[Report of the Medical Officer of Health for Wandsworth District, The Board of Works (Clapham, Putney, Streatham, Tooting & Wandsworth)].

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The Board of Works for the Wandsworth District.

SANITARY DEPARTMENT.

REPORT

ON THE

SANITARY CONDITION

OF THE SEVERAL PARISHES COMPRISED IN THE

WANDSWORTH DISTRICT,

DURING THE YEAR 1882.

BY THE

MEDICAL OFFICERS OF HEALTH.

London:
LOVE BROS., PRINTERS, 13, COLEMAN ST., BANK, E.C.

1883.

To the Board of Works of the Wandsworth District.

GENTLEMEN,

We have the honour to present our Annual Report on the health of the Wandsworth District for the year 1882—the twenty-seventh of our official duties.

It will be found to contain, as hitherto, special reports relating to our respective Sub-districts as well as a general report on the entire District. This mode of compilation, it is believed from long experience, affords the best means of conveying all the local as well as general information necessary to elucidate the subject, and of furnishing the most complete review of all matters affecting the health of the inhabitants and of the sanitary state of the District.

It is our pleasing duty to direct your attention to the statistical information contained in the following pages, and especially to that set forth in the series of comprehensive tables appended to this report, with a view of noting the well-marked indications of sanitary progress there presented, and of the highly favourable state of the health of the District during the past year.

We have the honour to remain,

GENTLEMEN,

Your faithful Servants,

The Associated Medical Officers of Health of the Wandsworth District.

JUNE 13th, 1883.

REPORT,

1882.

HEALTH AND SANITARY CONDITION OF THE ENTIRE DISTRICT.

During the year 1882, this District maintained a high state of health, second only to that of the preceding year which was accompanied by the lowest rate of mortality ever recorded in these Reports. The less exalted vitality of the past year was due to a greater prevalence and fatality of epidemic diseases; these were chiefly Measles, Scarlatina, Diphtheria and Whooping-cough, the last named having been, as in the Metropolis generally, the most fatally prevalent of that class of diseases. The following statistics will be found on examination to present trustworthy evidence of the above conclusions.

Vital Statistics.

Population.—The number of inhabitants of this District, estimated from the rate of increase which prevailed during the last inter-census decennium, according to the method employed by the Registrar-General, amounted at the middle of the year 1882 to 221,029, with a density of 18·8 persons to an acre. The disproportionate increase in the number of births however, which has taken place in the short space of time that has elapsed since the period of the last census,

affords evidence that the population of the past year exceeded the above number. Confirmation of this is furnished by an estimate based on the Birth-rate (after the manner described in the Report for 1875) which places the mean population of the past year at 221,095. In consequence of the comparatively recent date of the census, the difference between the two estimates in so large a population is insufficient to materially affect the calculations referred to, which, in order to avoid any error of excess, have been based on the number determined by the official method.

Births—Birth-rate—Rate of Natural Increase.—The total births registered during the past year numbered 7889=4009 of males and 3880 of females. The birth-rate determined by the estimated population was 35·69 per 1000 persons living of all ages. The rate of *natural increase*, i.e. the excess of births over deaths, was 18·26 per 1000, the average rate of the preceding ten years having been 18·02 per 1000.

Deaths—Death-rate.—The total deaths registered during the year were 3,851 in number; 1,895 were of males and 1,956 of females. The death-rate, deduced from the total deaths registered and the mean estimated population, was 17·42 per 1,000 persons living. The deaths of 14 inhabitants of this District occurred in the Metropolitan Asylum District Hospitals, and were registered in the District where the Hospitals are situated; if these are included, as they justly should be, in the calculation, the rate would still be only 17·48 per 1,000.

The following table shews the birth-rates, death-rates, and rates of natural-increase of the past and ten

preceding years, from which it is seen that the death-rate of the past year exceeded by 0·32 per 1,000 only the rate of the year 1881 which was the lowest recorded in the annals of the Board; it was 1·62 per 1,000 below the preceding decennial average, and 3·92 per 1,000 less than the corresponding rate for all London.

Birth-rates, Death-rates, and rates of Natural-Increase in the entire district during the ten years 1872—81, *compared with those of the year* 1882.

Years.	Births.	Birth-rate per 1000.	Deaths.	Death-rate per 1000.	Natural Increase.	Rate of Natural Increase per 1000.
1872	4540	34·40	2421	18·30	2119	16·10
1873	5053	36·40	2580	18·70	2473	18·00
1874	5221	36·50	2796	19·50	2425	16·90
1875	5529	37·30	3096	20·87	2433	16·40
1876	5999	39·04	3154	20·00	2845	18·51
1877	6159	38·60	2991	18·70	3168	20·00
1878	6508	39·40	3275	19·80	3233	19·80
1879	6833	39·70	3526	20·50	3307	19·23
1880	7038	34·20	3593	17·50	3445	16·80
1881	7582	35·68	3647	17·16	3935	18·51
Mean of Ten Years 1872—81	6046	37·12	3107	19·10	2938	18·02
1882	**7889**	**35·69**	**3851**	**17·42**	**4038**	**18·26**

The following Table shews the death-rates of the several sub-districts in relation to the density of population and the proportional number of the industrial classes which each sub-district possesses :—

SUB-DISTRICTS.	Population in the middle of 1882	Per-centage of Total Population	Deaths	Death-rate per 1000	* Death-rate per 1000, Excluding Non-Parishioners who have Died in Public Institutions.	Density of Population—No. of Persons to Acre	Relative Number per cent. of Industrial and Other Classes, Census, 1881.	
							Industrl. Classes	Other Classes
Battersea	113,909	51·5	2,214	19·44	18·17	48	84·0	16·0
Clapham	37,502	17·0	544	14·53	No appreciable difference	30	49·2	50·8
Putney	13,689	6·2	208	15·19		6	47·3	52·7
Streatham ...	26,935	12·2	341	12·65		7	48·5	51·5
Wandsworth	29,031	13·1	544	18·70	17·49	11	73·9	26·1

The same great difference is, as usual, observable between the several rates. A certain, and by far the greater amount of this difference proceeds from the relative social position and density of the population of the several localities, and must be accepted within certain limits as a condition not amenable to sanitary control (see Report for 1881, page 8 & seq.). Irrespective of such difference, however, there is always the variation that results from the greater or less prevalence of

* This correction is necessary in consequence of the undue exaltation of the rates of Battersea and Wandsworth by the mortality of the Union Infirmary in the former, and of the Surrey County Lunatic Asylum, St. Peter's Hospital, and the Hospital for Incurables, in the latter sub-district.

disease, especially of the epidemic kind : such variation which was very considerable during the past year will be seen on reference to Table IV., Appendix. Compared with those of the year preceding, all the rates of the past year were somewhat higher, with the exception of that of Battersea, which was 0·55 per 1,000 less. The rate of Clapham was 0·9 ; of Putney 2·64 ; of Streatham 0·54, and of Wandsworth 0·06 per 1,000, higher than their respective rates of the previous year. The increase of the whole, however, was slight. The decrease in that of Battersea, is remarkable.

Mortality—Causes of death.—In Table No. II. Appendix, are enumerated all the deaths which were registered during the year ; the several classes of disease and other causes of death, with the relative numbers that occurred in each sub-district, are arranged according to sex, age and social position ; and the several diseases of the Zymotic class are specified. In Table No. III., Appendix, the total number of deaths and their classified causes are exhibited in comparison with those of the preceding ten years. The statistics contained in these two comprehensive tables, present the means for a complete review of the nature, comparative amount, and fatality of the several classes of disease in each sub-district, as well as in the entire district during the year.

The class of diseases which from its great sanitary importance claims the first consideration is the Zymotic, Class I. in the Table, which includes the Epidemic, Endemic, Infectious and Contagious diseases.

Epidemic Diseases.—The deaths which resulted from the seven principal epidemic diseases during the

year, are shewn in Table IV., Appendix. They formed 15·9 per cent. of the total mortality, and 2·79 per 1,000 of the estimated population. They amounted to 615 in number, which is 43 less than the decennial average corrected for increase of population. The most extensively prevalent and fatal of these diseases was *Whooping-cough*, which caused 163 deaths,—upwards of one-fourth of the whole, or 26 above the average. *Scarlatina*, *Diarrhœa* and *Measles* closely approximated each other in fatality. The deaths from Scarlatina and Measles, were 5 and 23 respectively, above the average, while those from Diarrhœa were 68 below the average number. *Diphtheria* was unusually prevalent, producing 51 deaths, or 30 in excess of the average. Different forms of *Fever* caused 49 deaths, or if the 9 which occurred in the Asylum District Hospitals be included, 58 deaths, or 9 less than the average. One death only resulted from *Small-pox* in the District, but 19 cases were sent into the District Hospitals, where 5 terminated fatally.

The deaths from the other Zymotic diseases were 12 below the average. The total class of Zymotic diseases was less fatal than the average by 87 deaths.

The incidence of mortality from these diseases in relation to population, varied as usual in the several sub-districts. The deaths from *Measles* were slightly in excess in Battersea, more so in Wandsworth, and doubly so in Putney; while they were proportionally low in Clapham, and very low in Streatham. The deaths from *Scarlatina* were in excess in Battersea, more so in Clapham, and but few in the other parishes. From

Diphtheria the deaths were considerably less than half the proportional number in all the parishes except Putney. From *Whooping-cough*, they were slightly in excess in Wandsworth, of due amount in Putney, low in Clapham and Streatham, and relatively high in Batttersea. From *Diarrhœa* the mortality was in excess in Wandsworth, and more so in Battersea, but low in Putney, and unusually low in Clapham and Streatham. The deaths from *Fever* were high in Battersea in comparison with the other Sub-districts; but this disease prevailed extensively in Clapham, although unattended with any great mortality.

The relative amount of mortality from the seven principal epidemic diseases in the several sub-districts is compared with that of the year preceding in the following table.

