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

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Urban District of Acton.

ANNUAL REPORT

OF THE

Medical Officer of Health

TOGETHER WITH

THE REPORT

ON THE

Medical Inspection of Schools

FOR THE YEAR

- - 1909. - -

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OF THE

Medical Officer of Health

FOR THE YEAR

1909.

By the Order of the Local Government Board, dated March 23rd, 1891, article 18, section 14, it is prescribed that the Medical Officer of Heath shall make an Annual Report to the Sanitary Authority, up to the end of December in each year, comprising a summary of the action taken, or which he has advised the Sanitary Authority to take, during the year, for preventing the spread of disease, and an account of the sanitary state of his district generally at the end of the year.

The Report shall contain an account of the inquiries which he has made as to conditions injurious to health existing in the district, and of the proceedings in which he has taken part or advised under any Statute, so far as such proceedings relate to those conditions; and also an account of the supervision exercised by him, or on his advice, for sanitary purposes, over places and houses that the sanitary authority have power to regulate, with the nature and results of any proceedings which may have been so required and taken in respect of the same during the year.

The Report shall record the action taken by him, or on his advice during the year, in regard to offensive trades, to dairies, cowsheds and milkshops.

The Report shall also contain tabular statements (on Forms to be supplied by us, or to the like effect) of the sickness and mortality within the district, classified according to diseases, age and localities.

In a memorandum issued by the Local Government Board in November 1908, it is recommended that the Report shall deal with the extent, distribution and causes of disease within the district; and should give an account of any noteworthy outbreak of epidemic diseases during the year under review, stating the result of investigations into their origin and propagation, and the steps taken to check their spread.

As these Reports are for the information of the Local Government Board, and of the County Council, as well as of the Council of the District, a statement of the local circumstances and a history of the local sanitary questions which may seem superflous for the latter, may often be needed by the former bodies.

Under section 132 of the Factory and Workshop Act, 1901, the Medical Officer of Health is also required in his Annual Report to report specifically on the administration of the Act, in workshops and workplaces, and to send a copy of his Annual Report, or so much of it as deals with this subject, to the Secretary of State.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR 1909.

To the Chairman and Members
of the Acton Urban District Council.

GENTLEMEN,

I have the honour to submit to the Council a report on the sanitary conditions of the district, together with the vital and other statistics for the year 1909.

The population has been estimated at 56,000.

The death-rate was again lower than that of the preceding year.

The death-rate amongst infants under 12 months of age was also lower.

There is another extensive epidemic of Measles to be recorded, which accounted for 40 deaths.

The outbreak of Scarlet Fever which commenced in 1907 and had continued throughout 1908, shewed no signs of abatement until the autumn. A considerable drop occurred then with the result that the number of notifications is slightly lower than in 1908.

Diphtheria was more prevalent and together with Membranous Croup accounted for 22 deaths.

The district was remarkably free from Enteric Fever, only 4 notifications being received.

The Zymotic death-rate was the same as in 1908.

The death-rate from Phthisis and other Tubercular diseases was lower.

Changes in the Staff have to be recorded.

Mr. Fearns resigned in April owing to ill-health and Mr. A. Thomas was appointed to his post. Miss Stevens resigned in January to take up a similar post in Lewisham. Miss Bhose, the Assistant Health Visitor, was promoted, but resigned in August owing to ill-health. Miss Cooksey has been appointed Health Visitor.

In lieu of an Assistant Health Visitor the Education Committee appointed a School Nurse, and Miss James was appointed.

Owing to a re-arrangement of the Staff in the Surveyor's Department Mr. Brooks has been assisting in the Health Department, and has carried out a house-to-house inspection in the South West Ward.

The following is a summary of the vital statistics for the year :--

Estimated population, 56,000 inhabitants.
Birth-rate, 26·4 per 1,000 inhabitants.
Death-rate, 12·6 ,,
Infantile Mortality, 106 per 1,000 births
Zymotic Death-rate, 2·2 per 1,000 inhabitants.
Phthisis Death-rate, ·87 ,,
Death-rate from other forms of Tuberculosis, ·32 per 1,000 inhabitants.
Respiratory Death-rate excluding Phthisis, 2·2 per 1,000 inhabitants.

POPULATION.

Of the various methods of estimating the population of a district in any particular year, the most reliable in the case of Acton is based upon the number of new houses erected during the year. But even this method is liable to a considerable error. The number of inhabitants in each house rose from 5·9 at the census of 1891 to 6·2 at the census of 1901. This increase was not due to larger families, but to the conversion of houses formerly occupied by one family into flats. To

what extent the process is still going on it is difficult to estimate, but it is possible that the next census will reveal a still higher average number of persons to each house.

On the other hand, the percentage of empties is higher at the present time than in 1901. Between July 1st, 1908, and June 30th, 1909, 187 new dwelling houses were completed and occupied. An average of 6·2 persons per house would represent 1159 inhabitants. The estimated population for 1908 was 55,000, and the estimate for 1909 has been placed at 56,000 inhabitants.

Nearly nine years have now elapsed since the official census was made, and the further we are removed in time from that census until the next, the more inexact our estimates become, and the less reliable are all vital statistics. It has been repeatedly urged that a more frequent enumeration should be made, and it is hoped that the Census Act of 1910 will provide for a quinquennial census.

A quinquennial census appears especially necessary for places like Acton. When the census of 1911 has been made, it will be assumed that the increase since 1901 has been uniformly distributed throughout the 10 years, and the vital statistics for the intervening years will be based upon such an estimate. How incorrect that estimate will be is manifest when we consider that during the earlier 5 years the average yearly number of new houses erected and occupied was nearly 450, whilst during the later 5 years the number will probably not amount to one-half that total.

BIRTHS.

Number...	1480
Rate per 1,000...	26·4
Rate per 1,000 in England and Wales	25·6
Rate per 1,000 in 76 large towns ...	25·7
Rate per 1,000 in 143 smaller towns	24·8

There were 1480 births registered as having occurred in the district. This number corresponds to a birth-rate of 26·4 per 1,000 inhabitants.

On Table 1 the birth-rates for the last 10 years are given, and it will be seen, on reference to the Table, not only is the birth-rate for 1909 the lowest on record, but that the number of births registered in 1909 is lower than that of 1905, 1906, 1907 or 1908. Except that the actual numbers of births is lower than in previous years, the experience of Acton is not different to that of the whole of the kingdom.

The birth-rate is not usually considered within the realms of public health; and when a spurious delicacy does not deter one from an adequate discussion of it, it is the fashion nowadays to lament the decline in national fertility. Although the remedy is beyond the scope of a Sanitary Authority, it is important to ascertain the source from which the population is being recruited, and whether the recruits are likely to be fit or unfit. We know that since 1877 the birth-rate in this country has been steadily declining, and during the last 25 years the rate has undergone a decrease of nearly 20 per cent.

It is not self-evident that the fact of a declining birth-rate is an occasion for ~~report~~ *grief*. It is too readily assumed that decrease of the birth-rate in this country is intimately connected with physical degeneracy, and this would be true if the decline were noticed only among the healthy and the thrifty. We are not concerned with the economical, political and other considerations, but we may inquire into some of the causes which are operative in bringing about a result as to the main value of which we suspend judgment.

The Registrar-General has for several years in his Annual Report given a table showing the movement of the birth-rate in relation to the number of women living at procreative age periods in England and Wales. These results, as summarised in the Annual Report of 1907, are for 1876-1905 as follows :—

Birth-rate per 1,000 Female age 15—45 years.			Birth rate per 1,000 Females age 15—45 years.		
1876—1880	...	153.3	1891—1895	...	126.8
1881—1885	...	144.3	1896—1900	...	118.8
1886—1890	...	133.3	1901—1905	...	112.5

From this table it is clearly seen that the decline in the birth-rate is due to a diminished fertility of women capable of child-bearing.

The same phenomena is observed in Acton, but since 1903 the diminution has been greater than in the rest of the kingdom.

The following table gives the birth-rate per 1,000 females in Acton between the ages of 15 and 45 years:—

1901	...	113	1905	...	110
1902	...	107	1906	...	106
1903	...	116	1907	...	104
1904	...	112	1908	...	102
		1909	... 94		

When we turn to the Registrar General's statistics of illegitimate births, we find that in 30 years the birth-rate of illegitimates has declined from 14.4 per 1,000 unmarried or widowed females at procreative age periods in 1878 to 7.8 per 1,000 in 1907. The number of unmarried or widowed females at different ages is not obtainable for Acton, but the number of children born out of wedlock sensibly diminished last year, and the illegitimate birth-rate is low in view of the industrial conditions of the district. The following table gives the illegitimate birth-rate for the last four years:—

	Number.	Rate per 1,000 births.	Rate per 1,000 living.
1906	39	25	.7
1907	37	24	.7
1908	42	26.8	.76
1909	29	19.2	.52

Some small allowance must be made for the fact that the Union Infirmary is situated outside the district.

So far as the general decline in the birth-rate is to be ascribed to this contributory cause it must be contemplated with satisfaction. In the last four years nearly one-half the illegitimate children born in Acton died before reaching the age of 12 months.

Last year out of the 29 children born out of wedlock, five died before reaching the age of 12 months. These figures represent an infantile mortality of 172 per 1,000 births.

In 1908 the infantile mortality amongst illegitimate children was 404 per 1,000 births; in 1907 480 per 1,000; and in 1906 564 per 1,000.

Another factor that has operated in the production of a lower birth-rate is the higher age at which women enter into matrimony. Throughout the kingdom the average age at which persons marry is higher than formerly, and as a result the number of years spent by women of child-bearing age in wedlock has been proportionately diminished. As far as this directly affects the birth-rate there will be few who regret the loss resulting from a cause which has been accepted as a desirable change.

These two factors, though, are not the most important in the reduction of the birth-rate. We learn from the Registrar-General's report that the operation of these combined causes accounts for only 21 per cent. of the decline in the birth-rate. There are sufficient grounds for stating that during the past 30 years approximately 14 per cent. of the decline in the birth-rate (based on the proportion of births to the female population aged 15—45 years) is due to the decrease in the population of married women in the female population of conception ages, and that over seven per cent. is due to decrease of illegitimacy. With regard to the remaining 79 per cent. of the decrease, although some of the reduced fertility may be ascribed to

changes in the age constitution of married women, there can be little doubt that much of it is due to deliberate restrictions of child-bearing. The fact is also significant that at the last Census period, 1900—02, the fertility of English wives was lower than that recorded in any European country, except France.

It is this restriction of child-bearing among English wives which calls forth the fulmination of some class of people each time the Registrar-General makes a report, but a statistical phenomenon can in itself hardly ever be an object of approval or opprobium.

Upon the whole question of a falling birth-rate we are not inclined to express an opinion, but there is an aspect of it which is of interest to all hygienists, and to which attention might profitably be called.

Everyone admits that a high infantile mortality is hygienically and economically unsound. Infantile mortality is an extreme expression of inefficient breeding and nurture. It is a phenomenon which can be measured in figures, but one of the causes of a high infantile mortality gives birth to other results, which, though less tangible and apparent, are as real and of more importance to the nation. The unaided mother of a family, even when she is fortunate enough to escape being a contributory wage-earner, can rarely do justice to the numerous progeny which she is capable of bearing. It may be admitted that the birth-rate in the North-West Ward is too low, but no one will argue that in the South-West Ward a still further reduction would be a calamity. Last year the birth-rate per 1,000 of the population in the different wards was as follows :—

North-East.	North-West.	South-East.	South-West.
22·8	17·6	26·7	37·4

With the exception of the South-East Ward, the birth-rate in all the Wards has been steadily undergoing a reduction. In like manner, the infantile mortality in the three Wards was

lower than it has been since the district was divided into four Wards.

In the South-West Ward the birth-rate has decreased from 42·6 per 1,000 in 1906 to 37·4 per 1,000 in 1909. If restricted child-bearing is compensated in improved mothering of a fewer offspring, and if smaller families mean a higher individual fostering and culture, a greater personal attainment and efficiency, most people will agree that the numeral decrease in the growth of the population will not be a high price for the purchase of so desirable a result.

The Ward distribution of the births was as follows:—

North-East.	North-West.	South-East.	South-West.
331	220	294	635

Compared with 1908, fewer births occurred in the North-East, South-East and South-West Wards. In the North-West Ward there were 5 births more than in 1908.

Of the births registered, 754 were of males, and 726 of females.

DEATHS.

Number	706
Death-rate per 1,000	12·6
Death-rate per 1,000 in England and Wales ...	14·5
Death-rate per 1,000 in 76 large towns ...	14·7
Death-rate per 1,000 in 143 smaller towns ...	13·9

Although certain directions are issued as to the deaths that should be credited to a district, there is no uniformity of practice. In the notes attached to the Local Government Board Tables it is stated that all deaths of residents occurring in public institutions, whether within or without the district, are to be included among the deaths of the district and in the columns for the several age-groups, and in their respective Wards 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.

By the term "non-resident" 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 the Tables are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses and lunatic asylums.

These regulations do not include those who die before they can be removed to a public institution. For instance, if a man from an outside district is injured on the railway here and the injury is instantaneously fatal the death is to be credited to Acton. If on the other hand he can be removed to a Hospital before he dies the death is to be credited to the district in which he resided.

Four deaths of persons living in an outside district occurred as the result of accidents received on a railway in Acton, and one other occurred in a tramcar.

In the list of deaths of "residents" of Acton who had died outside the district are included two which occurred on the platform of Westbourne Park Station, one which occurred in a cab in a London Street, Marylebone, and two others which do not come within the category of public institutions receiving persons on account of sickness or infirmity. It is obvious that both classes should not be included in our list of deaths. I have therefore excluded the five belonging to other districts, and retained those who died outside the district.

Five hundred and seventy-six deaths were registered in the district; five of these are referred to in the preceding para-

graph. These five were non-residents, but who had not died in a public institution. One non-resident died in the Cottage Hospital.

One hundred and thirty-seven deaths of "residents" occurred outside the district.

The total number of deaths belonging to the district is 708, which corresponds to a death-rate of 12·6 per 1,000 inhabitants.

It has been explained in previous reports that in order to compare the death-rate of one district with that of another it is necessary to make an allowance for the difference in age and sex constitution of the different districts.

Females live longer than males, and a district containing a preponderance of women would show a lower death-rate, other things being equal. But the most important factor is the age-constitution of a population. The tendency to death is greatest among persons living at the extremes of life—among infants and old people.

The ages at death last year were as follows :—

Under 1 year.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	over 65.
158	102	40	30	208	170

The Registrar-General has published a table of "factors" for all the large towns, &c., by applying which to the "crude death-rate" it becomes corrected for age and sex distribution, so that the "corrected death-rate" gives the death-rate of any place, calculated on the basis that the age and sex distribution in that place is the same as that for the whole country. Thus all "corrected" death-rates, being reduced to a common basis, may fairly be compared.

The "factor for correction" for Acton is 1.04240. If the "crude death-rate," 12.6, be multiplied by this figure, the "corrected" death-rate is 13.1.

The corrected death-rate for the 76 large towns is 15.6, and for the 143 smaller towns 14.5.

The death-rate is .5 per 1,000 lower than that of 1908, and 1.3 per 1,000 lower than that of 1907.

There was a decrease in the number of deaths among infants under 12 months old, and among children between the ages of 1—5 years. There was an increase in the age periods, 5—15 years, and 15—25 years. Between the ages of 25—65 years, there was one death less than in 1908, and above the age of 65 years, two deaths more than in the previous year occured.

The deaths of infants under 12 months are dealt with in a succeeding paragraph, but almost as important is the age-group, 1—5 years. It will be observed on Table IV. that the mortality of children between the ages of 1—5 years is much lower than that of children under 12 months. The burden of disease in childhood falls most heavily and disproportionately upon the first two years of life. In the age-group, 1—5 years, the largest contributory causes of death are Measles, Pneumonia, Tuberculous Diseases and Membranous Croup. Measles and Whooping Cough accounted for 36 per cent of the deaths in this age-group, and 15 deaths occurred from Pneumonia. It is not sufficiently recognised how great is the annual mortality due to these conditions at this age-period, and how little improved sanitary conditions during recent years have affected any substantial reduction in them. But it is not the immediate effects of these diseases that are fatal. They leave behind them the seeds of future ailments. The diseases which kill infants affect a still larger number of the survivors, leaving behind sequelæ which so affect the tissues as to create a favourable ground or nidus for subsequent disease.

Ward Distribution.—

North-East.	North-West.	South-East.	South-West.
124	122	137	325

Based upon the estimated population of each Ward, the death-rate per thousand was :—

North-East.	North-West.	South-East.	South-West.
8.5	9.7	11.4	19.1

The death-rate in the North-East, North-West and South-West Wards was lower than in 1908 and higher in the South-East Ward. On Table IV. will be found the number of deaths in each Ward from the different diseases, and it will be observed that the excessive mortality in the South-West Ward is due to those diseases which reflect the influence of social conditions upon the death-rate.

There is an excessive mortality from all the common infectious diseases, and from Digestive diseases. Diseases of childhood would naturally be more prevalent in the Ward, but the number of deaths from such diseases as Measles and Diarrhœa is far greater than the age constitution of the Ward would warrant. Out of 40 deaths from Measles, 24 occurred in the South-West Ward; out of 22 from Diphtheria and Membranous Croup, 20 belonged to this Ward and no less than 36 out of 43 from diseases of the digestive organs.

The results of the house-to house inspection of certain portions of the South-West Ward are given in a succeeding paragraph, and an amelioration of insanitary conditions would undoubtedly bring about a direct reduction in the excessive mortality of the Ward. But a reduced death-rate would reflect itself in the social conditions of the people.

It is known that the poorest classes in our large towns suffer much more heavily from disease and loss of life than do the better class of artizans and wealthier classes. It does not follow that their poverty is the cause, although it may be granted that malnutrition produces disease. These classes may be poor through sickness. Any illness in a family adds to the expenses. A fatal illness, by removing the head of the household, frequently leaves the widow with a family for whom she is unable to provide and who are deeply injured in health and habits by the enforced absence of her care, as well as by physical privation.

For a determination of the degrees of poverty prevailing in a community, and of the relative influence exerted by

different causes of impoverization, there is ultimately no other way than to make an investigation into the conditions of every household. This investigation, of course, has not been made in Acton, but from the facts obtained in the investigation of infectious diseases and of malnutrition in school children, it is evident that poverty is an important factor in the causation of an excessive mortality in the South-West Ward. As poverty deepens, the death-rate rises at every age-group.

The diseases which respond most clearly to differences of social position are in childhood those in which the fatality depends most intimately on good nourishment and instructed care, and particularly diseases of the digestive and respiratory systems. As stated above, 24 out of 26 deaths from Diarrhœa in infants under 12 months occurred in the South-West Ward; from Enteritis, all the five deaths occurred there; from Pneumonia, 8 out of 17, and from Bronchitis, 9 out of 11.

