procedures to meet these recent epidemiological and bacteriological discoveries. At the moment it is difficult to suggest any method of dealing with "carrier" cases beyond enforcement of the strictest possible personal hygiene, but one may hope that the investigation that is now being made by Dr. Ledingham and others will result in the discovery of a method whereby these patients may be freed from infection.

PUERPERAL FEVER was notified on 10 occasions, in eight of which a doctor was present at the confinement, including one in which the diagnosis of puerperal fever was subsequently considered doubtful.

Puerperal Fever occurred twice in cases attended by midwives who were suspended from practice for two and six days respectively until their clothing and outfits were cleansed and disinfected.

In five of the nine cases Condly's fluid was used by the nurse to disinfect the patient, in one perchloride of mercury was used, and in one where a midwife only attended ignorance of antiseptics was shown.

Five cases ended fatally.

ERYSIPELAS was notified on 60 occasions, and five cases ended fatally.

TUBERCULOSIS of all forms was the assigned cause of death in 198 instances, or 1·3 per 1,000 persons living, while phthisis alone was responsible for 150 deaths, or ·95 per 1,000.

It will be seen from Table VI. that there is a slight decline in the mortality from phthisis. The precautions taken against the spread of tuberculosis in Croydon are, briefly, as follows:—

Voluntary notification has been in force since the last quarter of 1903. The number of cases since notified in each year was as follows:—

Year.				Cases Notified.	
1903 (part of)	57
1904	129
1905	75
1906	96
1907	83
1908	106

(1) On receipt of a notification each case is visited by one of the medical officers who instructs the patient as to the precautions to be taken to avoid the spread of infection and arranges for the disinfection of the premises where necessary. If thought advisable, all notified cases are visited once a quarter by one of the Health Visitors.

It will again be noticed that we have a very imperfect knowledge of the amount of pulmonary tuberculosis occurring in the Borough, probably not more than 1-5th of the cases of phthisis are at present notified, and until treatment can be secured for at least a proportion of the cases, it does not seem probable that this number will be increased.

(2) Disinfection of the premises where phthisis has ended fatally, is, in every instance, offered and was carried out in 107 instances during 1908.

(3) The precautions taken in respect of meat and milk are referred to in separate paragraphs of this report.

TUBERCULOSIS AND MILK.—In view of the probable amendment of the law relating to the milk supply, it was decided to take further samples under the so-called Model Milk Clauses. The number of samples examined during the year amounted to 62.

Primary samples	...	...	...	...	46
Secondary „	...	...	...	...	16
					—
Total	...	...	...	...	62
					—

Twenty-five of the primary samples were procured from milks produced in the borough.

Twenty-one were from milks consigned to local dairymen from farms outside the borough.

Forty-two of the 46 primary samples examined gave negative results, and four were positive.

One of the positive samples was from milk produced in the borough, and three from farms outside the borough.

In the case of the borough cowshed, the cows were examined by Mr. Thrall, the Borough Veterinary Surgeon, and declared by him to be healthy. In the interval between the taking of the samples and the result of the examination seven cows had been sold, and their places taken by fresh cows. Two further samples of the mixed milk of all the cows gave negative results.

In the case of the farms outside the borough, all were visited, with the following results :—

No. 1.—Three samples of milk were procured, two from suspected cows, and one from the mixed milk of the remaining fifteen cows. On examination, two of these samples gave a positive result, and one negative.

In the interval between the taking of these secondary samples and the result of the examination the cows on this farm had been tested with tuberculin, and, as a result, changes were made in the

herd, particulars of which could not be obtained with accuracy from the owner. Another sample obtained on delivery of the milk in Croydon, after the changes were affected in the herd, gave a negative result.

No. 2.—The cows on this farm appeared to be healthy, but five were old and in somewhat poor condition. Two samples were obtained, one from the mixed milk of twenty cows and one from the mixed milk of the five inferior cows; the sample from the twenty cows gave a negative result, while that from the five gave a positive result.

On again visiting the farm, it was found that one of the five inferior cows had died, one had been slaughtered as the result of an accident, and a third had been sold. Samples of milk from the remaining two were taken, Mr. Thrall being of opinion that all the other cows were healthy. The examination of the two samples gave a negative result.

No. 3.—On this farm there were fourteen cows, only one of which appeared at all suspicious. A sample was obtained from the milk of this cow, and one from the mixed milk of the others. The sample of mixed milk gave a positive result, the other was negative. The farm was again visited, and on the recommendation of Mr. Thrall's assistant five samples were obtained. The result of the examination of these samples were four negative and one positive. The cow from which the positive sample was obtained was sold for slaughter.

The total number of samples was not large, but the general results confirmed the experience of previous years, namely, that tuberculous milk is more commonly met with in rural than urban districts. If the percentage is calculated for the two sets of samples, it will be seen that one in twenty-five, or 4 per cent., of the borough samples were tuberculous as compared with three in twenty-one, or rather more than 14 per cent, in the case of milk produced outside the district. In 1901 the proportion of tuberculous samples was 5·6 for the borough and nearly 7 per cent. for country milk. As pointed out in previous reports, the procedure contemplated by the Model Milk Clauses is cumbersome and to a large extent ineffective. It seems unlikely that the sale of tuberculous milk can be efficiently dealt with until measures are adopted which should be applied to the country as a whole. This should include the frequent inspection of all dairy cows together with skilled assistance in the selection of tubercle free animals for breeding. Were this done in the same manner that the Beddington Farm Committee has recently adopted there would be no insuperable difficulty in stamping out bovine tuberculosis within the next decade.

The administrative measures adopted should however throw the responsibility for tuberculous milk on the farmer or cowkeeper so that he could feel that he has something practical to gain by adopting the measures advocated for the control of tuberculosis.

MIDWIVES ACT, 1902.—An inspection of the midwives was carried out by Dr. Jackson on two occasions.

During the year information was obtained as to the proportion of births attended by medical men, by registered midwives and by unregistered women. The total number of births investigated was 4,292. The results may be summarised as follows:—

Number attended by medical men	...	...	2693
Number attended by registered midwives (including cases in which medical man was called in for some emergency)	...	...	777
Number attended by unregistered women	...	...	536
Removals, insufficient address, etc.	...	...	286
Total	...	...	4292

In the case of the births attended by unregistered women the names and addresses of the persons attending at the confinement were ascertained. In a large number of instances "a friend" or "neighbour" assisted, but it was evident that a considerable number of women were carrying on the business of midwifery nurses, though their names were not on the register. Thus:—

1 woman attended	...	...	48 cases
1 " "	...	...	42 "
1 " "	...	...	35 "
1 " "	...	...	28 "
1 " "	...	...	24 "
1 " "	...	...	20 "
1 " "	...	...	19 "
1 " "	...	...	18 "
1 " "	...	...	17 "
1 " "	...	...	14 "
1 " "	...	...	12 "
1 " "	...	...	9 "
1 " "	...	...	8 "
1 " "	...	...	7 "
7 women each attended	...	...	6 "
4 " "	...	...	5 "
4 " "	...	...	4 "
6 " "	...	...	3 "
6 " "	...	...	2 "
45 " "	...	...	1 "

The practice for gain by these unqualified women will cease in April, 1910.

During the year one registered midwife died, two removed, one withdrew from practice, one was re-instated, and three new names were added, leaving 29 on the register on December 31st.

All the midwives' homes, except one outside the Borough, were visited by Dr. Jackson since the last report, and the registers and bags of appliances inspected.

Four midwives were cautioned.

NOTIFICATION OF BIRTHS ACT, 1907.—This Act was adopted by the Council on January 13th, and came into force on February 19th, 1908, after confirmation by the Local Government Board. Early in February the following letter was addressed to all medical men practising in the borough:—

Dear Sir,

The Notification of Births Act was adopted by a resolution of the Council on January 13th, and this resolution has since been confirmed by the Local Government Board, who directed that it shall come into force on February 19th, 1908.

The object that the Council have had in view in adopting the Act is to obtain early notice of the births of infants in homes where there is no regular medical attendant. Such infants are visited by one of the health visitors, who, where necessary, instruct the mothers on the lines of the enclosed handbill.

As it is both unnecessary and undesirable for us to visit infants who are already under medical care, I would suggest that in all cases where you consider such visits superfluous, you should hand one of the enclosed cards to the father, who is primarily responsible for the notification of his child's birth. On the other hand, should you be attending a confinement under circumstances which render it unlikely that you will be consulted as to the future care and nurture of the infant, I shall be obliged if you will kindly notify the birth yourself. Such notifications will be taken to apply to infants whom you think it would be well for this department to keep under supervision. That fact, however, will be treated as confidential.

Additional notification cards can be obtained on application.

I append abstract from the Act for your further information.

Yours faithfully,

H. MEREDITH RICHARDS, M.D.

During the portion of the year that the Act came into force 2,508 notifications were duly received. These births were notified as follows :—

Notified by medical men	504
Notified by parents	1204
Notified by certified midwives	578
Notified by uncertified midwifery nurses	222
	<hr/>
	2,508
	<hr/>

The number of births which actually occurred in the borough during the date that the Act came into force and the end of the year was approximately 3,460. The number of births notified by parents, medical men and midwives therefore amounted to 72 per cent. of the total. There was therefore a very large number of instances in which the requirements of the Notification of Births Act were not complied with. In order to raise the percentage of notifications, letters are addressed to those found to be in default.

CUSTOMS AND INLAND REVENUE ACTS.—No application under Section 26, 53 and 54 Vict., c. 8, was received during the year.

DISINFECTION.—During the year 1,069 houses and 1,119 lots of clothing were disinfected.

The articles disinfected were as follows :—604 Beds ; 472 Mattresses ; 1,239 Blankets ; 306 Sheets ; 1,413 Pillows ; 275 Bolsters ; 30 Palliasses ; 67 Cushions ; 23 Carpets ; 2,823 Other Articles. Total, 7,252.

The premises available for public disinfection are at Factory Lane, and have long been admittedly inconvenient and unsuitable for the purpose. The substitution of more suitable premises was, however, postponed until it was decided what should be done with the present buildings at Factory Lane, which have hitherto housed the disinfector and the sewage extractor. Owing to the establishment of new works at Beddington Farm, the extractor is no longer used, and certain necessary alterations in the main sewers have made it necessary to provide new premises for the disinfecting station. Plans of the new building are in preparation, and will shortly be submitted to the Council.

TABLE I.

For whole District, for Calendar Year 1908.

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
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
1905.	147,704	3894	26·4	372	96	1941	13·1	541	142	83	1882	12·7
1906.	151,011	3886	25·7	485	125	2085	13·8	629	160	94	2019	13·4
1907.	154,342	3967	25·7	371	94	1953	12·5	611	149	97	1901	12·3
Averages for years 1898—1907	139,458	3602	25·8	448	126	1943	13·9	484	113	45	1865	13·4
1908.	157,698	4017	25·5	398	99	2053	13·0	608	137	105	2021	12·8

* Rates calculated per 1,000 of estimated population.

a These are total births (uncorrected for Institutions).*b* These are corrected for Institutions.*c* Includes all deaths of residents and non-residents in Workhouse, Workhouse Infirmary, Borough Hospital, General Hospital, Purley Cottage Hospital, 89, Central Hill (Servants' Reformatory), and Norwood Cottage Hospital.*d* Deaths of non-residents have been excluded in the case of the Workhouse, Workhouse Infirmary, Borough Hospital, General Hospital, Purley Cottage Hospital, 89, Central Hill (Servants' Reformatory), and Norwood Cottage Hospital. 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.
Vital Statistics of separate Wards in 1908 and previous years.

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.			
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
		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.			
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	19,552	501	234	62	8,241	129	96	11	12,685	353	157	43	69	84	10	
1901	..	43,136	1230	640	208	16,778	397	200	48	14,799	345	158	45	18,011	409	197	49	20,399	571	245	73	8,254	132	93	16	13,288	414	164	57	80	51	5	
1902	..	44,361	1271	658	191	16,863	326	219	44	15,326	361	175	44	18,363	413	222	45	20,809	547	276	75	8,277	156	113	26	13,828	404	158	43	98	83	8	
1903	..	45,540	1355	570	169	16,957	379	210	45	15,836	339	156	34	18,735	378	181	27	21,412	611	290	55	8,302	149	85	7	14,375	443	171	48	72	37	1	
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	
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	..	
1906	..	49,219	1451	744	207	17,171	362	255	51	17,730	393	182	51	19,711	366	232	40	22,825	630	276	61	8,343	148	88	7	16,212	447	227	65	89	15	3	
1907	..	50,500	1515	715	171	17,236	351	207	38	18,083	392	172	25	20,022	363	210	29	23,264	643	285	55	8,351	145	94	9	16,866	456	195	44	102	23	..	
Averages of Years 1898 to 1907.		44,926	1290	635	181	15,856	365	227	46	15,606	358	165	41	18,507	395	210	43	21,114	587	267	64	8,287	135	93	13	14,128	403	166	49	84	113	10	
1908 †		51,801	1550	747	185	17,310	340	209	24	18,634	388	190	30	20,929	361	237	36	23,739	647	267	61	8,364	156	119	11	17,521	492	231	53	83	21	8	

NOTES.—†For 1900 — 1908 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, Norwood Cottage Hospital, Purley Cottage Hospital, 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, and 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 1908.

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.						West.	North.	Central.	East.	South.	South Norwood.	Upper Norwood.	Thornton Heath.	Institution cases which could not be distributed.	West.	North.	Central.	East.	South.	South Norwood.	Upper Norwood.	Thornton Heath.	Institution Cases.	TOTAL.	
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 & upw'd.																				
Small pox .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria	405	1	84	272	22	26	..	63	51	31	59	42	62	30	65	2	53	36	20	48	35	47	24	52	2	317	
Membranous Croup .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas	61	2	4	6	5	35	9	22	9	5	4	9	6	..	6	..	..	..	..	..	..	..	..	..	..	..
Scarlet Fever	534	6	108	336	54	30	..	60	95	40	38	27	182	9	72	11	47	56	34	30	21	157	6	56	11	418	
Typhus Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	52	..	4	16	10	22	..	5	1	10	15	3	13	2	2	1	4	1	6	11	3	11	1	..	..	37
Relapsing Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever	10	..	..	..	3	7	..	1	3	1	..	1	3	..	1	..	..	..	..	..	..	..	..	..	..	..
Plague .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Phthisis	106	..	1	7	23	71	4	37	21	10	5	6	10	3	14	..	..	..	..	..	..	..	..	..	..	..
TOTALS	1168	9	201	637	117	191	13	188	180	97	116	88	276	44	160	14	104	93	60	89	59	215	31	108	13	772	

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—continued.

Causes of, and ages at, Death during Year ending December 31st, 8.

Schedule No.	Causes of Death in Croydon during the Year ending December 31st, 1908.	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.	North.	Central.	East.	South.	South Norwood.	Upper Norwood.	Thornton Heath.				
		Total.	M.	F.																		
90	Other Diseases, Heart and Vessels	242	112	130	1	..	1	1	83	156	47	30	27	25	32	38	22	15	6	(31)	33	
91	Laryngitis	2	1	1	..	1	1	..	..	..	..	1	..	..	..	..	1	..	..	..	1
94	Acute Bronchitis	62	35	27	18	8	..	..	11	25	13	10	9	3	9	11	7	..	..	4(1)	3
95	Chronic Bronchitis	55	24	31	..	..	..	..	15	40	12	7	6	3	7	8	3	8	1	20(6)	1
96	Lobar Pneumonia	15	8	7	3	3	1	..	4	4	7	4	..	..	..	1	..	3	..	..	..
97	Lobular Pneumonia	77	44	33	34	25	3	..	4	11	20	16	4	5	18	7	3	4	..	21(2)	4	
98	Pneumonia	53	36	17	8	9	4	5	21	6	11	11	5	5	6	10	3	2	..	8(2)	3	
99	Emphysema, Asthma	12	7	5	1	..	..	1	7	3	..	1	1	1	3	..	2	4	..	..	..
100	Pleurisy	4	3	1	..	1	..	..	3	..	..	1	1	..	..	2	..	..	..	3(2)	..
101	Other Diseases Respiratory System	4	1	3	..	..	..	..	1	3	..	1	1	..	1	1	..	..	..	..	..
102	Diseases of Mouth and Annexa	2	1	1	..	1	1	..	..	..	..	..	..	..	..	1	..	1	..	(1)	..
104	Diseases of Esophagus	1	..	1	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..
105	Ulcer of Stomach and Duodenum	9	5	4	..	..	..	2	4	3	2	1	3	1	1	1	..	..	..	6(1)	1
106	Other Diseases of Stomach	20	9	11	12	3	1	1	1	2	10	3	2	1	3	..	1	..	..	..	1
107	Enteritis	23	14	9	15	6	..	..	2	..	6	6	2	5	2	..	..	2	..	2	..
108	Appendicitis	14	8	6	..	..	6	4	4	..	5	1	2	1	1	..	3	1	..	16(5)	..
109	Obstruction of Intestine	21	14	7	3	1	..	2	2	13	4	4	2	2	2	2	2	3	..	10(1)	5	
110	Other Diseases of Intestine	2	1	1	..	..	..	..	1	1	..	..	..	1	1	..	..	..	..	(1)	..
111	Cirrhosis of Liver	28	15	13	..	..	..	..	20	8	5	4	2	2	3	3	4	4	1	12	..
112	Other Diseases of Liver	5	2	3	..	..	..	..	3	2	2	..	..	..	..	1	..	2	..	3	..
113	Peritonitis	4	2	2	..	..	..	1	3	..	..	1	..	..	2	..	..	1	..	2	1
114	Other Diseases, Digestive System	3	2	1	..	..	..	..	2	1	1	..	..	..	1	1	..	..	..	2(1)	..
115	Diseases, Lymphatic System and Glands	8	3	5	..	..	1	..	5	2	1	..	2	..	..	1	1	1	2	2	1
116	Acute Nephritis	5	1	4	..	1	..	1	3	..	1	..	1	1	..	2	..	..	..	(2)	2
117	Bright's Disease	58	32	26	..	..	..	..	25	23	13	5	8	5	7	3	8	9	..	13(6)	1
118	Calculus	2	1	1	..	1	..	..	..	1	..	1	..	..	..	1	..	..	..	..	..
119	Diseases of Bladder and Prostrate	16	15	1	1	..	..	..	4	11	4	1	1	1	2	1	4	2	..	6(1)	..
120	Other Diseases, Urinary System	1	1	..	..	..	..	..	1	1	..	..	..	1	..	..	..	..	..	..	..
122	Diseases of Ovaries	2	..	2	..	..	..	..	1	1	1	..	1	..	..	..	..	..	..	..	..
123	Diseases of Uterus and Appendages	4	..	4	..	..	..	..	1	2	1	..	..	1	2	..	1	..	..	1	..
127	Puerperal Mania	1	..	1	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	1	..
128	Puerperal Convulsions	2	..	2	..	..	..	..	2	..	2	..	..	..	..	..	..	..	..	1	..
132	Arthritis, Gout, Periostitis	1	1	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	1	..
133	Other Diseases, Osseous System	1	1	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..
134	Ulcer, Bedsore	1	..	1	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	1	..
135	Eczema	2	1	1	1	1	..	..	..	..	..	..	..	..	..	2	..	..	..	1	..
136	Pemphigus	1	..	1	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
ACCIDENTS.																						
139	In Vehicular Traffic	6	3	3	..	..	2	..	..	4	1	..	1	1	..	..	1	2	..	9(4)	6
140	On Railways	1	1	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	1
144	By Weapons & Implements	3	2	1	1	..	1	..	..	1	1	..	1	..	..	1	..	..	..	1	2
145	Burns and Scalds	5	2	3	..	3	..	..	1	1	1	1	..	1	1	..	..	1	..	3(1)	5
146	Poisons, Poisonous Vapours	4	1	3	..	1	..	..	3	..	1	..	..	1	..	..	..	2	..	..	4
147	Surgical Narcosis .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	(1)	..
151	Suffocation, Overlaid in Bed .. .. .	..	1	3	4	..	..	..	..	..	3	..	..	..	..	1	..	..	..	..	4
153	Falls not specified	13	6	7	..	..	1	..	8	4	5	..	4	..	1	1	1	1	..	9(4)	13
154	Weather Agencies	1	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	1	1
155	Otherwise, not stated	2	..	2	..	1	..	..	1	..	..	..	1	..	..	1	..	..	..	1	2
156	Homicide	4	1	3	1	..	..	..	3	..	2	..	..	..	..	..	..	2	..	..	4
SUICIDES.																						
157	By Poison	4	4	..	..	..	..	..	4	..	3	..	..	..	..	..	..	1	..	1	4
159	By Hanging & Strangulation	9	6	3	..	..	..	..	9	..	1	..	3	..	1	2	1	1	..	1	9
161	By Shooting	1	1	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	1
162	By Cut or Stab	3	3	..	..	..	..	..	3	..	..	..	..	..	2	..	..	1	..	1	3
164	By Crushing	1	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	1	1
165	By other and unspecified methods	1	1	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	1
168	Ill-defined and Unspecified Causes	4	1	3	..	..	..	..	1	3	1	1	..	1	..	..	..	1	..	..	..
TOTAL		2021	1021	1000	398	235	90	65	611	622	491	256	209	190	237	267	119	231	21	608	163	
																				(137)		

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

TABLE IV.

Causes of, and ages at, Death during Year ending December 31st, 1908, excluding Deaths of Strangers at the Workhouse, Workhouse Infirmary, Borough Hospital, General Hospital, Cottage Hospital, Purley, Cottage Hospital, Upper Norwood, 89, Central Hill (Servants' Reformatory), 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, 1908.	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.	North.	Central.	East.	South.	South Norwood.	Upper Norwood.	Thornton Heath.			
		Total.	M.	F.																	
2	Measles	92	52	40	21	59	11	..	1	..	33	10	6	10	15	11	1	6	..	1	3
3	Scarlet Fever	5	1	4	..	2	3	..	..	..	..	1	..	..	1	2	1	..	..	8(3)	..
5	Epidemic Influenza	52	23	29	3	1	1	2	20	25	16	4	7	3	9	9	2	2	..	4(1)	1
6	Whooping Cough	29	13	16	11	18	..	..	..	..	5	5	2	..	3	2	1	10	1	4	..
7	Diphtheria (Mem. Croup)	37	22	15	..	18	18	..	1	..	10	4	2	4	5	5	4	3	..	31(3)	2
8	Enteric Fever	5	3	2	..	..	1	3	1	..	..	..	3	..	1	..	1	..	..	3	..
10	Diarrhoea, Dysentery	44	23	21	28	9	2	..	2	3	11	5	5	6	2	8	1	6	..	4(1)	..
11	Epidemic Enteritis	8	5	3	7	1	..	..	..	..	2	1	1	..	..	3	..	1	..	..	..
12	Other Allied Diseases	2	1	1	..	1	..	..	..	1	..	..	..	1	..	..	..	1	..	..	..
15	Tetanus .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
17	Cowpox .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
18	Syphilis	9	5	4	9	..	..	..	..	..	1	1	1	..	2	2	..	2	..	3	..
20	Phagedæna .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
21	Erysipelas	5	1	4	1	1	..	..	3	..	1	..	1	..	2	..	1	..	..	3	..
22	Puerperal Fever	5	..	5	..	..	..	..	5	..	2	1	..	..	..	1	1	..	..	1	..
23	Pyæmia (Septicæmia)	5	2	3	..	2	1	1	1	..	..	..	1	1	..	..	2	1	..	1	2
24	Infective Endocarditis	8	4	4	..	..	3	1	4	..	1	2	..	2	2	..	1	..	..	3	..
25	Other Allied Diseases	3	3	..	1	..	..	..	2	..	1	..	..	..	..	1	..	1	..	2	..
27	Rheumatic Fever	6	4	2	..	1	1	..	3	1	2	1	..	..	1	..	1	1	..	4(2)	..
28	Rheumatism of Heart	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..
29	Tuberculosis of Brain	21	13	8	9	8	3	1	..	..	9	2	1	..	1	5	1	2	..	2	..
30	Tuberculosis of Larynx .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
31	Phthisis	150	73	77	1	8	3	25	105	8	45	18	16	13	18	17	8	14	1	71(17)	..
32	Abdominal Tuberculosis	7	5	2	3	1	2	1	..	..	2	1	..	..	1	2	..	1	..	4(2)	..
33	General Tuberculosis	10	2	8	1	2	4	..	2	1	4	1	..	..	1	2	..	2	..	8(3)	..
34	Other forms Tuberculosis	10	6	4	1	1	1	..	6	1	3	1	1	..	1	1	1	2	..	3(1)	..
39	Scurvy .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
41	Acute Alcoholism .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
42	Chronic Alcoholism	3	2	1	..	..	..	..	2	1	1	..	..	..	..	..	1	1	..	..	1
45	Osteo-arthritis	6	1	5	..	..	..	..	2	4	1	..	1	..	1	..	2	1	..	1	..
46	Gout	4	4	..	..	..	..	..	1	3	..	..	..	1	2	..	..	1	..	..	..
47	Cancer	149	61	88	..	..	1	2	74	72	28	15	30	17	16	22	7	14	..	49(10)	2
48	Diabetes Mellitus	11	5	6	..	..	..	1	4	6	2	..	..	1	1	4	2	1	..	2(1)	..
49	Purpura Hæmorrhagica	3	2	1	2	1	..	..	..	..	..	..	..	..	1	..	2	..	..	..	..
50	Hæmophilia .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
51	Anæmia	8	2	6	..	..	..	..	7	1	2	1	..	1	2	2	..	..	..	3	..
52	Lymphadenoma	1	1	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	(1)	..
53	Premature Birth	65	34	31	65	..	..	..	..	..	19	12	5	8	2	8	..	10	1	5	..
54	Injury at Birth	3	3	..	3	..	..	..	..	..	1	..	..	..	..	..	2	..	..	..	..
55	Debility at Birth	11	6	5	11	..	..	..	..	..	4	..	1	..	3	..	1	1	1	..	..
56	Atelectasis	9	6	3	8	1	..	..	..	..	1	2	..	..	1	3	..	2	..	(1)	..
57	Congenital Defects	19	11	8	18	..	1	..	..	..	5	3	..	1	3	3	..	4	..	6	1
59	Atrophy, Debility, Marasmus	66	35	31	61	5	..	..	..	..	21	7	4	10	4	5	3	11	1	21(2)	..
60	Dentition	4	2	2	1	3	..	..	..	..	1	1	..	..	..	..	1	1	..	..	..
61	Rickets	2	1	1	..	2	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..
62	Old Age, Senile Decay	83	27	56	..	..	..	..	..	83	22	9	9	10	7	10	4	12	..	3(1)	..
63	Convulsions	25	17	8	17	8	..	..	..	..	7	2	3	3	2	4	1	3	..	3	11
64	Meningitis	20	13	7	5	9	2	2	2	..	6	2	2	1	1	3	1	4	..	4	1
65	Encephalitis .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
66	Apoplexy	2	1	1	..	..	..	..	1	1	..	1	..	..	..	1	..	..	..	..	..
67	Softening of Brain	2	2	..	..	..	..	..	2	1	..	..	..	..	..	..	1	..	..	..	..
68	Hemiplegia	5	..	5	..	..	..	..	5	..	..	..	..	2	..	2	1	..	..	..	..
69	General Paralysis of Insane	7	5	2	..	..	..	..	7	..	1	2	1	..	1	1	1	..	..	7	..
70	Other forms of Insanity	9	6	3	..	..	..	..	6	3	4	2	1	..	..	..	1	1	..	7	..
71	Chorea .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
72	Cerebral Tumour	2	2	..	..	1	..	1	..	..	..	..	..	..	..	..	1	1	..	..	..
73	Epilepsy	7	6	1	..	1	..	2	3	1	..	3	..	1	..	1	..	1	1	6(1)	..
74	Laryngismus Stridulus	6	4	2	4	2	..	..	..	..	1	1	..	..	..	1	1	2	..	1	..
75	Locomotor Ataxy	1	1	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..
76	Paraplegia	8	..	8	..	..	..	..	3	5	1	1	2	1	..	2	..	1	..	2(1)	..
77	Other forms, Brain Diseases	19	7	12	1	..	2	..	11	5	1	5	3	2	3	2	..	3	..	11(1)	..
78	Otitis	3	2	1	..	1	2	..	..	..	..	1	1	..	..	..	..	1	..	2	..
79	Disease of Nose, Epistaxis	1	1	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
80	Diseases of Eye	1	1	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	(1)	..
81	Pericarditis	4	3	1	1	1	1	1	..	..	1	..	..	..	..	1	1	1	..	2(1)	1
82	Endocarditis	89	39	50	..	1	2	3	41	42	19	15	7	13	13	10	3	7	2	32(7)	16
84	Angina Pectoris	2	2	..	..	..	..	..	2	..	..	..	..	2	..	..	..	..	..	..	..
85	Aneurism	6	5	1	..	..	..	..	4	2	1	1	2	..	..	1	..	1	..	1	1
86	Senile Gangrene	4	3	1	..	..	..	..	4	..	..	..	..	1	1	1	..	1	..	2(1)	1
87	Embolism Thrombosis	8	2	6	..	..	..	..	3	5	1	1	..	2	4	..	..	..	..	..	1

TABLE V.

County Borough of Croydon—Whole District.

INFANTILE MORTALITY DURING THE YEAR 1908.