SUB-DISTRICTS.	No. of Deaths from Epidemic Diseases per 1000 of the Estimated population		Ratio of Deaths from Epidemic Diseases to every 100 of the total deaths.	
	1881.	1882	1881	1882
Battersea	3·50	3·09	17·63	15·90
Clapham	1·93	1·90	14·22	13 60
Putney	1·65	4·60	13·17	30·28
Streatham	1·43	1·10	11·82	9 09
Wandsworth	2·44	3·20	13·60	17·27

The same measures of disinfection, and of isolation of patients by removal to hospital, &c., which have been hitherto adopted for the prevention and suppression of epidemic disease, have been vigorously employed throughout the district during the past year.

Although Small-pox had been virtually suppressed, Vaccination and Re-vaccination, whenever the latter was required, were actively pursued. To what extent and with what success primary vaccination has been carried out, is shewn in the following return, in which it is seen that of 7,607 children whose births were registered, 6,577 were successfully vaccinated, and the remaining 1,030 accounted for by death, insusceptibility, &c., with the exception of 344 only, or $4\frac{1}{2}$ per cent., who had removed to other districts or whose place of abode could not be ascertained.

Vaccination.—Return made February 7th, 1883, by the Vaccination Officers respecting the vaccination of children whose births were registered in the entire district, from 1st of January to December 31st, 1881, inclusive—

SUB-DISTRICTS.	Number of Births Returned from 1st January to 31st December, 1881.	Successfully Vaccinated.	Insusceptible of Vaccination.	Had Small Pox.	Dead, Unvaccinated.	Postponed by Medical Certificate	Removed to Districts, Vaccination Officer of which has been duly apprised.	Removed to places unknown, or which cannot be reached; and cases not having been found.
Battersea	4465	3856	15	2	355	30	...	207
Clapham	1056	943	3	...	78	4	...	28
Putney..	344	295	...	...	36	2	3	8
Streatham	834	671	5	...	54	10	12	82
Wandsworth ...	908	812	5	...	71	1	...	19
	7607	6577	28	2	594	47	15	344

Non-Zymotic Diseases.—As in the year preceding, diseases of the organs of respiration (class 5) were by far the most numerous of all the causes of death. They were 850 in number, and 124 above the average, and formed no less than 22 per cent. of the total mortality. This excess, looking to the circumstance that it was principally borne by young children, was very probably due to the remote effects of the prevailing epidemics Measles and Whooping-cough. The *Tubercular Class* (class 2), which includes Scrofula and Consumption, caused 521 deaths, which were 139 less than the average. The deaths from *diseases of the Brain and Nerves* (class 3) numbered 539, or 14 per cent. (nearly) of all deaths, and were 23 below the average; but as this class contains the whole mortality of the County Lunatic Asylum, the inmates of which are mostly derived from without the district, any calculation based on the relative position held by it in the causation of the mortality would be valueless. Deaths from *Diseases of the Heart* (class 4), as in the year preceding, were more numerous than usual; they numbered 251, or 25 above the average. From *Premature Birth, &c.* (class 11), the deaths which had greatly increased in the previous year, were 5 below the average. Deaths from *Diseases of the Digestive Organs* (class 6) shewed an increase of 30 above the average; those from *Diseases of the Urinary Organs* (class 7) an increase of 22 above the average, and those from *Dropsy, Cancer, and others of Uncertain Seat*, a similar increase of 13.

The variations of fatality in these and the remaining classes as well as in the several diseases of the Zymotic Class, may be more conveniently compared in the following table, which shows the increase or decrease in the number of deaths from each class of disease during the past year in relation to its decennial average corrected for increase of population.

CLASSES OF DISEASE, &c.	Number of deaths in 1882.	Average Annual number of deaths in the ten years 1871–80.	Same averages corrected for Increase of population.	Number of deaths 1882 above corrected average.	Number of deaths 1882 below corrected average.
1. Zymotic:—viz.					
Seven principal Epidemic Diseases. — Small Pox	1	18	23	...	22
Measles	115	70	92	23	...
Scarlatina	119	87	114	5	...
Diptheria	51	16	21	30	...
Whooping Cough	163	104	137	26	...
Fever	49	51	67	...	18
Diarrhœa	117	141	185	...	68
Other Zymotic Diseases	72	64	84	...	12
2. Tubercular	521	501	660	...	139
3. Brain and Nerves	539	427	562	...	23
4. Heart, &c.	251	172	226	25	...
5. Respiratory Organs	850	596	726	124	...
6. Digestive Organs	195	125	165	30	...
7. Urinary Organs	89	46	67	22	...
8. Generative Organs	32	19	25	7	...
9. Joints, Bones, &c.	25	11	14	11	...
10. Skin, &c.	9	4	5	1	..
11. Premature Birth, Low Vitality, Malformation, &c.	234	182	239	...	5
12. Dropsy, Cancer, and Uncertain Seat	144	100	131	13	...
13. Age	153	130	171	...	18
14. Violence	104	78	102	2	...
15. Not Specified	18	56	73	...	55

Deaths at different Ages.—Infant and Senile Mortality.—The deaths of infants under one year of age amounted to 28 per cent. of the total mortality. Calculated by the proportion which the deaths under that age bear to the total births registered, the death-rate of infants under one year was 13·7 per cent., the average of the preceding ten years having been 14·6 per cent. But as fewer children die from epidemic diseases during their first year of life than subsequently, the death-rate of children should embrace the period of greatest proclivity to such diseases, and consequently all ages under ten years. The deaths of children under 10 years increased during the past year; they formed

51·3 per cent. of all deaths, the average of the preceding ten years having been 49·7 per cent. The mortality of persons in advanced life somewhat diminished in number during the past year. The deaths at 60 years of age and upwards amounted to 20·2 per cent. of all deaths, the average of the preceding ten years having been 20·8 per cent. The deaths classed as to age for the ten years 1872–81 are compared with those of the past year in the subjoined table:—

YEARS.	AGE.							
	Under 1 year	From 1 to 5 years	From 5 to 10 years	All under 20 years	From 20 to 40 years	From 40 to 60 years	From 60 to 80 years	80 years & upwards
1872	705	452	61	1297	282	394	354	94
1873	636	387	75	1285	326	394	448	127
1874	777	452	107	1438	361	462	419	116
1875	886	467	132	1660	399	422	502	113
1876	910	524	99	1638	398	468	540	110
1877	840	466	109	1517	387	458	525	104
1878	983	600	100	1780	338	483	532	142
1879	947	682	102	1878	368	487	658	135
1880	1,136	600	140	2021	374	500	560	138
1881	1,043	627	132	1938	410	548	599	152
1882	**1,082**	**752**	**143**	**2,087**	**428**	**557**	**634**	**145**

Social Position of the Deceased.—The following Table exhibits the relative proportion per cent. of the mortality borne by the several classes of the inhabitants during the six years 1877—82.

	1877	1878	1879	1880	1881	1882
Nobility and Gentry	2·50	1·62	3·30	3·40	2·71	**3·43**
Professional Class	6·20	5·08	5·90	5·50	5·12	**4·44**
Middle Class.....	18·20	18·10	17·40	16·90	19·00	**20·85**
Industrial Class	73·10	75·20	73·40	74·20	73·17	**71·28**
	100·0	100·0	100·0	100·0	100·00	**100·00**

A gradual diminution in the relative amount of mortality occurring amongst the industrial classes has been observable for a considerable number of years, and as such a result is one of the most trustworthy evidences of sanitary improvement effected amongst that portion of the community in which it is most needed, it is satisfactory to find by the figures in the Table that the reduction referred to was very much more considerable during the past year, notwithstanding the prevalence of a larger amount of epidemic disease, than in the year preceding.

Sickness and Mortality amongst the Parochial Poor.—The nature and amount of sickness with the deaths from each class of disease which prevailed amongst the parochial poor in the entire district, and in the several sub-districts during the year, are contained in Table V., Appendix. The figures there set forth will be found to confirm generally the deductions derivable from the general tables of mortality. The total cases of sickness of the past year were 2,479, or 124 more than in 1881, but 200 less than in 1880. The proportion of deaths to cases treated was 4·1 per cent., or 0·5 per cent. less than the decennial average. An approximate estimate of the amount of sickness which has prevailed throughout the district, in the absence of any other available means for the purpose, may be formed by assuming the proportion which the deaths bear to the cases of sickness amongst the poor, as the proportion of deaths to cases of sickness occurring amongst all classes. By such a calculation the amount of sickness that prevailed generally during the past year must have equalled 42 per cent. of the population.

INQUESTS. — *Deaths by Violence — Uncertified Deaths.*—The inquests held during the year were 168, a less number by 25 than in 1881. They bore a proportion to the total number of deaths of 4·3 per cent., the average amount. The number of deaths which formed the subjects of inquiry in the several sub-districts, with the verdicts, are set forth in the following table:—

VERDICTS.	SUB-DISTRICTS.						
	Battersea.		Clapham.	Putney.	Streatham.	Wandsworth.	Total.
	East.	West.					
Deaths from Natural causes...	18	14	10	2	11	14	69
Deaths from Violence:—							
Accidental—Drowning	8	1	...	1	...	3	13
Concussion	...	...	...	1	1	1	3
Suffocation	12	10	1	...	...	4	27
Run over	3	1	...	1	...	1	6
Burning.....	...	2	...	...	...	2	4
Poisoning	1	...	...	...	...	1	2
Crushed by Mchy.	...	...	...	...	...	1	1
Fall	3	...	2	1	1	...	7
Child-birth	2	...	...	...	...	...	2
Killed on Railway	...	5	1	...	4	...	10
Scalding.....	..	1	...	...	...	...	1
Suicidal — Cut-throat	...	...	1	1	...	1	3
Hanging	...	1	...	...	1	1	3
Jumped into a copper of boiling water.	...	...	...	...	...	1	1
Drowning	...	...	...	...	1	...	1
Poison	...	2	1	...	...	...	3
Homicidal—Murder	...	..	...	...	...	...	...
Manslaughter ...	...	...	...	...	...	...	...
Execution	...	...	...	...	...	2	2
Found drowned...	...	1	...	1	...	...	2
Found dead	...	...	7	...	...	...	7
Not specified.....	...	1	...	...	...	...	1
Totals in each Sub-District.	47	39	23	8	19	32	168
	86						

Of the total number 89 were caused by violence; of these 76 were the result of accident, 11 of suicide, and 2 of execution. It is unsatisfactory to notice 10 instances in which, after due investigation, no more definite information as to the cause of death was obtained than is conveyed by such verdicts as "found drowned," "found dead," &c. As the primary object of the Coroner's Court is to determine the cause of death, it would seem, in the absence of such determination by skilled evidence, somewhat superfluous for 12 jurymen to be brought together by compulsion of the law, simply to arrive at the self-evident conclusion that some person had been "found dead."