In later years it is lung disease which responds clearly and unmistakably to poverty. It is, however, Phthisis which shows the sharpest reaction and the widest differences. More than one-half the deaths from Phthisis occurred in the South-West Ward.

MEASLES.

In 1909, 40 deaths were registered as due to Measles, 39 of these deaths occurred in Acton, and one in the Children's Hospital, Paddington Green.

A glance at the history of the disease in Acton reveals some interesting points in its behaviour. With the exception of Diarrhœa, Measles has been responsible for more deaths than any two of the principal Zymotic diseases.

Though it is the most prevalent of all children's diseases, and practically every child is susceptible to the disease, no satisfactory plan of campaign has yet been formed against it. Measles is one of the most difficult diseases to control, and the means adopted for its prevention have not, up to the present,

had the effect of steadily and continuously reducing the death-rate. During the third quarter of the last century there was a decided improvement, but this was followed by a serious rise towards the end of the century.

The following table gives the annual number of deaths in Acton per 100,000 inhabitants, in quinquennial periods for the 25 years 1886—1906.

1882—1886	1887—1891	1892—1896	1897—1901	1902—1906
32·6	66·6	50·2	13·6	29

During the past three years the death-rate per 100,000 has been as follows :—

1907	38
1908	65
1909	71

From the year 1881 to 1902, the difference between epidemic and interepidemic periods was most marked.

The major epidemic years were as follows —

1885, with a Death-rate of 120 per 100,000
1889, with a Death-rate of 115 per 100,000
1892, with a Death-rate of 98 per 100,000
1896, with a Death-rate of 80 per 100,000
1902, with a Death-rate of 78 per 100,000

Since 1902 the death-rate has not in any year reached 75 per 100,000 inhabitants.

But whereas the peak observed in epidemic years has become flattened, the trough in interepidemic years has become raised, so that the actual number of victims to the disease has not diminished. Following the major epidemic year of 1885, in 1886 the death-rate was only 10 per 100,000; there was a minor epidemic in 1887, and in 1888 there was no death from Measles.

Following the epidemics of 1892 and 1902, there was no death from the disease in 1893 and 1903. There was a minor epidemic in 1900, followed by complete immunity in 1901, and preceded by a similar state of affairs in 1899.

Since 1903, not a single year has passed without a death from Measles, although the death-rate in 1905 was only 8 per 100,000 inhabitants.

This altered behaviour of Measles is probably accounted for by the altered character of the district. Formerly it was a detached suburb. Now it is a part of London, and the opportunities for the introduction of a children's ailment from other districts are more frequent than formerly. The population is also of a more shifting character, and the percentage of protected and unprotected children is not so uniform as it used to be.

It is almost certain that we had to deal with two separate outbreaks during the year. The first outbreak was limited to a few cases, and the introduction of the disease into the district can be traced with a fair degree of definiteness.

A case of Measles, N. S., was notified from the South Acton Infants' School on December 16th, 1908. The child had been ill since December 11th, and the rash had appeared on December 14th.

N. S. used to live in Bollo Bridge Road but had recently moved. In the same house at Bollo Bridge Road was another child, D. J., aged 14 months. D. J. attended the out-patients department of the Paddington Green Children's Hospital on November 19th. At the time, Measles was prevalent in the Western Boroughs of the Administrative County of London.

D. J. exhibited symptons of Measles on November 28th, and the rash appeared on December 3rd. The disease was of a severe type and the child died on December 5th.

As stated above, N. S. was notified on December 16th and inquiries made amongst children absent from school revealed two more cases. The infection could in all cases be traced to the case D. J. Two classes in the school were affected, and the three children above referred to had attended when suffering from the initial symptoms of Measles. The first crop

would be due to fall somewhere between December 18th and December 23rd.

As the interference with the work of the school would be very slight, it was decided to close the department for the Christmas Holidays on Friday, December 18th, instead of December 23rd.

The names and addresses of all the children attending the two classes were obtained, and the houses visited before the school re-opened after the holidays.

Five cases of Measles were found, and these had sickened after the closure of the school. The regulations for the exclusion of children from premises where Measles existed were observed, and no cases occurred in other houses.

It is true that the South Acton School was well protected, as an outbreak of Measles had made its appearance amongst its pupils in 1908, but as will be shown later, 64 cases were reported from this school in June, 1909, and it was some advantage to postpone the appearance of these cases for only six months.

As far as our knowledge goes, this minor outbreak was completely stamped out, and the second outbreak was the result of a fresh introduction of the disease.

The second outbreak made its appearance towards the end of February or the beginning of March. The earliest cases were notified from Beaumont Park School, and during the first week in March seven cases were reported. During the second week in March only one case was reported from this school, and in the fourth week 11 cases. The disease did not spread very extensively amongst the children attending this school; 43 cases were reported in April and one each in July and August. The explanation is probably to be found in the fact that Beaumont Park and South Acton were the two schools that suffered most severely from the epidemic of Measles in 1908.

Five classes were affected in the Beaumont Park School, viz. :—

Class IV. with 5 cases
Class V. with 6 cases
Class VI with 19 cases
Class VII. with 5 cases
Class VIII. with 20 cases

The outbreak seems to have spread in two directions, eastward to Southfield Road School and westward to Rothschild Road School.

During the first week of April 13 cases were reported from Southfield Road School, in the second week 28, in the third week 67, and in the fourth week five. The outbreak then subsided, as in the first week in May only 13 cases were reported, and in the second week four. One case was reported in July and one in September.

The outbreak spread far more extensively here than in Beaumont Park, but Southfield Road had escaped the epidemic of 1908 and the soil would therefore be more fruitful.

In Beaumont Park five classes were affected, and in Southfield Road 15. Although better means of isolation would be available in the families of children attending Southfield Road School, in 25 instances two cases occurred in the same family, in one three cases and in another family four cases. In Beaumont Park, on the other hand, in only two families did more than one case occur.

During the first week in April 13 cases were also reported from Rothschild Road School, and altogether 61 cases were notified from this school—49 in April, 10 in May and two in June.

The next school to be attacked was the Turnham Green School, but only 13 cases were reported from this school. The first case was notified in the first week in May.

During the third week in May 12 cases were reported from the Priory School, and altogether 104 cases were notified from the Priory Infants Department.

In June the disease had made its appearance in South Acton and St. Mary's Schools.

During the second week in June 27 cases were notified from the South Acton Infants' Department, and 64 cases were altogether notified.

Forty-one cases were notified from St. Mary's School, the first case being in the third week in June.

The epidemic made no headway in the schools situated to the north of the High Street, only three cases being reported from the Central School, and one each from Willesden Junction and East Acton Schools.

The above dates give a fair idea of the course which the epidemic took. In most instances its detection in a school only takes place on the occurrence of the first crop. Under such conditions Measles once introduced into the Infants' Departments of a school spreads with the greatest rapidity and often assails the whole of the susceptible children within a few weeks. If information could be obtained of the earliest cases school closure could then be resorted to with some prospect of success. But unless the earlier cases are detected the outbreak has got beyond the stage of effective control by school closure.

With the exception of Southfield Road school closure was not resorted to. The ordinary rules for the exclusion of affected children and contacts were adopted. Southfield Road Infants' Department was closed from April 25th to May 24th.

If school closure is to be of any avail it must be done at the earliest opportunity, and at the start of an outbreak. Under the conditions obtaining in Urban Districts it is doubtful if school closure is ever resorted to with any decided hope of checking the spread of an epidemic. It is possible, though,

that school closure may have an effect on the fatality of an epidemic. It is well known that the principal danger of Measles lies in the size of the epidemic. There is a greater proportional case fatality in large than in small epidemics. The cases increase in severity as an epidemic progresses.

This phenomenon is illustrated by the following table:

			Cases Notified.	Deaths.
March	1st	week	7	
,,	2nd	,,	0	
,,	3rd	,,	1	1
,,	4th	,,	13	
April	1st	,,	59	1
,,	2nd	,,	5	
,,	3rd	,,	100	
,,	4th	,,	31	2
May	1st	,,	22	2
,,	2nd	,,	14	3
,,	3rd	,,	13	3
,,	4th	,,	14	3
June	1st	,,	26	2
,,	2nd	,,	47	2
,,	3rd	,,	39	3
,,	4th	,,	23	2
July	1st	,,	12	1
,,	2nd	,,	17	2
,,	3rd	,,	10	3
,,	4th	,,	7	6
August	3rd	,,		1
,,	4th	,,		2

The drop in the number of notifications received in May was partly due to the closure of Southfield Road Infants' Department. The outbreak reached its height during the third week in April, and began to decline towards the end of May. The number of deaths, though, was higher in July than in any other month. Of course a certain interval generally

elapses between the appearance of the rash and death, but in this epidemic the deaths in most of the cases occurred early in the illness. The increased fatality towards the end of the epidemic cannot therefore be accounted for on the assumption that the deaths in July were of cases notified in the earlier months. Neither can the geographical distribution of the epidemic account for the increased fatality during the later stages. (As will be pointed out, on a later page, social conditions play an important part in the mortality from Measles.)

It is almost the general experience that as an epidemic progresses the cases become more severe in character. The increase of severity seems to be entirely due to the concentration of the poison, and school closure may have the effect of diluting the poison. School closure may diminish the virulence of an epidemic by removing children from a vitiated atmosphere.

It has been pointed out in previous Annual Reports that the age at which relatively the greatest number of children die of measles is the second year of life. After the third year has passed there is a rapid decrease in the fatality of the disease. It is impossible to state in figures what is the case fatality at different age periods. Practically, all cases occurring amongst children of school age are reported, but, unless there are children of school age in the house, very few children under three years of age are notified as suffering from the disease.

The ages at death were as follows:—

Under 1 year.	1 to 2.	2 to 3.	3 to 4.	5 to 6.	6 to 7.
6	19	6	5	3	1

The ages of the cases reported from the schools were as follows:—

3 to 4 years.	4 to 5.	5 to 6.	6 to 7.	7 to 8.	Over 8 years.
41	120	140	105	56	31

Although the above tables are not complete, they are sufficient to show that the incidence of attack is different from that

of death. The main incidence of death is on the second year, while the incidence of attack is on the fourth, fifth and six years. The fatality of Measles is therefore much higher in the second year than in any of the succeeding years. It will thus be seen how important it is to endeavour to lengthen the interepidemic period. To secure this end many administrative measures have been proposed. Among these, the question of the exclusion of children under five years of age has been the subject of investigation by a Departmental Committee of the Education Department. Raising the age of attendance to five years would diminish the spread of infection for a time, but it must be recognised that in the southern portion of Acton the exclusion of children under five must lead to the establishment of Creches. The question of controlling infection in Creches would have to be considered, as in poor districts such institutions would certainly have to be introduced for the care of young children whose mothers have to go out to work. It is of interest to note in this connection that the district of South Acton has been visited on two occasions with an epidemic of Measles since the institution of the South Acton Day Nursery and in no instance has the disease spread amongst the children attending the Nursery. This immunity may have been partly due to the size of the Creche, and very large Day Nurseries may serve as *foci* of infection.

There is one significant difference between the two outbreaks which occurred last year. In the first one, that is the one that was controlled and in which only nine cases occurred, we were fortunate in being notified of the first case at the time of its occurrence. In the second, and more extensive outbreak, the first notifications referred to the first "crop" and not to the first "case."

The difficulty of obtaining information of the earliest cases constitutes one of the chief obstacles in the control of Measles. To overcome this difficulty the compulsory notification of Measles has been tried in several places. Nowhere has

compulsory notification been a complete success, and the reason is not far to seek. The notification was probably of an incomplete character. Until Measles comes to be regarded by the public as a serious disease it will be impossible to obtain the necessary co-operation of parents. It is certain that parents would not, under present conditions, notify all the cases, and a doctor is not in attendance on one-third of the cases.

The street distribution of the deaths was as follows:—

St. Margaret's Terrace	... ...	5 deaths.
Somerset Road	... ...	4 ,,
Stirling Road	... ...	2 ,,
Junction Road	... ...	2 ,,
Hanbury Road	... ...	2 ,,
Nelson Place	... ...	2 ,,
Berrymede Road	... ...	2 ,,
Southfield Road	... ...	2 ,,
Stanley Road	... ...	2 ,,
St. Alban's Avenue	... ...	1 death
Shirley Road	... ...	1 ,,
Whellock Road	... ...	1 ,,
Bolton Road	... ...	1 ,,
Rothschild Road	... ...	1 ,,
Palmerston Road	... ...	1 ,,
Acton Lane	.. ..	1 ,,
Antrobus Road	... ...	1 ,,
Steele Road	... .	1 ,,
Beaconsfield Road	... ...	1 ,,
Western Road	... ...	1 ,,
Ramsey Road	... ...	1 ,,
Berrymead Gardens	... ...	1 ,,
Petersfield Road	... ...	1 ,,
Osborne Road	... ...	1 ,,
Strafford Road	... ...	1 ,,
Steyne Road	... ...	1 ,,

It was pointed out in last year's report that social conditions play an important role in the case-fatality of Measles, and the above list will show how the disease is particularly fatal amongst unfavourable surroundings.

Poverty re-acts on the case-fatality of Measles in many ways. One authority asserts that a fire in the bedroom is one of the most necessary items in the treatment of the disease. Where poverty so great as to render this fire impossible exists, the children develop complications which make the percentage of deaths abnormally high.

The liability to complications is enhanced by the fact that the employment of the mother renders efficient nursing impossible. On the subsidence of the symptoms associated with the eruptive stage the child is often left in the care of some person in the house other than the mother or taken to a neighbour's house to be looked after. In either case the same care would not be taken to avoid exposure as would be exercised by the mother.

Amongst the poor, medical attendance is obtained only in a small minority of the cases. Out of 141 cases reported from Southfield Road, in 69 there was a doctor in attendance; from Beaumont Park, out of 65 cases reported, a doctor attended in 32 of them, and from Rothschild Road a doctor was in attendance on 30 out of 61 cases reported.

In the Priory, on the other hand, out of 104 cases reported, in 6 only was there a doctor in attendance, and in South Acton, out of 64 cases notified, a doctor attended in 5 cases.

Doubtless many lives would be saved if all cases of Measles which were seriously ill could have skilled attendance. Facilities are wanting in many of the houses, not only for the proper nursing of the sick, but also for the isolation of the patients. A saving of life might be accomplished if a few cases were selected for hospital treatment. It would be impracticable to nurse even a majority of the cases in a

hospital, and the experience of Glasgow has not been attended with very encouraging results.

WHOOPING COUGH.

Thirteen deaths occurred from Whooping Cough. Six of the deaths occurred in the South-West Ward, four in the South-East, two in the North-East, and one in the North-West Ward.

Six of the deaths were in children under 12 months old and the other seven were in children between the ages of one and five years. The age of the persons attacked constitutes one of the chief difficulties in the control of the disease. All efforts must be centered in the home, but unless the child attends school the sanitary authority is in complete ignorance of the cases.

Another difficulty lies in the fact that the illness is ushered in with indefinite symptoms. In the catarrhal stage the child has the symptoms of an ordinary cold, and there is nothing to distinguish the cough until it assumes its "whooping" character.

School children suffering from Whooping Cough are notified by the teachers, and the houses are visited by the school nurse and instructions are given as to the isolation of the patient and general treatment of the illness.

SCARLET FEVER.

Scarlet Fever continued in its prevalence almost throughout the year. Towards the late autumn the notifications diminished in number, but altogether 468 cases were notified.

In 1908, 484 cases were notified, but though the number notified in 1909 was less the deaths exceeded those of 1908. 16 deaths resulted from the disease last year, compared with 15 in 1908.

It is a well-known fact in laboratories that pathological germs may, under certain conditions, become attenuated or intensified in their effects. It is also held that the virus of Scarlet Fever may become attenuated or intensified. It is a rare occurrence to notice successive cases, infected one from the other, to exhibit symptoms of the same degree of intensity.

The source of infection in a fatal case may have been an individual suffering from the mildest of symptoms. The intensity of the symptoms, of course, depends upon two factors—the seed and the soil. Children with enlarged tonsils and adenoids, for instance, usually exhibit symptoms of a severe type.

But apart from the susceptibility of certain individuals, the virus sometimes loses "if not its infective potency, at any rate its power of reproducing typical scarlet fever on normal soil. The virus, in fact becomes attenuated or recessive."

On the other hand a process of intensification often occurs, and this latter phenomenon was exhibited during the recent outbreak.

The outbreak commenced in the autumn of 1907, and continued throughout 1908, and up to the beginning of the fourth quarter of 1909.

Throughout the earlier part of the epidemic the majority of the cases exhibited very mild symptoms, but during the last quarter of 1909 the symptoms were of a severe type, and this latter fact rendered the control of the disease easier.

Elementary schools rank first in importance as centres where infectious diseases are spread amongst school children. It is generally assumed that there are two methods by which the infection is spread in schools—the direct and the indirect method.

The indirect method (such as dust, slated, &c.) by which the infection is spread will be dealt with later. Its importance has probably been magnified by interested persons, who thereby

profit by the sale of disinfectants to school authorities. Scarlet Fever may be directly spread in schools in three ways.

1. The disease may be of so mild a type that the children attend school throughout their illness.

2. The child may be infectious during the initial stages of the illness, and before the case is notified.

3. A child may return to school before he is free from infection.

During the earlier part of the year probably the "missed" case was the most important factor in the spread of the disease. During the first week in February there was a sudden increase in the number of notifications received. The school principally affected was the South Acton Junior, and almost all the cases were from the same class. An examination of the children revealed two of them with peeling hands and body, and on inquiry a history of sore throat about three weeks previously was obtained.

Later in February a "missed" case occurred in Beaumont Park School and gave rise to a number of cases.

In the Priory Schools "missed" cases occurred in May, August and September.

On the re-opening of the schools after the summer holidays 15 cases occurred amongst the children attending the Beaumont Park Schools. A child attending Rothschild Road was being kept under observation; on examining the children at the house, a sister aged 12, attending Beaumont Park School, was found profusely peeling.

The detection of these "missed" cases usually results in the cessation of notifications from the schools affected, and the absence of "missed" cases during the fourth quarter of the year rendered the control of the disease a matter of comparative ease.

It was pointed out in last year's report that Scarlet Fever may spread in the early stages of the illness. The disease is infectious, at any rate in the eruptive stage if not earlier. It is probable that this early infectiousness accounts for the large number of secondary cases which occur. It was formerly held that Scarlet Fever was not infectious until the peeling commenced, and the secondary cases that occurred in houses remained unexplained.

Last year 371 houses were affected. In 43 houses two cases occurred in each, in 12 houses three cases each, in seven houses four cases each, and five cases occurred in one house and six in another house.

In 21 instances two of the cases occurred on the same day, in 15 instances the second notification was received within a week of the first, in nine cases less than a fortnight elapsed, and in three instances there was an interval of over three weeks between the receipt of the first and second notifications.