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	...	...	...	68	28	16	17	129	48	38	22	27	24	24	11	21	13	18	23	398
Uncertified	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Common Infectious Diseases.</i>																				
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	...	1	...	...	...	1	2	3	1	3	3	7	21
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria : Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	...	...	...	1	1	...	...	...	...	1	2	...	...	...	2	2	...	3	11
<i>Diarrhæal Diseases.</i>																				
Diarrhœa, all forms	...	...	...	...	1	1	...	2	7	5	4	6	4	2	1	1	2	...	...	35
Enteritis (<i>not Tuberculous</i>)	...	...	...	...	1	...	...	...	3	1	...	3	2	...	4	...	1	...	...	15
Gastritis	...	...	...	...	1	...	2	3	2	1	...	...	3	...	1	...	1	1	1	12
<i>Wasting Diseases.</i>																				
Premature Birth	...	...	...	43	9	1	2	55	7	1	...	1	...	1	...	...	...	...	...	65
Congenital Defects	...	...	...	5	4	3	...	12	3	1	2	...	...	...	...	1	...	...	...	19
Injury at Birth	...	...	...	4	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	4
Want of Breast-milk	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atrophy, Debility, Marasmus	...	...	...	8	6	6	3	23	13	15	6	11	4	2	2	1	2	1	...	80
<i>Tuberculous Diseases.</i>																				
Tuberculous Meningitis	...	...	...	...	...	2	2	...	...	...	...	1	1	1	...	...	1	1	2	9
Tuberculous Peritonitis : Tabes Mesenterica	...	...	...	...	...	...	...	...	1	1	...	...	...	...	1	...	1	...	...	4
Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	2
Erysipelas	...	...	...	...	1	1	...	2	...	...	...	...	...	...	...	...	...	...	...	2
Syphilis	...	...	...	...	...	...	1	1	4	2	1	1	...	...	...	...	...	...	...	9
Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis (<i>not Tuberculous</i>)	...	...	...	...	1	...	...	1	...	...	1	...	1	...	1	1	...	...	...	5
Convulsions	...	...	...	2	1	1	...	4	1	3	1	2	1	...	...	2	1	1	2	18
Bronchitis	...	...	...	...	2	1	1	4	6	2	1	1	1	1	1	...	...	1	1	19
Laryngitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia	...	...	...	1	2	2	1	6	6	...	3	3	4	5	...	4	3	5	6	45
Suffocation, overlying	...	...	...	1	...	...	...	1	1	1	...	1	...	...	...	...	...	...	...	4
Other Causes	...	...	...	4	...	1	3	8	2	1	...	1	...	2	1	2	...	1	1	15
				68	28	16	17	129	48	38	22	27	24	24	11	21	13	18	23	398

Population Estimated to middle of 1908 - 157 698.

Births in the year { legitimate, 3835.
 { illegitimate, 182.

Deaths in the year of { legitimate infants, 351.
 { illegitimate infants, 47.

Deaths from all Causes at all Ages ... 2021

TABLE V.—*continued.*

County Borough of Croydon—West Ward District.

INFANTILE MORTALITY DURING THE YEAR 1908.

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	...	...	20	5	7	6	38	10	11	8	6	9	8	5	7	5	6	9	122
Uncertified	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Common Infectious Diseases.</i>																			
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	1	1	4	8
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria: Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	3
<i>Diarrhoeal Diseases.</i>																			
Diarrhoea, all forms	...	...	...	...	...	...	...	2	1	1	2	1	...	2	...	1	2	...	12
Enteritis (<i>not Tuberculous</i>)	...	...	...	...	...	...	...	...	2	...	...	1	1	...	...	...	...	...	4
Gastritis	...	...	...	1	...	2	3	1	...	...	...	...	2	...	1	...	1	...	8
<i>Wasting Diseases.</i>																			
Premature Birth	...	...	13	2	1	1	17	...	2	...	...	...	...	...	...	...	...	...	19
Congenital Defects	...	...	3	1	2	...	6	...	1	1	1	...	...	...	...	...	...	...	9
Injury at Birth	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Want of Breast-milk	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atrophy, Debility, Marasmus	...	...	1	...	2	1	4	1	2	5	...	4	1	1	...	1	1	...	20
<i>Tuberculous Diseases.</i>																			
Tuberculous Meningitis	...	...	...	...	...	2	2	...	...	...	...	...	...	...	...	...	1	1	4
Tuberculous Peritonitis:	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tabes Mesenterica	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Syphilis	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis (<i>not Tuberculous</i>)	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	...	...	3
Convulsions	...	...	1	1	1	...	3	1	...	...	...	...	...	...	1	...	...	...	5
Bronchitis	...	...	...	...	...	...	...	1	1	...	1	...	...	1	...	...	...	1	5
Laryngitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia	...	...	...	...	...	...	...	2	...	...	1	1	2	...	2	2	...	1	11
Suffocation, overlying	...	...	1	...	...	...	1	...	1	...	1	...	...	...	...	...	...	...	3
Other Causes	...	...	1	...	1	...	2	1	1	...	...	...	1	...	...	...	...	1	6
			20	5	7	6	38	10	11	8	6	9	8	5	7	5	6	9	122

Population Estimated to middle of 1908—29,723.

Births in the year { legitimate, 890.
 { illegitimate, 27.

Deaths in the year of { legitimate infants, 111.
 { illegitimate infants, 11.

Deaths from all Causes at all Ages ... 491.

TABLE V.—*continued.*

County Borough of Croydon—Central Ward District.

INFANTILE MORTALITY DURING THE YEAR 1908.

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 in Year.
All Causes.																			
Certified	...	...	3	1	...	1	5	5	1	4	2	3	1	...	...	2	...	1	24
Uncertified	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Common Infectious Diseases.</i>																			
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria : Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
<i>Diarrhœal Diseases.</i>																			
Diarrhœa, all forms	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	2
Enteritis (<i>not Tuberculous</i>)	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	2
Gastritis	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1
<i>Wasting Diseases.</i>																			
Premature Birth	...	...	2	1	...	...	3	...	...	...	1	...	1	...	...	...	...	...	5
Congenital Defects	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
Injury at Birth	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Want of Breast-milk	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atrophy, Debility Marasmus	...	...	...	...	...	...	...	1	1	2	...	...	...	...	...	...	...	...	4
<i>Tuberculous Diseases</i>																			
Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculous Peritonitis :	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tabes Mesenterica :	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Tuberculous D'ses	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Syphilis	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1
Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis (<i>not Tuberculous</i>)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Convulsions	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	1	3
Bronchitis	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1
Laryngitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia	...	...	...	...	...	1	1	...	...	1	...	...	...	...	...	...	...	...	2
Suffocation, overlying	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other causes	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
			3	1	...	1	5	5	1	4	2	3	1	...	...	2	...	1	24

Population Estimated to middle of 1908—17,310.

Births in the year { legitimate, 332.
 { illegitimate, 8.

Deaths in the year of { legitimate infants, 19.
 { illegitimate infants, 5.

Deaths from all Causes at all Ages ... 209.

TABLE V.—*continued.*

County Borough of Croydon—East Ward District.

INFANTILE MORTALITY DURING THE YEAR 1908.

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	6	3	1	...	10	4	6	1	2	2	1	...	1	...	3	...	30
Uncertified ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Common Infectious Diseases.</i>																	
Small-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2
Scarlet Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria : Croup ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Diarrhoeal Diseases.</i>																	
Diarrhoea, all forms ... ..	...	...	...	...	...	...	1	...	1	1	...	...	...	...	...	...	3
Enteritis (<i>not Tuberculous</i>) ... ..	...	1	...	...	1	...	1	...	...	1	...	...	1	...	...	...	4
Gastritis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Wasting Diseases.</i>																	
Premature Birth	5	1	...	...	6	2	...	...	...	...	...	...	...	...	...	...	8
Congenital Defects ... ..	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Injury at Birth ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Want of Breast milk ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atrophy, Debility Marasmus .. ..	...	...	1	...	1	2	2	1	1	...	1	...	...	...	...	...	8
<i>Tuberculous Diseases.</i>																	
Tuberculous Meningitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculous Peritonitis : Tabes Mesenterica .. ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Tuberculous D'ses ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Syphilis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rickets ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis (<i>not Tuberculous</i>) ... ..	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Convulsions	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	2
Bronchitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Laryngitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Suffocation, overlying ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other causes ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	6	3	1	...	10	4	6	1	2	2	1	...	1	...	3	...	30

Population Estimated to middle of 1908—18,634.

Births in the year { legitimate, 380.
 { illegitimate, 8.

Deaths in the year of { legitimate infants, 18.
 { illegitimate infants, 2.

Deaths from all Causes at all Ages ... 190.

TABLE V.—*continued.*

County Borough of Croydon—South Ward District.

INFANTILE MORTALITY DURING THE YEAR 1908.

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	3	2	1	2	8	4	4	2	3	2	5	2	3	2	1	...	36
Uncertified ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Common Infectious Diseases.</i>																	
Small-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles ... ..	...	...	...	...	...	...	...	...	...	...	2	...	...	1	...	...	6
Scarlet Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria : Croup ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Diarrhæal Diseases.</i>																	
Diarrhæa, all forms ... ..	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Enteritis (<i>not Tuberculous</i>) ... ..	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Gastritis ... ..	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
<i>Wasting Diseases.</i>																	
Premature Birth	1	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	2
Congenital Defects	2	2	1	...	5	2	...	...	...	...	...	...	...	...	...	...	7
Injury at Birth ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Want of Breast-milk ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atrophy, Debility, Marasmus ... ..	...	...	...	...	...	1	1	...	1	...	...	1	...	...	...	...	4
<i>Tuberculous Diseases.</i>																	
Tuberculous Meningitis ... ..	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1
Tuberculous Peritonitis : Tabes Mesenterica ... ..	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Other Tuberculous D'ses ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Syphilis ... ..	...	...	...	1	1	...	1	...	...	...	...	...	...	...	...	...	2
Rickets ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis (<i>not Tuberculous</i>) ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Convulsions ... ..	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	2
Bronchitis ... ..	...	...	...	1	1	...	...	...	...	...	1	...	...	...	...	...	2
Laryngitis ... ..	...	...	...	...	...	...	...	1	...	1	2	1	1	1	...	...	7
Pneumonia ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Suffocation, overlying ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Causes ... ..	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	2
	3	2	1	2	8	4	4	2	3	2	5	2	3	2	1	...	36

Population Estimated to middle of 1908—20,329.

Births in the year { legitimate, 349.
 { illegitimate, 12.

Deaths in the year of { legitimate infants, 28.
 { illegitimate infants, 8.

Deaths from all Causes at all Ages ... 237.

TABLE V.—*continued.*

County Borough of Croydon—South Norwood Ward District.

INFANTILE MORTALITY DURING THE YEAR 1908.

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

CAUSE OF DEATH.			Under 1 Week.	1-2 We ks.	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	...	...	8	8	2	2	19	9	6	5	2	3	4	2	2	1	4	4	61
Uncertified	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Common Infectious Diseases.</i>																			
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	2
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria: Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
<i>Diarrhoeal Diseases.</i>																			
Diarrhoea, all forms	...	...	...	...	...	...	...	1	2	1	...	1	3	...	1	...	...	...	9
Enteritis (<i>not Tuberculous</i>)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Gastritis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
<i>Wasting Diseases.</i>																			
Premature Birth	...	...	5	1	...	...	6	2	...	...	...	...	...	...	...	...	...	...	8
Congenital Defects	...	...	3	1	1	1	6	...	...	...	...	...	...	...	...	...	...	...	6
Injury at Birth	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Want of Breast-milk	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atrophy, Debility, Marasmus	...	...	...	2	1	...	3	2	...	...	...	...	...	...	...	...	...	...	5
<i>Tuberculous Diseases.</i>																			
Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	2
Tuberculous Peritonitis:																			
Tabes Mesenterica	...	...	...	...	...	...	...	...	...	1	...	...	...	1	1	...	1	...	4
Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Syphilis	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	2
Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis (<i>not Tuberculous</i>)	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Convulsions	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	1	3
Bronchitis	...	...	...	1	...	...	1	2	...	1	...	...	...	...	...	...	1	...	5
Laryngitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia	...	...	...	1	...	...	1	1	...	...	1	...	...	...	...	...	1	2	5
Suffocation, <i>overlying</i>	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Other Causes	...	...	...	1	...	1	2	1	...	...	1	...	1	1	...	...	...	...	6
			8	8	2	2	19	9	6	5	2	3	4	2	2	1	4	4	61

Population Estimated to middle of 1908—23,739.

Births in the year { legitimate, 634.
 { illegitimate, 13.

Deaths in the year of { legitimate infants, 50.
 { illegitimate infants, 11.

Deaths from all Causes at all Ages ... 267.

TABLE V.—*continued.*

County Borough of Croydon—Upper Norwood Ward District.

INFANTILE MORTALITY DURING THE YEAR 1908.

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	...	1	1	4	...	...	...	...	...	...	...	...	...	1	1	6
Uncertified ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Common Infectious Diseases.</i>																	
Small-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria : Croup ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Diarrhoeal Diseases.</i>																	
Diarrhoea, all forms ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteritis (<i>not Tuberculosis</i>) ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gastritis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Wasting Diseases.</i>																	
Premature Birth ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Congenital Defects	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Injury at Birth ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Want of Breast-milk ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atrophy, Debility Marasmus ... ..	...	...	...	1	1	...	...	...	...	...	...	...	...	...	1	...	2
<i>Tuberculous Diseases.</i>																	
Tuberculous Meningitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculous Peritonitis : Tabes Mesenterica ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Syphilis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rickets ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis (<i>not Tuberculous</i>) ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Convulsions ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bronchitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Laryngitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia ... ..	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	1	2
Suffocation, overlying ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other causes	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
	2	...	1	1	4	...	...	...	...	...	...	...	...	...	1	1	6

Population Estimated to middle of 1908—8,364.

Births in the year {
 legitimate, 127.
 illegitimate, 29.

Deaths in the year of {
 legitimate infants, 5.
 illegitimate infants, 1.

Deaths from all Causes at all Ages ... 119.

TABLE V.—*continued.*

County Borough of Croydon—Thornton Heath Ward District.

INFANTILE MORTALITY DURING THE YEAR 1908.

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	14	2	2	1	19	9	6	3	5	2	2	2	3	1		1	53
Uncertified																	
<i>Common Infectious Diseases.</i>																	
Small-pox																	
Chicken-pox																	
Measles												1	1				2
Scarlet Fever																	
Diphtheria: Croup																	
Whooping Cough						1				1						1	3
<i>Diarrhoeal Diseases.</i>																	
Diarrhoea, all forms							1			1	1						3
Enteritis (<i>not Tuberculous</i>)													1				1
Gastritis																	
<i>Wasting Diseases.</i>																	
Premature birth	8		2		10												10
Congenital Defects	1	2			3	1	1	1									6
Injury at Birth																	
Want of Breast-milk																	
Atrophy, Debility, Marasmus						2	3	1	3			1		1			11
<i>Tuberculous Diseases.</i>																	
Tuberculous Meningitis											1						1
Tuberculous Peritonitis:																	
Tabes Mesenterica																	
Other Tuberculous Diseases																	
Erysipelas																	
Syphilis							1		1								2
Rickets																	
Meningitis (<i>not Tuberculous</i>)																	
Convulsions						1			1								2
Bronchitis						1											1
Laryngitis																	
Pneumonia	1				1	2											3
Suffocation, overlying																	
Other Causes	4			1	5	1		1					1				8
	14	2	2	1	19	9	6	3	5	2	2	2	3	1		1	53

Population Estimated to middle of 1908—17,521.

Births in the year { legitimate, 483.
 { illegitimate, 9.

Deaths in the year of { legitimate infants, 49.
 { illegitimate infants, 4.

Deaths from all Causes at all Ages ... 231.

TABLE V.—*continued.*

County Borough of Croydon—North Ward District.

INFANTILE MORTALITY DURING THE YEAR 1908.

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	11	5	3	2	21	6	3	3	2	6	3	2	4	2	6	5	63
Uncertified ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Common Infectious Diseases.</i>																	
Small-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles... ..	...	...	...	...	...	...	...	...	...	...	...	2	...	...	1	1	4
Scarlet Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria: Croup ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough ... ..	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	1	3
<i>Diarrhoeal Diseases.</i>																	
Diarrhoea, all forms ... ..	...	...	...	1	1	...	...	2	...	2	...	...	...	...	...	...	5
Enteritis (<i>not Tuberculous</i>) ... ..	...	...	...	...	...	...	...	...	...	1	...	1	...	...	1	...	3
Gastritis ... ..	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	2
<i>Wasting Diseases.</i>																	
Premature Birth	8	2	...	1	11	1	...	...	...	...	...	...	...	...	...	...	12
Congenital Defects	2	1	...	...	3	1	...	...	...	...	...	1	...	...	...	...	5
Injury at Birth ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Want of Breast-milk ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atrophy, Debility Marasmus ... ..	...	1	1	...	2	1	2	...	...	2	...	...	...	...	...	...	7
<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 ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bronchitis ... ..	...	1	1	...	2	1	1	...	...	...	...	...	...	...	...	...	4
Laryngitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia ... ..	...	...	1	...	1	1	...	1	1	2	1	...	1	...	3	2	13
Suffocation, overlying ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other causes	1	...	...	...	1	...	...	...	...	...	...	1	...	...	1	...	3
	11	5	3	2	21	6	3	3	2	6	3	2	4	2	6	5	63

Population Estimated to middle of 1908—22,078.

Births in the year { legitimate, 557.
 { illegitimate, 76*.

Deaths in the year of { legitimate infants, 57
 { illegitimate infants, 6.

Deaths from all Causes at all Ages ... 256.

*Including 58 at the Workhouse Infirmary.

TABLE VI.

Table showing the number of cases notified and deaths from the principal zymotic diseases for the Year 1908 and ten preceding Years.

DISEASE.		1908.		1907.		1906.		1905.		1904.		1903.		1902.		1901.		1900.		1899.		1898.	
		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 .. ..	..	..	..	4	..	..	..	3	..	14	2	51	11	5	..	1	..	..	..	..	..
	Scarlet Fever	534	5	661	11	425	8	416	11	291	8	215	2	295	6	391	1	432	5	350	3	301	9
	Diphtheria and (1) Memb.Croup	405	37	286	40	304	40	266	25	312	24	259	18	285	29	448	23	187	25	127	17	162	19
	(2) Erysipelas	60	5	73	4	68	2	78	5	68	2	79	4	102	5	79	4	71	6	..	7	..	6
	Puerperal Fever	10	5	7	4	9	2	11	5	9	3	1	8	5	9	3	12	8	7	4	6	5	
	Enteric Fever	52	5	19	1	34	5	34	4	21	5	32	5	59	9	57	11	56	9	56	8	64	9
	Simple Continued Fever	..	..	..	..	..	..	..	..	..	..	2	..	5	..	..	..	4	..	1	1	2	1
Non-notifiable.	Diarrhœa and Epidemic or	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Zymotic Enteritis .. ..	..	52	..	30	..	142	..	52	..	95	..	37	..	73	..	129	..	88	..	195	..	200
	Enteritis .. ..	..	23	..	26	..	61	..	22	..	35	..	14	..	17	..	37	..	25	..	1	..	6
	Measles .. ..	..	92	..	8	..	37	..	24	..	62	..	26	..	30	..	21	..	20	..	18	..	32
	Whooping Cough .. ..	..	29	..	32	..	28	..	31	..	15	..	58	..	31	..	25	..	56	..	40	..	36
	Influenza .. ..	..	52	..	31	..	20	..	30	..	27	..	28	..	58	..	37	..	106	..	91	..	39
	Bronchitis, Pneumonia, and	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Pleurisy .. ..	..	282	..	316	..	218	..	302	..	314	..	247	..	341	..	283	..	367	..	309	..	232
Phthisis .. ..	..	150	..	160	..	173	..	162	..	142	..	151	..	112	..	123	..	135	..	154	..	133	

(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, Norwood Cottage Hospital, Purley Cottage Hospital, 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 IX., which gives a fair idea of the various matters engaging the attention of the Sanitary Inspectors.

During the year 5,812 house-to-house inspections were made, as compared with 6,764 in 1907.

The decrease is partly due to the fact that we have one less district inspector than in the previous year, and partly to the fact that the majority of house inspections made by the inspector for infectious diseases are of a preliminary nature and are not now included in the list of house-to-house inspections.

The number of single *private* drains dealt with during the year was 53. This work was carried out under the provisions of the Croydon Corporation Act, 1905. The cost of carrying out the necessary works amounted to about £670 14s. 8d., 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 158 cases, Council Orders had to be applied for. Of the 158 legal notices 114 were complied with, and 44 were outstanding at the end of the year. Of the 44 outstanding Council Orders, 25 have been complied with (April 30th, 1909).

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

PAVING OF BACK YARDS.—Two hundred and forty-three back yards have been paved during the year.

MUNICIPAL COMMON LODGING HOUSE.—This Lodging House affords accommodation for 17 women and 84 men. The number of occupants during the year amounted to 21,648 men and 3,486 women. The average number of lodgers amounted to 59 men and 10 women per night.

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

		Receipts.					Expenditure.
		£	s	d.			
1904	...	800	17	7	...	£679	1s. 6d.
1905	...	793	17	7	...	£582	18s. 5d.
1906	...	804	5	8	...	£665	6s. 10d.
1907	...	811	17	8	...	£572	9s. 7d.
1908	...	753	0	9	...	£624	7s. 5d.

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

The following Table gives the situation of the ten registered houses and the accommodation provided therein:—

Premises.	No. of Rooms.		Accommodation.
11 & 12, Princess Road ...	12	...	54 men and 8 married couples.
9, Prospect Place (late 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.
"The Jolly Bleachers," Union Street ...	13	...	30 men.

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 four common lodging houses now remain in the borough, with a total accommodation for 196 adults, or if we add the Municipal Common Lodging House, a total of five houses with 259 single beds and 19 double beds.

During the year common lodging houses received 488 visits and 10 night visits.

Minor infringements of bye-laws were detected on 6 occasions, but in no case were they sufficiently serious for legal proceedings to be taken.

HOUSES LET IN LODGINGS.—There are now 70 houses registered under the bye-laws. During the year these houses received 1,577 visits. 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...	46
Forster Road	11
Holmesdale Road	4
Ely Road	8
Queen's Road...	1

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

HOUSING OF THE WORKING CLASSES ACT.—Proceedings were initiated in respect to one house, which the owner closed on the facts being fully explained to her.

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 1908.

FACTORIES.—For the most part, the law relating to Factories is administered by the Home Office. 82 visits were, however, made to Factories, 69 being in reference to sanitary accommodation, two in reference to a complaint at an engineering factory, three in reference to new occupation, and eight in reference to smoke. 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 X.

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

	Factories.	Workshops	Laundries	Bake-houses.	Work-places.	Out-workers.	TOTAL
Premises requiring repair	—	—	—	—	—	—	—
Cleansing, etc.	1	21	7	19	6	6	60
Insufficient W.C. accommodation	1	2	—	—	—	—	3
Defective ditto	4	13	—	3	1	—	21
Overcrowding	—	1	—	—	—	—	1
Eaves and Gutters ..	—	—	—	2	—	—	2
Dustbins	—	—	—	3	—	—	3
Paving	—	—	1	3	—	—	4
Offensive accumulations ..	—	1	—	—	—	—	1
Animals improperly kept	—	1	—	2	—	—	3
Sundry	—	—	—	1	—	1	2
	6	39	8	33	7	7	100

Notices served—

Factories	...	...	...	...	...	...	...	3
Workshops	...	...	...	...	...	...	...	36
Laundries	...	...	...	...	...	...	...	8
Bakehouses	...	...	...	...	...	...	...	25
Workplaces	...	...	...	...	...	...	...	7
Outworkers	...	...	...	...	...	...	...	7
								<hr/>
								86
								<hr/>

All were remedied during the year with the exception of four which have now been complied with (April, 1909).

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

HOME WORK.—Ninety-six lists were received from employers containing the names of 215 outworkers residing in the Borough. Seventy-five further names were received from the Medical Officers of Health of various neighbouring districts, and the names of 37 outworkers residing outside the Borough were similarly despatched to the Medical Officer of Health for the district concerned.

One hundred and ninety-seven visits were paid to outworkers.

BAKEHOUSES.—At the end of the year there were 120 Bakehouses in occupation, of which 8 were underground. Seven hundred and ninety-seven visits were made by the Inspector during the year, and 25 nuisances discovered and abated.

WORKPLACES.—At the end of the year there were 66 workplaces on the register. One hundred and six visits to eating-house kitchens have been made, and 7 notices served for cleansing, which have been complied with.

SHOP HOURS AND SEATS IN SHOPS ACTS entailed 363 visits, and resulted in the discovery of 33 infringements of the Acts, 28 being the non-exhibition of notices, 4 the want of seats for female assistants, and 1 employing young persons excessive hours.

Written cautions were sent to the 33 offenders and subsequently complied with.

SMOKE NUISANCES.—Forty-six observations were made, and 10 persons were cautioned.

DAIRIES AND COWSHEDS.—There were 42 cowsheds on the register at the end of the year, of which 40 were in occupation as against 41 sheds and 36 in occupation in 1907. During the year, 2 of the least desirable sheds have been discontinued, 1 large new shed has been erected with accommodation for 60 cows, and 2 modern sheds which had been out of use have again been occupied. The registered cowsheds provide accommodation for 696 cows with 800 cubic feet per head. The number of cows in the registered sheds in December was 535.

The number of Cowkeepers in the Borough is now 28 as compared with 27 in 1907.

During the year 76 dairies were removed from, and 128 added to the register, leaving 278 on the register at the end of the year.

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

Thirty-four 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	3,959	5,215	9,174	Including 8 carcasses.
Mutton	199	358	557	„ 10 „
Pork	7,404	945	8,349	„ 31 „
Veal	208	56	264	„ 5 „
Offal	3,742	1,030	4,772	
Fish .. ..	..	1,624	1,624	Cod, Haddocks, Hake.
Other Articles ..	..	140	140	Mackerel and Kippers. Fruit and Rabbits.
Total lbs. ..	15,512	9,368	24,880	Including 54 carcasses.

The whole carcasses condemned were affected as undernoted :—

			Tuberculosis.	Peritonitis.	Pleurisy.	Enteritis.	Pneumonia.	Jaundice.	Diarrhoea.	Emaciated and Dropsical.	Unsound, Injured, etc.	Total No.	Weight in lbs.
Cattle ..	..	..	7	..	..	1	..	..	..	..	..	8	4523
Sheep ..	..	..	..	..	1	..	1	..	..	5	3	10	493
Pigs ..	..	..	20	5	..	..	2	1	..	..	3	31	5208
Calves ..	..	..	..	..	..	..	..	1	3	..	1	5	264
Totals ..	..	..	27	5	1	1	3	2	3	5	7	54	10488

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.

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

	Municipal.		Beasts.	Sheep.	Pigs.	Calves.	Total.
Private Slaughterhouses ...			432	4,550	17,038	3,162	25,182
Public	264	1,815	1,487	732	4,298
Total	696	6,365	18,525	3,894	29,480

Summary of totals for last five years :—

	Beasts.	Sheep.	Pigs.	Calves.	Total.
1904	728	6 480	24,315	1,890	33,413
1905	635	7,779	27,679	2,286	38,379
1906	790	8 284	20,080	4,764	33,918
1907	734	7,080	19,099	5,617	32,530
1908	696	6,365	18,525	3 894	29,480
	3,583	35,988	109,698	18,451	167,720

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.								
	North.	West.	Central	East.	South.	S. Nor.	U. Nor.		
Slaughter-houses ...	...	733	484	19	170	50	38	1494
Butchers	21	150	221	28	42	45	42	549	
Fishmongers	9	23	91	20	9	26	6	184	
Markets ... ..	...	...	50	...	49	...	...	99
Cowkeepers	38	21	12	36	56	14	30	207	
Milk Purveyors	88	88	37	75	57	36	80	461	
Other Premises ... ..	...	...	..	...	...	...	...	..
TOTAL ...	156	1015	895	178	383	171	196	2994	

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

PROSECUTIONS, 1908 :—

Date.	Defendant.	Charge.	Result.	Penalty.	Costs.
				£ s d.	£ s d.
Jan. 10	E. H. M....	Selling Butter adulterated with 80 per cent. foreign fat	Convicted ...	1 0 0	0 7 6
"	P. & C. Msrs.	Selling Butter adulterated with 95 per cent. foreign fat	"	1 0 0	0 7 6
" 31	E. P. ...	Selling Butter adulterated with 50 per cent. foreign fat	"	0 10 0	0 12 6
Feb. 14	J. D. ...	Selling Butter adulterated with 90 per cent. foreign fat	"	5 0 0	0 17 0
" 29	E. Dairies Co.	Selling Milk 40 per cent. deficient in fat	"	3 0 0	1 16 6
"	J. H. E. ...	Selling Milk adulterated with 8 per cent. added water	"	2 0 0	1 9 0
Mar. 29	G. W. ...	Selling Milk adulterated with 4 per cent. added water and 17 per cent. deficient in fat ...	Summons withdrawn on plea of warranty	—	—
April 7	J. W. L. ...	Selling Milk adulterated with 7 per cent. added water	} Convicted ...	10 0 0	1 16 6
"	"	Selling Milk adulterated with 4 per cent. added water			
" 8	"	Selling Milk adulterated with 7 per cent. added water and 4 per cent. deficient in fat ...			
"	"	Selling Milk adulterated with 7 per cent. added water			
May 15	W. V. R.	Selling Butter adulterated with 67 per cent. foreign fat	"	1 0 0	0 16 0
" 24	R. C. ...	Selling Milk adulterated with 14 per cent. added water and 32 per cent. deficient in fat ...	"	0 10 0	0 6 6
June 7	P. J. ...	Selling Skimmed Milk adulterated with 13 per cent. added water	"	0 10 0	0 9 6
Dec. 14	W. J. ...	Selling Milk adulterated with 10 per cent. added water	"	1 0 0	0 15 0
" 18	J. H. L. ...	Selling Butter adulterated with 56 per cent. of foreign fat	"	1 0 0	0 17 0
"	G. M. ...	Selling Butter adulterated with 49 per cent. foreign fat	"	1 0 0	0 17 0
"	E. W. ...	Selling Butter adulterated with 37 per cent. foreign fat	Dismissed with costs against Corporation	—	—
" 20	A. C. ...	Selling Skimmed Milk adulterated with 37 per cent. added water	Convicted ...	1 0 0	0 15 0
Total ...				28 10 0	12 2 6

In 10 cases the samples of milk were slightly below the standard suggested by the Board of Agriculture. Being first offences, the vendors were written to calling their attention to the fact, and asking them for some explanation, further samples being taken subsequently.