Uncertified Deaths.—The number of deaths not certified by medical testimony, which had so greatly increased during the year 1881, underwent a very considerable reduction in the past year. They numbered in the latter 96, and were 29 less than in the year preceding. It is scarcely necessary to repeat what has been so frequently urged in these reports, that this laxity in the registration of deaths requires an amendment of the law, by which the cause of death shall be made in every instance an ascertained fact, as far as human knowledge can make it so. In such view of the case it may be observed that if in all cases in which the cause of death has not been certified by a Registered Medical Practitioner, a preliminary medical examination were substituted for the unskilled inquiry of the Coroner's Officer, a large number of the inquests which are now needlessly held might be dispensed with, at the same time that the object of the Coroner's Court and consequent security to life would be more completely attained. Such course of procedure, as appears from the observations on the subject contained in the

Summary for West Battersea, page 48, has been to some extent adopted by the Coroner for this district; and to this cause, probably, the diminution in the number of inquests of the past year, may in some measure be attributable.

Sanitation.—The principal Sanitary proceedings which were carried out during the year are enumerated in Table VI., Appendix, irrespective of many operations which cannot be so demonstrated. The numbers under the several headings therein contained, represent the accomplishment of an amount of sanitary work of such great and varied extent as cannot fail to be recognized as having been of the greatest benefit to the inhabitants and conducive to the maintenance of the healthiness of the district. The numbers have greatly increased in the past year, especially such as relate to the inspection of houses, and the remedying their defects, and to the removal of nuisances. A reference to the corresponding figures contained in previous Reports, shews that the inspections of houses alone have increased annually in a nearly uniform manner, from 2,331 in the year 1872, to 10,241 in the past year. The large number of 1,145 notices to abate nuisances were served, shewing an increase of 196 over that of the year preceding; and in 43 instances it became necessary to enforce them by an appeal to the law, by the aid of which 32 magisterial orders were obtained to compel compliance with their requirements. 460 houses were disinfected *and in* 8 *instances only, did contagious disease occur in them after disinfection,* and 226 unwholesome and dilapidated houses were cleansed and repaired. No less than 67 nuisances arising from the keeping of swine (43 of which occurred in Battersea), and which necessitated magisterial interference in 28 instances were suppressed,

thus having dealt a death-blow, it is to be hoped, to one of the greatest sanitary evils in the district. The other figures in the table will be found to shew corresponding progress, and it must be a source of satisfaction to the Board, to see that these and the other items of procedure to which attention has been directed, are keeping pace with the great sanitary requirements of this populous and continually increasing suburb.

Notwithstanding the great improvements that have been effected, there remain many sanitary defects requiring to be remedied. Some of these, such as imperfect scavengering, including the too infrequent removal of house-refuse, the absence of paving and surface drainage in the courts and alleys of the poor, the introduction of noxious trades into the District, &c., can be more immediately dealt with; but there are others more difficult of removal, such as the continual nuisance and the danger to health arising from the manner in which the sewers are ventilated at the expense of aerial purity in the streets. In close association with this great intrinsic defect of the main drainage is the imperfection of the water supply, than which, of all the sanitary evils requiring correction, there is none of greater importance or more deserving, at the present time, the serious consideration of the Board. For this reason it is desirable to submit the following observations on the subject:—

Water Supply.—This District still retains the unenviable position which it has for so many years held of being supplied with the most impure water of any delivered to the whole Metropolis. "Of all the waters "delivered in London," writes Dr. Frankland, in his annual report on the subject for the year 1882, "that

"supplied by the West Middlesex and Southwark "Companies contained the greatest average amount of "organic impurity." A Table in the same report shews that the water of the Southwark Company (which supplies the greatest part of this District) contained absolutely the maximum amount of organic matter, and that next to the water of the above two companies that of the Lambeth Company contained the highest amount of organic impurity. The use of impure water has been so often and conclusively proved to be a source of danger to health, that the purity of our supply cannot be too strongly insisted on. Second only in importance to its purity is the quantity of the supply. The latter during the past year was greatly diminished by both the Southwark and the Lambeth Companies. The amount of reduction by the former company was 33 gallons per house, per day, and that of the latter 30 gallons per house per day, making a total reduction, at the lowest estimate, of not less than 2,000,000 gallons a day. *Drainage.*—As the efficiency of house drainage and general sewerage is dependent on a sufficient supply of water, any reduction in the amount of the latter (hitherto insufficient for that purpose), becomes highly objectionable and mischievous; for the immediate result of an insufficient supply is the greater development of gases of decomposition in the sewers, and the consequently greater presence of them in the streets and in houses. That such is the case and that the amount of water entering the sewers from houses is insufficient as a vehicle for their contents, is manifest from the circumstance that the emanation of sewer gas from the "ventilators" is greatest and most noxious at night, when the smallest amount of water is passing into the sewers. *Sewer gas.*—As the development of Typhoid Fever, and of

probably other diseases, is held by the highest authorities to result from sewer gas, the means of prevention of the development of the latter becomes a question of the gravest importance, the practical solution of which has always appeared to your Medical Officers of Health to be presented by the use of an abundant and continuous flow of water. *Source of Supply.*—Looking to the great amount of organic impurity contained in Thames water, which no amount of filtration can completely remove, the desirability of obtaining a supply from the chalk strata by means of Artesian wells, prominently presents itself for acceptance.

Meteorology.—The climate of the past year was mostly very temperate. In table 7 (Appendix), which is extracted from the Registrar-General's "Annual Summary" for London, it is seen that the mean temperature of the air was 49·70 degrees, or 1·1 degree higher than the average. The amount of rainfall was 25·16 inches or 0·07 above the average. The excess of rain occurred in the second and fourth quarters, but principally in the latter when it amounted to 2·25 inches.

For further details and subjects of local interest the reader is referred to the following Summaries of the several Sub-districts.

LOCAL SUMMARIES.

BATTERSEA.

The mean population of the Parish of Battersea for the year 1882, estimated by the official method, was 113,872; determined by the birth-rate, however, it amounted to 113,909, and the census has at every decennial period shewn the correctness of the calculations upon which the latter numbers have been computed.

The births registered during the year were 4,504, and the consequent birth-rate was 39·5 per thousand persons.

The number of persons who died in the parish during 1882 was 2,214. Of these 259 died in various public institutions situated within our boundaries, and of these 115 only belonged to the parish, leaving 144 non-parishioners, most of whom died in the Workhouse Infirmary.

Deducting such 144 non-parishioners, 2,070 deaths remain, which would be equal to a death-rate of 18·17 per thousand per annum. If no allowance be made for persons belonging to other parishes, the death-rate would be increased to 19·44 per thousand.

The death-rate for London during 1882 was 21·4 per thousand persons living therein, and was, with two exceptions, the lowest annual death-rate on record.

BATTERSEA EAST.

On the middle day of the year under report, 1882, there existed in this division of the parish a computed population of 60,102 persons. This computation is arrived at by adding to 57,154 the mean population for the year 1881, one-tenth of the increase of population during the ten years 1871-81, equal annually to 2,948. These together constitute the above-mentioned number, and are the basis upon which the birth and death-rates are calculated.

Births.—The births registered in the sub-district during the year 1882 numbered 2,352, which in the mean population of 60,102, gives a birth-rate for the year equal to 39·13 per thousand. Of the births so registered 1,168 were of males and 1,184 of females.

Natural increase of population.—It will be shewn subsequently that the number of deaths recorded during the same period was 992, so that the natural increase of population during the year, viz., the excess of births over deaths, was 1,360. The annual rate of increase averages 2,948 persons, so that this natural increase has been supplemented by the immigration of 1,588 persons during the year.

Mortality.—The annexed table shows the total mortality in the sub-district during the year 1882, with the causes of death arranged in the usual manner, and the sex, age, and social position of the deceased.

STATISTICS OF MORTALITY.