In a Majority of these instances the first case was removed to the Isolation Hospital before the rash had disappeared. It is difficult to explain the secondary cases which occur in the above circumstances except on the assumption that the disease is infectious during its early stages. There are grounds to believe that the disease is infectious from the commencement of the sore throat and the initial symptoms. It is extremely rare for the disease to be introduced into the same house simultaneously by two persons. In the 21 instances where the two notifications were received on the same day, one of the children infected the second in the house. This early infection is consistent with the views now held of the mode in which the disease is propagated. The infection probably lies in the throat, nose and mouth. When a person is sick, the epithleial layer of the mucous membrane is denuded and the vomit is certain to be infectious. The disinfection of the premises is often suspected, but, where the disinfection has

been faulty or incomplete, it may be due to something which has been exposed to infection prior to the appearance of the rash, and not subjected to any form of disinfection.

The following cases are interesting as showing the possibilities of the early infection of articles that were not subjected to disinfection. F. N. was removed to the Hospital on December 17th, 1908, and discharged on January 30th, E. N., a sister of F. N., was notified of Scarlet Fever on January 22nd. E. N. could not possibly have been infected directly by F. N. unless we assume that the incubation period of Scarlet Fever extended over a period of five weeks. The more reasonable explanation lies in the assumption that some articles infected during the early stages of the disease in F. N. were not disinfected, and when F. N. was ready to be discharged from the Hospital these were brought out and exposed.

A somewhat similar case was the following: A. A. was removed to the Hospital on December 12th, 1908, and was not discharged until March 15th, 1909. On March 1st, 1909, C. A., his brother, was notified. It had been intended to discharge A. A. in the first week in February, but owing to the development of a complication he was not discharged until March 15th.

More difficult of control is the third class of cases where the child may return to the home or the school before he is free from infection. Whether isolated at home or in the Hospital the patient should have recovered completely before he is cleansed and discharged from seclusion, but we have no means of ascertaining whether the patient is absolutely free or not from infection. It was pointed out in last year's report that probably the so-called "return" cases are closely related to those cases which recur in houses after a prolonged period. It has been usual to regard the two groups of cases as distinct from each other, and where a case has occurred within a

month of the discharge of a patient from the Hospital such a case is called a "return" case.

Nine cases discharged from the Hospital were followed within one month by the occurrence of other cases of Scarlet Fever in the same house. This is a great improvement on 1908 when 27 such cases occurred. Many authorities believe that the phenomenon of return cases is essentially due to imperfections in Hospital management, and that recent association of discharged patients with acute cases is responsible for most, if not all, return cases. I am convinced that, no matter what care may be taken, "return" cases will not be entirely eliminated under existing conditions. As throwing some light on this matter the following case may be mentioned. H. R. was notified of Scarlet Fever on October 17th, 1908. He exhibited very severe symptoms probably on account of the presence of adenoids and enlarged tonsils. Before he was discharged from the Hospital his parents were advised to take him to a place where convalescent Scarlet Fever cases were admitted. No matter what care would be taken prior to his discharge from the Hospital I felt convinced that he would probably give rise to a "return" case. He was discharged from the Hospital on December 7th, 1908, and was taken to the Mary Wardell Home for three weeks. On January 2nd, 1909, P. R., his brother, was notified of Scarlet Fever. H. R. must have infected his brother almost immediately on his return from the Mary Wardell Home. Possibly a removal of the adenoids and tonsils of P. R. might have obviated the return case, but no antiseptic would ever penetrate the crypts of his tonsil.

It has been found in some districts that by placing patients in a convalescent ward for about a fortnight before their discharge, and systematically disinfecting the skin, nose, auditory canals, not a single case had occurred. This statement is probably true, but it is certain that it would not meet the case of P. R. mentioned above, and it does not explain everything in connection with "return" cases. "Return" cases

are not solely hospital phenomena. They occur after home isolation. Last year seven "return" cases occurred after home isolation. One of the latter was somewhat similar to the case of P. R. G. J. and M. J. were notified of Scarlet Fever on July 29th and 31st respectively. They were nursed at home and every care was observed in the isolation of the patients. They were isolated for six weeks and on the disinfection of the premises the patients were sent to the seaside. A few days after their return the servant developed Scarlet Fever.

It is not fair as a rule to compare home isolation with hospital isolation, as far as "return" cases are concerned, but last year the percentage of "return" cases after home isolation was higher than after hospital isolation.

The wider recognition of the occurrence of "return" cases has been the means of raising other questions. One of these relates to the length of time during which a person attacked by Scarlet Fever may be infectious, and in the Annual Report for 1908, instances were given which showed the tendency of Scarlet Fever to recur in families and houses after a prolonged period, and the same feature characterised the disease in 1909.

In 1909 Scarlet Fever was notified in 371 houses, and during the last four years 1,079 houses have been invaded. During the year recurrent cases occurred in 110 houses. In 64 of these houses the secondary case occurred within a month of the removal of the previous case to Hospital; in nine the recurrent case occurred within a month of the return home of a patient from the Hospital, and in seven the recurrent case occurred within a month of the discharge of a patient after home isolation. The remainder, 30, referred to houses from which a recurrent case was notified after a lengthened period had elapsed. In 13 of these the recurrent case occurred amongst members of the same family as the primary one, and the interval which elapsed between the first and second case was as follows:—

3 months	...	...	2 cases
4 „	...	...	1 case
7 „	...	...	1 „
9 „	...	...	1 „
11 „	...	...	2 cases
17 „	...	...	2 „
21 „	...	...	1 case
27 „	...	...	1 „
36 „	...	...	1 „
40 „	...	...	1 „
45 „	...	...	1 „

In 17, the recurrent case occurred in the same house as the primary one, but the two cases did not belong to members of the same family, and the interval which elapsed between the first and second case was as follows:—

5 months	...	...	1 case
6 „	...	...	1 „
8 „	...	...	3 cases
11 „	...	...	1 case
19 „	...	...	1 „
20 „	...	...	1 „
21 „	...	...	2 cases
30 „	...	...	2 „
36 „	...	...	3 „
42 „	...	...	2 „

It has been suggested that under varying but occasionally recognisable conditions, persons recovered from Scarlet Fever are capable of conveying the infection to others after intervals frequently of prolonged duration, when apparently they had ceased to be infectious.

One of the conditions under which the infection of Scarlet Fever seems to be relighted is what is termed a "cold in the head." Inquiries were made during the year into the cases where a recurrent case had occurred after a prolonged interval, and in many instances it was found that the primary case had,

prior to the occurrence of the recurrent case, suffered recently from an inflamatory condition of the nose and throat. Whether the question of the occurrence of recurrent cases after prolonged intervals and the persistence of inflamatory conditions of the throat and nose are coincidences, or effect and cause, will probably remain unanswered until the specific germ of Scarlet Fever has been found.

In 1909, three of the cases had had a previous attack of Scarlet Fever. In one case, the interval which had elapsed between the first and second attack was 13 months, in the second case, the interval was 21 months, and in the third, the interval was four years and eight months.

The ages of the patients and the ward distribution of the disease will be found on Table 3, of the Local Government Board Tables.

DIPHTHERIA.

One hundred and four cases of Diphtheria were notified and 22 deaths were caused by the disease.

The cases reported as Membranous Croup are included in the above totals.

There is an increase both in the number of notifications and deaths.

Sixty-six cases were removed to the Hospital and ten deaths occurred there.

Of the 44 cases not removed to the Hospital 12 resulted fatally.

There was a large increase in the prevalence of the disease during the last quarter of the year.

Sixty-two out of the 104 cases were amongst children attending school, and probably the school plays the most important part in the spread of the disease. It is noteworthy that Diphtheria was not most prevalent in the elementary schools situated in the poorest part of the district. This was

partly due to the fact that "carrier" cases are responsible for a majority of those attacked, and under such conditions the disease is more difficult of control in schools like the Central. It has been shown conclusively that a certain proportion of those who are brought into contact with Diphtheria patients harbour the bacilli in their throats or nasal cavities.

The percentage is highest in the immediate contacts, that is, in members of the same family; it diminishes rapidly as we enlarge the interpretation so as to include school fellows and when the term is so widened as to include such extremely remote contacts as the general inhabitants the percentage showing the bacilli is a negligible one.

There is another explanation why the incidence of the disease is heavier on some schools than on others.

"Carrier" cases may be divided into three Classes:—

1. Those who show or have shown no signs of disease.
2. Those who suffer from a mild attack.
3. Those who have recovered from a recognised attack.

Those belonging to the third group are, of course, notified; some are removed into the Hospital and some are nursed at home. No cases are discharged from the Hospital until the results of at least two consecutive swabs taken from the throat show that the Klebs Loeffler bacilli are not present. One bacteriological examination is insufficent, but I find, from inquiry, that a majority of the doctors are satisfied with one negative result in the case of those nursed at home.

It is true that the patients are kept out of school for three weeks after the premises have been disinfected, but experience shows that it is possible to obtain a single negative result after the disappearance of the clinical symptoms, and yet detect the germs in the throat many weeks afterwards.

"Carrier" cases are rarely found in the Priory, Beaumont Park and South Acton Schools, and a majority of the cases occurring amongst the children attending these schools are removed to the Hospital.

Although the germs of Diphtheria are frequently found in the throats of the immediate contacts, the disease does not appear to be so virulently infectious as Scarlet Fever. Secondary cases do not appear so frequently. In 1909, in only one instance were two cases of Diphtheria notified simultaneously from the same house. In two other instances where a case was notified, a previous case had occurred earlier in the year. In one of these an interval of two months had elapsed between the occurrence of the first and second cases, and in the other an interval of four months.

In two other instances where Diphtheria was notified, a previous case had occurred in the house. In one of these the interval between the first and second notification was two years, and in the other it was three years. In the latter, the two cases belonged to the same family.

During the fourth quarter Diphtheria occurred in several houses where a case of Scarlet Fever had been notified earlier in the year.

In seven instances the Scarlet Fever patient was nursed at home and in six the Scarlet Fever patient had been isolated in the Hospital. Of the six instances, where Hospital isolation had been observed, two of the patients who had suffered from Scarlet Fever subsequently developed Diphtheria. In both cases the Diphtheria infection was probably contracted after discharge from the Hospital. W. P. was discharged from the Hospital on October 11th, and notified of Diphtheria on December 14th.

O. H. was discharged from the Hospital on August 20th and notified of Diphtheria on November 6th.

W. B. was discharged from the Hospital on June 28th and a sister was notified of Diphtheria on December 30th. In this case also the dates are not suggestive of Hospital infection.

In the following three instances Hospital infection is possible :—

1. Scarlet Fever patient discharged from the Hospital on March 15th ; sister notified of Diphtheria on April 5th.

2. Scarlet Fever patient discharged from the Hospital on October 2nd ; brother notified of Diphtheria on November 14th.

3. Scarlet Fever patient discharged from the Hospital on October 2nd ; a child living in the same house notified of Diphtheria on October 25th.

In view of the possibility of hospital infection the throats of the Scarlet Fever patients were swabbed on admission and prior to their discharge. As a result it was found that two of the children suffering from Scarlet Fever harboured also the germs of Diphtheria on their admission to the Hospital. It is interesting to note, though, that the instances where Diphtheria followed Scarlet Fever were more numerous amongst the cases who were nursed at home. Four children notified of Scarlet Fever during the first quarter of the year subsequently developed Diphtheria. The intervals between the receipt of the notifications of Scarlet Fever and Diphtheria were seven months, eight months and ten months respectively.

In the other three cases it was another member of the family that developed Diphtheria.

1. Scarlet Fever notified on March 15th ; sister notified of Diphtheria on March 22nd.

2. Scarlet Fever notified on June 1st ; sister notified of Diphtheria on August 6th.

3. Scarlet Fever notified on March 29th ; brother notified of Diphtheria on May 19th.

The question is naturally asked are Scarlet Fever and Diphtheria interchangeable, or are they distinct diseases. Dr.

Hamer, in a paper before the Epidemological Society, stated that "if the Klebs-Loeffler Bacillus be regarded as a 'secondary invader,' the difficulties experienced in differentiating between the Klebs-Loeffler Bacillus and closely related non-pathogenic or feebly pathogenic forms having a wide distribution and very commonly met with in healthy mucous membranes, cease to have any serious significance. It is easy to understand how it happens that, provided the soil is once prepared, whether by some unknown specific organism or by a specific 'ferment,' the widely distributed 'secondary invader' finds scope for its development, and the well-known bacteriological phenomena associated with an attack of Diphtheria intervene. Under other conditions, the same cause of disease, operating for the most part not with the Klebs-Loeffler Bacillus, but with streptococei or with other bacteria, brings about an outbreak of Scarlet Fever. On such an hypothesis the well-known tendency to interchangeability of the two diseases may perhaps find explanation; it would apparently be necessary to assume that the nature of the malady set up in an individual becoming the subject of throat affection would largely be determined by the character of the organisms already present in his throat and capable of taking up the role of "secondary invaders.'"

The view generally held, though, is that the two diseases are not interchangeable, and the more careful the inquiries the more distinct the two diseases seemed to be. The "carrier" theory seemed to fit more easily to the facts. Cases of Diphtheria crop up in different districts at intervals until a "missed" case is detected, when the outbreak immediately ceases. Instances were given in last year's report of such outbreaks in Valetta Road and The Avenue. A somewhat similar instance occurred in The Steyne in July 1909. Four cases were reported, the last of whom had had "sore throat" for over three weeks. No further cases resulted after the removal of the latter case to the Hospital.

28 cases were notified from the North East Ward
19 „ „ North West Ward
11 „ „ South East Ward
46 „ „ South West Ward

TUBERCULAR DISEASES.

There were 49 deaths from Phthisis or Consumption, and 18 deaths from other Tubercular Diseases.

The mean annual death-rate from pulmonary tuberculosis in England and Wales has, with occasional slight rises, steadily declined since 1851.

The decline has occurred at every age-period and in both sexes, but the rate of decrease has varied widely, and has been much greater in the female than in the male sex. At the present time the incidence of Pulmonary Tuberculosis or Consumption is appreciably heavier on males than females. From 1851 to 1863 the greatest incidence of the disease was on females. From 1864 to 1868 the rates for the two sexes were parallel, but from 1868 the incidence became substantially less upon females than upon males.

Between the ages of five and 25 years females are more liable to die from the disease than males, but at the other age periods the liability is considerately less in females. Of the 49 deaths from Phthisis in Acton in 1909, 29 were of males and 20 of females. Under the age of 15 years the deaths were evenly distributed between the two sexes, four occurring in each sex. But of the 41 deaths in persons over 15 years of age, 25 were in males and 16 in females. Nor was last year unique in this respect. The following table gives the number of deaths from Phthisis in Males and Females since 1905:

	Under 15 years.		Over 15 years.	
	Male.	Female.	Male.	Female.
1905	4	6	18	15
1906		1	24	23
1907	3	5	30	28
1908	2	2	39	13
1909	4	4	25	16

There are more females than males living in the district. At the Census of 1901 there were 20,715 females and 17,029 males.

Various theories have been advanced to account for the peculiar incidence of Phthisis upon the sexes, but most of them seem to be inapplicable to Acton.

It has been suggested that the higher incidence upon the male during adult and later life is due to occupational conditions. In some occupations, such as those of the Cornish miners and Sheffield grinders, the heavier incidence may be due to an actual wounding of the lung substance. In this district there are hardly any men employed in occupations which do, *per se*, render the worker therein peculiarly prone to develop Phthisis.

In so far as occupational conditions give rise to increased opportunities of infection, these conditions in this district would be as, if not more, liable to affect the incidence of the disease on females.

There are probably over 3,500 females employed in the laundry industry alone, and if occupational conditions affect the workers through the increased opportunities of infection, laundry workers would be peculiarly liable to contract the disease. But laundresses are not peculiarly liable to contract the disease. Prior to their attack of illness the 41 persons over 15 years of age dead of Phthisis last year were employed as follows :—

Males.		Females.	
General Labourer ...	3	Household	8
Butcher	2	Laundress	3
Clerk	2	Dressmaker ...	2
Hairdresser	1	Domestic Cook ...	1
Hay-binder	1	Lace Worker	1
Schoolmaster	1	Upholstress	1
Printer...	1		
Plumber	1		
Plasterer	1		
Carman	1		
Carpenter	1		
Baker	1		
Tobacconist	1		
Steel-grinder	1		
Rag Sorter	1		
Bricklayer	1		
Jeweller	1		
Physician	1		
No Occupation ...	1		
Independent Means ...	1		
Total ...	25	Total ...	16

In 1908 three laundresses died of Consumption, in 1907 four, and in 1906 four. These figures would represent, roughly, an annual death-rate of 1 per 1,000 of women employed in the laundries. This is slightly below the death-rate for all persons above 15 years of age in the district, and slightly above the death-rate of females above 15 years of age.

It has also been suggested that men are more liable to infection in public houses and common lodging houses. The researches of Dr. Niven in Manchester prove how potent both these factors are in the etiology of Phthisis, but last year there were no deaths among persons removed from a common lodging house to the infirmary. In 1908 there were two deaths

at Isleworth Infirmary of persons removed from a common lodging house in Acton, and in 1907 there were also two such deaths. Factors other than liability to infection enter into the causation of a death-rate from Phthisis among common lodging house inmates, and these factors are probably common in both male and female.

Improved housing conditions have largely influenced the incidence of the disease among the poor, and these conditions would be responsible for a greater reduction among females as the men are absent from the home during a large portion of the day. This subject will be referred to when dealing with the distribution of the disease.

It has also been suggested that the explanation may in part be a physiological one, and as such the case would be outside the range of activity of a sanitary authority. It would serve no purpose in discussing the subject in an annual report.

It is now generally held that Tuberculosis is an infectious disease caused by the tubercle bacillus, but opinions differ as to the degree of communicability in ordinary social intercourse. The question as to whether any given series of exposures to infection is to be regarded as the actual source of infection must be decided upon a balance of probabilities, and having regard to the widespread prevalence of pulmonary tuberculosis and chronic cough, which may well be of a tuberculous nature, it is extremely difficult to fairly measure the value of irregular and intermittent associations and to ascertain how far chance may have been operative. The evidence clearly points to the conclusion that in most instances short exposure to infection does not suffice to infect healthy persons to an extent that will produce serious disease.

Under certain conditions, though, Tuberculosis seems to be more likely of being communicated from one person to another. The children of tubercular parents, for instance, are more likely than others to become tuberculous, and in six of

the deaths in Acton in 1909 one of the parents had previously succumbed to the disease.

In addition, there were 10 other instances in which another member of the family had previously died of Tuberculosis.

In these 16 cases the source of infection was fairly clear and Phthisis is admitted to be a communicable disease under such conditions. It is also infectious under conditions of close personal intimacy, such as persons sharing the same bed or the same room, or shut up together in numbers in close, ill ventilated apartments.

But during the year under review, some cases occurred which suggest that such close personal intimacy is not always required for the communication of Phthisis from one person to the other.

Instances of two persons in the employ of the Council may be cited.

A case of Consumption occurred in the Accountant's Department in 1907. The patient was off duty on account of the disease in April 1907 and was admitted to the Northwood Sanatorium for treatment. He succumbed to the disease in May 1908.