Of these 10 samples, 6 contained an excess of water to the extent of an average of 2·3 per cent., whilst 4 were deficient in fat to the extent of an average of 4 per cent.

Of the 11 prosecutions for selling adulterated milk it is interesting to note that five only were retailers (one of these was withdrawn on plea of warranty from the farmer, who was successfully prosecuted), and the remaining cases were all farmers and wholesale dealers sending milk into the town.

One hundred and four informal, or test, samples of butter were purchased of which 18 proved to be not genuine, and 9 similar samples of coffee were taken, of which 3 proved not genuine. In 10 instances, when subsequent samples of butter were purchased and the formalities of the Act complied with, genuine butter was supplied. In 8 cases the fraud was repeated and prosecutions followed. The subsequent samples of coffee proved genuine.

The test samples were all purchased by a woman in small quantities with other articles, generally during the busy periods in the evenings.

The following table has been prepared from figures kindly supplied by the Borough Analysts (Mr. Lester Reed and Mr. P. G. Sanford):—

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

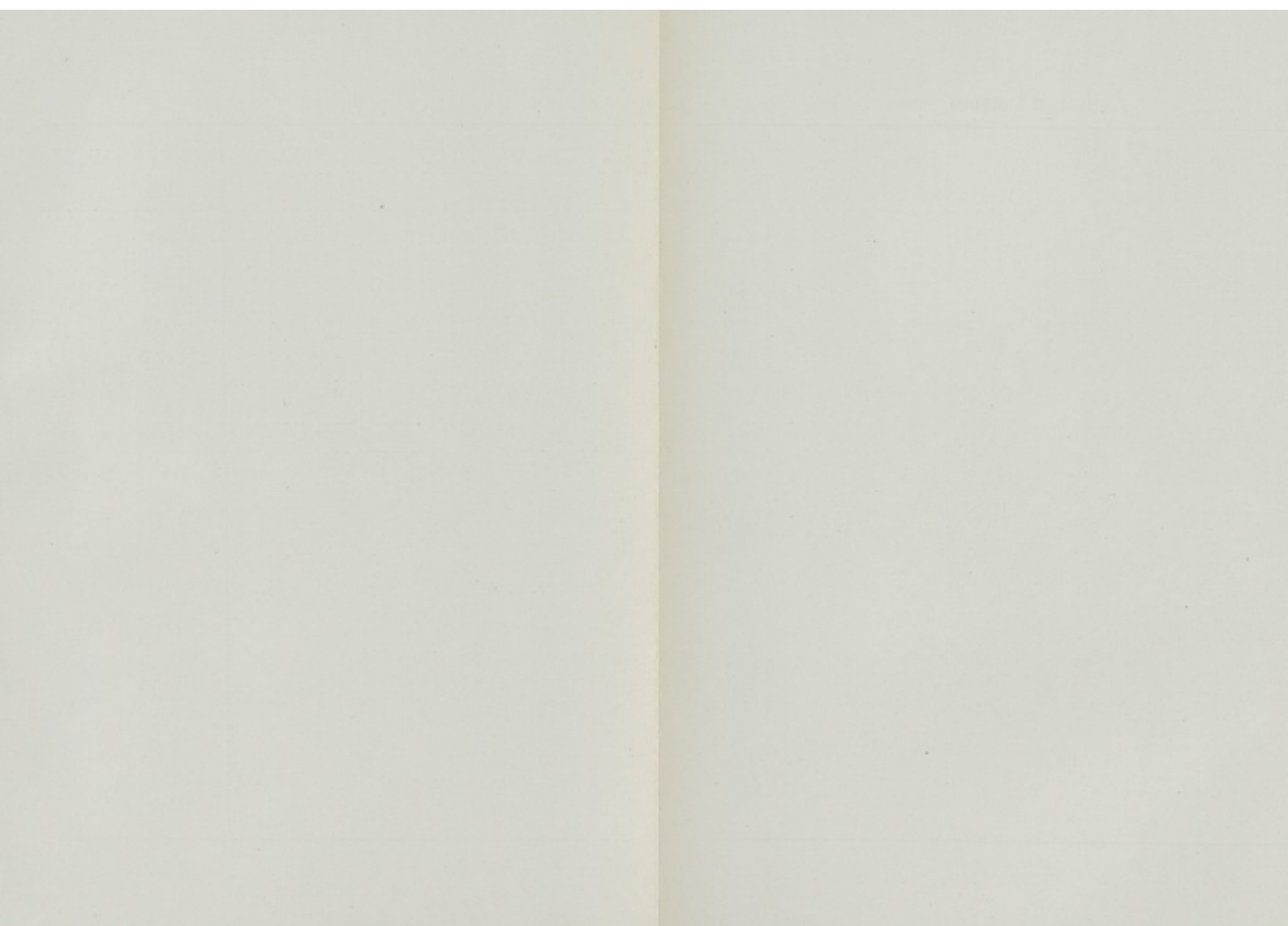
TABLE VII.
1908.

	No. of Samples.	No. below Standard.	Percentage of Samples below Standard.	Average percentage of fat of Genuine Samples.
Taken in course of delivery to Retailers under contract	67	9	13·4	3·8
Taken in course of delivery to Consumers under contract	6	2	33·3	3·4
Taken on Milkmen's rounds. Sunday morning. New Milk. ..	80	5	6·3	3·7
Taken on Milkmen's rounds. Sunday morning. Separated Milk ..	8	2	25	2·3
Taken on Milkmen's rounds. Week day. New Milk	31	3	9·7	3·6
Taken on Milkmen's rounds. Week day. Separated Milk	4	—	—	2·1

TABLE VIII.

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

Visits to Houses where the following Diseases have been reported.	Mrs. Nolan-Slaney.				Miss Tawney.				Miss Chapman.				Miss Stokes.				Miss Raw.				TOTALS.			
	School Cases.		Other Cases.		School Cases.		Other Cases.		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.	1st Visits.	2nd Visits.	1st Visits.	2nd Visits.	1st Visits.	2nd Visits.	1st Visits.	2nd Visits.
Measles	594	..	..	..	408	..	..	..	419	26	..	..	321	20	..	..	402	18	..	..	2144	64	..	..
German Measles	28	4	..	..	53	6	..	..	11	..	..	..	..	..	..	..	3	..	..	..	95	10	..	..
Mumps	44	10	..	..	113	..	..	..	33	3	..	..	42	..	..	..	71	7	..	..	303	20	..	..
Whooping Cough	139	12	..	..	133	..	..	..	73	7	..	..	34	1	..	..	64	7	..	..	443	15	..	..
Chicken-pox	51	5	..	..	66	..	..	2	45	2	..	..	32	1	..	..	41	4	..	..	235	7	..	2
Sore Throat	309	215	39	12	179	..	56	79	140	43	39	47	115	29	..	..	68	17	..	..	811	304	134	138
Ringworm	113	374	4	..	135	267	..	..	84	205	..	..	64	155	..	..	83	108	..	..	479	1109	..	..
Verminous Heads.. ..	4	2	..	..	1	..	..	..	1	..	..	..	3	..	..	..	10	5	..	..	18	7	..	..
Verminous Bodies.. ..	1	..	..	..	1	1	..	..	..	..	..	..	1	2	2	..	3	..	..	..	6	3	..	..
Impetigo Contagiosa	30	22	..	..	41	69	..	..	60	82	..	..	57	70	..	..	65	68	..	..	253	311	..	..
Scabies	2	1	..	..	2	1	..	..	3	3	..	..	..	..	..	..	1	1	..	..	8	6	..	..
Other diseases	202	250	12	4	121	74	7	8	147	154	..	..	61	21	..	..	206	120	..	..	737	619	19	12
TOTAL	1517	895	55	16	1252	418	63	89	1016	525	39	47	730	299	2	..	1017	355	..	..	5532	2475	153	152
	1st Visits.		2nd Visits.		1st Visits.		2nd Visits.		1st Visits.		2nd Visits.		1st Visits.		2nd Visits.		1st Visits.		2nd Visits.		1st Visits.		2nd Visits.	
Visits to houses where Infants have been born	458		352		759		563		1044		717		857		205		760		268		3878		2105	
Addresses given re Infant feeding, etc.	16		..		10		..		3		..		2		..		..		..		31		..	
Visits to houses where Infants have died under one year of age	81		..		34		..		72		..		36		..		92		3		315		3	
Cultures taken from doubtful cases of Diphtheria ..	326		..		491		..		264		1		242		2		138		43		1461		46	
Phthisis cases visited ..	5		..		7		5		35		..		38		..		37		9		122		14	
Visits paid to Elementary Schools	33		..		48		..		32		..		45		..		40		..		198		..	
Number of Children prepared for Medical Inspection	743		30		817		20		577		7		834		20		858		20		3829		97	
Visits paid to homes to obtain further information concerning children inspected in Schools ..	58		14		10		..		47		17		62		13		60		20		237		64	
Visits paid to the homes of School Children for purpose of giving advice ..	76		16		161		24		123		25		150		34		86		18		596		117	



THE WORK OF THE HEALTH VISITORS.—In consequence of the additional work imposed upon the department by the Education (Administrative Provisions) Act, 1907, the Council appointed two additional health visitors, who came into office in April, 1908. An abstract of the work done by the five health visitors is set out in Table VIII. It will be seen that there has been a large increase in the amount of work carried out by the health visitors, though the additional staff was not at work for the whole of the year, and we were also somewhat hampered by the ill-health of one of the officers. The greater part of the work done by this section of the staff is discussed in detail in the section of the report presented to the Education Committee. With regard to the duties performed for the Sanitary Committee, it should be noted that a larger number of visits have been paid to houses where infants have been born. The health visitors have appreciated the advantage of earlier notifications now received of a large proportion of the births occurring in the borough. While we were dependent on the returns received from the district registrars, many weeks often elapsed before the births were reported to this office, and this not only entailed delay in the payment of the first visit to the houses where children had been born, but these visits were often futile because the mother was found to be absent from home, or to have moved to a new address. Visits are now paid much more promptly (if possible at the end of a fortnight) after the birth of a child, and at this period a much larger proportion of mothers are found at home. Moreover, advice given at this early period is more effective, as infants have not materially suffered from the ill effects of unsuitable methods of feeding.

It is noteworthy that 1,507 swabs were taken from persons (chiefly children) suffering from sore throat, or associated in some way with diphtheria. This is a most useful part of the health visitors' work, as in this way many missed cases of diphtheria are discovered, and medical aid urged for children who would otherwise have failed to secure treatment.

In the report for 1907, I mentioned that I had undertaken to investigate any case in which medical practitioners considered that the health visitors had exceeded their duties. As a matter of fact, the number of complaints made is exceptionally small, and investigation has in every instance proved that they were groundless, or due to some misunderstanding or misrepresentation by the parents of the school children concerned. I would like, however, to take this opportunity of thanking the medical men for calling my attention to such cases, as it is most important that there should be no misunderstanding between this department and the medical practitioners of the borough. The course adopted has also proved most useful to the health visitors, as it has enabled us to show how thoroughly and tactfully their work is carried on.

HEALTH LECTURES.—A limited number of health lectures were given during the year to various audiences organised by Mothers' Meetings and similar bodies. This part of our work was not, however, fully developed during 1908, as there were many new demands on the staff, and it was also felt that the health lectures would possibly make a stronger appeal to Croydon audiences, if they were intermitted for a year or so.

TABLE IX.

Work done by the Sanitary Inspectors during the year ending
December 31st, 1908.

NATURE OF CASES DEALT WITH.	Insp. Culver.	Insp. Earwicker	Insp. Peck.	Ins. Richardson	Insp. Stanley.	Insp. Bull.	Insp. Adams.	Insp. Fulker.	Insp. Vincent.	Insp. Stokes.	TOTAL.
House to House Inspection	942	477	336	810	..	..	998	50	901	1298	5812
Visits to and inspections of houses where zymotic diseases have occurred .. ..	..	..	..	3	..	..	..	1131	4	59	1197
Inspection of Premises where offensive trades are conducted	1	..	..	..	..	..	..	..	..	..	1
Inspections of Factories, Workshops and Outworkers.. .. .	..	..	..	..	..	1179	..	..	..	..	1179
" " Greengrocers, Fishmongers & Ice Cream Shops	14	555	181	172	..	..	1967	..	578	1654	5121
" " Schools.. .. .	19	7	9	11	..	..	3	126	6	7	188
" " Shops .. .. .	..	..	..	..	..	363	..	..	..	..	363
" " Bakehouses .. .. .	..	..	..	..	..	797	..	..	..	..	797
" " Yards and Stables	313	1256	954	874	..	..	2064	..	961	1775	8197
" " Common Lodging Houses .. ..	..	..	..	..	..	488	..	..	..	..	488
" " " " (night visits) .. .. .	..	..	..	..	..	10	..	..	..	..	10
" " Houses let in Lodgings .. ..	..	..	..	..	..	..	1577	..	..	..	1577
" " Urinals.. .. .	546	865	816	632	..	..	1088	..	833	1168	5948
Smoke observations .. .. .	..	..	..	..	..	46	2	..	15	4	67
House drains tested with smoke	156	743	219	283	..	..	109	..	403	365	2278
" " " water	285	448	164	196	..	..	13	..	46	212	1364
" " on application	76	94	98	92	..	..	2	..	21	58	441
" drains re-laid	101	51	32	61	..	..	6	6	21	48	326
" " repaired	84	82	37	55	..	..	9	..	23	20	310
Re-inspections of work in progress	2048	1937	1737	1498	..	..	291	87	1079	1403	10080
Sundry inspections	432	501	826	609	..	104	237	115	353	648	3825
Complaints from public investigated	67	108	36	63	..	..	170	5	140	61	650
Houses disinfected .. .. .	..	..	..	..	1069	..	..	1	..	..	1070
Lots of clothing and bedding disinfected .. ..	..	..	..	..	1119	..	..	..	..	..	1119
NUISANCES DISCOVERED.											
Premises requiring repair	209	235	94	104	..	3	105	12	68	36	866
" " Cleansing and Whitewashing	101	186	84	85	..	45	310	36	59	39	945
" " Overcrowded	5	4	2	6	..	3	2	..	14	18	54
Drains found defective	125	110	63	90	..	..	5	1	78	143	615
" " stopped	91	165	53	83	..	2	49	14	99	160	716
Defective Sanitary Fittings	361	248	208	227	..	40	47	29	94	120	1374
" " Yard Surfaces	154	161	83	68	..	..	122	10	90	109	797
" " Eaves and Downspouts	198	194	70	57	..	..	9	9	22	37	596
" " Manure Receptacles	11	11	8	2	..	..	1	..	2	8	43
" " Urinals	5	7	2	9	..	..	92	2	19	2	138
" " Ashbins	221	200	351	368	..	4	146	9	111	85	1495
Smoke Nuisances .. .. .	..	..	..	..	..	10	..	..	7	2	19
Animals improperly kept .. .. .	..	24	13	1	..	2	4	2	3	33	82
Infringements of Bye-laws and Regulations .. ..	..	10	2	..	..	34	..	..	1	14	61
Offensive Accumulations	10	40	36	6	..	2	14	4	6	37	155
Sundry other Nuisances	290	81	20	7	..	44	3	2	3	69	519
Total number of Nuisances	1781	1676	1089	1113	..	189	909	130	676	912	8475
Informal Notices served	629	284	500	506	..	106	140	59	288	223	2735*
Informal Notices complied with	476	239	396	437	..	230	150	46	330	240	2544
In abeyance	142	32	68	62	..	10	14	22	63	31	444
Number of above for which Statutory Notices issued	23	33	39	41	..	3	2	1	13	3	158

* Not including 253 from the year 1907.

TABLE X.

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

TRADE.	No. of Workshops.	No. of Employees.	No. of Visits.
Baking Powder Manufacturer ..	1	5	1
Blind Makers	3	5	4
Blacksmiths	4	12	5
Bottlewashers	1	1	1
Bootmakers	21	39	46
Brushmaker	1	1	2
Builders	6	13	11
Cabinet Makers and Upholsterers	18	88	29
Carriage Builders	8	70	12
Chemists	2	14	3
Confectioners	2	7	5
Cycle Works	25	55	35
Carpenters and Joiners	4	9	8
Dentists	6	16	8
Dressmakers and Milliners ..	231	1153	361
Dye Works	1	3	2
Electricians	1	6	1
Glass Works	3	20	3
Greenhouse Maker	1	6	1
Grocers	1	1	1
Ironmongers	7	19	10
Ladder Makers	3	4	6
Laundries	55	270	88
Leather Works	2	4	4
Modeller	2	4	8
Naturalist	1	3	2
Pharmacy Works	1	12	2
Photographers	9	64	16
Piano Maker	1	2	3
Picture Frame Makers	6	16	9
Ragpicker	1	3	1
Rubber Works	3	9	4
Saddlers	5	16	7
Scenic Artist	1	2	1
Shop Fitters	1	3	4
Sign Writers	4	15	6
Stonemasons	2	11	3
Scale Maker	2	4	2
Tailors	53	149	91
Umbrella Makers	3	6	3
Watchmakers	4	10	5
Wheelwrights	9	34	31
Wig Makers	3	8	3
Wood Merchants	3	10	7
Totals	521	2205	855

TABLE XI.

FOOD AND DRUGS ACT.

Total Number of Samples taken during the year 1908.

Sample of	Total Samples.	Genuine.	Not Genuine.	Prosecu- tions.	Convic- tions.	Cautions.
†Milk	184	165	19	9	9	10
†Skimmed Milk...	9	7	2	2	2	—
†Separated Milk	3	3	—	—	—	—
Butter	197	170	27	8	7	—
Coffee	15	10	5	—	—	—
Lard	8	8	—	—	—	—
Vinegar	8	7	1	—	—	—
Margarine	3	3	—	—	—	—
Pepper	3	3	—	—	—	—
Castor Oil	3	3	—	—	—	—
Cod Liver Oil	3	3	—	—	—	—
Capers	1	1	—	—	—	—
Glycerine	1	1	—	—	—	—
	438	384	54	19	18	10

TABLE XII.

Particulars of Samples taken during the nine years 1900-1908 inclusive :—

Year.	Number of Samples taken.	Number Genuine.	*Number Adulterated.	Percentage of Adulterated.	Prosecutions.	Total amount of Fines and Costs imposed.
1900	246	230	16	6.5	5	£ s. d. 7 5 0
1901	299	274	25	8.3	3	6 6
1902	291	261	30	10.4	9	23 1 0
1903	294	268	26	8.8	4	5 16 0
1904	354	317	37	10.5	6	30 15 0
1905	356	320	36	10.0	8	36 13 6
1906	400	351	49	12.3	6	15 12 0
1907	448	413	35	7.8	13	86 8 0
1908	438	384	54	12.0	19	40 12 6

* The term adulterated includes samples found to be not up to standard.

TABLE XIII.
METEOROLOGICAL RECORD—YEAR 1908.

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°	17°	41°·9	31°·5	36°·7	— 1°·8	41°·0	34°·4	in. 0·058	8	in. 1·58	in. — 0·23
February..	54°	28°	48°·1	35°·3	41°·7	+ 2°·2	41°·0	38°·7	·022	13	1·12	— ·41
March ..	58°	24°	47°·1	34°·7	40°·9	— 0°·8	41°·4	36°·4	·046	19	2·97	+ 1·46
April ..	61°	28°	51°·8	37°·7	44°·7	— 2°·5	43°·7	38°·2	·054	15	2·57	+ ·97
May ..	76°	40°	64°·5	47°·9	56°·2	+ 3°·1	49°·5	51°·1	+ ·020	15	2·04	+ ·09
June ..	84°	40°	70°·9	50°·7	60°·8	+ 1°·4	55°·4	52°·8	·039	5	1·99	+ ·03
July .	87°	48°	71°·2	53°·7	62°·4	— 0°·1	58°·0	56°·1	·031	12	3·24	+ ·79
August ..	82°	43°	68°·3	52°·0	60°·1	— 1°·5	58°·3	53°·4	·078	15	3·25	+ ·93
September	79°	36°	64°·1	49°·0	56°·5	— 0°·7	51°·8	51°·9	+ ·001	11	1·33	— ·91
October ..	79°	33°	62°·1	47°·0	54°·5	+ 4°·5	54°·1	52°·5	·023	15	2·36	— ·35
November	60°	23°	51°·8	40°·8	46°·3	+ 3°·1	49°·5	43°·7	·072	11	·69	— 1·59
December	53°	8°	42°·3	35°·2	38°·7	— 1°·0	46°·8	37°·7	0·095	18	2·40	+ ·44
Means and Totals for the Year.	87°	8°	57°·0	43°·0	50°·0	+ 0°·5	49°·2	45°·5	0·046	157	25·54*	

The Rainfall for the Year was 0·23 of an inch *below*, and the number of days on which rain fell 3 *below* the average of 40 years at Croydon.

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

Croydon.

C.—THE WATER SUPPLY.

The water supply of the borough was fully described in my report for 1905, and it is unnecessary again to discuss the matter in detail. Water for the northern part of the borough is purchased in bulk from the London Water Board, and is derived from the Thames. The rest of the borough, forming the so-called "Croydon" area, is dependent on various wells in the chalk. Two important works in connection with these wells were put in hand during the year, and are recorded for future reference. On the Waddon site, where the Committee possessed a bore-hole that had been yielding water since July, 1899, the Committee decided to sink a well and to provide a permanent pumping station. This work is still in progress, and will probably be completed in 1911. During the progress of the work the riparian owners of the Wandle and others promoted a bill to safeguard the sources of that stream which, it was alleged, would be depleted if unrestricted pumping were allowed at the Waddon site. A compromise was finally arrived at whereby the Corporation obtained Parliamentary sanction to pump as much as 50 million gallons in every period of 30 days. The Committee also decided to proceed with the construction of open sand filters for the purification of water derived from Addington Well, which has long been known to be subject to intermittent contamination. The necessary notices for works outside the district were given, and the work was actually begun early in 1909. With regard to the safeguarding of this well, I believe that the means to be adopted at Addington will prove adequate provided the sand filters are properly controlled by sufficiently frequent bacteriological examinations. Concerning the general question of the best method of purifying chalk water, it is satisfactory to learn that the Local Government Board has already instituted a special investigation from which it is to be hoped that valuable information will result.

With regard to water derived from the other Corporation wells, I have nothing to add to my last report on this subject. The question of taking steps to further safeguard the Surrey Street supply should receive attention as soon as the Waddon well is available, and it is to be hoped that by that time the Local Government Board will have completed their investigations into the best method of treating chalk waters.

The question of cesspools on the gathering ground, both of our own and of other public water supplies, also deserves more consideration than it seems to receive from the Local Government Board. At present the Model Building Bye-Laws of the Local Government Board always insist on builders making cesspools watertight, but it is a matter of common knowledge that both in the districts around Croydon and elsewhere, local authorities do no

attempt to put this bye-law into operation. Under certain circumstances and in many situations no harm is likely to result from sewage percolating into the soil from cesspools. Where such cesspools are constructed in the chalk or are made to pierce the impervious stratum overlying the chalk there can be no justification for a departure from the regulations of the model bye-laws. It is true that a watertight cesspool soon becomes full, but this difficulty can be met either by the provision of a pump or where the soil and levels are suitable by arranging for the overflow on to or just below the surface of the soil. Under such circumstances the disposal of sewage on the gathering ground of public water supplies may be continued without risk, but it is far otherwise when cesspools are allowed to be built in defiance of bye-laws, and in such a way as to encourage the direct flow of sewage under 20 or 30 feet of pressure into porous chalk. Of course it may well happen that even under such circumstances sewage may percolate into the chalk and may not find its way into any water supply on account of the chalk at that particular spot being comparatively free from fissures, but the unsatisfactory point of the whole matter is the absolute impossibility of gauging this risk without undertaking prolonged investigation of each cesspool under varying conditions. I am therefore strongly of opinion not only that the water authority should take all possible steps within its own area to prevent unpurified sewage finding its way into the wells, but that the Local Government Board should assist in preventing contamination from sources outside the Borough by insisting that cesspools should not be in direct communication with water bearing strata from which drinking water is derived. It has been suggested in certain quarters that there is some hardship in asking owners and occupiers of houses not to turn unpurified sewage into the vast underground reservoir from which wells in the chalk derive their supply. Such a contention would, I believe, be regarded as monstrous were the reservoir situated in the full light of day so that all could see what damage they are doing to their neighbours. Be this as it may I am convinced that all populous places on the chalk should be sewered and that all isolated cesspools should be made watertight, and arrangements made either for their periodical emptying or for their overflow to discharge on to the surface of the soil where it could undergo purification without risk.

D - REPORT OF THE WORK OF THE BOROUGH HOSPITAL.

The total nominal accommodation at the Borough Hospital amounts to 146 beds, which is made up as follows:—

Block A.	...	...	...	...	...	12
" B.	...	...	...	...	...	23
" C.	...	...	...	...	...	46
" D.	...	...	...	...	...	23
" E.	...	...	...	...	...	24
" F.	...	...	...	...	...	6
" G.	...	...	...	...	...	12
						146

From this must be deducted one single bedded ward in Block B. which is permanently used as an operating theatre.

The following Table shows the Highest and Lowest number of beds occupied on any one night during each month of the year 1908:—

TABLE H 1.

Month.	Beds Occupied.		Month.	Beds Occupied.	
	Highest.	Lowest.		Highest.	Lowest.
January ..	144	125	July	110	101
February ..	163	127	August	127	110
March	160	137	September ..	149	124
April	145	123	October	152	123
May	120	101	November ..	160	137
June	111	104	December ..	165	148

The number of patients in hospital in December was as high as 165 which is considerably in excess of the nominal accommodation. This does not however convey an exact idea of the actual pressure at the hospital. Owing to the fact that the patients have to be divided into a considerable number of groups corresponding with the diseases and complications from which they are

suffering, great difficulty was experienced in finding room for the surplus patients. Nominally the accommodation at the hospital is made use of in the following way :—

				No. of Beds.
Block A.	is reserved for enteric fever	...		12
" B.	" for diphtheria...	...		22
" E.	" for convalescent diphtheria			24
" C.	" for scarlet fever	...		46
" D.	" for complicated cases of scarlet fever	...		23
" G.	" for convalescent scarlet fever patients	...		12
" F.	" for doubtful cases and cases of wrong diagnosis...	...	..	6
				<hr/>
				145
				<hr/>

During the past winter, half of the accommodation in Block F. has had to be allotted to nurses on account of the insufficient number of beds in the Administrative Block. The number of beds for doubtful cases and cases of wrong diagnosis was therefore reduced to three, which is insufficient, an insufficiency which could not be compensated by admitting cases of wrong diagnosis to either scarlet fever or diphtheria wards. Similarly the 46 beds allotted to diphtheria patients was on several occasions insufficient and it was no advantage to have spare beds in the scarlet fever wards. It must therefore be clearly understood that the nominal accommodation of the hospital is quite insufficient for the needs of the district.

During 1908 the average daily number of cases under treatment amounted to 127·1 as compared with 109·5 in the previous year.

The question of additional accommodation has advanced a stage during the past few months but I fear that if there is much further delay the number of extra beds previously agreed upon will prove insufficient.

The following Table gives the total number admitted from the Borough and other Districts during the year 1908:—

TABLE H. II.

Districts.	Remaining at end of 1907.	Admitted during 1908.	Discharged during 1908.	Died during 1908.	Remaining at end of 1908.
*The Croydon Union cases admitted from Penge	—	3	3	—	—
Penge Urban D.C., non- pauper cases	18	112	112	3	15
The Borough of Kingston upon Thames	9	53	45	1	16
The Borough of Croydon	104	773	712	37	128

* 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 total number of patients admitted was 941 as compared with 864 in 1907. It will be seen from the above table that the additional patients were nearly all derived from outside the Borough.

The following Table shows the comparative admissions during 1908 and previous years.

TABLE H. III.

	Cases admitted during 1903.	Cases admitted during 1904.	Cases admitted during 1905.	Cases admitted during 1906.	Cases admitted during 1907.	Cases admitted during 1908.
Scarlet Fever.. .. .	172	235	352	338	562	497†
Diphtheria	178	233	178	239	249	354
Enteric Fever	19	12	15	20	10	59
Puerperal Fever	—	1	—	—	—	—
Pulmonary Phthisis	—	1	—	—	1	—
Other diseases	28	51	64	47	42	31
Total	397	533	609	644	864	941

† Includes five cases sent in as Diphtheria.