BATTERSEA EAST. Population (Census) 1881 ... ... 57,154. Official Population, in middle of 1882... 60,102. Area in Acres, 1,235. — Diseases and other Causes of Death.	Total Deaths from each Class of Disease, &c., in the Sub-District.	Sex.		Age.									Social Position.			
		Males.	Females.	Under 1 year.	From 1 to 5 years.	From 5 to 10 years.	From 10 to 20 years.	All under 20 years.	At 20 and under 40 years of age.	At 40 and under 60 years of age.	At 60 and under 80 years of age.	80 years and upwards.	Nobility and Gentry.	Professional Class, Merchants, Bankers, &c.	Middle and Trading Class, Shopmen, Clerks, &c.	Industrial and Laboring Classes.
Classes :—																
1. Zymotic — Smallpox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles.....	33	20	13	9	23	1	...	33	...	...	...	...	1	...	5	27
Scarlatina...	36	12	24	4	23	8	1	36	...	...	...	...	1	...	5	30
Diphtheria .	7	2	5	...	4	3	...	7	...	...	...	...	...	...	2	5
Croup	3	...	3	...	...	3	...	3	...	...	...	...	...	...	1	2
Whooping Cough ...	56	17	39	22	34	...	...	56	...	...	...	...	...	1	8	47
Typhus, &c.	14	7	7	...	1	3	2	6	3	3	2	...	...	1	1	12
Erysipelas ..	3	1	2	2	...	...	...	2	1	...	...	...	...	...	...	3
Metria, Childbirth	4	...	4	...	...	...	1	1	3	..	...	...	...	...	...	4
Carbuncle...	1	1	...	...	...	...	...	...	1	...	...	...	...	...	1	...
Influenza ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa & Cholera...	37	17	20	26	10	...	...	36	...	1	...	...	...	...	7	30
Totals of Zymotic Class	194	77	117	63	95	18	4	180	8	4	2	...	2	2	30	160
2. Tubercular.....	192	98	94	77	33	8	12	130	36	23	3	...	...	6	31	155
3. Of Brain, Nerves, &c.	112	53	59	36	33	9	5	83	6	12	8	3	1	3	18	90
4. Of the Heart, &c. ...	47	17	30	...	...	2	1	3	12	9	22	1	1	6	10	30
5. Of Respiratory Organs	258	135	123	88	81	5	7	181	10	32	34	1	...	6	37	215
6. Of Digestive Organs	23	11	12	2	2	2	2	8	3	9	3	...	...	2	7	14
7. Of Urinary Organs	20	11	9	...	1	1	...	2	3	8	7	...	...	...	6	14
8. Of Organs of Generation	3	...	3	...	...	...	...	...	2	...	1	...	...	...	1	2
9. Of Joints, Bones, &c.	2	...	2	...	...	...	2	2	...	...	...	...	...	...	...	2
10. Of Skin	1	...	1	1	...	...	...	1	...	...	...	..	...	...	...	1
11. Premature Birth, Low Vitality, Malformation, &c. ...	63	36	27	63	...	...	...	63	...	...	..	..	...	1	11	51
12. Of Uncertain Seat...	15	11	4	5	2	...	...	7	...	4	4	..	...	...	3	12
13. Age.....	18	3	15	...	...	...	...	...	...	1	11	6	2	1	6	9
14. Violence.....	30	23	7	13	2	5	2	22	3	5	...	...	...	...	...	30
15. Not Specified.....	14	6	8	4	4	...	...	8	...	3	3	...	...	...	1	13
Totals	992	481	511	352	253	50	35	690	83	110	98	11	6	27	161	798

The deaths of 481 males and 511 females in Eastern Battersea are included in the table for 1882 with a total mortality of 992, being a larger number of deaths by 26 than during the preceeding year. This difference of numbers is, however, more than accounted for by the increased population.

The death-rate for the year 1882, afforded by the deaths of 992 persons in an official mean population of 60,102, was but 16·48 per thousand, being a fractional improvement upon the death-rate for 1881, viz., 16·8 per thousand. If the deaths in public institutions had been ascertainable in the past as they will be for the future by arrangements recently made by the Board with the Registrar-General, there is no doubt that this small death-rate, the smallest ever recorded, would be somewhat increased; but even with any probable increased mortality in this direction it would be much lower than the annual rate of mortality for the metropolis at large during 1882, viz., 21·4 per thousand.

The continued low rate of mortality which it has been my privilege to report from year to year must be the source of much gratification to the Board and its officers, to whose exertions it is in some great measure due. The death-rate is that of a rural district of the best class, and can scarcely be expected to be lower; indeed, with the increased population it is only by unremitting efforts on the part of the Sanitary Authorities that so desirable a condition continues to exist. There is not the slightest doubt that an increased mortality of 2 or 3 per thousand must be looked for in the future, more especially should the winters be inclement.

Ages at Death.—Under one year of age 352 deaths took place, being 36 per cent. of the deaths at all ages, and identical with that of the previous year. Under five years of age a total number of 605 deaths was registered, being equal to 61 per cent. of the whole

mortality of the year. This is rather in excess of the preceeding year, but in accord with the average.

Above 80 years of age 11 persons died. This number is smaller than usual. Of these 3 were males and 8 females, about the usual proportion.

Zymotic or Epidemic Diseases.—In 1881 I had to record a diminution in the number of deaths from diseases of this class to a total of 217, diseases over which sanitary measures are presumed to exercise the greatest amount of control. I have to report that during 1882 this small number was further reduced to 194, and the zymotic death-rate per thousand of the population, which, during the year 1881 was 3·7 has during 1882 been reduced to 3·2 per thousand. The usual table is here appended in the order of greatest fatality, with zymotic mortality for last five years.

	1882	1881	1880	1879	1878
Whooping Cough	56	37	43	39	63
Diarrhœa and Infantile Cholera...	37	45	78	43	71
Scarlatina	36	20	63	44	19
Measles	33	60	22	47	6
Fevers ..... (Typhoid... 14, Typhus ... 2, Relapsing 1)	14	17	15	13	12
Diptheria	7	3	2	6	4
Metria (Childbirth)	4	8	5	12	2
Erysipelas.....	3	6	4	4	0
Croup	3	4	4	9	12
Carbuncle.....	1	0	0	0	0
Small Pox.....	0	17	1	1	5
Total	194	217	237	218	206
Zymotic Death-rate per 1,000 per Annum	3·2	3·7	4·3	3·9	3·7

Whooping-cough has been the most fatal of the zymotic diseases during the year under report and is the disease over which preventive measures appear to be the least applicable, the mortality from this disease has slightly exceeded the average, but was greater in 1878.

From Diarrhœa, with which is grouped infantile and other forms of so-called Cholera and Dysentry, 37 deaths were recorded. These numbers were much lower than for many years past.

Scarlatina contributed 36 deaths to the mortality of the year. This is below the average of the past five years.

The same observations will apply to the deaths from Measles, numbering 33.

The diseases generally included under the heading "Fevers" include Typhoid or Enteric Fever, Typhus, simple, continued and relapsing fevers. Death, with the exception of one case from simple continued fever, arose from the Typhoid form in all the instances; the total number of fatal fever cases being 14.

The other diseases of this class hardly call for special remark, being few in number in so large a population. It will be observed that no fatal case of Small-pox occurred during the year.

The systematic removal of persons suffering from Zymotic diseases when isolation cannot be insured, the free supply of disinfectants where necessary, and the gratuitous, prompt and effective disinfection of the apartments furniture and clothing of persons so effected, seem to be slowly but surely stamping out the infectious diseases. No outbreak of disease could now occur without being promptly met and confined within limits, and the "plagues" of the middle ages, which in reality consisted of many different forms of epidemic disease, could not possibly recur with the enormous loss of life which formerly took place.

Other diseases.—From diseases of the Respiratory Organs the large number of 258 persons died. Of these 169 were under 5 years of age, clearly indicating the chief cause of mortality in the young.

From diseases of Tubercular origin, Consumption, Hydrocephalus, and Atrophy, 192 deaths were registered. Of these 110 were under 5 years of age.

From diseases of the Brain and Nerves 112 deaths were recorded, 69 being under the age of 5 years.

From diseases of the Heart 47 deaths occurred, and if to the deaths from Tubercular and Brain Diseases these be added, together with 63 deaths from Premature Birth and Low Vitality, a total of 414 deaths of constitutional origin will be grouped together equal to nearly 43 per cent. of the total mortality.

There is a gratifying diminution in the number of deaths from diseases of the Digestive Organs from year to year. In this class would be included affections of the Liver and Stomach, the result of intemperance, and there can be no doubt that the largely diminished mortality from this cause is due to the numerous reforming agencies directed towards the inculcation of habits of temperance.

Deaths not certified.—In 67 instances the cause of death was not certified by a legally registered medical practitioner. These numbers contrast favourably with 1881, when 173 such cases occurred. The Coroner held inquests in 47 of these cases, leaving but 20, in 11 of which latter he decided that no inquest was necessary. Three of the remaining cases were those of children who died soon after birth, a midwife being in attendance, and in two cases, both of infants, one a case of Scarlatina, the other of Bronchitis, the deaths were registered by direction of the Registrar-General—a perfectly novel proceeding.

Four deaths were registered absolutely without certification or enquiry by any authority and were described as from—

Probably Scarlet Fever.
A Fit, aged 20 hours.
Convulsions from Birth, aged 7 days.
Teething, aged 11 months.

Inquests.—In addition to the investigation of 11 uncertified deaths, and many others subsequently certified by Medical Practitioners, the Coroner held inquests in 47 cases during the year, with the following verdicts :—

From Natural causes		18
From Accidental causes—		
Asphyxia (all Children, 11 overlaid) ..	12	
Drowned	8	
Fall	3	
Run over	3	
Accidents of Childbirth	2	
Poison by Chloral	1	— 29
Total ...		47

Social Position.—The social position of the persons deceased during 1882 was as follows :—

	Number	=	Per cent.
Nobility and Gentry	6	=	·6
Professional Class	27	=	2·9
Middle and Trading Class	161	=	16 0
Industrial and Labouring Class ...	797	=	80 5
Totals ...	991	=	100·0

Vaccination.—The number of operations performed at the authorised station during 1882 was as follows :—

Successful Primary Vaccinations	1396
,, Revaccinations	102
	1498

The registered births numbered 2,352 so that more than one-half of the children born in the sub-district were vaccinated at the public vaccination station. During the preceding year, under the stimulus of a severe outbreak of Small-pox five-sixths of the children registered were so vaccinated.

Abstract of Sanitary Work carried out in East Battersea.

During the year ending December 31*st*, 1882.