In August 1909 another official in the Accountant's Department had an attack of Hæmoptysis, and Phthisis was diagnosed.

Both persons worked in the same room.

In October a case of Phthisis occurred in the Health Department, and the official was off duty until March 1908 when she sent in her resignation. In July 1908 another official in the Health Department was incapacitated from work, but it is known that he had been suffering for some time from a slight cough, and had an evening temperature. The

two officials in the Health Department were not working in the same room, but there were many opportunities of infection. The same telephone was used by both.

It is always very difficult to ascertain the date of the onset of the disease. It is certain that in the two second cases in each department the onset of the first symptoms was much earlier than the date of the incapacitation from duty, and the date of the infection with tubercle is thrust still further back. As stated in a preceding paragraph it is extremely difficult to estimate how far chance may have been operative, but from the history of the cases it is quite possible for the second case to have been infected from the previous case that occurred in the department.

Other instances might be quoted where the source of infection seemed to be more definitely located. In November 1909 a case was notified from a house in Goldsmith Road. The patient had resided there as a lodger for three years. In April 1908 another case had been notified from the same house. The two cases were in no way related to each other, but naturally came into intimate contact with each other. In the second case there was no family history of Tubercle, but the nature of his work may have predisposed him to attack. He was employed as a pattern maker, and the work-shop was dusty. This may have rendered him susceptible to attack, and to infection at the house where he lodged.

Although an exaggerated fear of infection in pulmonary tuberculosis is unnecessary, these examples emphasize the desirability of inculcating more exact knowledge of the disease. Fortunately, Phthisis differs in several important respects from most of the acute infectious diseases. Its infection is derived under ordinary circumstances from one channel only, that of the lungs, the infectious material being discharged as expectoration or as cough spray. This mode of infection can be controlled by the patient with but little trouble, if he is intelligent and scrupulously careful. The

importance of teaching hygiene in school life as an aid in the fight against tuberculosis is dealt with in the report on Medical Inspection of Schools. It is more urgently necessary that instruction should be given to those more directly exposed to tuberculous infection, and the value of notification is especially evident in this direction. The Council adopted the principle of voluntary notification in June 1903, the sum of 2s. 6d. being paid for each case notified. The results of voluntary notification in Acton have always been disappointing, and only 13 voluntary notifications were received during the year, eight of these being from chest hospitals. In addition in five children inspected in the schools, symptoms of Pulmonary Tuberculosis were detected. Under the Public Health Tuberculosis Regulations of 1908, 52 persons were notified as suffering from consumption. Twenty-one cases were notified from the Isleworth Infirmary, and 17 deaths occurred in Public Institutions. The vastly increased treatment of advanced cases of Pulmonary Tuberculosis in infirmaries and other institutions has been most valuable in securing segregation of patients from their families, as well as securing humane treatment for the patients themselves. It is during the last four or five weeks of the illness that the danger of infection is greatest. The segregation which occurs under Poor Law Administration and special hospitals has the effect of removing the source of infection at a time when such infection is greatest. It also increases the resources of the family at home.

One of the chief obstacles, though, in dealing with Pulmonary Tuberculosis is the difficulty of obtaining information of the early cases. This difficulty is apparent not only in the notification of the disease, but also in the selection of cases for Sanatorium treatment. It is too early to deal with the result of the treatment in 1908 and 1909, but it seems as if an earlier class of cases now apply for admission into the Sanatorium. In 1905 the Council entered into an agreement whereby it maintained three beds at the Northwood

Sanatorium. In 1907 the number of beds was reduced to two. During the earlier years the result of treatment was very disappointing.

In 1905 five cases were admitted. At the end of 1909 two of these were dead, two had left the district and one was still able to work. The last case was a fairly early one, and was fortunate in finding an outdoor occupation on his discharge.

In 1906 ten cases were admitted. Of these five are dead, two have left the district, one cannot be traced and two are doing well and show no signs of relapse.

In 1907 eight were admitted. Of these three are dead, one had left the district, one has relapsed and three are doing well.

In 1908 six were admitted. One is dead, the other five show no signs of relapse.

In 1909 nine were admitted. Two made no improvement and one is dead.

In almost all the cases the immediate results were gratifying, and when early and suitable cases can be secured a considerable percentage may be returned to the ranks of active workers and remain in those ranks for several years. The percentage gets smaller as the interval since their discharge increases.

To procure lasting effect earlier cases must be treated, and the patient must be cared for on discharge so that he can gradually return to work. But these are really only two phases of one question. If treatment could be carried out in the earliest stages of the disease, after-care would probably be unnecessary.

More than one-half of the human race has tubercle and goes on living without knowing it. At least 50 per cent. of people dying from other diseases present evidences of healed tubercular foci. Those persons with healed tubercular foci

were probably placed in favourable circumstances to fight the disease, and were able to resume their ordinary occupations. If persons suffering from Consumption could undergo treatment in the earliest stages, the majority of them could probably resume their ordinary occupations. Under present conditions, patients relapse after a three or four months sojurn in a Sanatorium for want of a suitable employment. It is easy to say that an attempt must be made to wean them from the ill-ventilated, stuffy conditions under which they contracted the disease, and to obtain for them a more open-air occupation. A change of occupation means a lessened wage, and very few married working men can afford to accept an employment which means less wages. Their present wages are barely sufficient to keep their families, and to tell them that they must have a more suitable occupation is mere mockery. Under present social conditions early diagnosis and early treatment are essential. At the present time, the provision of facilities for the gratuitous bacteriological examination of sputum is considered one of the most successful means of securing an earlier recognition of cases. The Council has for some years undertaken the bacteriological examination of all suspicious cases, and during the last year 51 such examinations were made.

In some places Tuberculosis Dispensaries have been instituted. The object of these institutions is to secure early diagnosis for patients suspected to be suffering from Pulmonary Tuberculosis.

The same cause which militated against the detection of early cases of consumption also prevents the treatment of early cases.

Very few married men among the industrial population can view with anything but dismay a prolonged sojurn at a Sanatorium, and he is consequently very loth to admit that he is sufficiently ill to consult a doctor. Unless some arrangement can be made to support the family without pauperising them

while the husband is under treatment, the difficulty of obtaining cases in a sufficiently early stage will remain.

As bearing on this part of the question the words of Herr Bielefeldt at the Paris Congress in 1905 are worth quoting. He said that "among all the forces entering into operation in the Anti-tuberculosis battle in Germany, the German workman's insurance occupies the foremost place, and the results which have been acheived are due for the most part to the therapeutic and prophylactic measures of the German workmen's insurance."

Consumption is a social malady, and poverty stands out prominently as the important factor influencing Tuberculosis. Not only does poverty prevent the sufferers from seeking early treatment but it acts in diminishing resistance to the disease. Overcrowding, lack of sunlight and ventilation are all factors in the spread of the disease, but the immediate advantages which accrue to phthisical patients when they receive more nourishment indicates that it may be mainly through the channel of defective nourishment that poverty exerts its influence. More than one-half of the deaths from the disease last year occurred in the South-West Ward.

ENTERIC FEVER.

Four cases of Enteric Fever were notified and one death occurred from the disease.

The first case had not been out of the district for some time, and there was no history that she had eaten any of the articles associated with Enteric Fever. Her husband had had Enteric Fever seven years ago, but had not suffered from Gall-stones.

The second obtained most of his meals outside the district. He succumbed to the disease, and, as he was unconscious when the notification was received, no definite history could be obtained.

In the third case the probable source of infection was not traced.

In the fourth case the patient had eaten some shell-fish brought from Leigh-on-Sea, about three weeks before the onset of the symptoms.

INFANTILE MORTALITY.

One hundred and forty-six deaths under one year of age were registered in the district, and 12 infants under one year of age died in public institutions beyond the district, making a total of 158. The latter figure corresponds to an infantile mortality of 106 per 1,000 births.

The infantile mortality in England and Wales last year was 109; in the 76 large towns it amounted to 116; and in the 143 smaller towns it was 111.

The deaths were distributed as follows:—

North-East Ward	...	19
North-West Ward	...	11
South-East Ward	...	37
South-West Ward	...	91

The infantile mortality in each ward would be:—

North-East Ward	...	57 per 1,000 births.
North-West Ward	...	50 ,, ,,
South-East Ward	...	126 ,, ,,
South-West Ward	...	143 ,, ,,

The infantile mortality was 14 per 1,000 lower than in 1908 and 24 per 1,000 lower than in 1907.

Compared with 1908, the mortality in 1909 was higher in the South-East Ward, but lower in the three other Wards.

There was a diminution in the number of deaths from Diarrhœal diseases. The relatively cool summer undoubtedly had great influence on the prevalence of diarhœal diseases, but other causes have also been in operation. Many agencies, municipal and voluntary, have been instrumental in spreading

information on the important question of breast-feeding, but the most effective work has been done through the agency of health visitors. Health-visiting has now been carried on in Acton for over five years, and attention has been more particularly directed towards infant rearing. The work recently has been supplemented by other agencies. At the start, the late date at which births were usually registered militated against the efficiency of the visitation, but since the adoption of the Notification of Births Act, the houses have been visited before the mischief of weaning has been accomplished. It is now generally recognised that the mortality amongst artificially fed infants from diarrhœal diseases is far higher than amongst breast-fed ones. It is unnecessary here to enter into the various theories regarding the causation of Summer diarrhœa, and in what manner breast-fed infants are rendered comparatively immune. It is sufficient to know that breast-fed infants rarely succumb to diarrhœeal diseases. Last year only two breast-fed infants died from diarrhœal diseases. One of these had Measles five months previously, and the other child died in January.

Although dependent upon many conditions, diarrhœal diseases in children are due to the invasion of the body by bacteria. With regard to the mode of transmission it has been widely held that milk is the main, if not the only, source of infection. It is known, of course, that the milk may be contaminated at various points, but it is significant that, though the proportion of breast-fed infants is probably less in the North-East and North-West Wards, no deaths under 12 months old from diarrhœal diseases occurred in these Wards. Thirty of the deaths occurred in the South-West Ward and three in the South-East Ward. The milk supply of the South-West Ward does not differ largely from that of the other Wards, yet the mortality from diarrhœal diseases was almost entirely confined to that Ward. The explanation is, that diarrhœal diseases are dependent not only upon the milk supply

but also upon social and sanitary conditions. Summer Diarrhœa is an infective disease, and though milk may be the carrier of infection, the source of the contamination may reside in the home conditions. Moreover, overcrowding and other insanitary conditions act as predisposing factors in determining a fatal attack of Diarrhœa.

There were 17 deaths from Pneumonia and 11 from Bronchitis. In addition to these, there were 15 deaths from Pneumonia and two from Bronchitis in children between the ages of one and five years.

For many reasons it is advisable to deal with deaths from Pneumonia and Bronchitis together. In a report to the Local Government Board, Dr. Foulerton states that when the relative mortality from Bronchitis and Pneumonia is tested by the results of actual examination of the lungs in children after death from respiratory diseases it is found that deaths from Pneumonia preponderate probably in the ratio of about 94:6. The apparent frequency of Bronchitis as a cause of death is the result of error in death certification, attributable to difficulty in diagnosis between Bronchitis and Pneumonia during life in young children.

Under the heading Bronchitis and Pneumonia will be included not only "the so-called 'primary' Pneumonia, which occurs without any obvious precedent departure from health, but also the Pneumonia which occurs in children who have been ailing because of defect existing at birth or because of various unfavourable general conditions affecting them after birth, and the Pneumonia which follows as a more or less remote effect of the common infectious diseases and when all characteristic symptoms of the primary illness have disappeared."

Of the deaths from Respiratory Diseases, three occurred within one month of birth. The three children were delicate at birth, and probably the lung disease was only an incident and not the true cause of death.

Six children died in their fourth week. Three of these had been ailing since birth; one was stated to have had influenza, one was said to have been healthy at birth, and in the other, information was withheld.

Of the cases over two months old inquired into, six were delicate children at birth, and had always been ailing; one was a twin; one was stated to have had influenza, and six were stated to have been "quite healthy" until the lung disease supervened. Of the six who were stated not to have had any previous illness, the mothers of four of these were employed in laundry work.

Of the 14 deaths in children between two and twelve months old from lung disease, in only four instances had the mother suckled her child.

Dr. Foulerton, in the report above mentioned, states that if the general causes predisposing to, and the special conditions associated with, pneumonia amongst young children are viewed broadly, it will be found that in the first year of life gross defects of development and ante-natal infection with syphilis have a distinct influence. It will be found also that many of the deaths in the first year are associated with marasmus, whether that condition is due to prematurity of birth or be caused by artificial feeding. Association of pneumonia with rickets also becomes noticeable towards the end of the first year.

The broncho-pneumonia, which is the chief cause of the heavy mortality from diseases of the respiratory system in children, is believed to be, in the main, an effect of direct infection of the lung, occurring usually under conditions of general enfeeblement in which the power of resistance of the lung against bacterial invasion from without is lowered, and if this view is correct, the importance of artificial feeding as a primary cause of lung disease becomes apparent.

The predominating importance of artificial feeding in the causation of infantile mortality requires emphasis. Artificial feeding produces a general enfeeblement and reduces the power of resistance in the child. When this condition operates in conjunction with insanitary conditions, in the summer months deaths from Diarrhœal Diseases result, and in the winter months deaths from Respiratory Diseases.

There were 28 deaths from Prematurity, compared with 25 in 1908. There were also 21 deaths from Congenital Debility and Marasmus, seven from Congenital defects, three from want of breast milk and two from injury at birth.

Prematurity and Congenital Debility arise in the main from disease in the parents, or ill-health or ill-nutrition in the mother. In a former Annual Report the effect of married female labour was discussed, and the investigations made last year point to the same conclusion as was arrived at on the previous occasion. The deaths from Prematurity were investigated into, and in four instances the mothers were employed in industrial occupations. One worked as a charwomen, and the hours of work were from 9 a.m. to 6 p.m. The other three mothers were employed as laundresses, and the hours of work were stated to be about 12 hours a day. It is doubtful if work is injurious to the expectant mother, provided it is not heavy or prolonged. The influence of industrial employment is largely masked by the general state of poverty. Possibly, the improved food and greater comfort which their work means, more than counteract its disadvantages to the mother.

Out of 29 children born out of wedlock five died before reaching the age of 12 months.

CANCER.

Fifty-two deaths occurred from Cancer or Malignant Disease. The Ward distribution of the disease was as follows:—

North-East Ward	...	...	15
North-West Ward	...	...	11
South-East Ward	...	...	10
South-West Ward	...	...	16

It is impossible to state accurately the relative prevalence of the disease in the different wards, unless we know the age distribution in each ward. It is interesting to note, though, that the mortality from the disease has been consistently highest in the North-East Ward, and lowest in the South-East Ward. In 1909 this peculiarity in its distribution has not been so marked. For the last four years the average yearly mortality has been over 1 per 1,000 in the North-East Ward. It has been said that Cancer is more prevalent in low-lying districts; the distribution of the disease in Acton lends no colour to that theory. The average yearly mortality in the South-East Ward was under ·7 per 1,000 inhabitants.

Nor does the distribution of the disease correspond to the views held as to the relation of Cancer incidence to social status. It is held that the Cancer-rate is highest amongst men and women where the birth-rate is lowest. As this applies to both men and women it is a question of social status and method of life rather than the direct relationship of multiparity to Cancer. The birth-rate in Acton is highest in the South-West Ward, the South-East, North-East and North-West, following in the order named, the lowest birth-rate being in the North-West.

The average Cancer death-rate for the last four years has been:—South-East ·7, North West ·8, South-West ·9, and North-East 1.

Twenty-nine of the deaths were in females and 13 in males. The preponderance of females is more marked than in former years, and is not entirely due to Cancer of the Reproductive organs. There were three deaths from Cancer of the Uterus and seven from Cancer of the Breast, all in females.

The seat of the disease which caused the other deaths was as follows:—

Tongue	1
Ossophagus	3
Stomach	6
Bowels	12
Liver and Pancreas	8
Gall Bladder	2
Kidney	2
Bladder	1
Lungs	2
Brains	1
Peritoneum	1
Skin	1
Glands	1
Not stated	1

NOTIFICATION OF BIRTHS ACT, 1907.

One thousand four hundred and six births and 28 still births were notified during the year.

Four hundred and thirty-seven of these were notified by a doctor, 855 by a midwife, and 114 by the fathers of the children.

One hundred and forty-seven births were registered that had not been notified within the statutory period.

DAIRIES AND COWSHEDS.

There are two cowkeepers and 80 purveyors of milk on the register.

There were five changes of occupation and three new premises were registered.

INQUESTS.

Thirty-eight inquests were held, the cause of death being :—

Accidental burns ...	4	Shock following a bath	1
Suicide	4	Heart disease	11
Run over by a van ...	2	Pneumonia	3
Run over by a train ...	1	Aortic Anenospin ...	2
Murder	1	Tubercular Meningitis	1
Found dead	1	Want of food	1
Accidental fall ..	1	Insufficient nourishment	1
Fall from train ...	1	Dilatatius of heart ...	1
Overlaying	1	Status Lymphetricus...	1

MORTUARY.

Thirty-eight bodies were removed to the Mortuary, and 25 postmortem examinations were made there.

OFFENSIVE TRADES.

There are two offensive trades carried on in the district—fat extraction, and the manufacture of a chemical fertilizer.

SLAUGHTER HOUSES.

There are two licensed and one registered slaughter houses in the district. One registered slaughter house was discontinued during the year.

COMMON LODGING HOUSES.

There are three Common Lodging Houses registered in the district, and 306 inspections were made during the year.

There were seven contraventions of the Bye-laws.

REFUSE DISPOSAL.

All the house refuse is now disposed of in the Destructor recently erected in the northern part of the district.

SEWAGE DISPOSAL.

A description of the Sewage Works was given in the reports of 1908 and 1907. The result of the Sewage Act of 1905 will be that all the sewage will be taken out of the district immediately. In ordinary circumstances the sewage will pass directly into the Metropolitan Sewers, and in cases of storm the overflow will be filtered and emptied into the Thames.

ISOLATION HOSPITAL.

During the year 380 patients were admitted.

On January 1st, 1909, there were 51 patients under treatment and on January, 1st, 1910, 48.

During the year 360 patients were discharged and there were 21 deaths.

Diphtheria.

Sixty-nine cases of Diphtheria were admitted and there were ten deaths.

Scarlet Fever.

Three hundred and eleven cases of Scarlet Fever were admitted and there were 11 deaths. "Return" cases have been dealt with in a preceding paragraph.

In last year's Annual Report the question of Hospital extension was dealt with, and it was there stated that the plans for an additional pavilion had been prepared and approved by the Council. Tenders have been invited and accepted, subject to the sanction of the Local Government Board. The application for an inquiry by the Local Government Board was made in the early autumn, but the inquiry has not yet been held.

HOUSE TO HOUSE INSPECTION.