It is noteworthy that there is a decline in the number of scarlet fever patients admitted but a marked increase of the admissions of diphtheria and enteric fever patients. The last was largely due to a localised epidemic in the district of Penge.

The following Table gives the number of patients admitted for each disease, the number discharged or died, and average duration of stay in hospital and probable detention in hospital, for the year 1908:—

TABLE H. IV.

Disease.	Remaining at end of 1907.	Admitted during 1908.	Discharged during 1908.	Died during 1908.	Remaining at end of 1908.	Average Residence in days.		Probable detention in Hospital in days.	
						Fatal Cases.	Non-Fatal Cases.	Non-Fatal Cases.	Fatal Cases.
Scarlet Fever	102	497	502	8	89	24.6	60.2	50	18
Cases admitted to Hospital as but subsequently found not to be Scarlet Fever	2	9	10	1	—	1	35.1	30	—
Diphtheria	36	354	297	29	64	7.2	46.3	38	5.2
Cases admitted to Hospital as but subsequently found not to be Diphtheria	—	12	11	1	—	—	22.2	12	—
Enteric Fever	1	*59	53	2	5	7	57.1	56	—
Cases admitted to Hospital as but subsequently found not to be Enteric Fever	1	6	7	—	—	—	23.8	24	—
Other Admissions	—	4	4	—	—	—	21.2	18	—
Total	142	941	884	41	148	—	—	—	—

* Includes four cases of para Typhoid.

The average duration for stay in hospital for the non-fatal cases was about two days less than in 1907 both for scarlet fever and for diphtheria. For enteric fever the average duration for stay in hospital was 12 days less than in 1907. This was partly accounted for by the fact that arrangements were made for the transfer of partially convalescent patients and by the fact that the cases under treatment were on the whole of a less severe type than in previous years.

The following Table gives the fatality from each disease:—

TABLE H. v.

	1907.	1908.
Scarlet Fever	2.5	1.6
Diphtheria... ..	13.6	8.5
Enteric Fever	9.5	3.6
Other diseases	4.8	6.3
All cases	6.1	3.5

4.—Under "Other Diseases" are included the following:—

Disease.	No. of Cases.	Result.
Cases notified as Scarlet Fever but not Scarlet Fever—Total	9 ...	
Rubella	1 ...	Discharged.
Measles	4 ...	"
Erythema	1 ...	"
No disease observed ...	2 ...	"
Influenza	1 ...	Died.

Disease.	No. of Cases.	Result.
Cases admitted as Diphtheria and found not to be Diphtheria—Total	18 ...	
Scarlet Fever	5 ...	Discharged.
Enteric Fever	1 ...	"
Tonsillitis... ..	8 ...	"
Measles	1 ...	"
Laryngitis	1 ...	"
Slough after Tonsillotomy	1 ...	"
Pertussis and Stomatitis...	1 ...	Died

Disease.	No. of Cases.	Result.
Cases admitted as, but found not to be Enteric Fever—Total...	7 ...	
Subphrenic Abscess ...	1 ...	Discharged.
General Bronchitis ...	3 ...	"
Rheumatism	1 ...	"
Diphtheria	1 ...	"
Pyrexia	1 ...	"
Other Admissions—Total	4 ...	
Rheumatism	2 ...	Discharged.
German Measles	2 ...	"

The fatality from scarlet fever was remarkably low and the figures for diphtheria and enteric fever were also quite satisfactory.

TABLE H. VI.

Illness amongst the staff, 1908:—

1	Scarlet Fever	...	...	...	3 cases.
2	Diphtheria	...	...	...	2 cases.
3	German Measles	...	...	...	2 cases.
4	Other illnesses requiring treatment	...	...	...	15 cases.
Total					22 cases.

* 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.

TABLE XIV.
CROYDON BOROUGH HOSPITAL.

Detailed Analysis of Expenditure under all Heads for the Year ending March 25th, 1908, 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.	Sinking Fund and Interest.	Total Cost per Patient, including Sinking Fund and Interest.
		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.				
		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1904	53	1728 7 7	32 12 3	29 9 2	11 1 1	394 9 0	7 8 10	936 11 9	17 13 5	755 13 10	129 11 0	885 4 10	16 14 1	1581 14 2	29 16 11	5555 16 6	104 16 7	2272 3 1	147 14 0
1905	85	2297 6 7	27 0 6	16 13 8	4 0 4	744 4 1	8 15 1	1160 14 9	13 13 1	639 4 2	200 15 10	840 0 0	9 17 8	1592 6 3	18 14 8	6651 5 4	78 5 0	2272 3 1	104 19 7
1906	89	2529 0 0	28 8 4	27 16 6	6 6 3	612 1 9	6 17 6	1414 1 8	15 17 9	1097 19 10	262 12 0	1360 11 10	15 5 9	1995 2 7	22 8 4	7938 14 4	89 3 11	2272 3 1	114 14 6
1907	90	2254 19 6	25 5 1	13 17 7	3 1 3	536 16 11	5 19 3	1299 16 1	14 6 10	694 13 3	156 16 8	851 9 11	9 11 5	1920 6 0	21 1 9	6877 6 0	76 3 5	2272 3 1	101 8 4
1908	121	2588 1 7	21 7 9	5 16 0	0 11 1	393 16 3	3 5 4	1493 0 9	12 6 9	1074 14 9	197 9 9	1272 6 6	10 10 4	1997 17 1	16 10 3	7752 8 2	64 1 4	2272 3 1	82 16 11

It is satisfactory to be able to report that cases of infectious disease occurring among the staff shows no increase over that of 1907, in spite of the extra pressure under which the work was carried out.

AMBULANCE.—During the year 947 journeys were made in removing patients to the Borough Hospital, including 115 journeys to Penge and Anerley. 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 and other Offices.

The sum of £81 3s. was received from the Penge Urban District Council and the Croydon Guardians, for ambulance services rendered during the year.

MAINTENANCE OF BUILDINGS.—During 1908 a small alteration was carried out whereby one of the larger wards in Block E. was sub-divided. This proved a great convenience and I am of opinion that similar alterations should be made in the other large wards as occasion offers.

The following additional works of renovation and repair were carried out under the direction of the Borough Engineer:—

All Wards cleaned down.

Ward C—Inside painted and distempered.

Ward G—Outside painted, including iron roof.

New main entrance gates provided.

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

E.—REPORT ON THE BOROUGH 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 suspected cases of enteric fever, while in recent years a further considerable amount of miscellaneous bacteriological and microscopical work has been undertaken for the Borough.

For the following account of the work of the laboratory I am indebted to Dr. Parsons, the Borough Bacteriologist and Senior Resident Medical Officer of the Borough Hospital.

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.					Totals
	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
1906	...	2257	...	2485	...	4742
1907	...	2105	...	5154	...	7259
1908	...	3621	...	4582	...	8203

The total number of specimens examined in 1908 shows a further considerable increase. Much of this increase was due to the very large number of suspected cases of diphtheria met with in the schools,

and to the more systematic use of the laboratory by medical practitioners, both for the recognition of diphtheria patients and for their subsequent, examination before release from quarantine. The details of this work will be found under appropriate headings.

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.	
	1908		1908		1908	
	Borough	Hospital.	Borough	Hospital	Borough	Hospital
	3028	4518	83	49	210	15
Total ..	7546		132		225	

DIPHTHERIA.—During 1908, 7,546 specimens were examined in the Laboratory. Of these specimens about one-seventh (1,080) 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 or nose. In some cases this organism was very persistent, requiring many examinations extending over many weeks 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 present. Of these, 7·6 per cent. were found, on admission, to have bacilli indistinguishable from diphtheria in the nose, while 1·8 per cent. had similar bacilli in the throat. All these patients were specially isolated in order to guard against the introduction of diphtheria to the scarlet fever wards.

A large number of the specimens examined were from cases of sore throat or nasal discharge occurring in children attending elementary schools. In some 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.

ENTERIC (TYPHOID) FEVER.—The value of the serum test was again manifested. During the year there were 55 completed cases of enteric fever treated at the Borough Hospital, and of these 51 gave a positive re-action. Of the remaining four cases two gave a positive re-action with the paratyphoid organism, the other two were not tested with that organism but had all the clinical signs of paratyphoid fever.

The total number of specimens from suspected enteric fever patients amounted to 132, of which 83 were received from medical men in the borough, and 49 examinations were made of patients in the Borough Hospital.

The following table gives a summary of the serum re-actions obtained in the laboratory during 1908:—

**RESULTS OF EXAMINATIONS FOR DISEASES SIMULATING
ENTERIC FEVER.**

1908.					Examinations for Borough.			Examinations for Hospital.			Total.		
					Agglutinative Reactions.			Agglutinative Reactions.			Agglutinative Reactions for all purposes.		
					+	—	Total	+	—	Total	+	—	Total
January	...	...	...	...	1	3	4	—	4	4	1	7	8
February	...	...	...	...	—	2	2	1	5	6	1	7	8
March	...	...	...	...	—	2	2	—	—	—	—	2	2
April	...	...	...	...	—	5	5	—	—	—	—	5	5
May	...	...	...	...	—	1	1	1	—	1	1	1	2
June	...	...	...	...	9	14	23	4	—	4	13	14	27
July	...	...	...	...	1	11	12	6	3	9	7	14	21
August	...	...	...	...	—	3	3	10	3	13	10	6	16
September	...	...	...	...	5	2	7	6	5	11	11	7	18
October	...	...	...	...	6	9	15	—	—	—	6	9	15
November	...	...	...	...	1	4	5	—	1	1	1	5	6
December	...	...	...	...	—	4	4	—	—	—	—	4	4
First Quarter	...	...	...	...	1	7	8	1	9	10	2	16	18
Second „	...	...	...	...	9	20	29	5	—	5	14	20	34
Third „	...	...	...	...	6	16	22	22	11	33	28	27	55
Fourth „	...	...	...	...	7	17	24	—	1	1	7	18	25
Total	...	...	...	...	23	60	83	28	21	49	51	81	132

TUBERCULOSIS.—The number of specimens examined during the year amounted to 225, 15 of these being from patients already in the Hospital. Out of the total number of examinations 64 were found to contain the tubercle bacillus.

The following table shows the number of specimens examined for the detection of B. Tuberculosis during 1908 :—

RESULTS OF EXAMINATIONS FOR TUBERCULOSIS.

1908.					Examinations for the Borough.			Examinations for the Hospital.			Total.		
					All Examinations.			All Examinations.			All Examinations.		
					+	—	Total	+	—	Total	+	—	Total
January	...	...	...	..	4	15	19	—	2	2	4	17	21
February	...	...	...	...	2	13	15	—	—	—	2	13	15
March	...	...	...	...	6	19	25	—	—	—	6	19	25
April	...	...	...	...	4	11	15	—	—	—	4	11	15
May	...	..	...	...	3	15	18	—	1	1	3	16	19
June	...	...	...	...	5	12	17	—	—	—	5	12	17
July	...	...	...	...	7	3	10	—	4	4	7	7	14
August	...	...	...	...	5	6	11	—	—	—	5	6	11
September	...	...	...	...	3	9	12	—	3	3	3	12	15
October	...	...	...	...	11	10	21	—	2	2	11	12	23
November	...	...	..	...	6	15	21	—	—	—	6	15	21
December	...	...	...	...	8	18	26	—	3	3	8	21	29
First Quarter	...	...	...	...	12	47	59	—	2	2	12	49	61
Second „	...	...	...	...	12	38	50	—	1	1	12	39	51
Third „	...	...	...	...	15	18	33	—	7	7	15	25	40
Fourth „	...	..	...	...	25	43	68	—	5	5	25	48	73
Total	...	...	...	...	64	146	210	—	15	15	64	161	225

RINGWORM.—The number of specimens examined for the presence of this parasite amounted to 122, of this number 9 were from patients in the Hospital. Of the total examinations 56 showed the presence of ringworm spores or mycelium and the majority were of the small spore variety.

MISCELLANEOUS EXAMINATIONS.—Various other bacteriological and microscopical examinations were made during the year. These included the examination of a large number of specimens of urine; of faucial exudation for leptothrix; of brain tissue for meningococcus; of sputum for pneumo-coccus; of bovine spleen for anthrax; and of various other specimens of blood and morbid fluids.

PREPARATION OF MATERIAL.—In addition to the actual examinations of specimens much time has been occupied in the preparation of material needed for bacteriological work. Thus suitable "outfits" for the transmission of specimens to the laboratory in accordance with the requirements of the Postmaster General required careful preparation. 3,273 of these "outfits" were supplied during the year for use by the Public Health staff and the medical men of the borough.

The making of serum culture media commenced in 1906 for use in the laboratory has been continued this year. The blood is obtained from the Public Slaughter House and prepared for use by the laboratory attendant (E. Hasler) under the direction of the medical officers.

The material prepared in this way during 1908 if reckoned at the commercial price, viz., 3s. 6d. per dozen tubes, would have cost £120 4s 6d. In this way a great saving is made in the working expenses of the laboratory.

In conclusion I again draw attention to the increasing demands that are made on the resources of the laboratory. In my opinion we have about reached the limit of work that can be undertaken with the present staff and laboratory accommodation.

F.—REPORT TO THE EDUCATION COMMITTEE.

I beg leave to present the following report, for the year 1908, on the work carried out by the staff of the Public Health Department, in connection with the Public Elementary Schools of the Borough.

Though this is the fifth Annual Report which I have submitted to the Committee, this is the first occasion on which Local Education Authorities have been required to furnish the Board of Education with a report from the School Medical Officer.

To comply with this requirement I have followed as closely as possible the suggestions as to Annual Reports contained in Circular 596 of the Board of Education. It is, however, impracticable to deal fully with anything like all the topics concerning which the Board desire information. Several years must elapse before the whole field can be covered, and further preliminary spade work must be done before the full benefits of the Medical Inspection Clauses of the Education (Administrative Provisions) Act, 1907, become apparent. Though this Act became operative in January, 1908, it was not until April that the additional staff appointed by the Council became available, and much time during the past year has been spent on preliminary details of organization, and on the adaptation of the office staff to the new conditions of work. It should therefore be borne in mind that many of the conclusions which I have reached are of a tentative and provisional character. I do not, however, propose to make any recommendation, except in respect to those matters of which we already possess a sufficiently large experience, which is unlikely to be fundamentally modified by subsequent events.

Several matters which have already been considered by the Committee, such, for instance, as the local organisation, are included in this report, in accordance with the suggestion of the Board of Education that the School Medical Officer should include in his report "statements of local circumstances and conditions "which would be superfluous if they were intended only for the "information of the local authority."

SCHOOL BUILDINGS.—On December 31st, 1908, there were within the Croydon area :—

- 18 Provided Schools, including 54 departments, with recognised accommodation for 19,089 children, and
- 14 Non-Provided Schools, including 37 departments, with accommodation for 5,651 children.

The total provision for Elementary School children in the Borough therefore amounted to 32 schools, with accommodation for 24,740 children.

The number of children on the register on December 31st, 1908, was 23,700.

During 1908, the Good Shepherd School was closed, and St. Michael's School opened in substitution.

When the Education Committee came into being in 1903, three of the old school buildings were so unsatisfactory as to require closure as soon as more suitable accommodation could be provided. One of these schools was the Good Shepherd just referred to, while the other two (St. James' and Tamworth Road) will be closed before long.

It is not easy to summarise one's opinions as to the "hygienic conditions prevalent in the area of the local authority." Speaking generally the newer schools are excellent, and with the exception of the schools about to be closed, even the older buildings are free from the grosser defects.

With respect to the newer infant schools, these are buildings of which the Borough can justly be proud, and I have heard nothing but praise from numerous representatives of local authorities who have accompanied me in my visits to these schools. A slight modification of the central hall, which I have already mentioned to the architect, would be a further improvement. Several French windows or similar contrivances should be introduced at either end of the hall, which could then be made to communicate freely with the playground in summer time.

With regard to the Boys' and Girls' Schools, these also are excellent, and one notes with interest the provision of work-rooms in the two newest schools. This is a sign of the times, and if one reads the future aright, points to a time when manual work will employ a larger and larger share of the school hours of both boys and girls. Before long school plans will have to be modified to meet this development

While the newer buildings are excellent examples of central hall schools, I should like to see in Croydon an example of the pavilion type of school that has been introduced with such apparent success into Staffordshire at the suggestion of Dr. George Reid. In this type the class-rooms are so arranged that ventilation takes place by means of hoppers and sash windows, communicating with the external air. This is undoubtedly a sound principle and seems likely to effect as considerable an improvement in the natural ventilation of schools as the application of similar principles has brought about in hospital wards.

According to Dr. Reid's observations, the air in a school of this design can be readily maintained at a higher standard of purity than has been found possible in central hall schools. On theoretical grounds it seems probable that this would be so. In the meantime I arranged for a series of observations to be made during the present winter on the heating and ventilation of one of our newest schools. For this purpose Winterbourne Road was selected, and I had the good fortune to secure the co-operation of Dr. Gerrard, who has taken dry and wet bulb thermometer readings, and estimated the carbonic acid in the atmosphere in certain class rooms during the past three months. Unfortunately the observations are not yet complete, as the extraordinary mild season prevented our ascertaining what exactly took place during the cold weather. Some of the results already obtained are suggestive. Generally speaking the condition of the air was fairly satisfactory in Winterbourne Road, but comparative observations made at Oval Road Boys' School showed that better results were obtained in the latter building. It is difficult to say how far this superiority is due to the use made of the windows, and how far to the fact that the arrangement of windows at Oval Road allowed of through ventilation. Personally, I am of opinion that both factors were responsible for the results observed.

EQUIPMENT.—The desking of the older schools is gradually being improved, and I am awaiting with interest the trial of single seats and continuous desks, which are to be introduced into some of the class rooms. In the new schools it would be an advantage if ten per cent. of the desks were single adjustable desks of approved design, as these would then be available for those children who, for one cause or another, required desks accurately adopted to their individual peculiarities. For the bulk of children such accurate adjustment of desk to child is not absolutely essential, especially now that the necessity for recreative exercises and change of work is not forgotten when framing school time tables.

SANITARY CONVENIENCES.—These have recently been inspected. The thirty-two schools in the Borough are provided with :—

1 range of hand-flushed troughs.

- 48 ranges of automatically flushed troughs.
- 8 ranges of automatically flushed separate closet pans.
- 37 ranges of wash-down closets with separate flushing cisterns to each closet.

The last arrangement is the only absolutely satisfactory one, and is now adopted in all new schools. The hand flushed trough will disappear when St. James' School is closed. The automatically flushed troughs are from many points of view unsatisfactory, and should be replaced as occasion offers. The troughs at Mitcham Road, Beulah Road, and Sydenham Road are the least satisfactory, and should receive attention at an early date. Flushing apparatus is required for the urinals at Mitcham Road Boys', Beulah Road Infants', and Dering Place Infants' Schools. At the latter, the entrance from the playground might with advantage be screened from the public street. Now that water closets of the ordinary domestic type are supplied to all new schools, there is no reason why the sanitary conveniences should not be made more accessible from the schoolroom. This would be an advantage in bad weather and also favour better supervision.

CLEANING OF SCHOOLROOMS.—During the past year the vendors of disinfectants have been more than usually persistent in vaunting their wares—a persistence which is perhaps only equalled by the candour with which they criticise the statements of rival firms. Now disinfection undoubtedly is occasionally of service in checking the spread of disease. Thus the disinfection of the clothing of the sick, of their infective discharges and of infected articles such as pencils and slates is a wise precaution, amply justified by experience. On the other hand, the suggestion that we should sterilise the walls and floors of class-rooms by chemical means, seems to be based on a misconception of the natural history of the diseases it is proposed to check, and a failure to estimate the relative importance of the various channels by which they are spread. Consider for instance two of the commonest and most serious school epidemics—measles and diphtheria. In both these diseases infection is given off from the throat or nose of the sufferer and, in the vast majority of instances, from no other part of the body. Measles is specially infectious, because cough is an early symptom of the disease and every time a measles patient coughs infectious material is sprayed into the atmosphere. Should any susceptible children inhale these infectious droplets in sufficient dose, they are said to have caught the disease and will develop characteristic symptoms in due course. Rarely infective material may settle on the clothing of an insusceptible person and be conveyed in that way to some other child. There is not, however, a tittle of evidence that measles infection clings to walls, floors and desks. Indeed, the contrary is

proved by overwhelming evidence. Thus, if a primary case of measles were discovered in a class of susceptible children on, say, January 1st and were isolated after one session's attendance at school, one would find that secondary cases would occur between January 9th and 14th (*i.e.* during a period corresponding to the known incubation of the disease assuming that infection was acquired on January 1st). What one does not find are cases with onsets from January 14th to 20th, as one would do if a measles child infected the walls and floors. In other words one must seek to control measles on the assumption that it spreads from the sick to the healthy, and not through the medium of infected plaster and boards.

Similar remarks apply to diphtheria of the throat, which happily has a more limited power of spread because it is not commonly accompanied by a cough to mechanically expel infection into the atmosphere. Nasal diphtheria is somewhat more liable to diffuse, because infected secretions can more readily be conveyed from the sick to the healthy.

It may, I think, be affirmed of these diseases, which are typical of school epidemics:—

(1) That infection nearly always spreads in the direct way just described.

(2) That, occasionally, infection may be transferred by the medium of clothing, pencils, handkerchiefs and so forth.

(3) That whatever infection reaches the floors and desks is so small in amount that it can be rendered innocuous by attention to the ordinary rules of cleanliness, and by free ventilation.

¶ I would therefore deprecate resort to routine disinfection, firstly because there is no evidence that it is necessary, and secondly because it would be likely to absorb attention and money that can be spent more profitably in securing greater use of soap and water, and more thorough perfilation of class-rooms.

If the healthiness of school buildings is to be increased, there is no doubt that attention should be concentrated on obtaining more thorough ventilation, and more frequent washing of floors, desks, and walls. In order to facilitate the latter operation in future schools it would be an advantage if one of the jointless impermeable floors were substituted for wood blocks and boards. The desks and seats should also be fixed with standards so arranged as not to afford lodgment for dust and interfere with the free use of swabs and

brooms. There is no insuperable difficulty about this, and one of the jointless floors has already proved successful at Winterbourne Road. I recommend that the Architect's attention be directed to these points when the next school is required.

ORGANIZATION AND CO-ORDINATION OF SCHOOL AND OTHER PUBLIC HEALTH WORK.—The Medical Officer of Health is School Medical Officer and early in the past year the Council granted the additional assistance of one whole time assistant to the Medical Officer (Dr. Sophie Jackson), and two additional health visitors. Mr. Charles Wray, F.R.C.S., remains responsible for ophthalmic work in the schools. An additional clerk was also added to the staff of the Health Department. It should however be clearly borne in mind that the whole of the public health staff is available and has to a large extent been used for school work. It is owing to this arrangement that we have been able to make fairly rapid progress. Thus during the Christmas school vacation it was found possible to have all the inspection cards analysed at the office and returned to the schools when they re-assembled. This was accomplished by concentrating the clerical staff on the task for the first week in the new year and the statistical tables were thereby prepared with dispatch and without interference with school routine.

The salient features of our local organization are familiar to the Committee, but in compliance with instructions are once more explained. The borough is divided into five school districts. Each of these districts is in charge of a health visitor who spends, on the average, one day per week in the schools, either in assisting the medical inspector or in other ways. The rest of the health visitor's time—as far as school work is concerned—is spent in investigating illnesses among absentees, supervising the children respecting whom the medical inspector has given special advice, and in assisting at the special examination of children at the Town Hall on Wednesday and Saturday mornings. On two mornings per week one of the health visitors assists in X-ray work.

Full use is also made of the other members of the public health staff and special acknowledgment should be made for the assistance rendered by the Borough Laboratory where specimens from doubtful cases are examined. Theoretically 10 school sessions per week are available for medical inspection but in practice it has been found convenient to reserve Wednesday for examination of selected children at the Town Hall and for other incidental work. The actual inspection of the children in the schools has therefore to take place on the remaining four days or in eight school sessions,

The present organization is briefly as follows:—

Medical inspection cards are supplied to all the head teachers and as soon as possible after 20 cards have been prepared for children who have become subject to inspection, dates are fixed for medical inspections to be held at certain particular schools, and the head teachers are asked to forward the necessary notices to the parents. The health visitor for the district is present at the inspection and assists in weighing, measuring and other ways. Should the parents not be present at the inspection, any necessary directions are conveyed by the health visitor who also keeps under observation all children concerning whom special advice has been given. Practically the whole of the routine inspections of the children at the schools have been carried out by Dr. Jackson. Since the new Act has come into force I have not found it possible to make myself responsible for any large share of the routine inspections though I hope it will always be possible for me to undertake a small proportion in order that I may keep myself familiar with the many difficulties incidental to the work. The necessity for offering facilities for the attendance of parents at the medical inspection makes it essential to fix the dates at which the children in the various schools will be inspected. For this reason it is impracticable for the school medical officer to undertake any large share of the routine work as he would otherwise be unable to devote himself to the many emergencies which frequently arise in large districts. In my own case all my available time is more than filled in attending to these emergencies, in examining mentally defective children, in certifying truants, advising the attendance officers, in examining teachers, and in endeavouring to solve the thousand and one special medical problems of elementary schools. During the past year this emergency and incidental work has grown to an extent which I had hardly anticipated. At present Dr. Jackson is able to rather more than cover the work required by Article 58 (b) of the current code. Should these requirements be increased, further medical assistance must be provided.

The Ophthalmic Surgeon has carried on his work in the schools as heretofore. More than a year ago I pointed out that the regulations of the Board of Education make it essential that the vision of each child should be examined and recorded, and that efforts should be made to remedy any defect found. In order to economise the time of the ophthalmic surgeon the present method of dealing with eye cases should be modified. The initial examination of the eyes should be made at the general medical inspection. This would enable us to sort out the children who require detailed study by a specialist. These selected cases should then be referred to one or more selected centres where the ophthalmic surgeon could attend at such hours and on such days as may be arranged. The ophthalmic surgeon would then advise whether spectacles or other remedial measures were

necessary, and the public health staff would keep the children under observation until the advice was followed. In this way the time of the ophthalmic surgeon would be economised, and the Committee would have the machinery for securing attention to his advice.

This recommendation was adopted in principle and it was arranged that Mr. Wray should in the first instance attend at the Town Hall on two mornings per week to examine and advise selected children. Owing to the delay in securing the long promised additional accommodation for my department it has not yet been possible to carry this plan into effect, but arrangements are under discussion whereby the Council will provide the necessary rooms.

BOARD'S SCHEDULE OF MEDICAL INSPECTION. — This schedule has been adopted in its entirety but the order in which the inspection is made has been varied to meet local requirements. No attempt has been made to complete each child's schedule. In many instances no examinations of the chest were undertaken, sometimes because such examinations were obviously not necessary while in other cases complete examinations were likely to be resented, and were therefore postponed until the parents were familiarised with our methods. In a few of the schools (Mitcham Road for instance), a superficial inspection of the children was all that was possible as there was no room available in which the privacy and absence of noise necessary for a complete examination could be secured.

The results of the Ophthalmic Surgeon's examinations also are not at present entered on the cards as his method of selecting children is different from that adopted for the general inspection.

ASSISTANCE TO THE SCHOOL MEDICAL OFFICER AND HIS ASSISTANT.—The work of the health visitors when acting as school nurses has already been alluded to and is set out in Table E VIII.

The assistance rendered by the large majority of teachers has been invaluable and I cannot speak too highly of the judgment and tact which have been displayed in connection with our work in the schools. Without the cordial and intelligent co-operation of the teachers little progress can be made and I trust the small minority who have found it difficult to adjust themselves to the new requirements of the code will soon become convinced of the importance of co-operating in the work. Unless the requirements of the Board of Education are carried out both in spirit and in letter, progress is impossible and I am confident that we owe our freedom from difficulties and complaints in no small measure to the way in which the teachers of Croydon have responded to the demands made on them. In quite a large number of schools the teachers have voluntarily assisted in the weighing and measuring of the children and in this way not only lightened the labours of the medical staff but turned what might have been a tedious compilation of statistics into interesting lessons in weighing and measuring according to English and metric standards.

Lastly I have to acknowledge the assistance rendered by the superintendent attendance officer (Mr. Jones) and his staff. Mr. Jones is constantly in touch with the Public Health office and the practice of holding weekly consultations between the attendance officers and the public health department has continued with advantage to all concerned.

ATTENDANCE OF PARENTS.—This has been secured by written notices despatched by head teachers prior to the medical inspections. The parents or guardians of children inspected were present in 1,273 out of 3,659 children inspected or 35 per cent. In the infants schools 1094 parents were present out of 2,877 children inspected or 38 per cent.

DISTURBANCE OF SCHOOL ARRANGEMENTS.— This was minimised as far as possible and in well equipped schools the visit of the medical inspector did not materially interfere with the general work of the school, but in certain of the older schools (Mitcham Road, Sydenham Road, Christ Church) much inconvenience was felt both by the teachers and by my own staff in making the necessary inspections. When the plans for the next new school are under consideration the Committee should bear in mind the necessity of introducing some minor modifications whereby one of the teacher's rooms or a suitable class room should be available for medical work. The Committee should also seriously consider the advisability of providing teachers' rooms at all the older schools that are unprovided with this necessary accommodation.

The provision of a quiet, suitably lighted and warmed room with washing appliances in each school would materially lessen the difficulties of all concerned in medical inspection. In the absence of these essentials it is impossible to work rapidly or to concentrate one's attention on the series of problems presented to the inspector as child after child is passed under review.