No. of houses inspected	1865
No. of 1st Notices served	251
No. of 2nd Notices served	24
No. of Houses disinfected, and where necessary cleansed after Small-pox	12
No. of Houses disinfected, and where necessary cleansed after various kinds of Fever	48
Defective Drains cleansed and repaired	143
Cesspools abolished	8
Accumulations of Manure, &c., removed	12
Dust Bins provided	59
Defective apparatus to Water Closets repaired	88
Water Supply added to Closets	28
Cisterns provided or repaired	1
Covers to Cisterns provided	38
Dilapidated Closets repaired	17
Foul and offensive Closets cleansed	5
Water supply added to houses	6
Dilapidated houses cleansed and repaired	15
No. of houses where separate drainage has been enforced	17
Overcrowding abated	8
Pig nuisances removed	6
Orders of the Board obtained	14
Summonses	4
Bad Fish destroyed (200 Haddocks and 60 Plaice)	
Dangerous Cellar Covers, Steps, &c., altered and repaired	3
Obstructing Footpath (Building Materials, &c.)	9
Dirty Urinals cleansed	10
Sweeping trade refuse in street abated	3

Mr. Richards, the Inspector of Nuisances, reports that during the year but four summonses were taken out to enforce sanitary requirements; and that the amount of

work carried out under the Nuisances Removal Acts showed the willingness of the owners of property to render their houses healthy and habitable by carrying out the requirements of the Sanitary Authority. Six pig nuisances were removed by order of the Board, and the voluntary breaking up of Mr. Lucy's establishment in Doddington Grove may be said to complete the total extinction of pig keeping in Eastern Battersea.

Scarcely a complaint was made during the year of bad meat or fish having been exposed for sale in the public streets which may be attributed to the sharp outlook which has been kept, and to the fact that dealers are now beginning to understand that the Inspector of nuisances will condemn unwholesome food, and provided it is brought to his notice as soon as it is discovered, and before it has been offered for sale, will give a certificate enabling them to recover its value from the original vendors.

In conjunction with the Surveyor an inspection of 26 to 34, Sleaford Street, and of No. 89, Battersea Park Road was made, the premises were found to be dilapidated and unfit for human habitation, and with a view to their being put into thorough repair, notices were served and the necessary works carried out.

Eight cases of overcrowding came under notice and were dealt with. One occurring at No. 22, Gladstone Street was of a most aggravated character, viz.:—Two basement rooms, containing 1855 cubic feet, were found to be occupied by eleven persons—a man his wife, 5 daughters aged 7, 16, 18, 20 and 23 years respectively, and two sons aged 9 and 25 years respectively, and 2 young children of one of the daughters. The space for each person to live and sleep in being about 180 cubic feet.

In another case at No. 24, Stockdale Road, a small six-roomed house was found to be occupied by five families consisting of 28 persons. In all the cases notices to abate were complied with.

A most offensive nuisance arising from a deposit of fish offal with other animal and vegetable matter on some land between the railway arches in Culvert Road remained unabated for some time, a summons was eventually taken out, the owner was fined and an order made to abate the nuisance.

Three cases of Typhoid Fever occurred at No. 28, Longhedge Street, and upon enquiry being made it was found that the affected children had been freely drinking water from a cistern that had stood full for some six or nine months whilst the house was empty. At the time of inspection, although the house had then been occupied two or three weeks, the water was still stagnant and offensive.

A costermonger was summoned and fined for offering bad fish for sale on Saturday night the 6th of May, in the Battersea Park Road, and the whole of his stock-in-trade (about 200 haddocks)was destroyed.

In May an inspection of the bakehouses throughout the parish was made, the result being that there were found to be 40 bakehouses in East Battersea.

The sanitary condition of the bakehouses, with the exception of four, particulars of which are given below, may be described as fairly good. Lime whiting was necessary in many instances and instructions were given to carry this out. Twenty-six bakehouses were without any communication with the drain, and therefore removed from the possibility of sewer gas getting in. In the other cases the drains were found to be properly trapped.

Twenty-six bakehouses have been built in the parish within the last four or five years, the majority of which are above ground and for ventilation and light are a great improvement upon the older ones.

In the four instances in which the condition of bakehouses was objectionable the following defects were observed :—

Bakehouse A.—The w.c. is inside the bakehouse and in an offensive condition, the door opening into the bakehouse and the drain not properly trapped.

Bakehouse B.—A bedroom in direct communication with bakehouse, there being no partition between, and the ceiling and floor out of repair.

Bakehouse C.—The whole of the back premises, including bakehouse, water closet, and dust bin, are under one roof. The closet in an offensive condition.

Bakehouse D.—Generally dirty and out of repair.

These defects well illustrate the conditions found in the worst class of bakehouses, added to which many are underground. No bakehouse should be used without being licensed after inspection, in the same manner as slaughterhouses and cowhouses, and the proper authority to inspect is the local Sanitary Authority.

The foregoing abstract and report illustrates the principal sanitary work done during the year, but there is a very much larger amount of sanitary supervision which cannot be tabulated, and which is constantly going on.

I have again to express my thanks to the Surveyor, Mr. Pilditch, for his ready and willing assistance upon all occasions. Mr. Richards, the Inspector of Nuisances, has distinguished himself by obtaining the certificate of the Sanitary Institute of Great Britain in Sanitary Science, and his work during the year has been marked by the same completeness and earnestness which have always characterised the performance of his duties. Mr. Barnes, the Assistant-Inspector, is also a very valuable and reliable officer, getting through much disagreeable work in a creditable manner.

The year 1882 has been distinguished by the lowest death-rate it has ever been my province to record, and that in a population of increasing density, and is an evidence of good work upon the part of the local authorities charged with the care of the public health.

W. H. KEMPSTER, M.D.,

Medical Officer of Health for Eastern Battersea

BATTERSEA WEST.

During the year 1882 the total amount of mortality, allowing for increase of population, closely approximated to that of 1881. The death-rate, calculated in the same manner as that used by the Registrar-General, who assumes a continuance of the same rate of increase of population as that which prevailed during the past decade, was 18·0 per 1,000. But if we compare the birth-rate during the census year with that of the present it will, I think, be apparent that this method of calculation is liable to error when applied to a locality like West Battersea which is subject to such great increase of population by immigration; thus in the census year, when we had the exact population on which to calculate our statistics the birth-rate was 37·5 per 1,000, or 5 per 1,000 less than that of the previous year, showing clearly that the method pursued could not be correct, and whilst giving us a rate which did not exist very materially affected the death-rate, which correspondingly also considerably declined. Taking, then, the census year's birth-rate as a guide to our present population the number of persons in this district would be 59,600, and the death-rate 16 per 1,000, in the place of 18, whilst the birth-rate, which is 41 per 1,000, would be reduced to the standard of 1880, viz, 37, which I believe to be about the actual state of things.

In reviewing the causes of death, especially in reference to those diseases over which the sanitarian has control it is satisfactory to note that they exhibit a diminution on the previous year, and are for the most

part confined to those which affect childhood, such as Scarlet Fever, Whooping Cough, and Infantile Diarrhœa. The former disease raged over the whole district, but mostly in the neighbourhood of Northcote Road, and the spreading of it was especially noticeable amongst those children who attended the Board School in that district. The managers of the latter, as also those of other schools were communicated with, and they rendered us every assistance in their power by making careful enquiry in reference to all absentees, by at once refusing admission to the school of any children residing in an infected house, and notifying the fact to the Inspector. These with other means, no doubt had the effect of materially arresting what was a most alarming epidemic. At one time the absentees from one school numbered nearly 50 per cent., the majority being affected with the disease, others being retained at home through fear of contagion. This affords another instance of the danger which exists in massing large numbers of children together, and the benefits accruing from an early knowledge of the existence of infectious disease.

In the middle of the year a serious and alarming outbreak of Typhoid Fever occurred on Clapham Common, and on the complaint of Mr. Caine, M.P., a minute inspection of the infected houses was made. On a subsequent occasion an interview was held with Dr. Parsons, Local Government Board Inspector, at which the Chairman of the Board, the Medical Officers of Health, and the Surveyors for Battersea and Clapham were present; the following report was submitted to the Inspector:—

To the Board of Works for the Wandsworth District.

Typhoid Fever on Clapham Common.

GENTLEMEN,

In consequence of a copy letter received from Mr. Corsellis and forwarded to him by the Local Government Board, which they had received from Mr. W. T. Caine, M.P., No. 1, the Terrace, Clapham Common, alleging a serious outbreak of Typhoid Fever in that

neighbourhood and giving list and addresses of cases and requesting report thereon, Ihave to observe that five cases have occurred in this sub-district, viz.:—Three at Mr. Andrea's, Frankfort House, Clapham Common; one at Miss Scriven's, Graham Lodge, Clapham Common; and one at Mr. B. Field's, Clapham Common, the history of which is as follows:—

With respect to the three cases, all children, aged 12, 6 and 4 years, at "Frankfort House," two of them on June 16, apparently quite well, went for a time to Bell House, whilst the third proceeded to Switzerland with her parents. On June 23, just a week after leaving, the two at Bell House and the third on her way to Switzerland were attacked with Typhoid Fever.

The case at Miss Scriven's, Graham Lodge, was that of a servant aged 23 years. Miss Scriven did not know the exact date when the disease made its appearance but thought about four weeks back, which would exactly correspond with the occurrence of the disease in the above cases.

The third case, that at Mr. B. Field's, was a young lady aged 13 years and who fell ill on June 22, one day before the others.

It is a curious fact that the above five cases should have manifested themselves within twenty-four hours of each other and would point to the probability that each must have been exposed to the fever poison at or about the same time.

In conjunction with Mr. Richards, Inspector of Nuisances, I have made a most minute and careful inspection of the Houses and surroundings in which these cases occurred with the following results.

Frankfort House.—The closets are of the most approved kind, the overflow pipes from the cisterns and bath emptying into the open air. The sinks are trapped by patent traps. The House is drained into the main sewer by a 9-inch pipe. The main sewer itself being clean and free from deposit.

Graham Lodge.—The Sanitary condition of this house was found in the same satisfactory state as the above; it is drained into the main sewer, which is clean and had two inches of sewage passing along it.

Mr. B. Field's.—The Sanitary fittings to this house are all of approved principle, but the overflow pipes from the cisterns and waste pipes and from the bath room are all built in the walls, which prevented our tracing them completely; a defect was found in traps to butler's and kitchen sinks which are being repaired. It is drained into the Main Sewer.