The question of the enhanced death-rate in the South-West Ward has been before the Council on various occasions during the past few years. The chief features in the high mortality have been discussed in successive Annual Reports. In 1906, the death-rate in the South-West Ward was 17.2 compared with 13.2 in the whole district. In 1907 it was 20.4 compared with 13.9 in the whole district; in 1908, 18.3 compared with 13.1 and last year it was 19.1 compared with 12.6 in the whole district. The causes are not transient ones, as a higher death-rate has always been recorded in that part of the district which now constitutes the South-West Ward. The causes are dependent upon two conditions—social and sanitary. We are now concerned with the latter cause, and the question has occupied the attention of the Health Committee on several occasions. Until the latter part of 1909, circumstances have militated against any systematic inspection of the ward. In 1908 Mr. Thomas was appointed as Temporary Inspector to carry out house-to-house inspection in the ward. Directly Mr. Thomas was appointed Mr. Fearns was incapacitated by ill-health from carrying out his duties and Mr. Thomas was appointed to the post held by Mr. Fearns. In the Autumn of 1909, owing to a re-arrangement in the Staff of the Surveyor's Department, Mr. Brooks was appointed for a period of six months to carry out a house-to house inspection and this appointment was renewed at the end of the six months. The number of streets inspected is too small to draw any general conclusions, and it is hoped to submit a fuller report on a future occasion. Somerset Road is in the South-East Ward, but it presents features similar in their character to the streets inspected in the South-West Ward.

It will be observed from the accompanying table that overcrowding was most prevalent in Holland Terrace and Petersfield Road. Overcrowding is a term having many definitions and standards, and it is customary to accept a

standard of cubic space in regard to it. In practice, the standard laid down in the Bye-laws for houses let in lodgings is usually accepted, namely, 400 cubic feet per adult in rooms used for both living and sleeping, and 300 cubic feet for rooms used for sleeping only, with half these amounts for every child under 12 years of age. In Holland Terrace overcrowding existed in 25 per cent. of the houses and in Petersfield Road 30 per cent. It is now generally admitted that overcrowding brings about certain physical defects. The sickness rate and death-rate of a district are directly and indirectly affected by overcrowding.

In most instances the overcrowding existed in houses where more than one family lived and the cause almost always could be traced to inability to pay the rent of a whole house. The relation borne by the wages the tenants receive to the rents they have to pay leads to overcrowding. The other chief sanitary defects are specified in the table.

	Holland Terrace.	Osborne Road.	Petersfield Road.	Bollo Lane.	Somerset Road.
Houses inspected ...	31	48	53	43	74
Number overcrowded ...	8	—	16	6	9
Defective Drains	13	7	14	13	15
Defective Yard Paving ...	31	31	25	16	43
Defective W.C.'s (including appliances)	12	11	46	14	36
Untrapped Rain Water Pipes	1	1	11	10	9
Damp Walls or Ceilings...	18	8	14	7	15
Number of Rooms in a dirty state	44	49	128	20	126

FACTORIES AND WORKSHOPS.

The number of Workshops on the register at the end of 1909 was 424.

The Inspection of Factories comes mainly within the province of H.M. Inspector of Factories. The enforcement of Section 22 of the Public Health Amendment Act, 1890, is

entrusted to the local sanitary authority. Where any sanitary defect is discovered by H.M. Inspector in a Factory, which is remediable under the law relating to public health, and not under the Factory and Workshops Acts, he informs the Council of the defect, and it is the duty of the Council to arrange for the remedy of the defect. Twenty-one references from H.M. Inspector were received during the year.

Four hundred and sixty-six visits were paid to Factories and Workshops during the year and 108 written notices were served. Particulars of the defects remedied will be found on No. 2 of the Home Office Table.

All the outworkers' premises were visited during the year, and 73 notices were served on occupiers as to sending of lists. In 33 instances, work was carried on in unwholesome premises; in the majority of these the walls and ceilings required to be cleansed.

In three instances the work was carried on in houses where an infectious disease had occurred.

I have to thank the Staff of the Health Department for assistance throughout the year. As in former years, the County Council Tables have been compiled entirely by Mr. Kinch.

Changes in the Staff have been caused through ill-health.

Mr. Fearns resigned in April, and Mr. Arthur Thomas was appointed to his post.

Miss Bhose was off duty in the Summer and resigned in August. Miss Cooksey was originally appointed temporarily for three months, and on the resignation of Miss Bhose, was appointed Health Visitor.

Both resignations caused sincere regret, and were particularly unfortunate as they were due to ill-health.

I remain,

Your obedient Servant,

D. J. THOMAS.

VITAL STATISTICS OF WHOLE DISTRICT DURING 1909 AND PREVIOUS YEARS.

Year.	Population estimated to Middle of each Year.	Births.		Total Deaths Registered in the District.				Total Deaths in Public Institutions in the District.	Deaths of Non-Residents registered in Public Institutions in the District	Deaths of Residents registered in Public Institutions beyond the District	Nett Deaths at all Ages belonging to the District.	
				Under 1 Year of Age.		At all Ages.						
		No.	Rate.*	No.	Rate per 1,000 Births registered.	No.	Rate.*				No.	Rate.*
1	2	3	4	5	6	7	8	9	10	11	12	13
1899	34,901	1,068	30.6	200	187	509	14.6	...	...	...	...	...
1900	36,508	1,080	29.5	182	168	528	14.4	15	...	...	...	...
1901	38,373	1,211	31.5	206	170	519	13.5	6	...	...	...	...
1902	41,000	1,242	30.3	186	150	593	14.4	12	...	...	...	...
1903	43,802	1,422	32.4	150	105	430	9.8	8	...	...	...	...
1904	46,780	1,450	30	207	143	576	12.3	9	...	...	...	...
1905	50,000	1,527	30.5	162	106	537	10.7	27	1	92	628	12.5
1906	52,000	1,533	29.4	193	125	597	11.5	29	7	97	687	13.2
1907	53,000	1,535	29	183	119	605	11.4	25	8	140	737	13.9
1908	55,000	1,568	28.5	174	111	592	11.4	31	1	133	724	13.1
Averages for yrs.1899-1908	451,364	13,626	30.2	1,843	135	5,526	12.2	...	...	...	...	...
1909	56,000	1,480	26.4	146	98	575	10.3	43	1	187	708	12.6

* Rates in Columns 4 and 8 should be calculated per 1,000 of the estimated gross population.

Total population at all ages, 37,744.

Number of inhabited houses, 6,114.

Average number of persons per house, 6.2.

Area of District in Acres (exclusive of area covered by water), 2,304.

TABLE 2.

VITAL STATISTICS OF SEPARATE LOCALITIES IN 1909 AND PREVIOUS YEARS.

ACTON.

	1906.	1907.	1908.	1909.
Population estimated to middle of each year ...	52,000	53,000	55,000	56,000
Births registered	1,533	1,535	1,568	1,480
Deaths at all Ages...	687	737	724	708
Deaths under 1 year	201	200	188	158

NORTH-EAST WARD.

Population estimated to middle of each year ...	13,000	13,500	14,000	14,500
Births registered	325	331	363	331
Deaths at all ages	137	153	145	124
Deaths under 1 year	32	31	30	19

NORTH-WEST WARD,

Population estimated to middle of each year ...	11,000	11,500	12,000	12,500
Births registered	229	213	215	220
Deaths at all Ages...	135	105	124	122
Deaths under 1 year	34	23	26	11

SOUTH-EAST WARD.

Population estimated to middle of each year ...	11,000	11,000	12,000	12,000
Births registered	255	320	328	294
Deaths at all ages	122	120	124	137
Deaths under 1 year	28	32	29	37

SOUTH-WEST WARD.

Population estimated to middle of each year ...	17,000	17,000	17,000	17,000
Births registered	724	671	662	635
Deaths at all Ages	293	347	331	325
Deaths under 1 year	107	114	103	91

TABLE 3.

CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1909.

Notifiable Disease	Cases notified in whole District.							Total cases notified in each ward.				Number of cases removed to Hospital from each Ward.				
	At all Ages.	At Ages—Years.						North-East.	North-West	South-East	South-West	North-East	North-West	South-East	South-West	Total cases removed to Hospital.
		Under 1.	1 to 5.	5 to 15	15 to 25	25 to 65	65 & upwards									
Small-pox ...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...
Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria (including Membranous croup	104	2	27	66	6	3	...	28	19	11	46	17	14	8	30	69
Erysipelas ...	25	2		1	2	14	6	5	4	1	15	...	...	...	...	..
Scarlet Fever ...	468	5	127	289	33	14	...	112	106	72	178	73	60	34	144	311
Typhus Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever ...	4	...	...	...	...	4	...	...	2	...	2	...	1	...	2	3
Relapsing Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	3	...	...	...	1	2	...	...	1	...	2	...	...	...	...	...
Plague ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Phthisis ...	62	1	1	2	10	48	...	8	7	12	35	...	...	...		...
Totals ...	666	10	155	358	52	85	6	153	139	96	278	90	75	42	176	383

TABLE 4.

INFANTILE MORTALITY

Deaths from stated causes in Weeks

Cause of Death.		Under 1 week	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 1 month.	1-2 months.
Common Infectious Diseases	Small-pox	...	...	...	...	...	...
	Chicken-pox	...	...	...	...	...	...
	Measles	...	...	...	...	...	...
	Scarlet Fever	...	...	...	...	...	...
	Diphtheria (including Membranous Croup)	...	...	...	...	...	...
	Whooping Cough	...	...	...	...	...	...
Diarrhœal Diseases	Diarrhœa, all forms	...	...	...	1	1	1
	Enteritis, Muco-enteritis, Gastro-enteritis	...	...	...	...	...	...
	Gastritis, Gastro-intestinal Catarrh	...	...	...	...	...	1
Wasting Diseases	Premature Birth	18	1	1	4	24	3
	Congenital Defects	2	1	2	...	5	1
	Injury at Birth	2	...	...	...	2	...
	Want of Breast-milk, Starvation	...	1	...	...	1	...
	Atrophy, Debility, Marasmus	5	3	...	...	8	7
Tuberculous Diseases	Tuberculous Meningitis	...	...	...	...	...	...
	Tuberculous Peritonitis : Tabes Mesenterica	...	...	...	...	...	...
	Other Tuberculous Diseases	...	...	...	...	...	...
Other Causes	Erysipelas	...	...	...	...	...	...
	Syphilis	...	...	...	...	...	1
	Rickets	...	...	...	...	...	...
	Meningitis (*not Tuberculous*)	...	...	...	...	...	...
	Convulsions	1	...	...	1	2	...
	Bronchitis	1	...	...	...	1	3
	Laryngitis	...	...	...	...	...	...
	Pneumonia	...	1	1	...	2	3
	Suffocation, overlying	1	...	...	1	2	...
	Other causes	1	...	...	1	2	...
		31	7	4	8	50	20

Population estimated to middle of 1909, 56,000.

Births in the year { legitimate, 1451. / illegitimate, 29.

DURING THE YEAR, 1909.

and Months under One Year of age.

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.
...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	..	...	...
...	...	1	...	...	...	2	1	1	1	6
...	...	...	..	...	...	...	...	...	...	...
...	...	...	...	...	...	1	..	...	...	1
1	...	1	2	...	...	1	1	..	...	6
1	2	3	2	2	4	4	2	3	1	26
1	1	...	1	...	2	...	...	...	...	5
...	...	...	..	...	...	1	...	...	...	2
1	...	...	...	...	...	...	...	...	...	28
...	...	...	...	...	...	1	...	...		7
...	..	...	...	...	...	...	...	...	...	2
...	...	1	1	...	...	...	...	...	...	3
1	...	...	...	4	...	...	1	...	...	21
...	...	1	...	...	1	...	...	..	...	2
...	1	..	..	...	1	..	...	...	...	2
...	...	...	1	...	...	...	...	1	1	3
...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	1
...	...	...	..	...	...	...	...	...	...	...
...	1	...	...	...	1	...	...	1	2	5
...	...	...	..	...	...	1	...	...	...	3
...	1	1	...	1	...	2	1	...	1	11
...	...	...	...	...	..	...	...	...	...	...
...	...	2	1	1	...	1	1	2	4	17
...	..	...	...	...	...	...	...	...	...	2
...	...	...	...	1	1	...	...	1	...	5
5	6	10	8	9	10	14	7	9	10	158

Deaths in the year of { legitimate infants, 153. / illegitimate infants, 5.

Deaths from all Causes at all Ages, 708.

TABLE 5.

CAUSES OF, AND AGES AT, DEATH DURING YEAR, 1909.

Causes of Deaths	Deaths at the subjoined ages of "Residents" whether occurring in or beyond the District.							Deaths at all ages of "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.
	All Ages.	Under 1 year.	1 and under 5.	5 and under 15	15 and under 25	25 and under 65.	65 and upwards.	North-East Ward.	N'th-West Ward.	South-East Ward.	S'th-West Ward.	
Small-pox ...	—	—	—	—	—	—	—	—	—	—	—	—
Measles ...	40	6	30	4	—	—	—	1	4	11	24	1
Scarlet fever ...	16	—	8	5	3	—	—	1	4	2	9	11
Whooping-cough ...	13	6	7	—	—	—	—	2	1	4	6	—
Diphtheria (including Membranous croup) ...	22	1	12	9	—	—	—	—	1	1	20	10
Croup ...	—	—	—	—	—	—	—	—	—	—	—	—
Fever—Typhus ...	—	—	—	—	—	—	—	—	—	—	—	—
Enteric ...	1	—	—	—	—	1	—	—	1	—	—	—
Other continued	—	—	—	—	—	—	—	—	—	—	—	—
Epidemic influenza	10	—	—	—	2	4	4	2	2	4	2	1
Cholera ...	—	—	—	—	—	—	—	—	—	—	—	—
Plague ...	—	—	—	—	—	—	—	—	—	—	—	—
Diarrhœa ...	29	26	3	—	—	—	—	—	—	3	26	—
Enteritis ...	10	5	3	—	—	2	—	2	—	—	8	—
Gastritis ...	4	2	—	—	—	2	—	—	—	2	2	—
Puerperal Fever ..	2	—	—	—	—	2	—	—	1	1	—	—
Erysipelas ...	1	—	—	—	—	1	—	1	—	—	—	—
Phthisis (Pulmonary Tuberculosis)	49	3	1	4	12	27	2	6	7	11	25	1
Other Tuberculous diseases ..	18	4	10	3	1	—	—	2	3	3	10	1
Cancer, maglignant disease ...	52	—	—	—	—	30	22	15	11	10	16	2
Bronchitis ...	48	11	2	—	—	11	24	8	8	5	27	2
Pneumonia ...	70	17	15	2	1	24	11	13	8	15	34	4
Pleurisy ...	—	—	—	—	—	—	—	—	—	—	—	—
Other diseases of Respiratory Organs ...	4	—	—	1	1	2	—	2	1	1	—	—
Alcoholism— Cirrhosis of Liver	4	—	—	—	—	3	1	2	1	—	1	—
Venereal Diseases...	—	—	—	—	—	—	—	—	—	—	—	—
Premature birth ...	28	28	—	—	—	—	—	4	4	3	17	—
Diseases and accidents of parturition	5	—	—	—	—	5	—	—	1	2	2	—
Heart diseases ...	59	1	1	3	3	35	16	17	11	9	22	1
Accidents ...	18	2	5	—	—	9	2	4	2	2	10	5
Suicides ...	2	—	—	—	—	2	—	—	1	—	1	1
All other causes ...	203	46	5	9	7	48	88	42	50	48	63	3
All causes ...	708	158	102	40	30	208	170	124	122	137	325	43

TABLE 6.

INFANTILE MORTALITY. WARD DISTRIBUTION.

	North East	North West	South East	South West	Total
Measles	...	...	4	2	6
Diphtheria	...	...	..	1	1
Whooping Cough	1	...	2	3	6
Diarrhœa	...	...	2	24	26
Enteritis	...	...	...	5	5
Gastritis	..	...	1	1	2
Prematurity	4	4	4	16	28
Congenital Defects	3	1	3	...	7
Injury at Birth	...	1	1	...	2
Want of Breast-Milk, Starvation	...	1	1	1	3
Atrophy, Debility, Marasmus	4	2	6	9	21
Tuberculous Meningitis	1	...	...	1	2
Tuberculous Peritonitis, Tabes Mesenterica	...	...	...	2	2
Other Tuberculous Diseases	...	..	2	1	3
Syphilis	1	...	...	...	1
Meningitis (not Tuberculous)	...	...	3	2	5
Convulsions	...	...	...	3	3
Bronchitis	1	...	1	9	11
Pneumonia	3	1	5	8	17
Suffocation (overlaying)	1	...	...	1	2
Other Causes	...	1	2	2	5
Totals	19	11	37	91	158

FACTORIES, WORKSHOPS, WORKPLACES AND HOMEWORK.

1.—Inspection of Factories, Workshops and Workplaces.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Inspections.	Written Notices.
Factories (including Factory Laundries) } Workshops (including Workshop Laundries) } ...	466	108
Workplaces (other than Outworkers' premises included in Part 3 of this Report)	...	...
Total	466	108

2.—Defects Found.

Particulars.	Found.	Remedied.
Nuisances under Public Health Acts—		
Want of cleanliness	30	30
Want of ventilation	7	7
Overcrowding	5	5
Want of drainage of floors	16	16
Other Nuisances...	13	13
Sanitary accommodation — insufficient	8	8
Sanitary accommodation — unsuitable or defective...	23	23
Sanitary accommodation — not separate for sexes ...	6	6
Total	108	108

3.—Home Work.

Outworkers' Lists, Sections 107, 108, 109 & 110.

Nature of Work.	Section 107.									Inspections of Outworkers' premises	Sec. 108		Secs. 109, 110
	Twice Yearly			Once Yearly									
	Lists	Outworkers, Contractors	Outworkers, Workmen	Lists	Outworkers Contractors	Outworkers, Workmen	Outworkers received from other Councils	Outw'k'rs forwarded to other Councils	Notices served on occupiers as to keeping or sending lists		Unwholesome Premises, instances	Unwholesome Premises, Notices served	Infected Premises Instances
Wearing Apparel—													
(1) making, &c. ...	...	...	...	...	...	...	25	...	...	25	...	...	...
(2) cleaning and washing ...	34	13	42	27	23	29	1	7	73	43	27	27	...
Lace, lace curtains and nets ...	...	...	...	...	...	...	3	...	...	3	..	...	...
Brush making ...	2	...	11	...	...	...	1	3	...	12	...	...	...
Stuffed toys ...	2	...	73	...	...	...	...	7	...	73	6	6	3
Total	38	13	126	27	23	29	30	17	73	156	33	33	3

4.—Registered Workshops.

Workshops on the Register (s. 131) at the end of the year—

Laundries	276
Dressmaking	54
Millinery	8
Tailoring	8
Bakehouses	29
Others	49
Total number of workshops on Register ...	424

5.—Other Matters.