In some schools—e.g. Princess Road Infants—medical inspection has consumed a larger amount of time than had been anticipated. This is due to the considerable number of children that enter this school and then leave the district. In schools of this type the number of infants examined as "entrants" is quite out of proportion to the numbers at any one time on the roll.

EXTENT AND SCOPE OF MEDICAL INSPECTION DURING THE YEAR—In selecting the children for inspection the requirements of section 58 (b) of the code were primarily considered and arrangements made for inspecting all the entrants to the infant schools and as many of these who are likely to leave during the year ending July 31st, 1909, as could be dealt with in 1908. To these must be added a number of children who were examined at the instance of the head teachers or of the Attendance Committee. Though there are good reasons for requiring the inspection of children about to leave school,

certain special difficulties arose from the selection of older children for inspection at the present juncture. When children are about to leave school little opportunity is afforded for securing treatment and in some instances the children have actually passed out of our control before their special needs have had mature consideration. Furthermore, the younger children are in many ways easier to manage as it is only the prejudices of the parents which have to be considered, whereas the boys and girls of thirteen and fourteen have ideas of their own as to the need of attending to the suggestions of the inspector or of allowing themselves to be weighed and measured. In one school several of the older girls objected to be inspected because they had good reason to know that their personal cleanliness would be subjected to criticism. Such grounds for objection should be impossible in a well-conducted school. In this particular instance, though the objection to medical inspection was respected, the health visitor for the district examined all the children's heads and gave the necessary—though unpalatable—advice.

It may here be noted that the number of actual objections to inspection were singularly few, thus in only one instance was objection raised in respect to an infant though 2877 infants were examined. In the case of the older girls some twenty objections were made. This is an insignificant proportion and not sufficient to interfere with the work.

TABLE E. 1.
Total number inspected during 1908.

Age.	Number of Boys.	Number of Girls.	Total.
2-3	1	...	1
3-4	119	107	226
4-5	341	312	653
5-6	615	634	1249
6-7	306	295	601
7-8	60	70	130
8-9	6	10	16
9-10	1	3	4
10-11	...	3	3
11-12	2	8	10
12-13	1	15	16
13-14	152	434	586
14-15	36	107	143
15-16	3	16	19
16-17	1	1	2
Total all ages ...	1644	2015	3659

NUMBER OF CHILDREN REFERRED FOR SUBSEQUENT EXAMINATION.—Of the total 3,659 children inspected 1,405 were found to require further examination. In most instances this referred to the necessity for examining the particular children on a subsequent visit to the school in order that it might be ascertained if the defect found had received attention or the need for treatment become more urgent. In other instances subsequent fuller examinations at the Town Hall were arranged, but the exact proportion of these examinations cannot be given for 1908 as the notes have not been kept separate from those relating to other children seen on Wednesday and Saturday mornings at the central offices.

ADVICE TO PARENTS AND CHILDREN.—Apart from the work of the Ophthalmic Surgeon, I find that at the general inspections, advice was tendered in respect to 2322 children who were found to be suffering from defects, which are classified under the following headings :—

Uncleanliness	...	...	...	...	469
Verminous conditions	...	...	...	...	56
Defective Clothing	...	...	...	...	128
„ Footgear	...	...	...	...	166
Poor Nutrition	...	...	...	...	54
Diseases of the Eye	...	...	...	...	199
„ „ Throat and Nose	...	...	...	...	1003
„ „ Ear	...	...	...	...	79
Deformities	...	...	...	...	71
Heart Disease (permanent and temporary)	...	...	...	...	57
Lung Disease	...	...	...	...	77
Communicable Diseases	...	...	...	...	60
Teeth—Urgently needing treatment	...	...	...	...	180
Other defects of the teeth	...	...	...	...	2235
Sundry defects	...	...	...	...	571
					<hr/>
					5205
					<hr/>

THE WORK OF THE OPHTHALMIC SURGEON.—The following table prepared by Mr. Wray shows the number of children inspected for eye trouble, the conditions found, and the number concerning whom advice was offered :—

TABLE E. II.

	Beulah Road.	Brighton Road	Boston Road.	British.	Christ Church.	Davidson Road.	Eccleshourne Road.	Good Shepherd.	Ingram Road.	Holy Trinity.	Oval Road.	Portland Road..	Parish Church.	Princess Road.	St. Andrew's.	South Norwood.	St. James'.	St. Joseph's.	St. Mary's.	St. Saviour's.	Tenison's.	Welcome Hall.	Winterbourne Road.	Woodside.	Whitehorse Road.	Total.
Blepharitis	2	2	..	..	1	..	1	1	..	2	1	1	2	5	..	1	..	..	1	1	..	1	..	2	24
Chalazion .. ..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	3
Conjunctivitis ..	15	7	..	3	8	1	1	9	..	3	22	5	..	4	2	3	3	4	9	..	5	16	8	4	132	
Cyst .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cicatricial contraction of orbit from ill- fitting artificial eye..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Cataract .. ..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	3
Coloboma .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	2
Corneal Nebula ..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Dermoid Cyst.. ..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	2
Epiphora .. ..	..	..	..	..	1	..	..	1	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	1	5
Exophthalmic Goitre	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1
Foreign Body.. ..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	2
Hordeolum .. ..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Iridoplegia .. ..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
In-turning Lashes	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1
Nebula .. ..	..	1	1	..	6	..	..	..	..	..	..	..	1	1	..	..	1	1	..	..	..	..	2	2	16
Nystagmus .. ..	..	1	3	..	..	1	..	..	..	..	1	1	2	..	..	..	..	..	..	..	..	..	1	3	13
Naevus .. ..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Ophthalmia	1	..	..	..	..	..	..	..	..	..	2	..	1	2	1	2	..	1	8	..	..	5	..	..	23
Phlyctenular .. ..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Ptoſis .. ..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Paresis left external Rectus .. ..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Strabismus	12	2	6	..	9	..	2	11	..	4	25	5	8	1	1	2	..	..	..	..	..	7	10	7	112
Thinned Sclerotic ..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Traumatic Aphakia ..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1
Ulcer .. ..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	2
Refracted	38	21	..	22	27	52	..	45	16	..	77	13	11	..	24	..	11	..	15	..	..	..	..	22	394
Glasses ordered ..	21	14	..	4	15	20	..	14	8	..	25	3	16	..	9	..	3	..	7	..	..	..	10	169	

In addition to the above Schools, glasses have been ordered for children at :—Dering Place, Birchanger Road, All Saints', St. Peter's, Sydenham Road, Mitcham Road, Rockmount Road.

AVERAGE TIME OCCUPIED BY INSPECTION.—The time occupied by primary inspection remains about constant. As in past years it has been found that about 20 children could be inspected in a school session of two hours. The time taken at the subsequent examination of special cases is of course considerably larger and has not been ascertained.

HEIGHTS AND WEIGHTS.—The following table gives the average heights and weights of the children measured in 1908. The numbers are omitted for groups of less than ten.

TABLE E. III.

BOYS.

Age.	Number Examined.	Height in Centimetres.	Height in Inches.	Weight in Kilos.	Weight in Pounds.
3-4	114	94.3	37.1	15.0	33.1
4-5	329	95.6	37.6	15.7	34.5
5-6	580	104.1	41.0	17.3	38.0
6-7	306	110.2	43.4	19.2	42.3
7-8	51	112.8	44.4	20.7	45.6
13-14	155	145.4	57.2	37.1	81.7
14-15	43	149.0	58.7	39.5	86.4

GIRLS

Age.	Number Examined.	Height in Centimetres.	Height in Inches.	Weight in Kilos.	Weight in Pounds.
3-4	100	91.0	35.8	14.0	30.9
4-5	299	98.0	38.6	15.8	34.9
5-6	628	104.0	41.0	17.2	37.9
6-7	294	109.0	42.9	18.9	
7-8	69	113.0	44.5	20.6	45.4
12-13	18	135.9	53.5	32.6	71.9
13-14	404	148.3	58.4	38.5	84.7
14-15	105	153.3	60.4	43.3	95.5
15-16	18	151.2	59.5	45.8	100.9

Generally speaking these tables show that both our boys and girls are at most age periods somewhat above the average in height and below the average weight when compared with the result of an investigation of the British Association into the height and weight of children of all classes. The deficiency in weight of Croydon children is somewhat more marked in those attending infant schools. At the moment no useful purpose would be served by comparing the measurements in different schools. I hope it may be possible during the current year to make detailed investigation into the comparative physique of children attending different types of schools.

During the past year our principle efforts were directed towards obtaining a general survey of the situation and no attempt has been made to classify the defects with great detail. Certain broad facts however at once call for the consideration of the Committee.

These facts must however be interpreted with due regard to their limitations. Thus, in judging of nutrition and uncleanness, there is no absolute standard and the personal factor of the individual investigator will entirely modify the results obtained in different schools. Again, many of the defects noted under some of the headings would have been found more frequently if each child had been specially examined from that point of view. Thus, if every child's chest had been stripped and examined, there is no doubt that a somewhat larger proportion of heart and lung trouble would have been discovered, but at the present moment any such procedure is neither practicable nor desirable. Should the necessity arise for estimating more accurately the incidence of special ailments we should have to examine each particular child from that point of view, and the results obtained in different schools would then be comparable both with one another and with those obtained in other towns where similar methods were adopted. With these limitations the facts noted at the inspections may now be considered.

UNCLEANLINESS OF BODY.—This was noted in 469 out of 3,659 children examined, or 13 per cent., and was considerably more prevalent among the girls than the boys. This figure considerably understates the actual amount of uncleanness met with in school children, as we were constantly informed by head teachers that the children and their clothing had been specially prepared for the medical inspection. At one school it was suggested that the condition of the children would be vastly improved if an inspection could only be held each week. It is a matter for consideration whether more attention might not be profitably paid by the teachers to conditions which must have a very unfavourable effect

on the health and comfort of the children. Probably however this supervision will remain incomplete until school baths are recognised as part of the necessary equipment of elementary schools.

In 56 instances children were found to be harbouring live vermin but this does not by any means show the number actually infected. As already stated the children had been specially prepared for inspection and clean clothing together with attention to the scalp had temporarily removed all live stock. The prevalence of vermin is better shown by the number of children on whose heads nits were observed. Unfortunately by an oversight this information was not extracted. That the number of children infected with vermin is very considerable is shown by the following figures obtained from four typical schools which were specially inspected from this point of view early in 1909.

TABLE E. iv.

GIRLS.

School.		No. Examined.		Vermin.		Nits only.
A	...	72	...	3	...	31
B	...	135	...	—	...	67
C	...	133	...	—	...	40
D	...	149	...	10	...	59
		<hr/> 489		<hr/> 13		<hr/> 197

INFANTS (BOYS AND GIRLS).

School.		No. Examined,		Vermin.		Nits only.
A	...	241	...	41	...	115
B	...	25	...	2	...	8
		<hr/> 266		<hr/> 43		<hr/> 123

Of course these variations are, to a certain extent, to be explained by the home conditions of the children attending these schools, but this is by no means the whole explanation. While recognising the special difficulties of certain head teachers, am confident the condition of the children not only reflects the condition of their homes but the standard of cleanliness adopted in the school. In the girls' schools much improvement would follow the adoption of a regulation similar to that in force at the High School, namely, "girls with hair long enough to reach the shoulders are expected to have their hair tied back." This is a simple precaution, which is not only calculated to check the spread of vermin, but has other obvious advantages.

The prevalence of dirty heads will perhaps best be gauged by notes taken of the admission of children to the Borough Hospital, as a more complete examination can be made at that institution than is practicable in school. Dr. Parsons kindly analysed the notes of 422 Croydon school children :—

Boys	admitted	with	clean	heads	...	...	102
"	"	"	dirty	"	...	...	34
Girls	"	"	clean	"	...	...	42
"	"	"	dirty	"	...	...	113
Infants	"	"	clean	"	...	...	61
"	"	"	dirty	"	...	...	70

The numbers admitted from individual schools are too small to allow of comparison, but it is surprising to find how widespread the trouble really is.

DEFECTIVE CLOTHING AND FOOTGEAR were noted in 128 and 126 instances respectively. These defects were doubtless in most instances due to poverty, and will be best met by reference to the Guild of Help, whose workers could investigate the home conditions and deal with each case on its merits. Apart from deficiency in clothing there was a large proportion of children who were unsuitably clothed, and in the summer time at any rate are too warmly clad. The following leaflet was therefore prepared on "Clothing of school children," and the health visitors have been instructed to advise the parents as to the rational method of dressing school children.

COUNTY BOROUGH OF CROYDON.

THE CLOTHING OF SCHOOL CHILDREN.

BOYS.

The most suitable outfit for a school boy consists of :—

- (1) A combination garment.
- (2) Knickerbockers.
- (3) Woollen stockings.
- (4) Jersey of knitted wool.
- (5) Lace boots.
- (6) Straw hat or cloth cap.

The combination garment should have sleeves and reach just below the knees. The best material is wool, either woven or one of the unshrinkable flannel mixtures. If flannelette is used it must be the kind that will not burn. Ordinary flannelette is dangerous.

For children in the baby class the combination is best replaced by a vest and drawers.

The knickerbockers should be of corduroy or stout serge, and supported by braces, or by being buttoned to a bodice in the case of infants. Suspenders should be used for the stockings.

A knitted vest is a useful addition in the winter time, when an overcoat is also required.

While it is a mistake to endeavour to harden children by exposing the limbs, too many garments hinder the free movement of the body and the proper use of the lungs. Over-clothing also leads to sweating during exercise, and consequent risk of chills.

The boots should be of the natural shape of the foot, straight on the inside edge, and allow plenty of room for the toes.

GIRLS should be dressed in the same way as boys (suitable knickerbockers included), but with the addition of a kilt supported from the shoulders by a cotton bodice. If preferred the jersey and kilt may be replaced by a long-sleeved yoke frock reaching just below the knee, made of material suitable for the season.

Patterns for making suitable garments for boys and girls may be borrowed from the Health Visitors.

PUBLIC HEALTH DEPARTMENT,
TOWN HALL.

These leaflets are distributed to the parents, and it is hoped that in course of time the more prosperous and intelligent parents will fall in with our suggestions. Once this is done the whole of the school population will benefit as the poorer children are very frequently clothed in the cast-off garments of the more fortunate.

DISEASES OF THE EYE.—These include external diseases noted at the inspections. Errors in refraction and defects in vision are separately tabulated by the ophthalmic surgeon.

EAR DISEASES.—Of the 3,659 children inspected 79 were found to have discharging ears: This condition is always a serious one, as it may not only lead to permanent loss of hearing, but may have fatal results should the inflammation extend to the brain, as it always has a tendency to do. Moreover, in many instances the discharge is so offensive as to render the affected child unfit to attend school. Cases that do not yield to treatment within a limited time require operation.

DISEASES OF THROAT AND NOSE.—Under this heading are classified adenoids and enlarged tonsils.

DENTAL TROUBLE.—Each child's teeth were examined and a rapid note taken of the number of teeth obviously decayed. Note was also taken of the number of children whose mouths were in such a septic state that surgical treatment was urgently required.

TABLE E. v.

THE TEETH.

SCHOOLS.	Number of Children Inspected.	Urgently needing dental treatment.	Children exhibiting less urgent dental defects.	Children with healthy teeth.	Percentage with healthy teeth.
Infant Boys	1449	48	875	526	36·3
Infant Girls	1428	34	863	531	37·2
Senior Boys	195	24	136	35	17·9
Senior Girls	587	74	361	152	25·9

The dental condition of school children is one of great importance. From the preventive point of view much might be done by raising the standard of cleanliness and by better care in the choice of food for young children. The chief points to which attention should be directed are embodied in the following leaflet which was kindly revised by my friend, Mr. Denison Pedley, Dental Surgeon to the Evelina Hospital for children.

COUNTY BOROUGH OF CROYDON.

CHILDREN'S TEETH.

1. The Teeth **must** be kept clean.
2. Use a small tooth-brush with stiff bristles. Use a little soap or some precipitated chalk.
3. Brush all the teeth thoroughly, especially the back ones. Brush all surfaces of the teeth.
4. Clean the teeth immediately **before going to bed**. Take no food of any sort afterwards. Clean the teeth again in the morning.
5. Clean teeth do not decay.
6. If the food is too soft it is apt to cling about the teeth where it decays and damages the teeth. Chewing not only helps to digest the food but keeps the teeth clean.
7. Decayed teeth should receive attention as they give rise to indigestion and other troubles. Decayed temporary teeth may injure the permanent set.
8. Improperly fed infants are apt to have bad teeth. Study the handbill on infant feeding.

The need for securing dental treatment for school children is referred to in a subsequent paragraph of this report.

DISEASES OF THE LUNG.—In no instance was tuberculous disease of the lungs diagnosed at the medical inspections, though a considerable number of children suffering from consumption but not attending school are known to the department. This is a matter of considerable importance upon which I propose reporting further at an early date. In the meantime two outstanding facts should be borne in mind. First the number of tuberculous children attending school in such a condition as to endanger the infection of others is so small that for practical purposes it may be considered negligible. Secondly a large proportion of school children—both debilitated and otherwise—are undoubtedly already infected with the germs of tuberculosis and need to be placed under favourable conditions in order that the disease may be prevented from developing. It is for this reason

that the hygiene both of the school and of the home needs constant supervision, and it is on these lines, combined with the provision of open air schools and the assistance of subscribers to convalescent homes, that the problem of dealing with tuberculosis at school age must be solved.

METHODS EMPLOYED OR AVAILABLE FOR THE TREATMENT OF DEFECTS.—At the moment the Public Health Department only undertakes the treatment of scarlet fever, diphtheria, enteric fever, and small-pox at the Borough Hospitals, and of ringworm and minor skin complaints. For children suffering from itch and body vermin the present tentative provision of baths at the Municipal Lodging House has many drawbacks. It is intended, however, that suitable baths shall be provided at the new disinfecting station, for which plans are in preparation. Without the means for simultaneously disinfecting the person and the clothing, neither itch nor body vermin can be effectively dealt with.

RINGWORM.—The arrangements described in my previous annual reports have continued in force during the past year.

The following table shows the number of cases supervised by the Public Health Department during 1908.

TABLE E. vi.

RINGWORM 1908.

Total number outstanding Jan. 6th, 1908	Scalp	106		
	Body	21	127	
Total number reported during 1908	Scalp	344		
	Body	155	499	626
Total number freed during 1908	Scalp	328		
	Body	162	490	490
Total number outstanding Jan. 11th, 1909	Scalp	122		
	Skin	14	136	136

On the whole the results are generally satisfactory with the exception of two classes of cases. First the number of children suffering from ringworm in such a form as to render them incapable of responding to drug treatment within a reasonable time. For these cases exposure to X-Rays is the only efficient means to cure, but in some instances we are thwarted by the refusal of the parents to allow their children to receive the benefit of this method of treatment. Secondly, we are much hampered by the large number of children admitted to school on medical

certificates as convalescent from ringworm but who are subsequently found to be in an infectious condition. It is a great pity that these "relapses" should so frequently occur and that there is not a better understanding as to what constitutes freedom from infection. I here repeat that my own practice is to regard a case of ringworm treated by drugs as infectious until the diseased patch is covered with hair of normal texture and "set," and until the scalp is free from scales and no diseased stumps can be detected after careful examination with a hand lens.

Children treated by X-Rays are regarded as free from infection and allowed to return to school as soon as the affected area is absolutely bald and the last diseased stump has been extracted. This is often a somewhat tedious process as the hairs have a way of breaking off close to the surface of the scalp. Children sent back to school at this early stage should invariably be kept under supervision in order to guard against the danger of relapse.

For the children whose parents will neither avail themselves of the X-Ray treatment nor persevere with drugs, it seems to me that a small ringworm class might be tried at one or two centres. Such provision would certainly prevent parents from neglecting the treatment of older children because they wished to avail themselves of their services at home rather than send them to school.

TREATMENT OF FAVUS.—In my last annual report I referred to a family of three children who were suffering from this disease which is extremely intractable but fortunately rare in this part of the country. The eldest boy, who was thought to have recovered at the time of my last report subsequently relapsed, but is now quite free from the disease and has been found work, in spite of the fact that owing to continual exclusion from school he is unable to read or write. The third child was submitted to treatment during the year and is in all probability cured, though he will have to be kept under observation a little longer, as this disease has a great tendency to relapse.

As far as can be ascertained the Borough is now free from this disease, and it is worth noting that the two younger children would in all probability have been continuously excluded from school if the local authority had not undertaken their treatment.

TREATMENT OF OTHER DEFECTS.—With regard to other defects, our practice is as follows:—Should the parent be present at the inspection the nature of the defect is explained and the parent advised to secure medical treatment. In all but the most trivial

cases the child is either seen at home by one of the health visitors or examined on a subsequent occasion at the school and treatment again urged if not already secured. Should the parents not be present at the inspection any serious defect is reported in writing, the communication being left by the health visitor who supplements the written advice and otherwise endeavours to assist parents in securing treatment.

Speaking generally, the present arrangements for securing medical treatment for the poor leave much to be desired. This is specially so in the case of all children whose parents are on the poverty line, and, above all, when the illness is not of an obviously alarming nature, though as a matter of fact requiring careful, skilled and, possibly, prolonged treatment. Thus many young children suffering from measles and whooping cough are untreated until complications ensue and their lives are in danger.

Similarly mild cases of diphtheria and scarlet fever often escape detection because the symptoms are not sufficiently obvious to insure the provision of medical aid. In many instances we are met with the plea of poverty when we urge parents to obtain medical advice for such children, and the attempt to refer such cases to the district medical officers is frustrated by the fact that destitution is the test of eligibility for medical relief. Under these circumstances, not only do the children suffer, but the community fails to obtain the protection against disease which a better organised medical service would provide.

Again, the excellent work done by the General Hospital is somewhat marred by the fees demanded from out-patients, a system to which there are many objections, of which the chief—from our point of view—is the fact that many children are thereby deprived of the special help which an institution of this kind, with its excellent equipment, can alone afford. Thus the Health Visitors sometimes find that, after hospital letters have been procured, the children are refused treatment because they have not brought the necessary sixpences, and this is particularly the case when treatment is prolonged, or when more than one member of a family is in need of advice.

I do not wish, however, to enter into a discussion of the general medical treatment of the poor, but would confine my remarks to certain conditions, for which it is urgent that further provision should be made.

EYE DISEASES.—It is already agreed that the Ophthalmic Surgeon's services will be more effective when accommodation is provided at the Town Hall, where selected children can attend for more detailed examination than is practicable on school premises. As soon as that is done the Committee will have to consider the best means of assisting children to procure suitable spectacles at prices within the means of their parents. From enquiries I find that there is not likely to be any difficulty in arranging with one or more opticians to supply school children at reduced prices. Even these prices—varying from 1s. 9d. to 4s. 6d., according to the kind of spectacles required—cannot be paid by the very poor, and where this difficulty arises, I propose referring the children to the Guild of Help.

THROAT AND NOSE DISEASES.—Apart from infectious diseases those most commonly requiring treatment are enlarged tonsils and adenoids. For these, the provision made at the General Hospital, and—to a limited extent—elsewhere, meets the needs of school children. Since May 13th, 1908, the House Surgeons at the General Hospital have kindly supplied me each week with a list of children operated upon, in order that the teachers may be asked to pay special attention to breathing exercises. One hundred and twenty-eight children have been so reported to me up to the end of the year, and I take this opportunity of thanking the Resident Staff of the Hospital for their kind co-operation and assistance. I believe that by attention to the after treatment we shall minimise the danger of relapse, and secure better permanent results.

As long as the General Hospital finds itself able to cope with the number of throat cases referred for treatment, I do not think there is any necessity for additional assistance, but it is most important that my department should be supplied with a sufficient number of hospital out-patient letters. At present much valuable time is lost in referring parents to charitable persons who may or may not have spare letters. An ideal plan would be for the General Hospital Committee to undertake to admit elementary school children requiring treatment for tonsils or adenoids as casualty patients who could receive attention without presenting a subscriber's letter.

EAR DISEASES.—Seventy-nine or somewhat more than two per cent. of the children inspected were found to have discharging ears. It is most important that some systematic effort should be made to cure these discharges which at present are a danger to those affected and an offence to others. I suggest that as soon as suitable accommodation has been provided for examination of children at

the Town Hall, selected children should be examined by myself or by the assistant medical officer, and directions given for such treatment as could be carried out at home. In some instances this might well be supplemented by visits from the district nurse and by the supervision of the Guild of Help. At present the parents are not sufficiently persevering with treatment and many children are allowed to become offensive who could at least be kept clean. With our present staff we could, however, only deal with a proportion of the children as the constantly increasing demands on the time of your officers forbid our undertaking much additional work. Children requiring operative interference should be referred to one of the hospitals.

DENTAL TROUBLE.—About 80 per cent. of the older children require the services of a dentist, while the mouths of about 5 per cent. of the children are in such a condition as to urgently call for treatment either for suppurating stumps, abscesses of the jaw, or other septic conditions which are manifestly impairing their health. This matter is so important, and there are so many difficulties attached to any of the various schemes which have suggested themselves, that I shall be glad if the whole question may be considered by a Sub-Committee with a view of finding some practical solution of the difficulty.

Finally, though it is clear that arrangements must eventually be made by the Education Authority for securing definite medical and surgical treatment for school children, it should be constantly borne in mind that other methods of amelioration, though perhaps not so obvious, are equally important and generally available though requiring more time for the production of definite results. I refer more particularly to the securing of healthier school conditions and to the education of parents and children in the first principles of healthy living. Take for instance the problem of tuberculous children: obviously it is of the greatest importance to the sufferer that medical and institutional treatment should be secured, but improved ventilation of schools, the cult of the open window, intelligent dieting, proper clothing, judicious physical exercises and domestic hygiene generally will not only improve the condition of the tuberculous, but will save many children from infection and raise the standard of health of all school children. It is for this last reason that these general measures are specially commendable. Efforts limited to the treatment of the physically defective may possibly tend to produce racial degeneration, but, as Dr. McVail points out, we are on perfectly safe ground if our measures are so selected as to improve the health of the whole community.

ACTION TAKEN TO PREVENT SPREAD OF INFECTIOUS DISEASES.—The method of dealing with notifiable diseases is dealt with in the report to the Sanitary Committee. During the year the undermentioned cases have been dealt with by my department:—

TABLE E. VII.

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

Illness.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Totals.
Measles ...	732	818	115	458	2123
Mumps ...	119	118	34	37	308
Whooping Cough	89	161	83	78	411
Chicken Pox ...	88	78	27	79	272
Sore Throat ...	148	84	125	182	539
Ringworm ...	101	124	74	74	373
Other Cases ...	230	78	125	197	630
Totals ...	1507	1461	583	1105	4656

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

Illness.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Total.
Scarlet Fever ...	107	112	102	99	420
Diphtheria ...	82	56	81	102	321
Enteric ...	2	6	7	3	18
Measles ...	845	753	264	473	2335
Mumps ...	165	92	20	24	301
Whooping Cough	85	190	79	65	419
Chicken Pox ...	105	71	24	82	282
Sore Throat ...	205	81	84	122	492
Ringworm ...	123	138	144	94	499
Impetigo ...	88	68	74	81	311
Scabies ...	11	5	3	2	21
Other Cases ...	48	22	10	28	108
Totals ...	1866	1594	892	1175	5527

WORK OF THE HEALTH VISITORS.—The five health visitors have largely been employed in visiting houses where non-notifiable infectious diseases have been reported by school teachers, and in generally assisting in the work of medical inspection. The number of visits paid in connection with this part of their duty is shown in the following table :—

TABLE E. VIII.

Visits to houses where the following Diseases have been reported.					1st Visits.	2nd Visits
Measles	...	...	...	...	2144	64
German Measles	...	...	...	...	95	10
Mumps	...	...	...	...	303	20
Whooping Cough	...	...	...	...	443	15
Chicken-pox	...	...	...	...	235	7
Sore Throat	...	...	...	...	811	304
Ringworm	...	...	...	...	479	1109
Verminous Heads	...	...	...	...	18	7
Verminous Bodies	...	...	...	...	6	3
Impetigo Contagiosa	...	...	...	...	253	311
Scabies	...	...	...	...	8	6
Other diseases	...	...	...	...	737	619
Totals					5532	2475
Cultures taken from doubtful cases of diphtheria					1461	—
Visits paid to Elementary Schools					198	—
Number of children prepared for medical inspection					3829	97
Visits paid to homes to obtain further information concern- ing children inspected in schools					237	64
Visits paid to the homes of school children for purpose of giving advice					596	117

SCHOOL CLOSURE.—During the year 1908, fourteen infant schools were closed in accordance with Article 45 (b) of the Code. In each instance closure was due to measles, which was not only exceptionally prevalent, but unusually virulent during the past year.

EXCLUSION OF CHILDREN FROM SCHOOL.—During the year 13 children were excluded under Article 53 (b) of the Code. This is in addition to the large number dealt with in accordance with the ordinary standing orders of the Committee.

PHYSICALLY AND MENTALLY DEFECTIVE CHILDREN.—

At the end of the year the following Croydon children were under treatment in residential institutions outside the borough:—

Blind children ...	...	...	...	...	3
Deaf children ...	...	...	...	...	3
Mentally Defective children ...	...	...	...	...	3

Until 1908 the Committee had a small deaf class attached to Princess Road school but this arrangement was not found entirely satisfactory as the total number of deaf children in the borough was not sufficiently large to allow for the classification of the children according to their educational needs. It was therefore arranged to close the deaf class and to transfer the children to the Royal School for Deaf Children, Margate. At the end of the year this transfer had not been completed owing to difficulties raised by some of the parents and the number of our children then at Margate does not represent the total number for whom education is required.