The occupants were questioned as the occurrence of any objectionable smells in the houses, and there was not a single complaint, and neither did we observe any ourselves.

There is a pump at Miss Scriven's, the water being filtered before used for drinking. A sample has been submitted to Dr. Muter for analysis.

We also inspected the surrounding premises which are laid out as gardens, the greater part being grass.

After careful and minute inspection of the houses and their surroundings we failed to discover anything which could be conducive to or be a means of generating Typhoid Fever.

The simultaneous manner in which these persons were attacked with the disease and residing as they do some distance apart from each other would cause one to look for a general means of conveyance of the Fever germs.

Having eliminated any connection of the disease with the houses and their surroundings one must look further for a probable cause.

I find that all these persons were supplied with milk from the same dairy.

At "Frankfort House" the children drank from 10 to 12 pints daily.

At "Graham Lodge" the cook, the person attacked, was in the habit of taking milk for her supper.

At Mr. Field's the person attacked drank freely of the milk whilst it was refused by others in the house, owing to the peculiar taste and smell which it had about a week before the disease appeared and they are all quite well.

This information was communicated to me by Mrs. Field.

Whether the milk was the means of conveying this disease or not it is impossible to say, but it certainly is a strange coincidence, and more especially when we find that 14 recorded cases in the adjoining sub-district of Clapham were supplied with milk from the same dairy.

The dairy from which the milk was supplied has been in existence for 25 years, portions of the milk being from cows on the premises and some from farms at Axminster.

I think we must look on this matter as one of those accidental circumstances, which we feel sure has existed but which must be very difficult to discover.

An enquiry has been made at each house on the Common in this sub-district, and no other case has been discovered.

A Report on the Dairy will be presented in conjunction with the Officers of Clapham, in which District it is situated.

(Signed) JOS. OAKMAN,
Medical Officer of Health for Western Battersea.

The Priory,
High Street, Battersea.

July 20, 1882.

The investigation resulted in a Report from Dr. Parsons, in which he attributed the outbreak of the disease to the milk supply.

Mortality.—The total number of deaths returned as having taken place in this sub-district was 1,222—615 of males and 607 of females, the former being 8 in excess of the latter. Besides the above number 1 death was returned without age or sex and is not included in the total. In 1881 1,195 were returned, there is therefore an increase of 27 on that year. Of the 1,222, 259 occurred in public institutions, viz., 248 in the Infirmary, 10 in the Bolingbroke Hospital, and 1 in St. James' Industrial Schools. Of the deaths in the Infirmary, 115 belonged to Battersea as a whole, leaving 133 to be distributed amongst the other parishes forming the Union. The 248 deaths in the Infirmary are 32 in excess of the previous year, when 216 took place. This excess is two above the increase of the year's mortality as compared with 1881, so that with respect to the out-door district it may be said that the mortality has continued about the same.

The 115 belonging to Battersea as a whole have been taken into account when calculating the death-rate of the whole parish.

Deducting the 248 Infirmary deaths 974 will be the correct number for this out-door sub-district.*

In the Bolingbroke Hospital, which has now become one of our local institutions and is doing excellent work and supplying a want long felt, 10 deaths occurred; these deaths are included in the general calculations.

The deaths of 51 illegitimate children were registered during the year.

The number of deaths registered in each quarter of the year was as follows :—

First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.
315	264	277	367

* Out-door with reference to Infirmary.

Death-rate.—The death-rate calculated on the population in June, 1882, according to the Registrar-General's method was 18·0 per 1,000 or 1· per 1,000 less than that of the previous year.

Total deaths from all causes, including all deaths in the Infirmary, in the respective years were—

1873	1874	1875	1876	1877	1878	1879	1880	1881	1882
674	689	856	854	820	908	1002	1010	1195	1222

The deaths in the Infirmary were 248.

The death-rates per 1,000, *excluding Infirmary deaths and its population, were—*

1873	1874	1875	1876	1877	1878	1879	1880	1881	1882
17·6	17·2	20·2	19·5	17·1	18·5	20·0	16·8	19·0	18·0

Birth-rate.—The number of births registered were 2,232, 1,165 being males and 1,067 females; the males as usual exceeding the females; this gives a rate of 41 per 1,000 or nearly 4·0 per 1,000 more than that of the census year, when the actual population was accurately known. This matter has been referred to at the commencement of this report.

The births are in excess of those of the previous year by 129.

The number of births registered in each quarter of the year was as follows:—

First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.
517	563	580	572

Natural Increase.—The above number of births are 1,258 in excess of the deaths, and constitute the year's natural increase.

The following table shows the causes of all deaths, classified according to age, sex, and social position, which have taken place in this Sub-district during the year:—

STATISTICS OF MORTALITY.

BATTERSEA WEST.	Total Deaths from each Class of Disease &c., in the Sub-District.	Sex.		Age.									Social Position.			
Population (Census) 1881 ... 50,108																
Official papulation in middle of 1882 53,807																
Area in acres ... 1,108																
DISEASES And other causes of death.		Males.	Females.	Under 1 year.	From 1 to 5 years.	From 5 to 10 years.	From 10 to 20 years.	All under 20 years.	At 20, and under 40 years.	At 40, and under 60 years.	At 60, and under 80 years.	80 years and upwards.	Nobility and Gentry.	Professional Class, Merchants, Bankers, &c.	Middle and Trading Class, Shopmen, Clerks, &c.	Industrial and Labouring Classes.
Classes :—																
1. Zymotic — Small Pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1. Zymotic — Measles	31	14	17	5	26	...	...	31	...	...	...	...	...	...	8	23
1. Zymotic — Scarlatina	35	17	18	2	22	9	1	34	1	...	...	...	...	1	5	29
1. Zymotic — Diphtheria	4	2	2	...	1	3	...	4	...	...	...	...	...	...	2	2
1. Zymotic — Croup	12	9	3	1	10	1	...	12	...	...	...	...	...	...	3	9
1. Zymotic — Whooping Cough	47	24	23	19	25	3	...	47	...	...	...	...	1	...	12	34
1. Zymotic — Typhus & other Fevers	14	6	8	...	2	1	2	5	7	1	1	...	...	...	2	12
1. Zymotic — Erysipelas	9	5	4	1	1	...	1	3	1	4	1	...	...	...	...	9
1. Zymotic — Metria, Childbirth	3	...	3	...	...	...	...	...	3	...	...	...	...	...	1	2
1. Zymotic — Carbuncle	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1. Zymotic — Influenza	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...
1. Zymotic — Diarrhœa & Choleraic Disease	39	15	24	29	6	...	...	35	...	2	2	...	...	...	6	33
Totals of Zymotic Class	194	92	102	57	93	17	4	171	12	7	4	...	1	1	39	153
2. Tubercular	198	99	99	72	13	3	10	98	50	43	7	...	...	1	32	165
3. Of Brain, Nerves, &c.	173	82	91	35	28	4	4	71	15	32	48	7	5	2	39	127
4. Of the Heart, &c.	83	36	47	...	2	...	3	5	16	27	32	3	1	...	16	66
5. Of Respiratory Organs	272	156	116	76	64	4	4	148	23	35	52	14	3	2	52	215
6. Digestive Organs	52	25	27	7	4	...	1	12	6	15	17	2	2	1	16	33
7. Urinary Organs	21	13	8	...	1	1	2	4	4	4	9	...	1	1	4	15
8. Of Organs of Generation	14	1	13	...	...	...	...	...	5	7	2	...	2	1	4	7
9. Joints and Bones	12	4	8	1	1	2	1	5	2	...	4	1	...	1	3	8
10. Skin	6	4	2	5	...	...	...	5	...	1	...	...	...	1	...	5
11. Premature Birth, Low Vitality, Malformation, &c	78	43	35	78	...	...	...	78	...	...	...	...	...	...	9	69
12. Dropsy, Cancer, and of Uncertain Seat	52	22	30	4	3	1	1	9	5	14	23	1	...	1	10	41
13. Age	37	14	23	...	...	..	...	...	...	...	17	20	...	...	15	22
14. Violence	30	21	9	10	3	1	1	15	6	4	3	2	...	...	4	26
15. Not specified	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	1222	612	610	345	212	33	31	621	144	189	218	50	15	12	243	952

* This table includes all deaths in the Infirmary of the Union, which were 248 in number.

Zymotic Mortality.—The deaths from this class of disease were 194, being 4 less than those of the previous year. The greatest fatality was from Whooping-Cough, Measles, and Scarlet-Fever. In comparison with 1881 Whooping-Cough shows an increase of 16, Scarlet-Fever of 10, and Fevers of 4, whilst Measles are less by 20.

The fatal cases of Fevers were 14, classified as follows: Typhoid, 11; Typhus, 1; Low Fever, 1; Febricula, 1. One of the Typhoids took place in the Infirmary, admitted from Putney.

Besides the above there were two deaths from Childbirth Fever, both in the Infirmary; this outbreak was promptly suppressed by the very efficient means adopted by the Medical Officer. The disease itself is at all times most alarming, and more so when occurring amongst those who seek the shelter of our Infirmaries.

Of the 194 deaths, 95 were males and 99 females. Fifty-seven were under 1, and 93 from 1 to 5 years of age. Thus we see that 150, or three-fourths of the whole, were under 5 years of age, and but 23 from 20 to 80 and upwards.

Zymotic Diseases.—The following table contrasts all deaths from Zymotic causes during the past 10 years.