Matters notified to H.M. Inspector of Factories—

Failure to affix Abstract of the Factory and Workshop Act (s. 133)		2
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	21
	Reports (of action taken) sent to H.M. Inspector ...	21

Underground Bakehouses (s. 101)—

In use at the end of the year	8

Your obedient servant,

D. J. THOMAS,

19th April, 1910.

STAFF EMPLOYED IN SANITARY DEPARTMENT.

MAURICE W. KINCH	...	Chief Inspector.
JOHN J. JENKINS	...	District Inspector.
ARTHUR THOMAS	...	District Inspector.
E. W. BROOKS	...	House to House Inspector.
AGNES COOKSEY	...	Health Visitor.
GERTRUDE JAMES	...	Assistant Health Visitor and School Nurse.
REBECCA M. MORTON	...	Clerk.
T. BURROWS	...	Disinfector.

SANITARY WORK.

Inspections—Number of premises inspected on complaint		1486
Number of premises inspected in connection with infectious diseases		2408
Number of premises under periodical Inspection ...		179
Houses inspected from house-to-house		203
Total number of inspections and re-inspections made ...		8193
Notices—Cautionary or intimation notices given		645
Statutory orders issued		740
Dwelling Houses—Houses, Premises, &c., Cleansed, Repaired, &c. ...		1127
Common Lodging Houses—Numbers registered under bye-laws ...		3
Number of inspections made		306
Number of contraventions		7
Movable Dwellings, Caravans, Tents, &c.—Number observed during the year		35
Number of Nuisances therefrom abated ...		5
Number removed from Distrlct		35
Bakehouses—Number in District		26
Contraventions of Factory Acts		8
Slaughter-houses—Number on register		4
Number of inspections made		202
Frequency of inspection		*weekly*
Cow-sheds—Number on register		2
Number of inspections made		27
Frequency of inspection		*Quarterly*
Number of milch cows in district		105

Dairies and Milkshops—Number on register	77
Number of inspections made	152
Unsound Food—Articles or parcels surrendered	28
Adulterated Food—Samples taken (if any) by the District Local Authority	5
Offensive Trades—Number of premises in district	1
Number of inspections made	24

Water Supply and Water Service.

Percentage of Houses supplied from Public Water Service	100%
Cisterns—Cleansed, Repaired, Covered, &c.	27
Draw-taps placed on mains	14
Percentage of houses supplied on constant system..	100%

Drainage and Sewerage of Existing Buildings.

Water Closets—Repaired, supplied with water, or otherwise improved	648
Percentage of houses provided with water closets	100%
Drains—Examined, tested, exposed, &c.	822
Unstopped, repaired, trapped, &c.	721
Waste pipes, rain water pipes, disconnected, repaired, &c. ...	648
New soil pipes or ventilating shafts fixed...	167
Existing soil pipes or ventilating shafts repaired	119
Disconnecting traps or chambers inserted	338
Reconstructed	86
Cesspools—Abolished, and drain connected to sewer	6
Percentage of houses draining into sewers	100%
Disinfection—Rooms disinfected (*a*) Ordinary infectious diseases	626
(*b*) Phthisis	25
Rooms stripped and cleansed	840
Articles disinfected or destroyed (*a*) Ordinary infectious disease (*b*) Phthisis	a very large quantity
Dust—New bins provided	334
How frequently is dust removed from each house	*weekly*
Number of complaints of non-removal received	8
Method of disposal	Destructor
Sundry Nuisances Abated—Overcrowding	48
Smoke	15
Accumulations of refuse	89
Foul ditches, ponds, &c., and Stagnant Water	22
Foul pigs and other animals	21
Dampness	92
Yards repaved or repaired	335
Other Nuisances	73

No. of Visits paid to Infectious Houses	342
,, Infectious Cases removed to Isolation Hospital	490
,, Library Books dealt with after I.D.	199
,, Rooms Disinfected	651
,, School Rooms Disinfected	17
,, Closets Disinfected after Enteric	3
,, Preliminary Notices Served	645
,, Statutory ,, ...	740
,, Letters Received	1655
,, ,, Written	2254
,, Notices Received from H.M. Inspector of Factories	21
,, Notifications of Waste of Water sent to Metropolitan Water Board	43
,, Re-drainage Plans Deposited	64
,, Complaints received	1486
,, Premises Inspected	2408
,, ,, Re-Inspected	5582
,, Interviews with Owners or Agents	1756
,, House to House Inspections	203
,, Nuisances Reported	3984
,, ,, Abated	3950
,, Visits to Common Lodging Houses	306
,, Houses Let in Lodgings Inspected	61
,, Van Dwellings Inspected...	35
,, Drainage Examinations under Section 41	8
,, Drains Submitted to Chemical Test	157
,, ,, ,, Smoke Test	226
,, ,, ,, Water Test	431
,, Visits to Butchers' Shops	144
,, ,, Fishmongers' Shops	107
,, ,, Greengrocers'	137
,, ,, Premises where Food is Manufactured or Prepared ...	39
,, ,, Dairies	66
,, ,, Milk Purveyors' Premises	17
,, ,, Cowsheds	27
,, ,, Bakehouses	277
,, ,, Laundries	126
,, ,, Other Workshops	63
,, ,, Slaughter Houses	202
,, ,, Piggeries	3
,, ,, Offensive Trades	16
,, ,, Mews and Stables	313
,, ,, Public House Urinals, &c.	44
,, ,, Schools	5

No. of Visits to Show Grounds	18
,, ,, Smoke Observations taken	335
House Drains taken up and Re-constructed	86
,, Repaired...	79
,, Unstopped and Cleansed	116
,, Provided with Intercepting Traps	119
,, Manholes Provided to	219
,, Ventilated (Outlet Shafts)	7
,, Manholes to, Cleansed	45
,, ,, Repaired	71
,, Fresh-Air Inlets Repaired	36
,, ,, ,, Provided	169
Water Closets—Apartments Repaired	14
,, New, Provided	20
,, ,, Pans Provided to	257
,, Unstopped and Cleansed	59
,, Pan Closets & Containers Replaced by Efficient Pans	2
,, Provided with new Flushing Cisterns	209
,, Flushing Cisterns Repaired	98
,, Flush, Disconnected from Drinking-Water Cistern ...	11
,, Additional, or Separate, provided in Factories and Workshops	13
,, Apartment, Foul and Dilapidated...	74
Soil-Pipes Repaired	44
,, Ventilated	19
,, Increased Ventilation Provided to	20
,, Reconstructed	167
Want of Stoppers to Interceptors	10
Ventilating Shafts Repaired	36
,, Provided	–
Waste-Pipes, Sink, Disconnected from Drain	37
,, ,, Stopped	31
,, Bath and Lavatory, Disconnected from Drain ...	34
Sinks, New, Provided	84
,, Wastes, Repaired and New Provided	172
,, ,, Trapped with Lead Traps	290
Rainwater Pipes Disconnected from Drain	155
,, Repaired	41
,, Provided	27
Eaves Guttering Provided	47
,, Repaired	32
Gully Traps Replaced with Stoneware Gullies	27
,, Removed from Improper Situations	33
,, Unstopped...	56

Gully Traps Provided	37
,, Grids Provided to	49
,, Cement Work around, Repaired	43
Yards, Paving Repaired	56
,, Paved and Drained	279
,, Cleansed	33
Dust-Bins Provided	334
Ashpits, Foul and Defective, Remedied	32
Cisterns Repaired and Covered	76
,, Cleansed	27
,, Removed from Improper Position	24
Rooms Cleansed and Whitewashed	840
,, Plastering of Walls and Ceilings Repaired	287
,, Dealt with under Housing Acts	—
Workshops Cleansed and Limewashed	30
,, Roofs Repaired	39
Bakehouses Cleansed	54
Roofs of Houses Repaired	46
Floors of Houses Repaired or Relaid	77
,, Workshops Repaired or Relaid...	7
,, Stables Repaired or Relaid	18
Stables Provided with Drainage	24
,, ,, Ventilation	7
Coach-House Floors Repaired	12
,, Ceilings ,, ...	—
Dampness of House Walls Remedied	92
Air Spaces Under Floors of Houses Ventilated	50
Concrete over Site Under Floors	22
Accumulations of Refuse Removed	89
,, Manure Removed	18
,, Water in Cellars Removed	9
,, in Ditches	13
Cesspools Abolished	6
Manure Receptacles Provided	7
Animals, Fowls, &c., Nuisances from, Abated	21
Urinals Cleansed	23
Overcrowding, Number of Cases Abated	48
Water Supply Provided to Houses	21
Taps Provided on Main	14
Smoke Nuisances	15
Miscellaneous Nuisances Abated	73

Obediently yours,

MAURICE W. KINCH,

Chief Sanitary Inspector.

Report

ON THE

Medical Inspection of Schools

FOR THE YEAR 1909.

The Urban District Council of Acton.

To the Chairman and Members of the Education Committee.

Ladies and Gentlemen,

In accordance with paragraph 13 of Circular 576 issued by the Board of Education in November 1907, we beg to submit the following report on the schools and school children under the control of the Local Educational Authority. The report deals with the period ending December 31st, 1909. This period has been adopted so as to secure in future reports an effective basis for comparison of the work done in different parts of the country and to correspond with the annual period fixed for the closely related annual report of the Medical Officer of Health.

The scope of the Report is defined in Circular 596 of the Board of Education and this report will follow as closely as possible the lines laid down in that Circular. As the report is for the information of the Board of Education as well as of the Local Education Authority, statements of local circumstances and conditions are included which may seem superfluous to the latter.

As regards the scope of the Report, the Board consider it desirable that it should cover as much as possible of the ground indicated under the following heads —

(*a*) Hygienic conditions of schools.

(*b*) Description of arrangements for co-ordinating School Medical Service and Public Health Service including (1) Use

of Board's Schedule. (2) Assistance given by Teachers, Nurses, Attendance Officers, etc. (3) Co-operation of Parents. (4) Disturbance of School Arrangements.

(*c*) Extent and scope of Medical Inspection during the year.

(*d*) Review of results of Medical Inspection.

(*e*) Relations of home and industrial conditions to health and physical conditions of children.

(*f*) Methods employed or available for the treatment of defects, including work of School Nurses.

(*g*) Review of action taken to detect and prevent the spread of infectious diseases, including closure of schools or exclusion of children from schools.

(*h*) Review of methods adopted for dealing with blind, deaf, mentally or physically defective and epileptic children.

(*i*) Review of methods of instruction in personal Hygiene and temperance in Public Elementary Schools, including physical or breathing exercises and arrangements for open air or camp schools.

The Urban District of Acton has an area of 2,304 acres and an estimated population at the end of June 1909 of 56,000 inhabitants.

The average number of children on the books was 8,726 and the average number of children in attendance throughout the year was 7,782

There are in the district 11 schools and 23 departments. In last year's report a description was given of all the schools within the district and it will suffice in this year's report to simply point out the improvements which have been carried out.

Priory Schools. In the Infants' Department a separate room has been provided for the teachers.

In three of the rooms in the Infants' Department, the light still comes from behind the scholars.

South Acton Schools. In the Infants' Department in one of the rooms the light was impeded by surrounding buildings. Negociations are being carried on with the owner of the obstructive building so as to improve the lighting of the room by means of some mechanical contrivance.

It was pointed out in last year's report that full advantage was not taken of the means provided for the ventilation of the buildings. The obstruction to the inlet openings caused by maps, pictures, etc. has now been removed.

Beaumont Park Schools. In the Girls' Department the lighting of rooms 10 and 12 has been improved by the erection of an extra window to each room. In the three departments the closets are now automatically flushed.

East Acton School. In the small class room the window has been altered and can now be utilised for ventilation purposes.

There has been no improvement in the drainage arrangements, some of the rain-water pipes empty directly into the drain and the closets which are of the old fashioned trough variety are hand flushed.

Acton (St. Mary's) Schools. In the Boys' Department the rain-water pipes have been trapped before entering the

main drain and the defective rain-water pipes have been repaired.

In room A the desks have been re-arranged so that the main lighting of the room comes from the left.

There is no teachers' room in this department and two of the class room doors open inwards.

In the Girls' and Infants' Departments teachers' rooms have been provided and closet accommodation has been improved.

Turnham Green (Roman Catholic School). Only one alteration has been carried out in this school. A new grate has been placed in one of the class rooms.

Acton Wells School was completed in 1909 and was erected to replace a temporary school at Willesden Junction.

It is a 3-storey building. Each floor is arranged on the same plan and consists of eight classrooms arranged round a central hall together with cloak rooms, lavatories and teachers' rooms. There are two playgrounds, one for the boys and one for the infants and girls. There is a covered playshed in each playground.

The sanitary conveniences are of the pedestal type, the cistern automatically discharges each time the closet is used. The heating of the building is by means of hot water. In the babies' classrooms there are also open fireplaces. All the classrooms are well lighted, the light in all instances comes almost entirely from the left of the scholars. The artificial lighting is by incandescent gas. In each room are placed inlet and outlet ventilators.

TABLE 1.

PUBLIC ELEMENTARY SCHOOLS WITHIN THE DISTRICT, TOGETHER WITH ACCOMMODATION.

	Name of School.		Accommodation.
1.	Acton	Boys	164
		Girls	129
		Infants	142
2.	Beaumont Park ...	Boys	635
		Girls	590
		Infants	499
3.	Central	Senior	497
		Junior	497
		Infants	410
4.	East Acton	Mixed	144
5.	Priory	Boys	550
		Girls	542
		Infants	477
6.	Rothschild Road ...	Infants	295
7.	South Acton ...	Boys	720
		Girls	574
		Infants	618
8.	Southfield Road ...	Senior	419
		Junior	381
		Infants	400
9.	Turnham Green (R.C.)	Mixed	275
10.	Acton Wells	Mixed	1124
		Total	10082

TABLE 2.

Showing the number of children examined classified according to age and sex.

	No. examined.	years 13-14	years 14-15	years 15-16	years 16-17
SENIOR BOYS, 112.					
Acton Boys	16	6	10	1	..
Beaumont Park	18	7	10	...	...
Central	5	...	2	3	
Priory	20	14	6	...	...
South Acton	20	9	11	...	...
Southfield Road	24	10	14	...	...
Turnham Green (R. C.)	5	4	1	...	...
Acton Wells	4	1	3	...	
	112	51	57	4	..
SENIOR GIRLS, 239.					
Acton	14	14	..	...	...
Beaumont Park	90	77	13	...	...
Central	14	1	4	7	2
Priory	36	27	9	...	
South Acton	47	43	4	...	...
Southfield Road	21	16	5	...	...
Turnham Green (R. C.)	14	10	4	...	..
Acton Wells	3	1	2	...	...
	239	189	41	7	2

	No. examined	Years of age. 3	4	5	6	7	8
INFANTS (MALE) 697							
Acton	39	3	11	23	2	...	...
Beaumont Park	96	6	42	35	12	1	..
Central	79	9	16	32	7	9	6
East Acton	21	1	6	3	5	3	3
Priory	83	12	20	39	11	1	...
Rothschild Road	69	2	19	29	7	8	4
South Acton	111	39	41	23	7	1	...
Southfield Road	147	15	37	58	28	9	...
Turnham Green (R. C.)	19	..	3	9	6	1	
Acton Wells	33	5	14	5	5	3	1
	697	92	209	256	90	36	14
INFANTS (FEMALE) 642							
Acton	31	4	10	13	4	...	...
Beaumont Park	92	4	34	34	13	7	...
Central	70	4	14	24	17	9	2
East Acton	9	2	3	2	1	...	1
Priory	84	15	25	31	10	3	...
Rothschild Road	57	2	13	20	5	13	4
South Acton	122	27	54	30	7	4	...
Southfield Road	131	5	32	55	29	10	...
Turnham Green (R. C.)	21		6	8	4	3	...
Acton Wells	25	1	8	8	5	3	...
	642	64	199	225	95	52	7

TABLE 3.

Giving the number of children examined in each school, together with the conditions found on examination.

SENIOR BOYS	No. Examined	Clothing and Footgear		Under Nourished	Verminous		Carious Teeth	Polypus of Nose	Enlarged Tonsils	Adenoids	Enlarged Glands	Eye Disease	Defective Vision	Ear Disease	Impaired Hearing	Speech Impaired	Heart Disease	Lung Disease	Tubercle	Rickets	Other Diseases
		Average	Below Average		Head	Body															
Acton	16	15	1	1	...	...	...	1	5	...	3	2			1		1	3	1	1	2
Beaumont Park	18	16	2	1	...	...	3	...	8	1	2	1	4	1	2	...	1	1	...	1	...
Central	5	5	...	...	...	...	2	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Priory	20	11	9	8	1	2	5	...	8	1	5	3	9	...	2	...	...	1	...	...	...
South Acton	20	14	6	3	1	2	5	...	2	...	1	...	5	...	2	...	1	2	...	...	1
Southfield Road	24	24	...	2	...	...	1	...	9	1	3	...	4	...	4	1	1	...	...	...	...
Turnham Green R.C.	5	4	1	1	...	...	1	...	3	...	1	...	...	...	...	...	...	1	...	...	...
Acton Wells	4	4	...	...	...	...	1	...	2	...	1	1	...	...	...	...	...	...	...	...	...
Total	112	93	19	16	2	4	18	1	38	3	16	7	22	1	11	1	5	9	1	3	3

SENIOR GIRLS	No Children examined	Mal-Nutrition	Clothing		Want of Cleanliness	Verminous		Carious teeth	Enlarged Tonsils	Adenoids	Enlarged Glands	External Eye Disease	Defective Vision	Defective Hearing	Ear Disease	Heart Disease	Lung Disease	Tuberculosis	Rickets	Deformities Spinal Disease, &c.	Infectious Diseases	Other Diseases and Defects
			Average	Below Average		Head	Body															
Acton ...	13	...	13	...	...	...	...	...	3	3	...	...	...	1	...	2	...	...	...	...	...	1
Beaumont Park...	90	1	86	4	4	12	3	3	7	...	...	...	6	1	1	2	1	...	1	2	...	3
Central ...	14	...	14	...	...	1	...	3	2	...	...	3	...	...	...	1	...	...	...	1	...	2
Priory ...	36	3	32	4	3	5	3	4	9	1	1	2	2	...	...	2	...	...	...	...	2	2
South Acton ...	47	2	43	4	3	5	3	8	11	2	1	1	9	5	3	2	3	1	1	1	...	1
Southfield Road	21	1	21	...	1	4	...	7	4	...	...	1	7	1	...	2	1	1	...	...	...	4
Turnham Green (R.C.)	14	3	10	4	3	6	3	3	2	...	...	2	3	...	...	1	1	1	1	...	2	...
Aoton Wells ..	3	...	3	...	...	...	...	1	1	...	...	...	1	...	...	...	...	...	...	...	...	2
Totals ...	238	10	222	16	14	33	12	29	39	6	2	9	28	8	4	14	6	3	3	4	4	15