With respect to the mentally defective children no further steps were taken by the Committee during the year under review.

AUXILIARY CLASS.—In June, 1908, the Committee opened a small class at Whitehorse Road for the reception of children whose mental progress was retarded, and who could not be satisfactorily dealt with in ordinary schools. As pointed out in the last annual report, this class is intended for children whose education for one reason or another has been neglected and for those who cannot be taught to read and write without more individual attention than is possible in an ordinary class. At the end of the year 15 children had been admitted to the class, two of whom were subsequently withdrawn for a time. Thanks to the industry of Miss Clapperton, the results have been satisfactory, as at the present moment 8 out of the 13 children can already read, and there is every prospect that nearly every child will be able to take its place in Standard II. of the ordinary school at the end of twelve months, whereas when drafted into the auxiliary class they were working in Standard O, without any immediate prospect of improving. As far as I am able to judge, the work of this class would be even more satisfactory if further opportunities for manual work and for varied occupations of one kind and another were given. For this and other reasons I would draw the attention of the Committee to the desirability of transferring this class from Whitehorse Road to Grange Wood, where opportunities could readily be afforded both for nature study and for outdoor employment. This would not only give that variety of interest which is so stimulating from the educational point of view, but would enable the staff to work the class on open-air lines. This

is a system which is not only likely to benefit the particular group of children now attending Whitehorse Road but would enable us to make use of the centre for some of the other dull and listless children whose educational progress is at present retarded by indifferent health but who are not sufficiently ill to be excluded from school.

EXAMINATION OF PUPIL TEACHER CANDIDATES.—Sixty-eight young persons who desired to become pupil teachers were medically examined during the year. Of these 66 were passed, and two postponed. Of the two postponed cases, one was passed and the other referred back for further examination in March, 1909.

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

TRUANTS.—Twenty-nine children were examined before despatch to truant schools, and the necessary certificates given to the police.

EXAMINATION OF CHILDREN UNFIT TO ATTEND SCHOOL.—One-hundred-and-five children alleged to be physically unfit for school attended at the Town Hall for examination. Special reports together with recommendations as to school attendance were given in each case.

H. MEREDITH RICHARDS, M.D.,

Medical Officer.

APPENDIX.

VENTILATION OF SCHOOLS.—In my report to the Education Committee for 1908 I mentioned that, with the co-operation of Dr. Gerrard, I had arranged for a series of observations to be made on the ventilation of schools. Most of the work was done at Winterbourne Road, as this building is a typical central hall school. For the sake of comparison a further set of observations was made at Oval Road, which is an old school without any central hall.

In Winterbourne Road School the means provided for ventilation are sash windows and hoppers together, with special inlets and outlets. The special inlets are fixed behind the hot water radiators, and the outlets are situated at the floor level and communicate with ventilating shafts. Heating is by low pressure hot water radiators.

The following is a summary of the results obtained :—

Series A.—Winterbourne Road School. Girls and Infants

Months.—October and November.

Number of observations, 29.

Average C. O₂ parts per 10,000 8.6.

External air, 3.7.

Number of occasions below 9 parts per 10,000	...	14
do. between 9 and 12 parts per 10 000	...	13
do. above 12 parts per 10,000	...	2
Total observations	...	29

Best Result.—On October 13th, a warm day, with 9,680 square inches of window and hopper open, and 51 infants and one adult present. C.O₂. was 5 parts per 10,000. External temperature 62 deg. F. (Accommodation 60).

Worst Result.—On November 5th, at 3.25, Room 7, Girls' Department, with 57 children present and 5,180 inches open windows and hoppers. There were 16 parts per 10,000 C.O₂. Outside temperature 50 deg. F. (Accommodation 54).

In these observations the amount of carbonic acid found under actual school conditions was recorded without pre-arrangement of the windows, ventilators or heating apparatus. These results were ob-

tained in the early autumn when the weather was abnormally mild. In spite of the opportunities thus afforded for the opening of windows, it was noticed that there were large variations in the figures and it was therefore decided to make a further series of observations during the winter months under different conditions of temperature, time and occupation. These further results were obtained in the Girls' School and have been divided into three groups according to the use made of the means provided for natural ventilation.

Series B.—Winterbourne Road Girls' School.

Recognized accommodation of room, 60 girls.

Ventilation—

Windows open 942 sq. inches (average).

Hoppers open 3,892 sq. inches (average).

Special inlet open 104 sq. inches.

Special outlet open 104 sq. inches.

Months.—October, November, December, and January.

Number of observations, 8.

Average number of occupants, 55 children and 1 adult.

Average temperature. Dry bulb 56 deg. F. { Highest 60 deg.
Lowest 52 deg.
Wet bulb 53.6 deg. F.

Average C.O.₂ parts per 10,000, 10. External air 3.37.

Number of occasions below 9 parts per 10,000	...	2
do. between 9 and 12 parts per 10,000	..	5
do. above 12 parts per 10,000	... ..	1
<hr/>		
Total observations	... ..	8
<hr/>		

Best Result.—October 23rd at 4.5 o'clock, 35 minutes after interval. Slight N.E. breeze. Outside temperature: 50 deg. C.O.₂ was 6 parts per 10,000 with 47 children and one adult present.

Worst Result.—December 4th at 4 p.m. Still, wet day. Outside temperature: 48 deg. C.O.₂ was 14 parts per 10,000 with 55 children and one adult present.

In these observations all the means of ventilation were made use of, though not always to their fullest extent. As a rule the hoppers were fully opened, and the windows only to a small extent.

Series C—Winterbourne Road Girls' School.

Recognised accommodation, 60 girls.

Ventilation—

Windows closed.

Hoppers open 3,892 sq. inches (average).

Special inlet open 104 sq. inches.

Special outlet open 104 sq. inches.

Months.—November, December, and January.

Number of observations, 10.

Average number of occupants, 55 children and one adult.

Average temperature. Dry bulb, 57.7 deg. { Highest 62 deg.
Lowest 54 deg.
Wet bulb, 52.9 deg.

Average C.O.₂ parts per 10,000, 11.5. External air, 3.7.

Number of occasions below 9 parts per 10,000	...	2
do. between 9 and 12 parts per 10,000	...	7
do. above 12 parts per 10,000	...	1
<hr/>		
Total observations	...	10
<hr/>		

Best Results.—On December 8th at 4 o'clock, that is 35 minutes after the interval. A still, wet day. Outdoor temperature 50 deg. F. The C.O.₂ was 8.5 parts per 10,000 with 59 children and 1 adult present.

October 22nd.—Light westerly breeze. Temperature outdoors 49 deg. F. At 4.5 o'clock with 33 children and 1 adult present the C.O.₂ was 8 parts per 10,000.

Worst Results.—November 5th, 3.20 p.m., that is one hour and 20 minutes after occupancy. A still day. Outdoor temperature 50 deg. F. The C.O.₂ was 25 with 49 children and 1 adult present. This was very exceptional and difficult to account for, and none of the other examinations approached this, the next worst being November 5th. 3.15 (in another room) C.O.₂ being 12 parts per 10,000, with 53 children and 1 adult present.

During these observations the windows were closed, but the hoppers and special inlets and outlets remained open.

Series D.—Winterbourne Road Girls' School.

Recognised accommodation of room, 60 girls.

Ventilation.

Windows closed.

Hoppers closed.

Special inlet open 104 sq. inches.

Special outlet open 104 sq. inches.

Months.—February and March.

No. of observations, 19.

Average number of occupants. Girls 42, adults 1.

Average temperature. Dry bulb 55. { Highest 58.
Lowest 54.
Wet bulb 49.

Average C.O.₂ parts per 10,000, 19. External air 34.

Number of occasions below 9 parts per 10,000	...	0
do. between 9 and 12 parts per 10,000	...	0
do. above 12 parts per 10,000	...	19
Total observations	...	19

Best Result.—February 24th, at 3.15 p.m., that is one hour and a quarter after occupancy. E.N.E. breeze. Temperature outdoors 35 deg. F. 52 scholars and 1 teacher present. The C.O.₂ was 13 parts per 10,000. The windows, however, had only been shut for half-an-hour previous to examination of the air.

Worst Result.—February 26th. At 3.30, one and a half hours after occupancy. Northerly breeze. Temperature outdoors 35 deg. F. 49 scholars and 1 adult present. The C.O.₂ was 29 parts per 10,000. Here the usual interval at 3.15 was postponed.

February 25th, at 3.30, one and a half hours after occupancy. E.N.E. breeze. Temperature outdoors 34 deg. F. 53 scholars and 1 adult present. C.O. was 23 parts per 10,000.

During these observations both sash windows and the hoppers were closed in order that we might demonstrate how very unsatisfactory the air became under these conditions. The instructions as to heating and ventilation exhibited in the class rooms suggest that the special inlets and outlets are sufficient for ventilation provided the windows are open when the rooms are vacated. It is clear, however, that this is not the case.

Series E.—Oval Road School—Upstairs Main Boys'.

Recognised accommodation, 80.

Ventilation depends mainly upon open windows. There is a warm air inlet over fire place and ventilator in ceiling. Heating by open fires.

Months.—November, January, and February.

Number of observations, 16.

Average number of occupants, 65.

Average temperature, 52.3 deg. F.

Average open windows, 3,369 sq. inches.

Average C.O.₂ 7.1 parts per 10,000.

Number of occasions below 9 parts per 10,000	...	14
do. between 9 and 12 parts per 10,000	...	2
do. above 12 parts per 10,000	...	0
		—
Total observations	...	16
		—

Best Result.—January 22nd, 3.30 p.m. External temperature 34 deg. F. Internal 47 deg. F. 41 boys and 1 adult present. 5,279 sq. inches window. C.O.₂ 5 parts per 10,000.

Worst Result.—January 20th, 3.30 p.m. External temperature, 36 deg. F. Internal 54 deg. F. 80 boys and 2 adults present. 1,602 sq. inches window. C.O.₂ 10 parts per 10,000.

These observations were made in the upstairs main room at Oval Road Boys' School. Their chief interest arises from the fact that there is no central hall, and that the arrangement of the windows allows of perflation. It will be noticed that the results are better than at Winterbourne Road. Doubtless this is in part due to the enthusiastic appreciation of fresh air characteristic of this particular school, but the figures also indicate that satisfactory results can be obtained in even an old building when every advantage is taken of the means provided for ventilation. They also suggest the inferiority of the central hall type of school as far as ventilation alone is concerned, or at any rate the need of paying additional attention to open windows and the free ventilation of class rooms in schools built on this plan. To these points I propose to specially direct the attention of the head teachers at an early date. It should also be added that the internal temperature was lower than is generally considered advisable, but the boys appeared to have become acclimatised to such conditions, and did not appear to suffer any inconvenience therefrom.

HEALTH REPORT

FOR

1908

OF THE

Croydon Rural District

BY THE

Medical Officer of Health.

Submitted to the Council 4th February, 1909.

WALLINGTON :

WILLIAM PILE, LTD., PRINTERS, 5 AND 6, DANBURY TERRACE.

Croydon Rural District Council.

HEALTH REPORT FOR 1908.

GENTLEMEN,

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

Appended are the statistical tables, and the report on the working of the Factory and Workshops Act, in accordance with the requirements of the Home Office.

The Death Rate for the year is 10·1; and the Birth Rate is 25·8 per thousand of population.

The year 1908, generally speaking, has been a fairly healthy one, with no very 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.

4th February, 1909.

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REPORT.

I.—AREA AND POPULATION.

The District consists of eight parishes, and the total area is 21,001 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 1908, the population was estimated to be 62,150, but omitting all institutions, the corrected number was 57,600, of which number 27,845 were males and 29,755 were females.

The number of inhabitants in the three large institutions has increased from 2,468 in 1891 to 3,642 in 1908; this shows a decrease of 117 since the middle of 1907.

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
„ 1906	...	...	...	...	11,614
„ 1907	...	...	...	...	13,086
„ 1908	...	...	...	...	11,362

This shows an increase of 10,096 in the number of houses occupied during the last 27 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, 1905, 1906, 1907, 1908, and also the increases between the years 1891 and 1901, 1901 and 1902, 1902 and 1903, 1903 and 1904, 1904 and 1905, 1905 and 1906, 1906 and 1907, 1907 and 1908, and 1891 and 1908.

The number of occupied houses in the District was:

1891	18,780
1891	18,780
1900	18,780
1901	18,780
1902	18,780
1903	18,780
1904	18,780
1905	18,780
1906	18,780
1907	18,780
1908	18,780

Parish.	Number of Houses									Increase							
	In 1891	In 1901	In 1902	In 1903	In 1904	In 1905	In 1906	In 1907	In 1908	Between 1891 and 1901	Between 1901 and 1902	Between 1902 and 1903	Between 1903 and 1904	Between 1904 and 1905	Between 1905 and 1906	Between 1906 and 1907	Between 1907 and 1908
Addington ..	132	131	120	120	138	134	139	139	139	—1	—11	—	18	—4	5	—	—
Beddington ..	442	751	825	933	1035	1169	1442	1480	1700	309	74	108	102	134	273	38	220
Coulsdon ..	537	818	903	1001	1244	1365	1512	1643	1720	281	85	98	243	121	147	131	77
Mitcham ..	2055	2743	2934	3076	3337	3806	4177	4874	5131	688	191	142	261	469	371	697	257
Morden ..	138	186	155	196	210	206	205	224	236	48	9	1	14	—4	—1	19	12
Sanderstead ..	96	203	211	250	309	342	425	492	545	107	8	39	59	33	83	67	53
Wallington ..	710	1063	1168	1272	1388	1464	1546	1564	1668	353	105	104	116	76	82	18	104
Woodmansterne	81	105	120	120	140	146	183	206	223	24	15	—	20	6	37	23	17
	4191	6000	6476	6968	7801	8632	9629	10622	11362	1809	476	492	833	831	997	993	740
																	7171

It will be seen from this table that great activity in building has taken place at Mitcham with 257 new houses, and Beddington with 220.

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 1908 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. 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. This is particularly the case in Mitcham.

The "Natural increase" during the year is 903. This being excess of births over deaths.

In 1897 the increase was	...	...	474
„ 1898	„	...	392
„ 1899	„	...	379
„ 1900	„	...	460
„ 1901	„	...	543
„ 1902	„	...	552
„ 1903	„	...	730
„ 1904	„	...	763
„ 1905	„	...	879
„ 1906	„	...	921
„ 1907	„	...	986
„ 1908	„	...	903

And has amounted to 10,644 since the census in 1891.

The "Natural increase" was greatest in 1908 in Mitcham with 533, Beddington with 120, and Coulsdon with 112.

Excess of Births over Deaths.

	Deaths in 1908.	Births in 1908.	Excess of Births in 1908.
Addington ...	2	11	9
Beddington ...	56	176	120
Coulsdon ...	88	200	112
Mitcham ...	330	863	533
Morden ...	10	26	16
Sanderstead ...	13	53	40
Wallington ...	77	139	62
Woodmansterne	8	19	11
	<hr/> 584	<hr/> 1487	<hr/> 903

II.—VITAL STATISTICS.

BIRTHS.

The number of Births in the District was 1487, as compared with 1635 in 1907, 1600 in 1906, 1408 in 1905, 1284 in 1904, and 1161 in 1903. Of this number 27 children were registered as being illegitimate. This gives an illegitimate birth-rate of 1·8 per cent. of total births.

	No. of Illegitimate Births.		Percentage.
Beddington ...	1	...	0·5
Coulsdon ...	4	...	2·0
Mitcham ...	19	...	2·2
Wallington ...	3	...	2·1

The birth rate for the entire District was 25·8, as compared with 24·6 in 1907, 26·7 in 1906, 25·7 in 1905, 27·3 in 1904, and 28·2 in 1903.

The birth rate in England and Wales in 1908 was 26·5 per thousand of the population, which is 0·2 per thousand above the rate in 1907. Compared

with the average in the 10 preceding years, 1898-1907, the birth rate in 1908 shows a decrease of 1·6 per thousand.

REGISTERED BIRTHS AND BIRTH RATES.

Parish.	Estimated Population middle of 1908.	Registered Births.					Birth Rates.				
		1904	1905	1906	1907	1908	1904	1905	1906	1907	1908
Addington ..	690	13	11	11	7	11	18·5	16·4	15·8	10·1	15·9
Beddington ..	8000	144	123	157	162	176	27·8	21·0	22·2	22·8	22·0
Coulsdon ..	8800	149	150	183	163	200	23·1	21·2	23·2	19·1	22·7
Mitcham ..	26700	542	642	721	716	863	31·8	31·1	31·9	27·7	32·3
Morden ..	1180	24	20	29	24	26	21·8	19·5	28·2	21·8	22·0
Sanderstead ..	2580	28	28	35	49	53	18·0	16·3	17·1	16·5	20·6
Wallington ..	8500	142	155	155	138	139	20·6	19·8	18·5	16·4	16·0
Woodmansterne	1150	23	21	29	44	19	31·2	27·2	30·5	41·5	16·5
	57600	1065	1150	1320	1303	1487	27·3	25·7	26·7	24·6	25·8

DEATHS.

Exclusive of those Deaths which occurred in Public Institutions situated within the district, the deaths registered during the year numbered 584. 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 106.

The mortality corresponds to a death rate of 10·1 per thousand of population, as against 9·7 in 1907, 11·3 in 1906, 9·6 in 1905, 11·0 in 1904, and 10·4 in 1903, and as against an average of 11·3 during the ten years 1907-1898.

The death rate in England and Wales in 1908 was 14·7 per thousand, which was 0·3 per thousand below the rate in 1907, lower than the rate in any other year on record; compared with the average rate in the ten years 1898-1907, the death rate in 1908 shows a decrease of 1·7 per thousand.

MORTALITY.*

Parish.	Population estimated to middle of 1908.	Deaths.					Death Rates.				
		1904	1905	1906	1907	1908	1904	1905	1906	1907	1908
Addington ..	690	11	11	4	7	2	15·7	16·4	5·7	10·1	2·9
Beddington ..	8000	45	39	48	55	56	8·7	6·7	6·8	7·7	7·0
Coulsdon ..	8800	41	39	79	69	88	6·3	5·4	10·0	8·1	10·0
Mitcham ..	26700	247	270	308	286	330	14·5	13·0	13·6	11·0	12·3
Morden ..	1180	7	15	9	12	10	6·3	14·4	8·7	10·9	8·4
Sanderstead ..	2580	16	8	11	16	13	10·3	4·7	5·3	6·8	5·0
Wallington ..	8500	74	62	96	76	77	10·7	7·8	11·5	9·0	9·0
Woodmansterne	1150	5	5	6	8	8	6·8	6·4	6·3	7·5	6·9
	57600	446	449	561	529	584	11·0	9·6	11·3	9·7	10·1

* 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 1908 was 161.

MORTALITY AT DIFFERENT AGES.

Infantile Mortality.—The number of infants under the age of one year who died during 1908 was 126, as against 170 in 1907, 199 in 1906, 138 in 1905, 158 in 1904, 109 in 1903, the infantile mortality rate, therefore, being 84 per thousand births, as against 103 in 1907, 124 in 1906, 98 in 1905, 123 in 1904, 94 in 1903, and an average of 117 in the ten years 1898 to 1907.

The deaths of children under the age of one year, numbering 126, gives a percentage rate of 21·5 of the deaths at all ages, as against 26·1 in 1907, 29·3 in 1906, 26·0 in 1905, 29·3 in 1904, 25·5 in 1903, and 25·0 in 1902.

The amount of Mortality in England and Wales among infants under one year of age to 1000 registered births, was 121, which is 3 per 1000 above the rate in 1907. The rate in 1908 was, with the exception of that recorded in the previous year, lower than the rate in any other year on record. Compared with the average in the ten years 1898-1907, the rate of infantile mortality in 1908 showed a decrease of 21 per 1000.

The deaths of children between the ages of one and five years, numbering 75, gives a percentage of 12·8 of total deaths, as against 10·7 in 1907, 12·9 in 1906, 7·7 in 1905, 8·0 in 1904, and 6·7 in 1903.

The deaths occurring in persons over 65 years of age, numbering 152, give a percentage of 26·0 of total deaths, as against 22·9 in 1907, 21·5 in 1906, 27·4 in 1905, 22·8 in 1904, and 28·3 in 1903.

Parish.	Children under One Year.				Children between One and Five.				People over 65 Years.			
	1905	1906	1907	1908	1905	1906	1907	1908	1905	1906	1907	1908
Addington ..	1	..	1	..	..	2	1	..	..	1	3	1
Beddington ..	9	11	5	6	1	6	7	6	9	14	14	19
Coulsdon ..	8	14	22	17	5	9	7	6	11	18	13	26
Mitcham ..	78	118	92	92	26	54	37	48	72	47	53	69
Morden ..	3	1	..	2	2	..	..	3	6	2	6	2
Sanderstead ..	2	..	3	1	1	1	1	3	2	3	2	2
Wallington ..	13	19	13	7	3	6	4	7	25	31	25	32
Woodmansterne	2	4	4	1	1	..	1	2	1	2	1	1
Totals ..	116	167	140	126	39	78	58	75	126	118	117	152

CAUSES OF DEATHS.

The deaths registered during 1908 included—

31	from Measles.
12	„ Scarlet Fever.
7	„ Whooping Cough.
15	„ Diphtheria.
21	„ Diarrhœa.
2	„ Typhoid Fever.
4	„ Puerperal Fever.
50	„ Phthisis.
14	„ Influenza.
22	„ Injuries (self-inflicted or otherwise).
94	„ Lung Complaints.
26	„ Cancer (malignant disease).
4	„ 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 1908 the deaths from these complaints numbered 92, the Zymotic Death Rate therefore, being 1·5 per 1,000 of population, as compared with 1·6 in 1907, 1·7 in 1906, 0·9 in 1905, 1·5 in 1904, and 1·7 in 1903.

The deaths from Phthisis numbered 50, as against 42 last year, 38 in 1905, 37 in 1904, and 33 in 1903, The Phthisical Death Rate is, therefore, 0·8 per thousand of the population, as against 0·7 in 1907, 0·7 in 1906, 0·6 in 1905, 0·7 in 1904, and 0·8 in 1903.

The deaths from Pulmonary Diseases numbered 94, as against 97 last year, 88 in 1906, 84 in 1905, 126 in 1904, and 61 in 1903. This gives a Death Rate of 1·6, as against 1·4 in 1907, 1·4 in 1906, 1·5 in 1905, 2·6 in 1904, and 1·4 in 1903.

The deaths from Influenza numbered 14 as against 14 last year, 8 in 1906, 7 in 1905, 10 in 1904, and 8 in 1902. This gives a Death Rate of 0·2 per thousand of population, as against 0·2 last year, 0·1 in 1906, 0·2 in 1905, 0·2 in 1904, and 0·14 in 1903.

To various forms of violence, whether self-inflicted or otherwise, 22 deaths were due, in all of which cases inquests were held. This gives a death Rate of 0·3, as against 0·3 in 1907, 0·3 in 1906, 0·2 in 1905, 0·48 in 1904, and 0·5 in 1903.

Birth Rate, Death Rate, and Analysis of Mortality in the year 1908.

	ANNUAL RATE PER 1000 LIVING.										Deaths under one year to 1000 Births.
	Births.	Deaths.	Principal Epidemic Diseases. (Cols. 4-10)	Small-pox.	Measles.	Scarlet Fever.	Diphtheria	Whooping Cough.	Fever.	Diarrhoea.	
Cols.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
England and Wales ..	26·5	14·7	1·29	0·00	0·22	0·08	0·15	0·27	0·07	0·50	121
76 Great Towns	27·0	14·9	1·59	0·00	0·31	0·10	0·16	0·29	0·08	0·65	128
142 smaller Towns	26·0	14·0	1·26	0·00	0·20	0·06	0·15	0·25	0·08	0·52	124
England and Wales, less the 218 Towns ..	26·2	14·7	0·99	0·00	0·13	0·06	0·15	0·25	0·07	0·33	110
Croydon Rural District ..	25·8	10·1	1·59	0·00	0·53	0·2	0·26	0·12	0·01	0·36	84

DEATHS IN INSTITUTIONS.

The Deaths in Institutions situate in the District numbered 161, as against 239 in 1907, 204 in 1906, 178 in 1905, 210 in 1904, and 203 in 1903.

These deaths included :—

14	from	Phthisis.
6	„	Cancer (malignant disease).
31	„	Lung Complaints.
18	„	Heart Diseases.
60	„	Brain 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. In April, 1907, Cerebro Spinal Meningitis was also made a notifiable disease for twelve months.

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

During the year 1474 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 999 were due to Measles. Consequently, excluding this disease, there were 475 cases of other Notifiable Diseases, as against 591 in 1907, 439 in 1906, 397 in 1905, 333 in 1904, and 227 in 1903.

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.

INFANTILE SUMMER DIARRHŒA.

During the year 21 deaths occurred from Infantile Summer Diarrhœa, as compared with 28 in 1903, 39 in 1904, 24 in 1905, 71 in 1906, and 40 last year. This gives a rate of 0·36 per thousand of population, as against 0·79 last year.

Reference to Table XIII. in the appendix will show the circumstances, feeding, and family history of the victims to this, to some large extent, preventable disease in 1908, and Table XIV. will show the parishes and roads (or streets) invaded during the past seven years.

SCARLET FEVER.

During the year a considerable decrease took place in the number of cases of Scarlet Fever which were notified, viz., 209 as against 317 in 1907. Of this number 27 occurred in the Holborn Union Schools in the parish of Mitcham. If these 27 cases are not taken into consideration, it will be seen that the decrease is even more marked. One hundred and thirty five cases were removed to the Isolation Hospital.

DIPHTHERIA.

During the year 204 cases of Diphtheria were notified, as against 190 last year, and 161 in 1906. The largest number of cases occurred at Mitcham, Beddington and Wallington. One hundred and fifty-seven of these cases were removed to the Isolation Hospital.

Fifteen deaths were registered as against 24 last year.

Antitoxin is provided free of charge to all medical men practising in this 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 1908, 16 cases of Typhoid Fever were notified, as against 15 last year, and 33 in 1906. Twelve of these cases were removed to the Hospital. Of the 16 cases the disease had a fatal ending in only two cases.

PHTHISIS.

A small decrease took place in the number of deaths registered from Phthisis, viz., 50 as against 51 last year.

During the year I have examined the sputum of 49 persons with a positive result in 27 cases.

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

MEASLES.

During the year 999 cases of Measles were notified in the District, a large portion of which cases occurred in Mitcham, from where no less than 538 cases were notified; 31 deaths occurred, giving a percentage of 3·1, and here again the greater part was at Mitcham, with 25 deaths, giving a percentage of 4·6.

The type of Measles was very severe, and, where deaths occurred, in many instances there was a lapse of only a few hours between the appearance of the rash and the commencement of serious lung trouble.

Measles is the most fatal of all notifiable diseases.

During the year 1908 in the whole of England and Wales the mortality from this disease amounted to 2·2 per cent.

In spite of every endeavour to limit epidemics of Measles it runs its course with great rapidity, the difficulty lying in the fact of its extreme infectiousness, which is present before any outward and obvious signs are noticed in the person attacked, other than some slight malaise.

Personal intercourse, attendance at school, entertainments and the like, are the main factors in the spread of this disease. Statistics tend to show that schools are the principle centres for the spread of the disease, and that it is never so prevalent during the holiday time as during the time when the schools meet.

This points to the fact that the progress of the disease is best arrested by the prevention of the aggregation of susceptible persons, which is by closing the schools so soon as there is a certain percentage of cases in families from which children attend schools. Of course, it should

be quite understood that all children from infected houses are at once excluded from school, although it is the practice of many Medical Officers of Health not to exclude children who have themselves had Measles some time previous, as they believe that such persons are not likely to be carriers of the disease. From this I dissent, firstly, on the grounds that a child may have Measles more than once ; secondly, that although the parents may consider that their children had Measles at some time anterior, yet they may have been mistaken in the diagnosis in as much as amongst the poorer classes the services of a medical man are but seldom sought if the cases are Measles of a mild type ; and, thirdly, I am by no means sure that the child may not be a carrier of the disease, even though personally the child may be immune owing to a previous attack. I am aware that much difference exists amongst school managers and education authorities generally as to when schools should be closed or not, but I think that their opposition is due to the failure to realise the many complications which may arise from an attack of Measles, as although the attack itself may not be fatal, yet it may leave behind some physical debility which may militate against the child ever obtaining robust health in the future. The closing of the schools does undoubtedly limit the number of cases, as it prevents the bringing together of those who are in an highly infectious state and those who are susceptible to the disease.

In the face of a commencing epidemic the closing, at any rate, of the infant classes of a school seems a step which is certainly desirable, not only because infant classes may be assumed to contain a much larger proportion of susceptible children, but also because the mortality

in the earlier years of life is much higher than amongst elder children. It must be confessed, however, that in spite of all endeavours, no very successful means of checking an epidemic of Measles has been discovered, as all prophylactic precautions have to a very large extent proved abortive.

IV.—PREVENTIVE MEASURES.

During the year 446 patients were admitted to the Isolation Hospital at Beddington Corner, including 90 patients from neighbouring authorities.

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.

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. Any 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 of their freedom from possible infection.

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 disinfectors 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.

During the year 348 houses and 9,487 articles were 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 937 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, 1899, and since that date 2,400 patients have been admitted.

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

The Council entered into a contract in 1904 to considerably enlarge the accommodation at the Isolation Hospital, and in June 1905, an additional Scarlet Fever

pavilion was opened, and this has practically been full since.