	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882
Small Pox	1	0	0	3	13	9	2	0	4	1
Measles	11	8	11	35	8	34	43	8	50	30
Scarlatina	3	5	48	20	8	4	55	30	25	35
Diphtheria	3	5	7	5	2	3	7	3	9	4
Quinsy.....	0	0	0	0	0	0	0	0	0	0
Croup	6	16	5	6	5	10	8	1	3	12
Whooping Cough	24	30	20	32	18	36	11	23	31	47
Typhus, &c.....	22	15	14	10	25	15	27	10	10	14
Erysipelas	4	4	9	0	3	4	2	3	7	9
Metria	4	12	6	5	3	1	2	7	6	3
Carbuncle	0	0	0	0	0	0	0	0	0	0
Influenza	0	0	0	0	0	0	0	0	0	0
Diarrhœa and Cholera	37	43	35	43	22	41	17	61	53	39
Totals...	**115**	**138**	**159**	**168**	**107**	**157**	**174**	**146**	**198**	**194**

The death-rate from this class of diseases was 3·6 per 1,000 of the population, exactly the same as that of last year.

Non-Zymotic Diseases and other Causes of Death.—These diseases collectively are 31 above those of the previous year. In all 1,028 were returned, the principal causes being Diseases of the Respiratory Organs, 272; by Bronchitis, 151; Pneumonia, 69; and other diseases, 121—Brain and Nerves, 173; Heart, 83; Digestive Organs, 52; Cancer, 25; Urinary Organs, 21; Age, 37; Premature Birth and Low Vitality, 78; Violence, 30; Syphilis, 6.

From the Tubercular class 108 were returned; by Phthisis, 121; Atrophy, 69; Scrofula, 2; and Hydrocephalus, 6. Of the Phthisical cases 21 were under 20; 50 between 20 and 40; and 43 between 40 and 60 years of age. Thus it will be seen that the period of life most prone to this disease is from 20 to 60.

The most noticeable increase in this class of diseases is that of Premature Birth and Low Vitality, no less than 78 being returned against 37 in the year preceding.

Of the 1028 deaths, 520 were males, and 508 females, 407 were under 5 years of age, 450 inclusive under 20, and the remainder from 20 upwards. Six ranged from 91 to 94, four being females and two males, the eldest as usual being a female, whilst, if we go to the opposite extreme, the duration of life was reckoned by hours in 17 instances and by days in 59.

The following Table contrasts all deaths from non-Zymotic causes, during the past ten years.

	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882
Tubercular, including Phthisis	106	113	148	149	172	143	165	196	210	198
Of Brain, Nerves &c.	100	115	130	119	148	137	136	117	147	173
Of the Heart, etc.	34	31	37	49	55	53	56	72	94	83
Of the Respiratory Organs, excluding Phthisis	156	151	197	160	124	204	260	215	266	272
Of Digestive Organs	11	23	27	19	37	27	27	47	59	52
Of Urinary Organs	4	6	10	13	14	10	20	15	26	21
Of Organs of Generation	6	3	7	8	8	3	9	9	14	14
Of Joints, Bones &c.	0	4	8	4	1	2	2	3	15	12
Of Cancer	14	10	2	23	22	23	14	22	21	25
Premature Birth Low Vitality, Malformation, &c.	23	26	37	30	30	31	36	70	37	78
Of Uncertain Seat	50	27	39	37	25	29	17	36	27	27
Age	51	22	39	53	47	58	57	35	31	37
Violence	4	15	15	18	23	20	13	23	40	30
Syphilis	0	6	6	4	7	11	16	4	10	6
Totals	559	552	702	686	713	751	828	864	997	1028

Inquests.—There has been a considerable decrease in the number of Inquests held during the year as compared with the previous—but 39 being held, as against 63—of the 39, 24 were on the bodies of males, and 15 females. The verdicts were as follows:—

From Accidental Causes	20
From Natural Causes	14
Suicides	3
Found Drowned	1
Not Specified	1
	39

Of the accidental causes 10 were those of infants suffocated when in bed with their parents, 1 in a tub of water, 2 by fire, and one by drinking hot tea; 5 were run over on the railway, and 1 by a cab.

The suicides were respectively :—

2 by Poison
1 by Hanging

The special fact calling for notice in the above is the number of infants suffocated in bed. Parents should know how dangerous it is to feeble infants to sleep with them; for even if they are not smothered, the breathing of vitiated air which exists under the bedclothes is highly injurious.

Besides the above cases on which inquests were held 25 cases of sudden death, mostly the subjects of chronic disease, were submitted to the Coroner for his decision whether enquiries should be held or not. In many of these cases he instructed the Medical Officer of the district to examine the body and report to him. This method is far more satisfactory than the old one of registering them as not certified, as the Registrar may see fit, and very considerably lessens the facility for the disposal of persons which previously existed.

Deaths not Certified.—Six only were so returned, and were of infants who evidently had very little vitality at birth, their ages having been

2	...	...	5 days
2	...	...	2 days
1	...	...	30 hours
1	...	...	11 hours

all died of Convulsions, and the mothers were attended by midwives.

Social Position.—The per-centage of deaths in relation to social position was as follows:—

Nobility and Gentry	1·2
Professional	1·0
Middle and Trading	19 8
Labouring	78·0
	100·0

Disease and Mortality amongst the Union Poor.—The number of cases was 331, 138 being males, and 193 females. On reference to Table VI., Appendix, will be found the nature of the various diseases.

Of the above cases 23 died, giving a death-rate of 6·9 per cent.

Sanitary Matters.—Reference to the abstract at the end of this Report, taken from the Inspector's daily report book, will show that the same activity has prevailed in respect to inspections and nuisances as in former years. The large number of 2104 houses have been inspected, and 298 first notices served, and 37 second to remedy sanitary defects; by no means a large number when the class of property and persons who occupy it are considered. There is a considerable decrease in the number of houses disinfected after Small Pox, the numbers being 8 against 67, whilst Fevers generally show an increase as 72 against 64. Orders of the Board and summonses are in excess of last year, owing to the action taken for the removal of pigs. With respect to the latter much progress has been made; by the Board's order, 38 places dealing with 650 pigs were declared to be unfit places for the keeping of swine, and notice served to discontinue the same: of this number 19 were summoned, when, after several attendances at the Police Court, fines were inflicted by the magistrate, varying from 20s. to 60s. each, for disobeying the order. Against this decision Messrs. Tucker & Harwood, of George Street, York Road, appealed at the Surrey

Quarter Sessions, Newington, when, after a patient hearing and evidence given by your Officers, the appeal was dismissed. As this is the second appeal which has failed, it may reasonably be hoped that no further trouble will be experienced in ridding the district of that which cannot be otherwise than a nuisance to the large number of persons who now inhabit it.

House to house inspection has brought to light many defective drains, the large number of 147 having been dealt with, and so long as builders are allowed to carry out the drainage of houses without authoritative supervision, we may expect to continue to find cases like the following, which speak strongly as to the necessity of some legislation on the matter.

Inspector's report book:

No. 28, Northcote Road.
October 18*th*.

On the drain being opened up, a foot of water and sewage was found underneath the floor arising from the careless way in which the drain had been constructed through the house. At one point through a broken pipe having been used a space of six inches existed between the two pipes and simply covered with a loose brick, at another point a 3-inch pipe had been inserted by cutting a hole in the main pipe and pushing it in—it was this which caused the stoppage.

Ardleigh House,
Sarsfield Road.

Upon notice being given and the drain opened up, it was found that two pipes in the drain had been left four inches apart with a piece of wood laid across to prevent the earth getting in.

Forfair House,
Balham Park Road,
June 2*nd*.

Offensive smell in upper part of house. On inspecting the Sanitary arrangements of the house it was found that the overflow and waste pipes from the Bath and Lavatory emptied nto the Catch Trap of upstairs Water Closet thereby acting as a ventilating pipe and dispersing the effluvia over the whole house.

In the early part of the year complaints were made by persons residing in the York Road and neighbourhood of an offensive smell which was found to arise from hot spent lime which had been used for Gas purifying being deposited on the Fulham marshes.

The Fulham District Board of Works was communicated with and samples of the lime were taken. The nuisance not again appearing no further action was taken.

In May the Inspector made a thorough inspection of the bakehouses in the district. They were all found, with two exceptions, in fairly good condition, and lime-whiting generally carried out. In the two cases refered to one was a bed-room in communication with the bakehouse, the use of which was at once discontinued, and in the other a defective drain was remedied.

The Cow and Slaughter-houses were all inspected, and the licenses renewed.

Abstract of Sanitary Work carried out in Western Battersea during the Year ending

December 31*st*, 1882.

Number of houses inspected	2104
Number of 1st Notices served	298
Number of 2nd Notices served	37
Number of houses disinfected, and where necessary cleansed after Small Pox	8
Number of houses disinfected, and where necessary cleansed after various kinds of Fever	75
Defective drains cleansed and repaired	147
Cesspools abolished	3
Accumulations of manure removed	17
Dust-bins provided...	81
Defective apparatus to water-closets repaired	72
Water supply added to closets	60
Cisterns provided or repaired	41
Covers to cisterns provided	51
Dilapidated closets repaired	25
Foul and offensive closets cleansed	4
Water supply added to houses	6
Dilapidated houses cleansed and repaired	21

Overcrowding abated	7
Pig nuisances removed	40
Obstructions on footpath removed (building materials, &c,) ...	9
Orders of the Board obtained	56
Summonses	24
Dangerous steps or coal plates altered	8
Urinals cleansed	5
Sweeping trade refuse in street (abated)	13
Destroyed, 8 rabbits and 1 hare	

It is by the immediate attention given to all complaints and the systematic supervision under which the sub-district is placed that we are enabled to keep it in as good a sanitary state as possible and so secure to the persons who reside in it those conditions which are most favourable to their welfare.

In concluding this report I have to express my continued satisfaction at the way in which Mr. Richards, Inspector of Nuisances, performs his duties, and the great assistance he is always ready to render. It is much to his credit that he has obtained his certificate from the Sanitary Institution of Great Britain, qualifying him in Sanitary Science.

JOSEPH OAKMAN,

Medical Officer of Health for West Battersea.

CLAPHAM.

The population of this sub-district, as enumerated at the Census of 1881, was 36,380. Assuming, according to the mode of calculation employed by the Registrar-General, that it has increased at the same rate since that period as it had done previously, it will have amounted, at the middle of the past year, to 37,502.