TABLE 3—*continued.*

INFANTS.	No. of children examined	Mal-Nutrition	Clothing		Want of Cleanliness	Verminous		Carious Teeth	Enlarged Tonsils	Adenoids	Enlarged Glands	External Eye Disease	Defective Vision	Ear Disease	Defective Hearing	Defective Speech	Mental Condition	Heart Disease	Lung Disease	Tuberculosis	Rickets	Deformities, Spinal Disease, &c.	Infectious or Contagious Disease	Other Diseases and Defects
			Average	Below Average		Head	Body																	
Acton (Boys)... ...	39	2	36	3	2	2	...	4	5	1	1	...	...	...	...	...	...	...	1	...	3	...	...	1
,, (Girls)	31	...	31	...	1	6	1	2	6	...	2	1	...	1	...	...	...	...	3	...	1	...	...	1
Beaumont Park (Boys) ..	97	3	91	6	2	1	4	8	14	3	7	2	1	1	...	...	...	3	8	...	8	2	...	1
,, (Girls) ..	92	7	82	10	4	21	5	15	11	2	5	2	...	...	...	1	...	1	5	1	6	...	...	2
Central (Boys) ..	74	...	71	3	...	...	...	12	15	3	3	1	2	...	1	...	1	2	3	...	2	...	1	...
,, (Girls) ..	70	1	70	...	...	8	...	9	12	1	5	...	...	...	...	...	...	...	2	...	2	...	...	2
East Acton (Boys) ..	21	...	17	4	2	2	2	2	1	1	4	...	1	1	...	...	...	...	2	...	2	...	1	1
,, (Girls) ..	11	...	11	...	...	2	1	2	3	...	2	2	2	2	...	...	...	...	1	...	1	...	...	...
Priory (Boys) ..	83	3	76	7	2	2	2	6	7	3	7	2	...	1	...	...	1	1	5	...	4	...	4	1
,, (Girls) ..	85	2	79	6	2	13	2	6	7	3	4	4	...	1	2	...	...	...	5	...	2	2	3	1
Rothschild Road (Boys) ..	69	3	67	2	...	1	...	11	9	3	3	2	...	1	...	...	...	1	...	1	4	...	...	3
,, (Girls) .	57	...	56	1	...	8	3	9	7	1	1	5	2	2	1	...	...	3	1	...	1	2	1	2
South Acton (Boys) ..	110	5	91	19	3	1	13	9	12	1	5	4	...	2	...	...	...	2	13	1	9	2	4	5
,, (Girls) ..	122	2	107	15	6	35	17	11	9	1	5	5	4	...	...	...	...	2	12	...	4	1	5	3
Southfield Road (Boys) ..	147	2	141	6	3	3	6	27	25	8	7	3	...	2	...	1	...	3	8	...	6	...	...	7
,, (Girls) ..	131	1	126	5	...	8	2	19	17	5	3	3	1	2	3	...	...	4	5	...	3	1	...	1
Turnham Green R C. (Boys)	19	...	15	4	3	...	1	2	7	2	1	1	...	...	...	...	...	1	2	...	...	...	2	1
,, (Girls)	21	...	19	2	...	6	3	3	3	...	4	3	...	...	...	...	...	...	1	...	1	...	...	...
Acton Wells (Boys) ..	16	1	16	..	..	...	..	2	2	2	1	2	...	...	1	...	...	1	3	1	2	1	1	1
,, (Girls) ..	25	...	25	...	...	...	...	3	1	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...
Totals	1320	32	1227	93	30	119	62	160	173	41	71	41	13	16	8	2	2	24	81	4	60	11	22	33

Special Examination.

In addition to the foregoing numbers 741 children have been examined who were kept apart by the teachers.

Eye Disease and Vision.

Early in 1909 the teachers of the district were asked to furnish lists of those scholars whose eyesight was considered defective, and as a result over 600 names were submitted.

It has obviously been impossible to cope with all these cases in addition to other medical work, but during the year over 200 cases have been specially examined. The children examined were those selected as most urgently needing treatment, and the results may be shewn in the following table :—

No. of cases examined	201
No change needed	57
Directions given	61
Obtained glasses	54
Noted for re-examination	6
Failed	11
Examined and since left district ...	9
Went to optician	3

The class described as needing "no change" refers to those children already wearing spectacles, or those who had suffered from headache, which on examination did not appear to be due to eye strain. It also included some children who had apparently failed to read Snellen's Types when tested by the teachers, though on a later occasion they read correctly.

The term "directions given" included advice as to change of spectacles, where necessary, or recommendation to procure spectacles (often accompanied by hospital letters or cards to ensure patients' attendance). Besides advice given to the children, printed cards are sent to the parents calling their attention to the defect found and urging medical advice and treatment.

After an interval of about a month visits have been paid to the homes to ascertain what steps the parents have taken to carry out the directions, and still further urge the need of obtaining suitable spectacles.

Cases of external eye disease such as blepharitis or conjunctivitis are treated by the School Nurse under the supervision of the S.M.O. only in those instances where the parents are obviously too poor to obtain medical treatment elsewhere.

It will be noticed that 54 children have obtained spectacles. In those cases where the parents are too poor to provide glasses for the children the expenses are defrayed out of the grant of £50 made by the Urban District Council for this purpose. In most instances the cost is recovered from the parents in small weekly payments (out of 18 cases thus arranged only seven have been unable to pay anything). It is found that more care is taken of the spectacles if the parents have contributed towards them. For instance, in one case where expensive glasses were necessary, and had been wholly provided by the Council, on a further medical examination it was found that one of the lenses was so scratched as to be valueless. This had been done by another child who had worn the glasses in play. The head teacher reported that the educational improvement both in reading and writing had been marked since the child had worn glasses.

It is exceedingly difficult to persuade parents to persevere in taking children to hospitals, and it is impossible to provide suitable glasses on one visit. Those who have failed to carry out instructions number 5·5%. These parents have been repeatedly visited, and usually promise to use the hospital letters given, but fail to carry out their promises, although it is explained to them that the cost of the glasses is defrayed in necessary cases.

There is often much ignorance and apathy displayed—hospital letters are carelessly lost, and in one case the parents

were given a free order to obtain glasses in accordance with a prescription and did not trouble to procure the glasses.

The individual character of spectacles is not always appreciated. A child was sent to a hospital with a special letter to obtain glasses. On a subsequent visit the S.M.O. was told that the glasses had been tried but were of no use; and as the child had been sent to an eye specialist of great experience this was somewhat surprising. On further enquiry it was found that the parents had been once to the hospital but had failed to go a second time. The glasses worn had been purchased by an uncle at "a shop in the city" and were brought home and presented to the child. This explanation fully accounted for the headache and objection to spectacles.

Teeth.

As mentioned in the last Annual Report, it was found that many of the scholars have extremely bad teeth.

Only those children who have four or more carious teeth are recorded in the report (as it was found necessary to fix an arbitrary standard) but even with this standard 13-16% of those examined are defective. It must also be remembered that a large number of childen have one or more decayed teeth forming the nucleus for further dental caries in later years.

The use of a tooth brush is strongly urged during medical inspection—with varying success according to the special local conditions which prevail.

The importance of dental treatment seems insufficiently understood, decayed teeth lead to enlarged cervical glands from septic absorption, and it is generally admitted that all sources of lymphatic irritation must be removed if the safeguards of the body against tubercle are not to be weakened.

Dr. James Kerr has said "Neglect of dental treatment in childhood often has seemed to lead through stomach troubles

and debility to the phthisis in working class patients which one meets in the hospital wards."

Dental clinics have been established in Germany in 37 towns, and it is claimed that as a result of dental treatment the general health of the childen has been raised and also their standard of mental attainment has greatly improved.

This example has been followed in a few towns in this country, of which Cambridge and Birmingham are instances. Dental Institutes have been formed where school children receive the necessary treatment, the required money having been found from private sources.

Unfortunately in this district facilities for the treatment of carious teeth amongst the poor are very limited, and we regret to say that the amount of treatment carried out amongst the children attending the Priory, South Acton and Beaumont Park Schools is small.

The majority of the parents cannot possibly afford to pay a dentist, and it is extremely difficult to persuade them to take their children to a dental hospital for a commencing caries. Unfortunately among children of the industrial classes teeth are not attended to until the child has suffered considerably from toothache. Very often at that stage it is too late to save the tooth, and nothing remains but extraction. The presence of a Dental Institute in the district for the treatment of the earlier cases would render the problem of defective teeth a fairly easy one, but under present conditions the prospect of effective treatment is not bright.

Ear Discharge.

The methods of dealing with this condition are very unsatisfactory, and it is difficult to awaken any parental interest in the complaint as the children have often suffered for many years from discharging ears.

The mothers are urged to obtain treatment, or are given directions as to syringing, but often the advice is not carried out for a sufficient length of time. Since the appointment of the School Nurse some improvement has resulted from treatment in the schools in those cases where the presence of much offensive ear discharge renders the patient most objectionable both to the teachers and other scholars.

Exclusion of these children is of little service as no other complaint leads to such prolonged absence from school.

Cleanliness.

One of the beneficial effects of school inspection is seen in the increase of cleanliness among the children. In many cases it is obvious that special toilets have been made in view of the medical examination, but the teachers bear witness to the fact that improved cleanliness is being maintained.

The following cleansing scheme has been arranged as a campaign against pediculosis capitis.

1. During Medical Inspection the heads of all children are examined by the S.M.O. and a list is made of those whose heads contain lice or a large number of nits.

Cards (blue in colour) are sent in envelopes to the parents of the respective children, warning them of the condition and giving advice for cleansing.

2. A re-examination of the "dirty" heads is made by the School Nurse at an interval of one to three weeks, according to the time at which return visits can be arranged.

In the case of those still dirty, cards (red in colour) with directions for cleansing are sent to the parents, with a warning that children will be excluded from school until cleansed.

3. After another interval those found "dirty" on the second occasion are again examined and if not cleansed are excluded from school attendance.

4. Before proceedings are taken the excluded children are re-examined, those found clean are re-admitted, and the parents of the remainder are prosecuted for the non-attendance of their children at school.

This scheme works fairly well, especially since the appointment of the School Nurse who visits in the homes and shows the mothers how to best carry out treatment. The special difficulty of the district is owing to its industrial character as we mentioned in last year's report. Where the women are employed in the laundries there is much difficulty in finding the mothers at home, and the process of cleansing is rendered more arduous when carried out in the evenings by an insufficient artificial light. It must also be remembered that although there are a number of cases recorded in the present report as verminous still the standard of cleanliness required is much higher than when medical inspection was first organised.

In some of the schools a marked difference is observed in the cleanliness of the body on different days of the week. If the inspection takes place on a Monday or Tuesday there are obvious signs of a recent and vigorous use of soap and water.

Ringworm. In view of the prolonged period during which children are absent from school with this complaint we have endeavoured to find some means of shortening the time of absence as the educational loss was considerable. It has been arranged that slight cases of ringworm are treated by the School Nurse under the supervision of the S.M.O. In these cases the children are not excluded from school but are kept somewhat apart from the other scholars. This treatment has been very successful, especially where the ringworm has occurred on the face or hands, as the children are usually cured in about a week instead of being absent for weeks or months while undergoing home remedies of an unscientific nature.

In considering the possible objection which might be raised to allowing children with an infectious complaint to remain in

school, it may be pointed out that no instance has arisen of these children infecting healthy scholars, though careful enquiry on this point has been made among the teachers.

Before arranging for treatment each case is carefully examined by the S.M.O. and all the severe cases are excluded and arrangements made for treatment elsewhere.

Tuberculosis. The diagnosis of pulmonary tuberculosis in its early stages is one of the most difficult problems which fall to the lot of the S.M.O. It is not always possible or desirable to undress a child sufficiently for a complete examination, the room used for medical inspection may be too noisy or too cold and the average time spent on each child is necessarily short. It has been the custom in this district to refer suspicious cases of phthisis for further examination; records of the monthly weights of the children are kept by the teachers and the children are periodically examined at the office of the S.M.O.

In doubtful cases enquiries are made into their home circumstances through the kindness of the Central Aid Society, extra food is provided where necessary, or the children are sent to convalescent homes.

The importance of learning the home surroundings of suspicious cases cannot be over estimated. In one case, S.F., aged six, was examined at Rothschild Road School and noted as a delicate child although no definite signs of lung disease were detected. On enquiry it was found that the child slept with a sister L.F., aged 11, who was suffering from Phthisis. Steps were taken to remove L.F. to a Sanatorium and to point out to the mother the importance of a separate sleeping room when the girl was discharged.

During 1909 several children have obtained benefit from residence in Northwood Sanatorium, where the Council maintain three beds.

Among the cases were the following :—

M.B., aged 12, attending Priory Girls' School was in Northwood Sanatorium for three months. On examination, condition much improved, is now able to do ordinary work.

G.C., aged 13, attended Beaumont Park Boys' School. This boy had tubercular pleurisy and was treated in the West London Hospital. On examination the physical signs in his chest suggested early phthisis, but after treatment in Northwood Sanatorium he gained in weight and improved much in general health. When recently examined the boy was practically well and is now able to keep in a situation which entails a fair amount of work in the open air.

L.H., aged 13, of South Acton Girls' School. This girl suffered from cough and had been losing weight for some time. There was a history of consumption in the family. Through the kindness of the Central Aid Society the girl was sent to a convalescent home for ten weeks and while there she obtained much benefit and gained 11 lbs. in weight. When medically examined her health had sufficiently improved to allow her to apply for a situation

L.F., aged 11, attending Beaumont Park Girls' School was found in September, 1909, to be suffering from phthisis. There was no immediate vacancy at one of the Council's beds at Northwood so the girl was provided with weekly dinners by the Education Committee and with extra milk and Sunday dinners by the Central Aid Society. She has been medically examined each week and a record of her weight was kept. Under this treatment her general health was improved as far as possible and she has now been admitted to Northwood Sanatorium. In this patient the phthisical condition is rather more advanced than in the preceding ones, but it is hoped that much improvement will result from the open-air treatment, besides the undoubted gain in the removal of an infectious patient from close contact with her younger brothers and sisters.

The consideration of these cases shows the great necessity for early diagnosis of phthisis in patients who are selected for sanatorial treatment. The results obtained in the case of school children compare favourably with those in patients of older years, where medical advice is often not sought until the disease is so far advanced that a complete cure is impossible, thus bringing sanatoria into unmerited discredit.

TABLE 4.

NUMBER OF CHILDREN REFERRED FOR FURTHER EXAMINATION—446.

These were from the following Schools:—

	Infants.	Girls.	Boys.
Acton	15	4	2
Beaumont Park ..	42	38	4
Central	31	5	---
East Acton ...	15	—	—
Priory	39	12	15
Rothschild Road ...	28	—	—
South Acton ...	44	16	8
Southfield Road ...	69	24	4
Turnham Green (R.C.)	11	7	3
Acton Wells ...	8	2	—
	302	108	36

TABLE 5.

AVERAGE HEIGHT, WITHOUT SHOES AND AVERAGE WEIGHT WITH CLOTHES.

(ANTHROPOMETRIC COMMITTEE, 1883)

	MALES.		FEMALES.	
Age last birthday.	Height in inches.	Weight in lbs.	Height in inches.	Weight in lbs.
3	35	31.2	35	30
4	38	35	38	34
5	41	41.2	40.5	39.2
6	44	44.4	42.8	41.7
7	46	49.7	45.5	47.5
8	47	54.9	46.6	52.1
9	49.7	60.4	48.7	55.4
10	51.8	67.5	51	62
11	53.5	72	53.1	68
12	55	76 7	55.6	76.4
13	57	82.6	57.7	87.2
14	59.3	92	59.8	96.7
15	62.2	102.7	60.9	106

TABLE 6.

GIVING HEIGHTS & WEIGHTS AT DIFFERENT AGES.

	No. examined	13-14		14-15		15-16		16-17	
		Height	Weight	Height	Weight	Height	Weight	Height	Weight
SENIOR BOYS.									
Acton	16	57·8	81·3	58·	84·	...	...	...	...
Beaumont Park... ...	18	57·	79·8	55·9	75·5	62·75	102·	...	..
Central	5	..	...	63·7	118·5	64·2	114·3	...	...
Priory	20	56·3	78·2	58·4	84·4	...	...	...	...
South Acton	20	57·3	82·	56·	77·	...	...	..	...
Southfield Road ...	24	58·6	82·	64·5	89·1	65·	115·	...	...
Turnham Green R.C. ...	5	60·7	90·5	56·	74·	...	...	...	...
Acton Wells	4	59·	78·	61	90·7	...	...	...	...
Total	112								
SENIOR GIRLS.									
Acton	14	59·2	88·7	...	...	..	...	...	...
Beaumont Park ...	90	58·6	83·9	60·8	91·	...	...	...	..
Central	14	58·5	88·5	60·9	93·6	63·2	119·08	65·7	·132
Priory ...	36	25·9	83·1	58·9	80·6	...	...	...	...
South Acton	47	58·3	83·9	61·1	88·1	...	...	...	...
Southfield Road ...	21	60·2	86·5	60·4	92·4		...	...	...
Turnham Green R.C. ...	14	60·	85·5	55·6	74·7	...	...	...	...
Acton Wells	3	...	...	61·	106·5	...	...	...	...
Total	239								

TABLE 6—*continued.*

	No. of Scholars exam'd	Years of Age. 3-4		4-5		5-6		6-7		7-8		8-9	
		Height	Weight	Height	Weight	Height	Weight	Height	Weight	Height	Weight	Height	Weight
INFANTS (BOYS).													
Acton	39	36·2	29·	35·3	34·1	40·6	36·5	42·7	39·	...	...	...	...
Beaumont Park	96	37·7	33·7	39·8	36·2	41·8	38·9	43·4	40·6	47·5	49·	...	...
Central	79	34·1	30·9	41·1	39·7	42·8	41·2	44·1	46·	46·1	47.9	47·9	51
East Acton	21	40·	38·5	38·	34·9	39·7	37	44·	46·2	46·4	51·3	48·	52·3
Priory	83	36·7	32·6	38·9	35·2	41·7	38·3	43·7	43·4	46·	46·5	...	...
Rothschild Road	69	36·7	33·5	39·5	35·5	41·8	39·8	44·3	43·8	45·8	45·	47·1	46·6
South Acton	111	36·	51·4	39·2	35·5	41·2	38·5	42·5	41·8	44·	46·	...	...
Southfield Road	147	38·4	34·6	40·8	37·6	42·5	39.6	45·1	44·9	47·4	47·	...	...
Turnham Green R.C. ...	19	...	...	40·7	39·	40·9	37·5	43·2	42·2	43·	43·		...
Acton Wells	33	36·7	31·1	39·7	38·5	42·9	39·9	43·8	43·8	43·7	44·7	48·	55·
Total	697												
INFANTS (GIRLS).													
Acton	31	36·6	34·2	38·7	36·1	40·9	36·5	43·1	42·9	...	...	...	...
Beaumont Park	92	37·7	31·5	39·5	34·7	41·8	38·9	43·2	40·5	44·0	43·	...	...
Central	70	37.7	32·7	40·3	38·	43·6	40·8	45·0	44·3	46.7	47·5	48·	50·5
East Acton	19	37·2	29·	39·7	35·2	38·2	31·2	49.	56·	...	...	48·	50·
Priory	84	36·8	31·4	39·4	35·2	41·4	38·2	43·5	41·1	43·	39·2	...	...
Rothschild Road	57	38·	30·5	39·9	36·8	42·1	37·5	43·	40·2	26·5	48·1	45·9	48·9
South Acton	122	36·6	32·6	36·8	34·4	40·4	36·6	43·1	42·3	44·4	41·1	...	...
Southfield Road	131	37·3	31·9	40·1	32·1	42·8	39·9	44·5	42·9	46·5	46·3	...	...
Turnham Green R.C.	21	...	...	37·	33·2	41·2	38·	40·6	40·1	45·7	42·5	...	...
Acton Wells	25	...	...	39·75	36·7	40·7	39·1	43·7	42·8	47·3	50·3	..	...
Total	642												

Nutrition.