Staff.—The Staff consists of—

1 Matron	5 Servants
1 Assistant Matron	5 Wardmaids.
10 Nurses	1 Seamstress.
2 Laundresses	1 Gardener
2 Engineers	Porter and Portress

Patients.—During the year 446 patients have been admitted, of which number

238	were	Scarlet Fever
188	„	Diphtheria
15	„	Typhoid Fever
4	„	Puerperal Fever
1	was	Erysipelas

Ninety of these patients were admitted by arrangement with other authorities, and forty-six were admitted from Merton.

Of the 446 patients admitted, 404 were discharged as cured, and 42 died (18 from Scarlet Fever, of which 8 also had measles, 17 from Diphtheria, four from Typhoid Fever, and three from Puerperal Fever.)

Very careful examination of the throat, nasal passages, and the teeth of every patient admitted to the Hospital was made, and it was found that out of the 426 Scarlet Fever and Diphtheria patients admitted, 221 had enlarged tonsils, 37 had adenoid growths, 21 had nasal polypi, 39 were subject to attacks of tonsilitis, six Scarlet Fever and six Diphtheria patients had had previous attacks of the same disease for which they were admitted, and 31 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 several cases Whooping cough, measles, chicken pox, and ringworm were coincident complications of the disease, and, unfortunately, during the latter end of April, Measles broke out in the Scarlet Fever pavilion, and some of the patients who were recovering from Scarlet Fever succumbed to the attack after but a few hours' illness, which emphasises all previous experience that post Scarlatinal Measles is a most dangerous complication of Scarlet Fever the case mortality from published statistics being over 14 per cent. in such an event.

The infective condition in patients who either have the true or pseudo bacillus of Diphtheria has been prolonged owing to the existence of decayed teeth, and in those cases where I have been able to remove the teeth the bacilli have very rapidly disappeared. During the year it was noted that in 73 per cent. of the cases of Diphtheria decayed teeth were found to be present.

No case is discharged from the Hospital until such time as all congestion of the throat or fauces has disappeared, or where there has been any cough or any discharge, such patient is not considered free from infection until cured of these sequelæ.

Parish.	Scarlet Fever.		Diphtheria.		Typhoid Fever.		Puerperal Fever.		Erysipelas.		Total.	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Addington ..	1	..	1	..	..	..	..	..	..	..	2	..
Beddington ..	12	..	37	..	3	..	..	..	..	..	52	..
Coulsdon ..	15	3	8	1	..	..	..	..	..	..	23	4
Merton ..	15	..	28	3	3	2	..	..	..	..	46	5
Mitcham ..	74	4	63	7	8	2	3	3	..	..	148	16
Morden ..	5	2	1	..	1	..	1	..	..	..	8	2
Sanderstead ..	3	1	7	1	..	..	..	..	..	..	10	2
Wallington ..	20	3	36	3	..	..	..	..	1	..	57	6
Woodmansterne ..	6	..	4	1	..	..	..	..	..	..	10	1
Cases admitted by arrangement—												
Caterham ..	87	5	3	1	..	..	..	..	..	..	90	6
Totals ..	238	18	188	17	15	4	4	3	1	..	446	42

VI.—GENERAL.

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

House Refuse Collection.—The collection of house refuse has been again extended during the year, and except in the very rural portions, no part of the district is 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, from the Metropolis.

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

Particulars.	Result.
Refusing admission to disinfect a room and bedding, etc., after cases of Scarlet Fever.	Fined £1 and 10s. costs, and ordered to admit the Council's officers for the purposes of disinfecting.
For the non-abatement of a nuisance at Mitcham.	Summons withdrawn.
For obstructing the Medical Officer of Health and Inspector of Nuisances in removing diseased meat which had been seized.	Fined £1 and 8s. 6d. costs in each instance, and £2 2s. for fees.
For contravening the bye-laws relating to the keeping of pigs. Two summonses.	Fined 40s. and 9s. 6d costs on each summons.
For contravening the bye-laws relating to pigkeeping.	Summons withdrawn on payment of costs.
For depositing house refuse so as to be a nuisance.	Fined 20s. and costs, and an order made to abate the nuisance.
do. do.	do. do.
do. do.	do. do.

Particulars.	Result.
For disobeying an order of the Court to abate a nuisance.	Fined 40s. and costs.
House unfit for human habitation.	Order made to permanently close the house. Subsequently it was demolished.
Block of three houses unfit for human habitation.	Orders made to permanently close the premises.

REGULATED TRADES.

(1) DAIRIES, COWSHEDS AND MILKSHOPS.

There were 93 premises registered under the Dairies, Cowsheds and Milkshops Order at the end of the year. This is 3 more than the previous year.

A very considerable amount of attention is paid to all dairies, cowsheds, milkshops, and the milk supply generally in the district. During the year 557 visits of inspection have been paid.

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.

(2) SLAUGHTERHOUSES.

There are 17 slaughterhouses in the district, all of which are regulated by the bye-laws of the Council. During the year 474 visits of inspection have been paid.

(3) BAKEHOUSES.

There are 34 bakehouses in the District. This is 2 more than the previous year. They have received very full attention from your officers.

(4) PIGGERIES.

There are 35 piggeries in the district. This is 11 less than in the previous year. All the piggeries are receiving special attention from your officers, but several complaints were received during the hot weather respecting the piggeries, particularly referring to those in the Eastfields, Mitcham.

During the year three summonses were issued against a pig keeper for contravention of the bye-laws relating to the keeping of pigs. In the first two cases the pig keeper was fined 40s. and 9s. 6d. costs on each summons, and in the other case the summons was withdrawn on payment of the costs.

Parish.	Dairies.	Cowsheds.	Milkshops.	Butcher's Shops.	Slaughter-houses.	Piggeries.	Bakehouses.	Total.
Addington	2	..	..	..	..	..	..	2
Beddington	3	5	7	1	3	5	..	28
Coulsdon	5	11	4	8	6	2	4	40
Mitcham	12	6	20	18	7	26	18	107
Morden	4	..	1	..	4	2	..	11
Sanderstead	2	4	..	1	..	..	..	7
Wallington	4	1	6	6	3	..	5	25
Woodmansterne ..	..	..	..	..	..	..	..	..
Totals ..	27	31	35	41	17	35	34	220

HOUSING OF THE WORKING CLASSES ACT.

During the year 5 houses were dealt with under the Housing of the Working Classes Act. In one instance the house was put into a satisfactory condition, and the other four houses were ordered to be permanently closed, subsequently, one of these was demolished.

No system of notification, voluntary or otherwise, with regard to human tuberculosis is in operation in the district, but in certain cases the sputum of suspected persons has been submitted to bacteriological examination, and disinfection of the rooms and clothing is periodically carried out.

The administration of the Midwives Act, 1902, is carried on under the direction of the Surrey County Council.

The Notification of Births Act, 1907, has not been adopted, although I recommended to the Council its advisability.

The medical inspection of school children is carried out by the Education Department of the Surrey County Council, but I have in many instances been called in to see children who have been suspected to be suffering from infectious or contagious disease, and my services are always available for this purpose on an application from the Heads of the various schools. The whole of the sanitary condition of the schools within the area of the Croydon Rural District have received ample attention.

SANITARY SURVEYOR'S DEPARTMENT.

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

At the Sewage Disposal Works at Merton, a new contact bed has been constructed; it has an area of 2,400 square yards, and a cubical capacity of 3,600 yards, it is now being filled with coke breeze, and will shortly be in use.

Extensions of sewers have been made at Plough Lane, Beddington, and the Cliffe Estate, Purley; some

lengths of sewer in the Beddington Park Estate which admitted a considerable volume of subsoil water have been re-laid and rendered watertight.

The Sewage scheme mentioned in last report at West Barnes Lane, Merton, which district is now controlled by the Merton Urban District Council, has been carried out, and will shortly be completed under the direction and superintendence of this Council's Surveyor.

NEW STREETS AND BUILDINGS.

The rate of building in the district has been somewhat less than last year, the plans deposited were for new streets 11, and for buildings 778.

The following New Streets have been made up and taken over under the provisions of the Public Health Act, 1875, and the Private Streets Works Act, 1892 :—

Parish of Beddington—

Russell Hill, Russell Hill Road, Lavender Vale,
Montagu Gardens.

Parish of Coulsdon—

Victoria Road, Edward Road, Purley Park Road.

Parish of Mitcham—

Fortescue Road, Courtenay Road, Acre Road,
Boyd Road, Briscoe Road, College Road,
Denison Road, Miller Road, University
Road, Finborough Road, Park Avenue.

Hamlet of Wallington—

Bernard Road, Beddington Gardens. Holmwood
Gardens.

The new Sanitary Convenience at Purley was completed and opened early in the year, and has supplied a much needed want in that locality.

VII.—INSPECTORS' WORK.

Subjoined appears a summary of the Inspectors work during the past year. It will be seen that no less than 8,798 visits have been paid by them, as against 10,469 last year, 9,660 in 1906, 8,905 in 1905, 7,904 in 1904, and 8,083 in 1903.

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 1908.

	Inspectors.			
	White	Payne	Rabbetts	Total
Total number of visits paid...	2609	3017	3172	8798
Number of complaints received and investigated ...	112	131	67	310
Number of premises inspected ...	454	698	663	1815
Number of nuisances discovered ...	270	123	390	783
Nuisances abated without report ...	242	104	298	644
„ „ after report ...	28	15	63	106
Preliminary notices served ...	242	77	178	497
Legal notices served... ..	28	15	49	92
Notices followed by legal proceedings	—	1	7	8

CHARACTER OF WORK DONE—

Houses dealt with under the Housing of the Working Classes Act ...	—	—	5	5
Houses cleansed and repaired generally	74	43	49	166
Ventilation of houses improved ...	3	4	4	11
Overcrowding abated	1	4	6	11
Defective roofs repaired	24	16	16	56
Houses under-pinned (damp proof course inserted) or damp walls remedied	8	8	7	23
Eaves guttering renewed or repaired	17	21	22	60
Water-closets renewed or repaired ...	30	21	33	84
Water-closets provided with water for flushing	7	5	56	68
Privies or earth-closets re-constructed, improved or abolished	—	4	4	8
Houses supplied with water from the main	—	3	1	4

	White	Inspectors. Payne	Rabbetts	Total
Water cisterns or tanks cleansed or covered	5	4	18	27
Yards of houses paved with impervious material	34	16	15	65
Paving of yards repaired	10	19	11	40
Floors of sculleries paved or repaired	21	9	19	49
Ashpits or dustbins provided ...	27	47	53	127
Cesspools abolished or filled up ...	—	53	—	53
Cesspools cleansed	24	15	1	40
Houses at which drains were tested	74	111	77	262
Houses at which drains were found defective... ..	48	36	48	132
Houses at which drains were re-constructed or new provided ...	17	15	28	60
Houses at which drains were cleansed, ventilated, trapped or repaired	81	64	114	209
Number of drain tests made in course of work done under the two previous headings	68	52	62	182
Houses at which inspection chambers in drains were provided ...	16	15	16	47
Stables provided with drainage ...	1	4	—	5
Premises at which animals improperly kept were removed ...	—	11	10	21
Number of inspections of food exposed for sale	215	133	131	479
Urinals cleansed and repaired ...	4	2	4	10
Smoke nuisances abated	1	3	—	4
Offensive accumulations removed ...	7	25	43	75
Piggeries repaired and improved ...	1	1	14	16
Infective houses disinfected and cleansed	124	87	137	348
Number of visits to infective houses...	257	351	565	1173
Number of dairies and milkshops ...	27	20	36	83
Number of visits to ditto	225	150	82	457
Number of complaints as to uncleanliness and neglect of regulations	8	6	9	18
Number of slaughterhouses...	6	6	5	17
Number of visits to ditto	139	117	118	374
Number of complaints as to uncleanliness	—	2	6	8
Number of drains opened up for examination (Section 41, P.H.A.)	16	3	22	41
Manure pits provided or repaired ...	8	—	—	8
Unsound food destroyed	—	—	—	—

Carcase of beef
2 bags winkles
2 mats of cauliflowers

ARTICLES DISINFECTED.

January	...	1042	July	...	776
February	...	1005	August	...	517
March	...	992	September	...	359
April	...	853	October	...	882
May	...	642	November	...	924
June	...	655	December	...	840
					<hr/>
					9,487

TABLE I.—Vital Statistics of Whole District during 1908 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
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
1903	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
1905	54763	1408	25.7	138	98	615	11.2	178	178	92	529	9.6
1906	59800	1600	26.7	199	124	781	13.0	204	204	102	679	11.3
1907	66300	1635	24.6	170	103	775	11.6	239	239	113	649	9.7
Averages for Years, 1898—1907	43819.3	1150.5	26.2	133.4	118.1	634.2	14.9	213.4	213.4	68.7	489.5	11.3
1908	57600	1487	25.8	126	84	639	11.0	161	161	106	584	10.1

* 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.



TABLE II.—Vital Statistics of separate Localities in 1908 and previous years

NAME OF LOCALITY.	WHOLE DISTRICT.				ADDINGTON.				BREDINGTON.				COTTLETON.				MITCHAM.				MORDEN.				SANDERSTRAD.				WALLINGTON.				WOODMANTON.			
	1				2				3				4				5				6				7				8				9			
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.				
	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.				
1898	31681	790	398	118	672	13	8	1	3469	53	24	4	3821	93	47	10	12638	288	192	67	898	24	9	4	845	15	8	1	4727	103	43	10				
1899	32515	823	444	129	675	14	19	2	3608	59	39	11	3885	94	29	9	12992	281	216	78	921	13	5	1	892	11	8	1	4860	103	70	13				
1900	33304	862	402	102	663	11	9	1	3732	59	31	4	3960	92	50	12	13155	469	185	54	945	26	14	3	936	19	8	0	5002	113	49	10				
1901	34180	951	419	105	642	14	9	1	3846	85	29	9	4012	90	40	6	13493	469	200	56	960	27	13	3	1001	22	4	1	5152	126	54	10				
1902	37590	976	424	106	620	10	12	3	4050	84	30	9	4090	108	31	7	14590	498	202	86	1000	25	9	1	1050	15	7	0	5720	120	57	4				
1903	41120	1166	431	109	620	7	5	1	4750	101	34	6	5150	122	40	9	15500	497	195	27	1018	24	13	5	1260	26	8	2	6330	152	68	8				
1904	47030	1284	521	158	700	13	11	2	5170	144	45	15	6456	149	41	9	17000	542	247	86	1160	30	7	3	1550	28	16	6	6875	142	74	15				
1905	54763	1404	529	138	670	11	11	1	5789	123	39	9	7137	150	39	8	20517	642	270	78	1035	29	15	3	1660	28	8	2	7955	155	62	13				
1906	59890	1600	679	159	655	11	4	0	7859	157	48	11	7860	183	78	14	23510	721	310	118	1025	27	9	1	2040	35	11	0	8340	155	96	19				
1907	66390	1653	640	170	690	7	7	1	7160	162	55	5	8500	163	69	22	25900	716	286	92	1100	24	12	0	2350	49	16	3	8400	158	76	13				
Averages of years 1898-1907	43819.3	1150.5	489.5	133.4	662.7	11.1	9.5	1.3	4886.4	104.7	37.4	8.3	5540.5	124.4	46.4	10.6	16814.5	513.3	230.3	74.2	1000.0	23.3	10.6	2.4	1353.4	24.8	9.4	1.6	6334.1	130.7	63.9	11.5				
1908	57600	1487	584	126	690	11	2	0	8000	176	56	6	8800	200	88	17	26700	863	330	92	1180	36	10	2	2580	53	13	1	8500	139	77	7				

Notes.—(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-columns 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 addresses 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 1908.

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	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 and upwards.	Addington.	Beddington.	Coulsdon.	Mitcham.	Morden.	Sanderstead.	Wallington.	Woodmanstrie	Addington.	Beddington.	Coulsdon.	Mitcham.	Morden.	Sanderstead.	Wallington.	Woodmanstrie	
Small Pox .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria (including Membranous Croup).	204	2	48	121	15	18	..	1	51	14	79	1	10	42	6	1	37	8	63	1	7	36	4	157
Erysipelas	36	..	..	7	4	21	4	..	1	5	18	4	..	4	4	..	..	..	..	..	..	1	..	1
Scarlet Fever	209	..	53	104	39	13	..	1	29	20	112	5	8	28	6	1	12	15	74	5	3	20	6	136
Typhus Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	16	..	..	7	4	5	..	..	3	..	11	1	..	1	..	..	3	..	8	1	..	..	..	12
Relapsing Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever	10	..	..	..	4	6	..	..	..	3	5	1	..	1	..	..	..	..	..	..	..	..	..	..
Plague .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	..	..	..	..	4
Measles	999	48	448	458	32	13	..	8	215	33	538	7	27	166	5	..	..	..	..	..	..	..	..	..
Totals	1474	50	549	697	98	76	4	10	299	75	763	19	45	242	21	2	52	23	148	8	10	57	10	310

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
ural Councils.

TABLE IV.—Causes of, and ages at, Death during 1908.

1 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
	All ages.	Under 1.	1 and under 5.	5 and under 15.	15 & under 25.	25 & under 65.	65 & upwards.	Addington.	Beddington.	Coulsdon.	Mitcham.	Morden.	Sanderstead.	Wallington.	Woodmanstree	Cane Hill Asylum	Holborn Union Workhouse
Measles	31	7	18	6	..	..	..	..	3	1	25	..	..	2	..	..	..
Scarlet Fever	12	..	9	3	..	..	..	..	..	3	4	1	1	3	..	..	..
Whooping Cough	7	3	4	..	..	..	..	..	..	..	6	..	1	..	..	..	..
Diphtheria (including Membranous Croup)	15	..	6	8	1	..	..	..	..	2	8	..	1	3	1	..	..
Croup	1	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
Enteric Fever	2	..	..	..	..	2	..	..	..	..	2	..	..	..	..	..	..
Epidemic Influenza	14	3	..	1	..	6	4	..	2	2	8	..	..	1	1	..	2
Diarrhœa	5	5	..	..	..	..	..	..	..	..	5	..	..	..	..	..	..
Enteritis	16	13	2	..	..	1	..	..	1	1	12	..	..	1	1	..	..
Puerperal Fever	4	..	..	..	1	3	..	..	1	..	3	..	..	..	..	..	..
Erysipelas .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Phthisis (Pulmonary Tuberculosis)	50	2	1	1	10	34	2	..	9	11	23	1	2	4	..	9	5
Other Tubercular Diseases	23	5	10	3	1	3	1	..	2	2	15	2	1	1	..	..	..
Cancer, malignant disease	26	..	..	..	..	20	6	..	..	9	12	..	..	5	..	6	..
Bronchitis	37	8	6	..	..	5	18	1	1	4	26	1	1	3	..	2	13
Pneumonia	46	13	13	..	2	10	8	..	7	6	25	..	1	4	3	10	1
Pleurisy	3	..	..	..	1	1	1	..	..	..	2	..	..	1	..	..	1
Other Diseases of Respiratory Organs	8	3	2	..	..	..	3	..	1	3	4	..	..	..	..	3	1
Alcoholism—Cirrhosis of Liver	4	..	..	..	..	3	1	..	1	..	1	..	..	2	..	..	..
Venereal Diseases .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Premature Birth	18	18	..	..	..	..	..	..	1	2	12	1	1	1	..	..	..
Diseases and accidents of Parturition	16	13	..	..	1	2	..	..	2	4	7	..	..	3	..	..	..
Heart Diseases	72	2	..	1	5	34	30	..	5	11	41	2	2	10	1	15	3
Brain	43	1	..	..	..	18	24	1	3	6	21	..	..	11	1	56	4
Kidneys	13	..	..	..	..	10	3	..	1	3	8	..	1	..	..	10	1
Accidents	19	4	2	3	2	6	2	..	2	2	12	1	..	2	..	..	..
Suicides	2	..	..	..	1	1	..	..	..	2	..	..	..	..	..	..	..
Homicide	1	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..
All other causes	96	25	2	3	2	15	49	..	13	14	47	1	1	20	..	14	5
All causes	584	126	75	29	27	175	152	2	56	88	330	10	13	77	8	125	36

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 "Diarrhœa" are to be included deaths certified as from diarrhœa, alone or in combination with some other cause of ill-defined nature; and also deaths certified as from

Epidemic enteritis;
Zymotic enteritis;
Epidemic diarrhœa. Summer diarrhœa;
Dysentery and dysenteric diarrhœa;
Choleraic diarrhœa, 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 "Diarrhœa."

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

TABLE V.—Infantile Mortality during the Year 1908.

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

CAUSE OF DEATH.	Under 1 Week.				Total under 1 Month.	1—12 Months.											Totals Deaths under One Year.
	Under 1 Week.	1—2 Weeks.	2—3 Weeks.	3—4 Weeks.		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.	
ALL CAUSES—																	
Certified	19	11	6	3	39	8	2	8	11	4	8	3	6	5	5	7	126
Uncertified .. .. .																	..
Common Infectious Diseases—																	
Small Pox .. .. .																	..
Chicken Pox .. .. .																	..
Measles			1		1							1	1	2		2	7
Scarlet Fever .. .. .																	..
Diphtheria (including Membranous Croup)						1											1
Whooping Cough			1		1		1				1						3
Diarrhoeal Diseases—																	
Diarrhoea, all forms						1		1		1	1				1		5
Enteritis, Muco-enteritis, Gastro-enteritis		2			2	1	6		1	1	2						13
Gastritis, Gastro-intestinal Catarrh ..																	..
Wasting Diseases—																	
Premature Birth	11	3	2		16	1						1					18
Congenital Defects	4			1	5								3	1			9
Injury at Birth	1				1												1
Want of Breast-milk, Starvation			1		1				1								2
Atrophy, Debility, Marasmus	2	1		1	4	3	2		1	2							12
Tuberculous Diseases—																	
Tuberculous Meningitis		1			1				2							2	5
Tuberculous Peritonitis: Tabes Mesenterica																	..
Other Tuberculous Diseases									1						1		2
Other Causes—																	
Erysipelas .. .. .																	..
Syphilis .. .. .																	..
Rickets											1						1
Meningitis (not Tuberculous)													1				1
Convulsions	1	1	1		3		2	1	2								8
Bronchitis							4	1	2		1						8
Laryngitis											1						1
Pneumonia				1	1	1	1	2			1	1	2	1	2	1	13
Suffocation, overlying							3	1									4
Other Causes		3			3		3	2	1						2	1	12
	19	11	6	3	39	8	2	8	11	4	8	3	6	5	5	7	126

Births in the year—

Legitimate 1460.

Illegitimate 27.

Deaths in the year of—

Legitimate infants 112.

Illegitimate infants 14.

Deaths from all Causes at all Ages, 584.

Population—Estimated to middle of 1908, 57,600.

Table VI.—The Area in Acres, Inhabited Houses, Population, and Density of each Parish in the District in 1891 and 1908.

Parish.	Area in Acres.	Inhabited Houses.		Population.						Density. Persons per acre.		Persons per house.	
		1891.	1908.	1891.			1908.			1891.	1908.	1891.	1908.
				Persons.	Males.	Females.	Persons.	Males.	Females.				
Addington	3605	132	139	670	346	324	690	355	335	·18	·18	5·0	4·9
Beddington	3128	442	1700	2607	1162	1445	8000	3800	4200	·8	2·5	5·9	4·7
Coulsdon	4314	537	1720	3335	1623	1712	8800	4300	4500	·7	2·4	6·2	5·1
Mitcham	2915	2055	5131	10758	5300	5458	26700	12850	13850	3·6	9·0	5·2	5·2
Morden	1475	138	236	763	387	376	1180	560	620	·5	1·2	5·5	5·0
Sanderstead	3150	96	545	509	262	247	2580	1250	1330	·1	·8	5·3	4·7
Wallington	823	710	1668	3823	1587	2236	8500	4180	4320	4·6	10·3	5·4	5·1
Woodmansterne	1591	81	223	408	204	204	1150	550	600	·25	·72	5·0	5·1
	21001	4191	11362	22873	10871	12002	57600	27845	29755	1·1	2·7	5·4	5·0

In no instance are Institutions considered in this calculation.

TABLE VII.—Showing Parishes with Institutions.

Parish.	Area in Acres.	Inhabited Houses.		Population.						Density of persons per acre.		Average number of persons per house.	
				1891.			1908.						
		1891.	1908.	Persons.	Males.	Females.	Persons.	Males.	Females.	1891.	1908.	1891.	1908.
{ Beddington Royal Female Orphanage .. Russell Hill School ..	3128	442	1700	2607	1162	1445	8000	3800	4200	·8	2·5	5·9	4·7
							157	—	157				
							359	213	146				
							8516	4013	4503				
{ Coulsdon Cane Hill Asylum .. Reedham Orphanage ..	4314	537	1720	3335	1623	1712	8800	4300	4500	·7	2·4	6·2	5·1
							2185	942	1243				
							324	186	138				
							11309	5428	5681				
{ Mitcham Holborn Workhouse .. „ Schools ..	2915	2055	5131	10785	5300	5458	26700	12850	13850	3·6	9·0	5·2	5·2
							1047	662	385				
							410	218	192				
							28157	13730	14427				

TABLE VIII.—Showing the Annual Birth and Death Rates, and Death Rates of Infants for the Year 1908 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.
1908	25·8	10·1	84
1907	24·6	9·7	103
1906	26·7	11·3	124
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
Average of 10 Years, 1898—1907.	26·2	11·3	118·1

TABLE IX.—Showing the Population, Births and Deaths for the Year 1908, 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.	
1908	57600	1487	584	126	75	161
1907	66300	1635	649	170	70	239
1906	59800	1600	679	199	88	204
1905	54763	1408	529	138	41	178
1904	47030	1284	521	158	42	210
1903	41120	1166	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
Average of 10 years, 1898-1907	43819.3	1150.5	489.5	133.4	103.7	213.4

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	1906	1907	1908
Small-pox ..	..	..	7	1	2	..	..	3	..	..	..	..	29	9	5	1	1	..	..
Scarlatina ..	..	85	117	316	99	51	65	262	144	84	115	81	161	131	125	181	189	317	209
Diphtheria ..	..	17	16	44	63	26	45	35	107	38	62	87	77	48	169	134	161	190	204
Membranous Croup ..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Typhoid Fever ..	..	9	12	24	12	18	14	13	15	19	15	13	14	11	9	18	33	15	16
Continued Fever ..	..	..	..	1	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever ..	..	1	1	4	6	1	..	2	2	..	4	1	5	5	8	2	3	5	10
Anthrax ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
**Cerebro-spinal Meningitis ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	..
Cholera ..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas ..	..	13	22	31	18	18	33	26	23	29	34	20	35	23	27	44	52	56	36
Measles ..	..	237	579	138	458	29	1083	172	1023	251	420	862	636	280	1085	679	954	326	999
Acute Diarrhoea ..	..	..	..	..	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..
*Chicken Pox ..	..	..	..	..	..	..	..	..	..	..	..	..	162	188	..	..	..	..	..
Typhus Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Totals ..	..	362	754	560	664	144	1243	513	1314	421	650	1064	1119	695	1428	1076	1393	917	1474

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

** Cerebro-spinal Meningitis was a notifiable disease from the 22nd April, 1907, to April, 1908.

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

	Addington	* Beddington	† Coulsdon	† Mitcham	* Morden	† Sanderstead	* Wallington	* Woodmansterne	Institutions	The District
1890	..	6	..	3	..	..	4	..	1	14
1891	..	2	2	2	..	1	1	..	..	9
1892	..	2	..	4	..	..	3	..	1	12
1893	..	2	4	12	1	..	1	..	1	25
1894	4	2	..	..	4	..	..	12
1895	..	1	1	6	1	..	3	..	3	19
1896	..	1	2	9	..	1	2	..	..	16
1897	..	1	2	6	..	..	3	..	..	13
1898	1	..	1	11	..	..	..	..	..	15
1899	..	1	2	4	1	2	1	4	..	19
1900	..	1	2	3	..	..	3	3	..	15
1901	3	3	..	2	1	..	..	13
1902	1	2	1	3	1	2	2	..	..	14
1903	5	4	..	..	..	..	..	11
1904	..	1	..	5	..	1	2	..	..	9
1905	1	..	1	8	..	..	..	..	..	18
1906	..	2	1	20	..	1	3	1	..	33
1907	..	1	2	10	..	..	..	..	..	15
1908	..	3	..	11	1	..	1	..	..	16
	3	26	33	126	5	10	33	8	6	298

* Water supplied by Sutton Water Company.

† " " " East Surrey Water Company.

† " " " Lambeth Water Company.

Addington is principally supplied by the Croydon Corporation.

INFECTIOUS DISEASE during 1908.

Showing Disease; also place and month of incidence

TYPHOID FEVER.

Parishes.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Grand Totals.
Addington
Beddington	1	..	..	..	..	2	..	3
{ Coulsdon
{ Cane Hill Asyl'm
{ Mitcham ..	1	2	1	1	1	..	..	2	1	1	..	1	11
{ Holborn Schools and Workhouse
Morden	1	..	..	..	1
Sanderstead
Wallington	1	..	1
Woodmansterne
Totals ..	1	2	1	1	1	1	..	2	2	1	3	1	16

PUERPERAL FEVER.

Parishes.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Grand Totals.
Addington
Beddington
{ Coulsdon	1	..	..	..	..	1	..	..	1	3
{ Cane Hill Asyl'm
{ Mitcham	2	2	..	..	..	1	..	..	..	..	..	5
{ Holborn Schools and Workhouse
Morden	1	..	..	..	..	..	..	..	..	..	..	1
Sanderstead
Wallington	1	..	..	..	..	1
Woodmansterne
Totals	3	2	1	..	..	1	1	1	..	..	1	10

MEASLES.

Parishes.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Grand Totals.
Addington ..	..	..	..	..	4	4	..	..	..	..	..	..	8
Beddington ..	3	4	15	115	50	15	1	3	2	1	4	2	215
{ Coulsdon ..	1	4	5	4	7	..	2	1	1	3	2	3	33
{ Cane Hill Asyl'm ..	..	..	..	..	..	..	..	..	..	..	..	..	..
{ Mitcham ..	5	7	12	194	153	60	65	27	5	3	2	5	538
{ Holborn Schools and Workhouse ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Morden ..	..	..	..	1	..	..	1	3	2	..	..	..	7
Sanderstead ..	1	3	10	3	1	1	1	..	..	..	2	5	27
Wallington ..	1	1	3	10	29	81	21	3	12	3	2	..	166
Woodmansterne ..	..	..	1	..	2	..	2	..	..	..	..	..	5
Totals ..	11	19	46	327	246	161	93	37	22	10	12	15	999

ERYSIPELAS.

Parishes.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Grand Totals.
Addington
Beddington	1	..	..	..	..	..	1
{ Coulsdon	1	1	..	..	1	..	1	..	4
{ CaneHill Asyl'm	1	..	1
{ Mitcham ..	2	1	1	1	3	..	1	..	2	2	..	2	15
{ Holborn Schools	1	..	..	..	..	..	..	..	1
{ and Workhouse	1	..	..	1	..	..	..	..	..	..	..	2
Morden	1	1	1	..	..	1	..	..	..	..	4
Sanderstead
Wallington	1	..	..	..	..	..	2	1	..	..	4
Woodmansterne	1	..	..	..	..	1	1	1	..	..	..	4
Totals ..	2	3	3	2	7	1	3	2	6	3	2	2	36

SCARLET FEVER.

Parishes.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Grand Totals.
Addington ..	..	1	..	..	..	..	..	..	..	..	..	..	1
Beddington ..	..	1	9	4	2	1	..	..	1	2	4	5	29
{ Coulsdon ..	2	..	2	4	..	..	4	1	2	2	3	..	20
{ CaneHill Asyl'm ..	..	..	..	..	..	..	..	..	..	..	..	..	..
{ Mitcham ..	10	6	6	4	7	3	6	3	4	16	11	9	85
{ Holborn Schools ..	5	18	1	2	..	..	1	..	..	..	..	..	27
{ and Workhouse ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Morden ..	..	..	4	..	..	1	..	..	..	..	..	..	5
Sanderstead ..	1	..	3	1	..	1	..	..	1	1	..	..	8
Wallington ..	7	2	4	2	3	1	2	1	3	2	..	1	28
Woodmansterne ..	1	..	..	..	1	..	1	2	1	..	..	..	6
Totals ..	26	28	29	17	13	7	14	7	12	23	18	15	209

DIPHTHERIA.

Parishes.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Grand Totals.
Beddington ..	1	..	..	..	..	..	..	..	..	..	..	..	1
{ Addington ..	5	10	8	6	3	..	4	1	1	4	5	4	51
{ Coulsdon ..	..	1	4	1	1	..	..	..	..	2	4	1	14
{ CaneHill Asyl'm ..	..	..	..	..	..	..	..	..	..	..	..	..	..
{ Mitcham ..	4	3	4	6	7	5	11	8	7	6	9	8	78
{ Holborn Schools and Workhouse ..	..	..	..	..	1	..	..	..	..	..	..	..	1
Morden ..	..	..	1	..	..	..	..	..	..	..	..	..	1
Sanderstead ..	1	1	..	1	1	..	4	1	..	..	1	..	10
Wallington ..	1	5	5	5	4	4	3	2	..	8	1	4	42
Woodmansterne ..	..	..	..	..	5	1	..	..	..	..	..	..	6
Totals ..	12	20	22	19	22	10	22	12	8	20	20	17	204

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 Tin Milk. Note conditions and cleanliness of Cooking Utensils.	Condition of			Notes.
						Interior of house.	Back and front yards.	W.C.'s.	
Lower Road, Kenley	5½ months	M.	Leg.	Six in family	Fourteen days from the breast, then on Nestle's Milk and boiling water; later on lime water. Boiling water was obtained from tea kettle.	Clean	Back yard paved but not well swept	Clean	Mother states that paralysis set in and the child died of exhaustion
Acre Road, Mitcham	6 months	F.	Leg.	One in family	Cow's milk boiled and Allenbury's Food, given in an ordinary feeding bottle. Utensils clean	Very clean	Yards paved and kept very clean	W.C. in good order	
Bath Road, Mitcham	2 months	M.	Leg.	Five in family	Nestle's Condensed Milk in ordinary feeding bottle. Utensils clean	House kept very clean	Back yard is partly paved	W.C. is in yard and is in good order	There has been frequent stoppages in the main drain since the death of this child commenced to decline. The mother died of fever about a fortnight after confinement
Bruce Road, Mitcham	4 months	M.	Leg.	Two in family	Cow's milk and barley water in ordinary feeding bottle. Enamelled saucepan is used, which is kept clean	House kept in a clean state	Yards clean and paved	W.C. is clean	
Calthness Road, Mitcham	11 days	M.	Leg.	Two in family	Peptonised milk given in patent boat shaped feeding bottle which is kept clean	This house is kept very clean	Yards paved	W.C. is in good order	This child was ill from birth
Chapel Road, Mitcham	4 months	M.	Leg.	One died of similar complaint three years ago	Cow's milk first, then Allen and Hanbury's Food, then back to cow's milk. Utensils clean	Clean	Unpaved	W.C. is in yard and in good order	This child was weakly from birth and has been under hospital treatment
College Road, Mitcham	8 months	F.	Leg.	Seven living. Three have previously died, one from convulsions and teething, and one from diarrhoea	Cow's milk in ordinary bottle. The cooking utensils are not kept in a cleanly state	The kitchen and scullery are in a dirty state	Small piece of garden not paved	W.C. on first floor, and is in order	The kitchen and scullery have since been cleansed
College Road, Mitcham	5 months	M.	Leg.	One died four years ago. One living	Breast fed.	Kitchen is dirty		W.C. is on first floor, and is in order	The father died of phthisis two months before the child died
Devonshire Road, Mitcham	10 days	M.	Leg.	Two living	Breast fed	This house is kept in a cleanly condition	Back yard partly paved	W.C. in scullery and is in good order	This child appeared to be strong and healthy at birth
Fortescue Road, Mitcham	10 months	M.	Leg.	Two living	Nestle's Condensed Milk in an ordinary feeding bottle, which is kept clean	House is fairly clean	Back yard partly paved	W.C. is in yard, and in good order	The mother was in the habit of going out to work from 7.30 a.m. to 8 p.m.
Fountain Road, Mitcham	6 months	M.	Leg.	Two living	Nestle's Condensed Milk up to illness, then on white of egg and boiled water, and beef juice and brandy. Utensils not clean.	House dirty and infected with flies. Bedding dirty	Yards not swept. Back yard partly paved	W.C. is fairly clean	This child was adopted by the midwife who nursed the mother at her confinement; the mother afterwards dying at the isolation hospital
Heaton Road, Mitcham	3 months	F.	Leg.	One living	Cow's milk in patent tubeless bottle. Utensils clean	House kept clean and is in good order	Back yard paved	W.C. in good order	
Heaton Road, Mitcham	1 month	M.	Leg.	One living	Breast milk for a week, afterwards cow's milk in an ordinary feeding bottle. Utensils clean	House kept in a clean state	Back yard and forecourt paved	W.C. is on first floor, and is in good order	
Palestine Grove, Mitcham	10 months	M.	Leg.	Four in family	Breast and Neave's Food. Good enamelled saucepan kept clean	House fairly clean	Back yard paved	W.C. is clean	
Park Avenue, Mitcham	7 months	M.	Leg.	Three living	Cow's milk and water, later a little lime water used. Clean white enamelled saucepan used.	House clean	Both yards paved and well kept	W.C. is clean	This is the second time this child has had diarrhoea. The child was delicate from birth; the mother is also very delicate
Park Avenue, Mitcham	2 months	M.	Leg.	Four living	Cow's milk and barley water given in patent tubeless bottle. Utensils clean.	House kept in a cleanly state	Back yard is paved near entrance to house	W.C. in good order	
Manor Road, Mitcham	6 months	F.	Leg.	Three in family	Unboiled cow's milk in ordinary bottle	House in dirty and damp condition	Back yard unpaved and in a dirty state	W.C. in good order	The family had removed before the Inspector visited, but he was informed that this family were of dirty and neglectful habits
Manor Road, Mitcham	2 months	F.	Leg.	Seven living	Cow's milk and prepared barley water by ordinary feeding bottle. Utensils clean	House fairly clean	Back yard partly paved, and is in a bad state. The road in front of this house is not yet made up	W.C. in yard and is in good order	
Crown Road, Morden	5 weeks	M.	Illeg.	One in family	Breast for ten days, afterwards cow's milk and barley water, then whiskey and water, and Valentines meat juice	House clean	Faved front and back	W.C. is clean	This child was brought here five days before death, but was then seriously ill
Woodman Road, Woodmansterne	10 weeks	M.	Leg.	Two living	From the breast for five weeks, then cow's milk and barley water, and later Allenbury's Food. Utensils clean.	House clean	Paved back and front and very clean	W.C. is clean	The parents of this child are very clean people

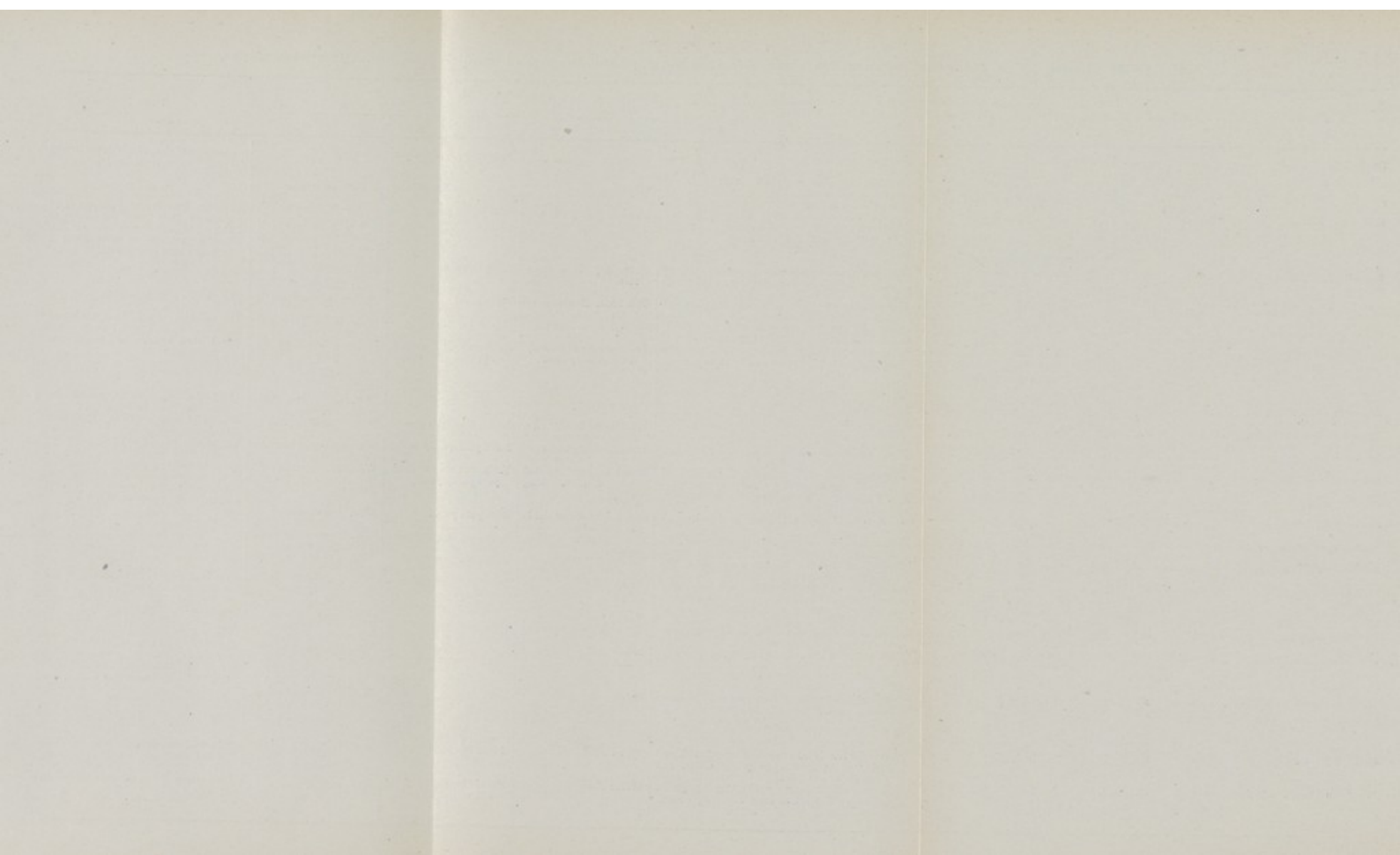


TABLE XIV.—Table showing Total Deaths from Infantile Summer Diarrhoea, during the eight years, 1901—1908, in each Parish, and in every Street invaded :—

ADDINGTON.

- | | |
|-------------------|--------------------|
| 1. Badger's Hole. | 1. Keeper's Lodge. |
|-------------------|--------------------|

BEDDINGTON.

- | | |
|---------------------|------------------|
| 3. Bandon Hill. | 1. Francis Road. |
| 1. Beddington Lane. | 1. Guy Road. |
| 1. Foxley Lane. | |

COULSDON.

- | | |
|-------------------|-------------------------|
| 1. Brighton Road. | 3. Lower Road, Kenley. |
| 1. Coulsdon. | 1. Roke Avenue, Kenley. |
| 1. Godstone Road. | |

MITCHAM.

- | | |
|--------------------------------|------------------------------------|
| 1. Acre Road. | 3. Lewis Road. |
| 1. Allen's Cottages, Lonesome. | 3. Leonard Road. |
| 2. Allen's Terrace. | 3. London Road. |
| 1. Aberdeen Road. | 1. Lonesome. |
| 9. Bath Road. | 2. Love Lane. |
| 2. Bailey Road. | 4. Lilian Road. |
| 2. Belgrave Road. | 1. Lock's Lane. |
| 1. Benedict Walk. | 3. Manor Road. |
| 1. Bond Road. | 9. Marian Road, Lonesome. |
| 1. Broadway. | 1. Miles' Lane. |
| 2. Bruce Road. | 1. Nicholls' Cottages, Eastfields. |
| 1. Byegrove Road. | 1. Norfolk Road. |
| 2. Caithness Road. | 1. Marlboro' Road. |
| 5. Chapel Road. | 3. Palestine Grove. |
| 1. Chestnut Road. | 3. Park Avenue. |
| 2. Church Buildings. | 3. Phipp's Terrace. |
| 9. Church Road. | 1. Piccadilly. |
| 3. College Road. | 1. Pitcairn Road. |
| 1. Commonside. | 1. Portland Road. |
| 1. Concrete Cottages. | 5. Princes Road. |
| 1. Courtney Road. | 8. Queen's Road. |
| 3. Denison Road. | 1. Robinson Lane. |
| 1. Devonshire Road. | 3. Robinson Road. |
| 1. Durham Place. | 1. St. Mark's Road. |
| 1. Eastfields. | 5. Seaton Road. |
| 2. Firework Road. | 5. Sibthorpe Road. |
| 3. Fortescue Road. | 3. Smith's Buildings. |
| 1. Fernlea Road. | 1. Spencer Road. |
| 2. Fountain Place. | 1. Ravensbury Cottages. |
| 8. Fountain Road | 2. Tramway Terrace. |

- 2. Gladstone Road.
- 1. Grange Villas, Eastfields
- 2. Greyhound Terrace.
- 4. Grove Road.
- 1. Harewood Road.
- 7. Heaton Road.
- 1. Homewood Road.
- 1. Lewis Cottages.

- 4. Tynemouth Road.
- 1. Upper Green.
- 1. Waterfall Road.
- 1. Warren Road.
- 4. Western Road.
- 2. Westfields.
- 1. Whitford Gardens.
- 2. Willow View.

MORDEN.

- 1. Bishop's Cottages.

- 1. Crown Road.

SANDERSTEAD.

- 1. Mayfield Road.

- 1. Riddlesdown Road.

WALLINGTON.

- 2. Hackbridge.
- 2. Manor Road.
- 2. Percy Road.

- 2. Ross Parade.
- 1. Seymour Road.
- 1. Wood Street.

WOODMANSTERNE.

- 1. Chipstead Valley Road.
- 1. Rutland Cottages.

- 1. St. Dunstan's Cottages.
- 1. Woodman Road.

FACTORY AND WORKSHOP ACT, 1901.

The title of this Act is "An Act to consolidate with amendments the Factory and Workshop Act."

It will be seen from the subjoined list that there are now 239 Factories and Workshops on the Register, which is one less than last year. All these are periodically visited, and due attention has been paid to maintaining them in such a condition as to comply with the requirements of the Act. During the year 396 visits of inspection were paid, and in 26 instances nuisances or irregularities were found.

FACTORIES AND WORKSHOPS.

TRADES.	FACTORIES.	WORKSHOPS.	TOTAL.	No. OF EMPLOYEES.
Laundries	9	22	31	363
Cycle Works	1	11	12	22
Carriage Makers and Wheelwrights ...	1	8	9	27
Distilleries and Essential Oils	1	3	4	15
Printing	2	2	4	48
Brickmaking	2	1	3	52
Carpenters and Builders	5	13	18	73
Shoeing Forges	—	16	16	35
Dressmaking	—	15	15	50
Bakeries	1	32	33	67
Harness Making	—	5	5	5
Bootmaking & Repairing	—	15	15	25
Bottle Washing & Marine Stores	—	3	3	7
Snuff and Tobacco Mills	2	—	2	27
Buff, Parchment, and Chamois leather, Patent leather and Degreasing	2	4	6	79
Dye Extractors	1	—	1	12
Chaff Cutting and Corn Grinding	2	—	2	9
Flour Mills	1	—	1	8
Electrical Works	1	—	1	9
Bedding Manufacturers	—	1	1	2
Cardboard ditto	1	—	1	40
Motor ditto	2	—	2	6
Brewers	2	—	2	22

TRADES.	FACTORIES.	WORKSHOPS.	TOTAL.	No of EMPLOYEES.
Varnish Making ...	8	5	13	141
Confectionery Making ...	1	1	2	254
Saw Mills & Timber yards	3	2	5	12
Silk and Chintz Printing	—	—	—	—
Gas Works ...	1	—	1	90
Watch Making ...	—	2	2	1
Firework Making ...	1	—	1	107
Mineral Water ...	1	—	1	20
Chemical Works ...	4	—	4	79
Margarine Works ...	1	—	1	20
Well Boring ...	1	—	1	8
Iron Works ...	1	—	1	50
Cork Cutting ...	1	—	1	23
Organ Building...	1	—	1	1
Brush Making ...	—	2	2	5
Belt Making ...	1	—	1	12
Trunk Cloth & Leather Substitute Making ...	—	1	1	2
Golf Club Making ...	—	2	2	5
Printing Ink Making ...	—	—	—	—
Engineering ...	3	—	3	48
Glove Cleaning ...	—	3	3	29
Furniture Making ...	—	1	1	1
Tailoring ...	1	1	2	5
Polishing Works ...	1	—	1	33
Sack Making ...	—	1	1	8
Patent Horse Hair Making	1	—	1	4
Totals ...	67	172	239	1956

1.—INSPECTION.

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS OR INSPECTORS OF NUISANCES.

Premises. (1)	Number of		
	Inspections. (2)	Written Notices. (3)	Prosecutions. (4)
Factories (including Factory Laundries)	82	2	
Workshops (including Workshop Laundries)	288	6	
Workplaces (other than Outworkers' premises included in Part 3 of this Report)	26	1	
Total	396	9	

2.—DEFECTS FOUND.

Particulars. (1)	Number of Defects			Number of Prosecutions. (5)
	Found. (2)	Remedied. (3)	Referred to H.M. Inspector. (4)	
Nuisances under the Public Health Act—*				
Want of cleanliness	15	15		
Want of ventilation	1	1		
Overcrowding	—	—		
Want of drainage of floors	—	—		
Other nuisances, insufficient lighting	1	1		
†Sanitary accommodation	insufficient	5	5	
	unsuitable or defective	2	2	
	not separate for sexes	2	2	
Offences under the Factory and Workshop Act—				
Illegal occupation of underground bakehouse (s.101)	—	—		
Breach of special sanitary requirements for bake- houses (ss. 97 to 100)	—	—		
Other offences (excluding offences relating to out- work which are included in Part 3 of this Report)	—	—		
Total	26	26		

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

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

4.—REGISTERED WORKSHOPS.

Workshops on the Register (S. 131) at the end of the year (1)								Number. (2)
Workshop Bakehouses	...	...	...	...	...	...	...	32
„ Confectioners	...	...	...	...	...	...	...	1
„ Dressmakers	...	...	...	...	...	...	...	3
„ Laundries	...	...	...	...	...	...	...	10
Other Workshops	...	...	...	...	...	...	...	126
Total number of Workshops on Register								172

5.—OTHER MATTERS.

Class. (1)	Number. (2)
Matters notified to H.M. Inspector of Factories	2
Failure to affix Abstract of the Factory and Workshop Act (s 133)	3
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act, (s. 5)	Notified by H.M. Inspector Reports (of action taken) sent to H.M. Inspector
Other	
Underground Bakehouses (s. 101):—	2
Certificates granted during the year	1
In use at the end of the year	

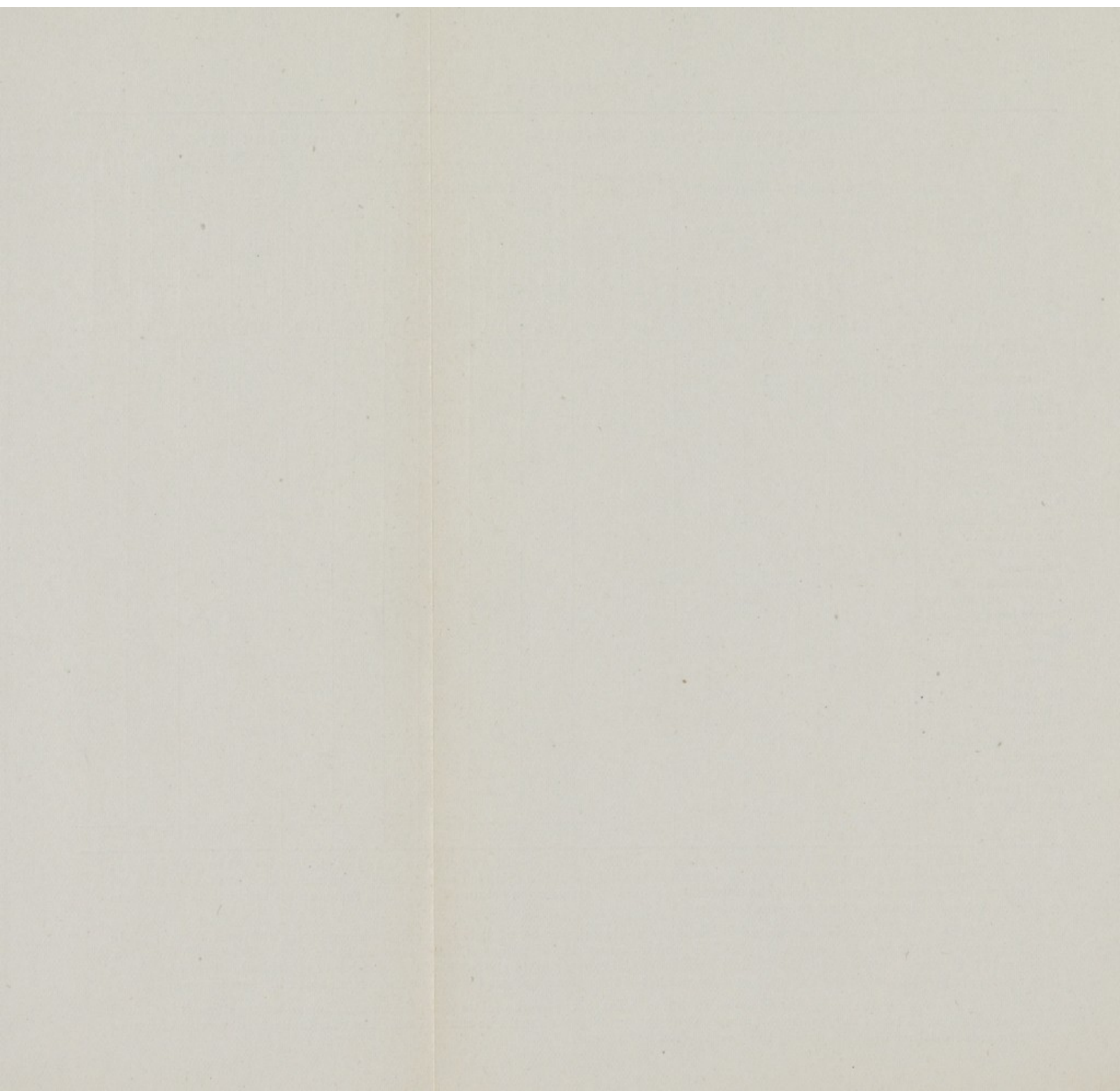
3.—HOME WORK.

NATURE OF WORK*	OUTWORKERS' LISTS, SECTION 107.											Inspections of Outworkers' Premises.	OUTWORK IN UNWHOLESOME PREMISES, Sec. 108			OUTWORK IN INFECTED PREM- ISES, Sec. 109, 110		
	Lists received from Employers.						Addresses of Outworkers		Notice served on Occupiers as to keeping or sending lists.	Prosecutions.			Instances.	Notices served.	Prosecutions.	Instances.	Orders made (S. 110).	Prosecutions (Sections 109, 110).
	Twice in the year			Once in the year			Received from Other Councils.	Forwarded to other Councils.		Failing to keep or permit inspection of lists.	Failing to send list.							
	Lists.*	Out- workers.†		Lists.	Out- workers.†													
		Con- tractors.	Work- men.		Con- tractors.	Work- men.												
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
Wearing Apparel— (1) making, etc. (2) cleaning and washing	10 2	2 2	10	20 1	3 1	17	33 3					44 8						
Lace, lace curtains and nets																		
Artificial Flowers ..																		
Nets, other than wire nets																		
Tents																		
Sacks																		
Furniture, Upholstry																		
Fur pulling																		
Feather sorting ..																		
Umbrellas, etc. ..																		
Carding, &c. of buttons, &c.																		
Paper bags & boxes				1		1	1					1						
Basket making ..																		
Brush making ..																		
Racquet and tennis balls																		
Stuffed Toys ..																		
File making ..																		
Electro plate ..																		
Cables and Chains..																		
Anchor & Grapnels																		
Cart Gear																		
Lock, Latches & Keys																		
Pea picking ..																		
Total ..	12	4	10	22	4	18	37					53						

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

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

§ In view of the wide discrepancies found to exist between the totals when the returns are added together, it is desired that care may be taken to give exact figures. Only those addresses should be counted which have actually been received from or forwarded to other Councils during the year covered by the report.



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Chapter XXII	220
Chapter XXIII	230
Chapter XXIV	240
Chapter XXV	250
Chapter XXVI	260
Chapter XXVII	270
Chapter XXVIII	280
Chapter XXIX	290
Chapter XXX	300
Chapter XXXI	310
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Chapter XXXIII	330
Chapter XXXIV	340
Chapter XXXV	350
Chapter XXXVI	360
Chapter XXXVII	370
Chapter XXXVIII	380
Chapter XXXIX	390
Chapter XL	400
Chapter XLI	410
Chapter XLII	420
Chapter XLIII	430
Chapter XLIV	440
Chapter XLV	450
Chapter XLVI	460
Chapter XLVII	470
Chapter XLVIII	480
Chapter XLIX	490
Chapter L	500
Chapter LI	510
Chapter LII	520
Chapter LIII	530
Chapter LIV	540
Chapter LV	550
Chapter LVI	560
Chapter LVII	570
Chapter LVIII	580
Chapter LIX	590
Chapter LX	600
Chapter LXI	610
Chapter LXII	620
Chapter LXIII	630
Chapter LXIV	640
Chapter LXV	650
Chapter LXVI	660
Chapter LXVII	670
Chapter LXVIII	680
Chapter LXIX	690
Chapter LXX	700
Chapter LXXI	710
Chapter LXXII	720
Chapter LXXIII	730
Chapter LXXIV	740
Chapter LXXV	750
Chapter LXXVI	760
Chapter LXXVII	770
Chapter LXXVIII	780
Chapter LXXIX	790
Chapter LXXX	800
Chapter LXXXI	810
Chapter LXXXII	820
Chapter LXXXIII	830
Chapter LXXXIV	840
Chapter LXXXV	850
Chapter LXXXVI	860
Chapter LXXXVII	870
Chapter LXXXVIII	880
Chapter LXXXIX	890
Chapter LXXXX	900
Chapter LXXXXI	910
Chapter LXXXXII	920
Chapter LXXXXIII	930
Chapter LXXXXIV	940
Chapter LXXXXV	950
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