In last year's report the question of mal-nutrition was discussed and it was also stated that in certain of the schools the average height and weight of the children were consistently and uniformly lower than in some of the other schools.

At almost all age periods the children in the South Acton, Priory, Beaumont Park and Roman Catholic Schools were below the weight of the children in the other schools of the district. A reference to Table 6 will show that the results for 1909 were very similar in their character to those of the previous year.

An attempt has been made to discriminate between the various causes of mal-nutrition, and the Committee has put in force The Provision of Meals Act, 1906.

Dinners are provided by the Education Committee for those children who are so under-nourished that they are unable to obtain full benefit from their education and in whom poverty is the probable cause of the mal-nutrition. There are two restaurants in the district at which arrangements have been made to receive the school children; one of these is in Acton Lane and the other in Osborne Road, South Acton. The dinners are supplied at a cost of 2d. or 2½d. per head, and a fairly varied menu is provided, consisting three times a week of soup and bread followed by pudding, and on alternate days meat and vegetables are given.

We have visited the centres on several occasions and found the food was hot and well served. The quantity given was ample for the smaller children—when questioned the older boys generally admitted they could eat more. As far as possible the bigger children are given rather larger helpings of pudding, but this is difficult to administer if many children

appear at the same moment, and the restaurant staff is hard worked. Slices of plain cake might be added to the menu to be given to the older children as they leave the premises.

Occasionally ladies in the district come to supervise the meals, and this is a great advantage as regards the manners of the children and the speed with which the meal is served.

It would be of great service if voluntary helpers could arrange to attend regularly on definite days in the week. Only one helper each day would be required at a Centre, as accommodation is limited. Two ladies already help at the South Acton Centre on two days a week, and four others would be most welcome at this restaurant as the keepers are glad of the refining influence on the children.

The Dinner Centres have been visited on various occasions to observe the condition of the children, and those who appeared specially undernourished were medically examined on a later occasion. In one case a child had been receiving dinners for several months but did not show much improvement in nutrition. On examination no signs of phthisis could be detected, but the child was obviously delicate and there was a history of consumption in the family. As this seemed an instance where "prevention was better than cure" arrangements are being made to give this child convalescent treatment either at the seaside or in the country.

During the year 1909, 22,762 dinners have been supplied to 448 children at a total cost of £189 13s. 8d.

Infectious Diseases.

The distribution of Scarlet Fever and Diphtheria in the district will be found on No. 3 of the Local Government Board Tables.

Sixty-three per cent. of the Scarlet Fever cases occurred amongst school children, the numbers in the different schools being as follows :—

SCARLET FEVER.

Acton	Infants		6
	Girls		3
	Boys		1
Beaumont Park ...	Infants		21
	Girls		9
	Boys		8
Central	Infants		38
	Girls		18
	Boys		18
East Acton	... ...		2
Priory	Infants		42
	Girls		12
	Boys		22
Rothschild Road ...	... ...		15
South Acton ...	Infants		20
	Girls		11
	Boys		12
Southfield Road ...	Infants		15
	Girls		2
	Boys		7
Turnham Green R.C. ...	Infants		2
	Boys		2
Acton County School ...	Boys		1
Haberdashers' ...	Girls		2
	Boys		2
Private School ...	... ...		14
			305

It will be seen that Acton Wells School contributed no cases to the number, and that the East Acton, Turnham Green R.C. and Acton Schools were comparatively free of the disease.

Fifty-eight per cent. of the Diphtheria cases occurred amongst school children, the distribution of the disease being as follows :—

DIPHTHERIA.

Acton	Infants	... ...	1
	Boys	... ...	1
Acton Wells...	Boys	... ...	1
Beaumont Park	Infants	... ...	3
	Girls	... ...	1
	Boys	... ...	1
Central	Infants	... ...	8
	Girls	... ...	10
	Boys	... ...	3
Priory	Infants	... ...	3
	Girls	... ...	6
	Boys	... ...	3
Rothschild Road ...		... ...	6
South Acton	Infants	... ...	6
Southfield Road ...	Infants	... ...	5
Acton County ...	Boys	... ..	2
			—
			60
			—

There is a certain amount of similarity in the distribution of the two diseases, but as stated in a preceding paragraph the more carefully inquiries are made the more distinct the two diseases are, and there is no good reason for assuming that the two diseases are interchangeable. It may be of interest,

though, to notice that Acton Wells was one of the schools which was not daily sprinkled with a disinfectant.

Both diseases are compulsorily notifiable under the Infectious Diseases Notification Act and on receipt of a notification from the medical attendant a visit is paid to the home and inquiries made as to the probable source of infection. If the case is removed to the Hospital, all the other children living in the infected house are excluded from school attendance for eight days. If the case is nursed at home, other children living in the house are excluded from school attendance until a period of eight days has elapsed since the premises have been disinfected. If the case is removed to the Hospital, the child is excluded from school attendance for three weeks after discharge from the Hospital. Similarly, in home isolation, a period of three weeks is demanded after the disinfection of the premises before school attendance is resumed.

The disinfection of the clothing and the rooms is carried out by the Sanitary Authority. The bedding, etc. are stoved in the steam disinfector and the rooms fumigated with formalin.

Without entering into minute details of the means employed, it may be briefly stated that our efforts at the prevention of Scarlet Fever and Diphtheria are directed towards the isolation of the patient and the disinfection of any articles which may have become infected. In other words, it is assumed that the infection in both cases is direct and indirect, but the tendency is to attach greater and greater importance to the direct mode of transmission of infection. It is possible, of course, that the disease is spread in some indirect manner, but the more carefully the inquiries are made, the less numerous do the indirectly infected cases become. It is true that the untraced cases constitute the great majority occurring in urban districts, but it is also probable that many, if not most, of the untraced cases have been suffering from so mild a form of the disease that the illness has not been recognised. It is these

slight, undetected, or "missed" cases, as they are called, which are the most effectual promoting causes of an epidemic. During the year we had several instances of these undetected cases, giving rise to limited outbreaks in different schools. In addition to the "missed" cases, there are other factors which render it difficult to fulfil the essential conditions of successful isolation. The infection must not be handed on by the patient before seclusion, but it is not certainly known how early in the disease the patient may be infectious. There is hardly a disease concerning which opinions have so materially changed as Scarlet Fever. It was formerly held that the disease was not infectious until the skin had commenced to peel, and that it continued infectious as long as the peeling of the skin lasted. Both theories have been discarded. Scarlet Fever is infectious from the commencement of the symptoms and the condition of the skin is no criterion of the infectiousness of the patient. If the spread of these two diseases is to be prevented, their early infectiousness must be more clearly recognised. Moreover, the patient should have recovered perfectly before he is cleansed and discharged from seclusion, but in Scarlet Fever we have no means of ascertaining whether the patient is absolutely free from infection or not. In Diphtheria, the conditions are different; the germ has been isolated, and a bacteriological examination can always be made before the patient is discharged from seclusion. In the Fever Hospital two consecutive negative swabs are always obtained before the patient is discharged.

The question of "return" cases is dealt with more fully in the Annual Report of the Medical Officer of Health, but it is mentioned here as one of the factors in the direct mode of infection.

These matters are mentioned because during the year there has been much controversy as to the value of daily disinfection of the schools in the prevention of infectious disease.

It is admitted that, under present condition the school is a potent factor in the spread of infectious disease. This admission has been seized by the manfacturers of disinfectants for their own purposes, and the claim is made that school infection can be largely controlled by the routine disinfection of class rooms.

Various correspondents in the public press appear to consider that all that is wanted is the expenditure of a quite inconsiderable sum of money in the purchase of a trustworthy disinfectant wherewith to sprinkle the schoolroom floors and the thing is done. No special skill or intellectual effort is required to carry out this method. Various statistics are given and selected areas taken, where, after such disinfection has been carried out, the average attendance improved to such an extent that the grant became appreciably higher. As might be expected these views are highly commended by dealers in disinfectants. No mention, of course, is made of those districts where a trial has been made and success has not followed the experiment. The results, as far as Acton is concerned, have already been published in the Minutes of the Education Committee and it might be of interest to insert them here. The experiment was tried from February, 1909, to February, 1910, and the following table illustrates the results for the five months February—July, 1909.

	From 8/2/08—24/7/08.		From 8/2/09—24/7/09.
Scarlet Fever ...	57	...	82
Diphtheria	13	...	12
Membranous Croup	—	...	1
Measles ...	616	...	463
Chicken Pox ...	69	...	134
Whooping Cough ...	142	...	84
Mumps ...	20	...	163

Of course, disinfection is of value when it is really needed and properly applied. It is probable that Scarlet Fever and Diphtheria are spread in some indirect manner, but it is

generally held that the infection lies in the throat, nose and mouth. When a person is sick, the epithelial layer of the mucous membrane is denuded and the vomit is almost certain to be infectious. It is important to recognise this early infection for disinfection purposes. Disinfection of special class rooms or of particular articles should be undertaken where there is reason to believe that these have been infected, but there is danger of reliance being placed upon the use of disinfectants rather than upon necessary cleanliness of school premises and efficient ventilation. The mechanical removal of dirt is of the greatest importance. Disinfectants when properly applied and in their proper place are of considerable value, but much of the money now spent on disinfectants could probably be more profitably spent on soap and water.

An attempt was made in this district during the year to ascertain how far articles used in common such as pencils and penholders might prove a source of infection. Our thanks are due to Drs. Minett and Macalister, who kindly undertook the bacteriological examination. From various schools stumps of pencils or old penholders were procured and cultures were made of the bacteria found upon this material. In another school a class of girls was watched and any pencils which had been placed in the mouth were preserved for examination. Bacteriological examination revealed extensive growths of the commoner pathogenic organisms, such as staphylococci, streptococei, etc. In no case were the germs of Diphtheria detected. In one example the germ of Pneumonia was found, but this germ may be present in the saliva of healthy persons.

Although these results proved negative, the importance of these articles in the spread of infection should not be overlooked, and it would be an advantage if arrangements could be made so that each child could have his own books, pencils, etc.

The other two important infectious diseases which depend largely on school attendance for their spread are Measles and Whooping Cough. These two diseases are not compulsorily notifiable under the Infectious Diseases Notification Act, our knowledge of their distribution is confined largely to the notifications made by the teachers.

Measles was prevalent in the district during the second quarter of the year, and an account of the epidemic is given in the report of the Medical Officer of Health. Whooping Cough was not so prevalent, but altogether 111 cases were notified from the schools, distributed as follows:—

	Girls.	Infants.	Boys.
Priory	1	8	—
Acton	—	4	—
Beaumont Park ...	—	—	4
South Acton ...	—	1	—
Rothschild Road ...	—	41	—
Acton Wells... ...	3	21	2
Turnham Green R.C....	—	5	—
Southfield Road ...	2	14	1
Central	—	—	—
East Acton	—	—	4
	—	—	—
	6	94	11
	—	—	—

In March 1909 on the promotion of Miss Bhose to the post of Senior Health Visitor, the Education Committee appointed a Nurse to carry out school work.

The following tables represent the visits paid by the Nurse together with the schools where children attended and the diseases from which they suffered.

Visits Paid by School Nurse.

School.	N.-East.	N.-West.	S.-East.	S.-West.	Total.
Priory	83	112	54	161	410
Acton	9	25	4	55	93
Beaumont Park ...	—	—	90	115	205
South Acton	2	2	2	265	271
Rothschild Road ...	—	—	—	215	215
Acton Wells	65	2	—	—	67
Turnham Green R.C.	1	—	19	48	68
Southfield Road ...	42	9	300	18	369
East Acton	13	2	3	—	18
Central	94	67	7	24	192
Totals ...	309	219	479	901	1908

Diseases.	N.-East.	N.-West.	S.-East.	S.-West.	Total.
Scarlet Fever	12	24	35	52	123
Diphtheria	3	2	2	5	12
Measles	52	50	177	265	544
Chicken Pox	21	23	66	71	181
Whooping Cough ...	55	9	28	36	128
Mumps	60	48	65	202	375
Sore Throats	16	17	8	30	71
Colds	9	8	7	20	44
Scabies	8	—	4	6	18
Eczema	1	3	1	11	16
Ringworm	18	15	14	67	114
Dirty Heads	11	9	36	65	121
Sore Heads and Faces ...	7	—	8	16	31
Sore Eyes	6	3	12	20	41
Miscellaneous	30	8	16	35	89
Totals ...	309	219	479	901	1908

Following on the consent of the Board of Education the School Nurse carried out the treatment of certain minor ailments in the schools.

During the last quarter 266 visits were paid and 35 children were treated. The distribution of these cases and the diseases treated were as follows :—

PRIORY.

Children treated	16

Diseases from which children were suffering :—

Ringworm	18
Impetigo	2
Septic Poisoning	1
Blepharitis	1

SOUTH ACTON.

Children treated	5

Diseases from which children were suffering :—

Ringworm	2
Impetigo	2
Blepharitis	1

ROMAN CATHOLIC.

Children treated	9

Diseases from which children were suffering :—

Blepharitis	6
Discharging Ears	2
Ringworm	1

BEAUMONT PARK.

One child treated. Disease—Ringworm.

Mentally and Physically Defective Children.

The problem of educating children who suffer from some mental or physical defect is always a difficult one, and the special local conditions of the district need to be carefully considered.

In the case of children suffering from a certain amount of physical deformity, such as slight infantile paralysis, it is often found possible to retain them in the ordinary schools on making special arrangements with the teachers that these children leave school a few moments before the general dismissal. Parents are warned that full responsibility cannot be undertaken in case of accident, but they generally appear glad to keep the children at the local schools.

During the past year we visited some of the London County Council Schools for the Physically Defective children to judge what degree of deformity procured admission to these schools.

In several instances the defects were not more severe than in the case of those children who attend the ordinary schools in our own district, but the difficulties of traffic in London probably make a special school necessary.

In last year's report an account was given of 56 children who were considered either physically or mentally defective.

Where necessary, these children have been re-examined and kept under observation through 1909.

Of the 26 children examined last year who were classified as backward, 4 have left school, 2 have left the district, 1 shows marked improvement, 19 are making slight progress, but are much behind the normal development to be expected from their age.

Of the 22 children for whom some special method of teaching was considered advisable, 2 have left the district, 1 has much improved mentally, 12 show condition unchanged, and 1 was recommended operation for removal of adenoids. Five are unsuited to remain in an ordinary school, and arrangements are being made to send these children to one of the London County Council Schools for Mentally Defective children.

In one case the parents removed to Hammersmith to send the child to London County Council School for Physically Defective children.

Of two cases classified as unsuitable for any school, one child has left the district. and one will probably need treatment in an asylum as soon as the age limit is reached for admission.

In this district one child A. B., aged five, is suffering from tuberculous disease of the knee joint and has to wear an apparatus to keep the knee stiff, which makes an ordinary desk impossible for her.

We visited some of the newest London County Council Schools for Physically Defective children in order to obtain information as to the most suitable couches, and found a very good pattern in the Ilkley couch and table, price £1 10s. 6d.

The child lives in the district of Rothschild Road School, and the Head Mistress kindly consented to undertake the extra trouble and responsibility which any Physically Defective child involves during school attendance.

This arrangement has worked very well, and the child is making good progress both physically and mentally.

An alternative method of educating this child would be to arrange for her to attend one of the London County Council Special Schools, but this would cost £10 per annum in addition to the charge of conveyance.

Another child, F. D., aged 14, is suffering from infantile paralysis and is also mentally weak. Her intellectual powers are considerably below the normal standard, and the lameness is increasing, but as the child lives near the Rothschild Road School she is able to continue school attendance there by special arrangement with the Head Mistress.

Deaf Children in the district attend the Ackmar Road School under the London County Council. Six children from Acton are attending this School.

Blind Children attend the Blind School in Edinburgh Road. At present one child from the district is attending this School and another child who was being kept under observation has left the district.

A girl who was suffering from progressive myopia and attending Moorfields Hospital has sufficiently improved to enable her to attend Beaumont Park Girls' School instead of the school in Edinburgh Road.

Dumb Children are also sent to special schools. In one case arrangements are being made with the Brentford Education Committee with regard to a dumb child who attends Turnham Green R.C. School though living in Brentford district.

In another case a child is dumb but also mentally deficient and it is doubtful whether much educational improvement would result from sending this child to a Special School.

Physical Exercises. Physical exercises are taught in the schools in accordance with the syllabus of Physical Exercises provided by the Board of Education. Drill is given twice a week in two half hour lessons and generally speaking appears to be well taught.

In some of the schools variation on the usual exercises is obtained by using wands, Indian clubs and Morris dances. These seem much appreciated by the children especially in those schools where the scholars possess suitable clothing and well

fitting shoes which enable them to execute the movements more smartly.

Examination of Teachers. Twelve teachers have been medically examined on appointment to schools in this district, all of whom passed the medical examination.

A record of each physical examination together with the family history of the candidate is entered on a card, and filed for subsequent reference. This method has been found useful, when, for various reasons, it is necessary to make a second examination.

SWIMMING.

During Season of 1909, 15 Swimming Classes were held weekly during School hours and seven classes out of School hours. Total 22 classes weekly.

School.	Classes per week.	Total No. of Scholars who have attended the Baths during the Season	Total Number of attendances made during the season.	No. of Scholars in the School who can swim.	No. of Scholars who have learned to swim this season.
Acton Boys	1	59	611	16	12
Beaumont Park Boys	3	110	908	54	44
Central Senior ...	4	155	1,515	100	27
Central Junior ...	2	64	900	29	18
Priory Boys ...	4	102	835	39	25
Priory Girls ...	1	52	439	5	3
South Acton Senior Boys	2	44	273	40	20
Southfield Rd. Senior	3	97	771	47	29
Acton Wells ...	2	45	587	28	15
Totals	22	728	6,839	358	193

In conclusion we beg to thank the Staff of the Education Department and the teachers for the assistance we have received, not only in compiling this report, but also in the work of medical inspection.

We remain,

Your obedient servants,

D. J. THOMAS,
LILIAN E. WILSON.

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