Although so short a period has elapsed since the Census, there is evidence, derived from the number of new houses which have been erected and occupied, that a greater increase has taken place than that determined according to the official method of calculation. With increase of population comes, what is less satisfactory, increased density of population. At the Census of 1871 the number of inhabitants was in the proportion of 22 persons to an acre; now it represents 30 persons to an acre. Notwithstanding this increase in the density of the population, we have not as yet suffered from its usual consequences in the form of a greater amount of disease and a higher mortality.

The following brief but comprehensive Table shews at a glance the main features of the vital statistics of the year 1882.

Years.	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882
Marriages	236	257	284	243	313	319	282	303	329	349	339
Births ...	858	929	937	965	1029	1019	1095	1125	1082	1059	1081
Deaths ...	482	475	528	548	545	467	580	561	544	499	544
Excess of Births over Deaths ...	376	454	409	417	484	552	515	564	538	560	537

The high number of marriages and births and the low mortality therein recorded furnish a most reliable indication of the prosperity, as well as of the satisfactory condition of the health of this sub-district.

Marriages.—The number of marriages (339), although not so high as in 1881, are much higher than in any of the preceding years.

Births—Birth-rate.—The number of births fluctuate from year to year. They were most numerous in 1879; in that year the number was 1125, the highest of any; in the past year they numbered 1081, 530 males and 551 females. This number is higher by 22 than in the preceding year, and yields a birth-rate of 28·8 per thousand. In nearly all my annual reports the female births are shewn to be much nore numerous than the males; in the year under review, 1882, they number 21 more; this disparity is possibly due to the circumstance that the male infant is more exposed to the various accidents of childbirth. The natural increase, 537, the result of the excess of births over deaths, is not so large as it was during the last three years, but is equal to an addition to the population of 14·3 per thousand per annum.

Death-rate.—In the course of the year under report, the total number of deaths registered was 544—males 263, females 281—and, when calculated by the mean population, as usual in the middle of the year, will give this sub-district a death-rate equal to 14·5 per thousand of the total population.

In the following mortality table, which constitutes a very lucid annual report within itself, may be seen all the causes of death, with the sex, age, and social position of the deceased, registered during the year 1882.

STATISTICS OF MORTALITY.

CLAPHAM. Population (Census) 1881... ... 36,380 — Official Population in middle of 1882 37,502 — Area in Acres, 1,233. — DISEASES And other Causes of Death.	Total Deaths from each Class of Disease, &c., in the Sub-District.	Sex.		Age.									Social Position.			
		Males.	Females.	Under 1 year.	From 1 to 5 years.	From 5 to 10 years.	From 10 to 20 years.	All under 20 years.	At 20 and under 40 years of age.	At 40 and under 60 years of age.	At 60 and under 80 years of age.	80 years and upwards.	Nobility and Gentry.	Professional Class, Merchants, Bankers, &c.	Middle & Trading Class, Shopmen, Clerks, &c.	Industrial and Laboring Classes.
Classes :—																
1. Zymotic — Smallpox ...	1	1	...	...	...	...	...	...	...	...	1	...	...	...	1	...
Measles ...	15	6	9	5	9	1	...	15	...	...	...	...	...	1	2	12
Scarlatina...	26	10	16	2	19	4	...	25	1	...	...	...	...	...	6	20
Diphtheria .	4	1	3	...	2	...	1	3	1	...	...	...	1	1	1	1
Croup	5	3	2	1	3	1	...	5	...	...	...	...	...	...	3	2
Whooping Cough ...	17	6	11	6	10	1	...	17	...	...	...	...	...	...	...	17
Typhus, &c.	7	1	6	...	3	2	...	5	2	...	...	...	...	...	3	4
Erysipelas ..	1	1	..	1	...	...	...	1	...	...	...	...	...	...	1	...
Metria, Childbirth	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	1
Carbuncle...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Influenza ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa ...	4	3	1	4	...	...	...	4	...	...	...	...	...	...	3	1
Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals of Zymotic Class	81	32	49	19	46	9	1	75	5	...	1	...	1	2	20	58
2. Tubercular.....	15	9	6	4	5	1	...	10	4	1	...	...	1	...	5	9
3. Of Brain, Nerves, &c.	65	35	30	19	11	2	...	32	3	16	14	...	5	6	16	38
4. Of the Heart, &c. ...	47	18	29	...	...	3	2	5	1	21	18	2	2	7	14	24
5. Of Respiratory Organs	145	75	70	27	20	3	4	54	30	31	22	8	7	7	40	91
6. Of Digestive Organs	34	17	17	4	2	1	1	8	3	11	11	1	5	5	10	14
7. Of Urinary Organs .	16	12	4	1	...	...	...	1	4	4	6	1	...	3	5	8
8. Of Organs of Generation	1	...	1	...	...	...	...	...	...	1	...	...	...	...	1	...
9. Of Joints, Bones, &c.	9	3	6	3	2	...	1	6	1	1	1	...	...	3	3	3
10. Of Skin	1	1	...	1	...	..	...	1	...	...	...	...	...	1	...	...
11. Premature Birth, Low Vitality, Malformation, &c.....	34	16	18	34	...	...	...	34	...	...	...	...	...	1	6	27
12. Of Uncertain Seat ..	45	21	24	12	5	2	1	20	8	10	7	...	3	3	15	24
13. Age....	37	15	22	...	...	...	...	...	...	...	20	17	6	2	14	15
14. Violence	11	9	2	3	1	...	2	6	1	1	2	1	1	1	5	4
15. Not Specified.....	3	...	3	...	...	...	...	...	...	2	1	...	...	...	2	1
Totals	544	263	281	127	92	21	12	252	60	99	103	30	31	41	156	316

Epidemic Death-rate.—The followimg table exhibits the deaths from the seven principal epidemic diseases; they are so placed that they may be compared with the corresponding numbers of the ten preceding years. The deaths from these diseases during the past year were 74, and yield a percentage of 13·6 out of a total of 544 deaths, or an annual death-rate of less than 2 per 1,000 of the estimated population.

Years.	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882
Small-pox	14	—	—	2	14	12	3	—	2	7	1
Measles ...	30	11	20	3	13	5	23	17	19	10	15
Scarlatina	6	2	33	22	13	4	12	12	21	15	26
Diphtheria	3	3		6	—	—	3	1	3	3	4
Whooping-cough ...	25	14	15	17	17	12	29	25	25	13	17
Fever, &c.	11	10	6	2	5	4	5	9	4	3	7
Diarrhœa	39	25	27	22	24	18	26	17	36	20	4
& Cholera	—	—	—	—	—	—	2	—	2	—	—
Totals ...	128	65	105	74	86	55	103	81	112	71	74

In the early part of the past year there were seven deaths registered from typhoid fever; a glance at the above table will show that typhoid fever has always been present in this sub-district, indeed more in former than in later years. A resident occupying a first-class house had fever in his family, and suspected it came to him by means of the milk; others who got the fever in their families thought the same; but in all these cases where a thorough examination was made of the premises, it was found that the latter were exceedingly defective. The first case occurred in a first-class house on Clapham Common, where, after a searching examination, no defect was found until the sinks, drains, and sewers were

opened, when near to the house was found an offensive cesspool overflowing with night soil, with which also the drains were partially blocked up, and several cart loads of night soil were removed. Here was a sufficient means of poisoning not only a family but a district with fever. The second case examined was a large house, the basement was found dilapidated, the drains and flooring burrowed and infested by rats, admitting sewer gas freely. A fatal case occurred in this house, evidently caused by sewer gas. In all houses where fever has occured the sinks, drains, and sewers, should be opened, cleansed, and flushed, and the ventilation of the house, drains, &c., made perfect, especially when, as in this Sub-District, houses stand on a much higher level than the main sewer.

Ages of deceased persons.—The mortality as it occurs at the two extremes of life furnishes a very reliable test of the health and sanitary state of the sub-district. The diminution of our infantile mortality and the increase in the senile mortality represented by the following figures may be accepted as a sure indication of increased prolongation of life in the sub-district. Of infants under one year 127 died, from one to five years 92, and from five to ten years 21, making a total of 240 deaths under ten years of age, which gives a percentage of 44·1 of our total deaths during the year. At the other extremity of life, I find that as many as 133 persons, or upwards of 24 per cent. of all deaths, whose ages range from 60 to 90 years and upwards, died during the year. The greatest age attained at death was 96 years.

Social position of the deceased.—The proportional percentage of the deceased persons classified according to their social position may be seen in the following table:—

Nobility and Gentry	31	... 5·69	per cent.
Professional Class	41	... 7·53	„
Middle and Trading Class ...	156	... 28·67	„
Industrial and Labouring Class	316	... 58·08	„
Total number of deaths ...	544	... 99·97	„

Inquests and Uncertified Deaths.—As many as 23 inquests were held in the sub-district during the last year, and verdicts returned as follows:—In four cases the verdicts given shew that the deceased persons met with some injury that caused or expedited their death in an accidental manner. In seven cases, six were infants found dead in bed, supposed to be overlaid, the seventh a female was found dead in her room. In ten cases the verdicts given were "Death from natural causes," the deceased dying suddenly without medical assistance. There were two cases of suicide. There were only four instances of uncertified deaths, in each of which the coroner considered an inquest unnecessary.

Inquests:—

Accidental Deaths	4
Found Dead	7
Natural	10
Suicide	2
	23

Disease and Mortality amongst the Union poor.—In Table V., in the Appendix, it is seen that 443 new cases of illness amongst the Union or Out-door poor were duly attended to, many of them of great severity. In class I. under the heading "Zymotic,or epidemic diseases," there occured 153 cases, and but two deaths. No death resulted from small-pox or from scarlatina; these cases are sent to hospital as soon as possible. Under the other heading "other diseases" there were 290 new cases of illness and 18 deaths. Compared with the total population, the above 443 new cases of illness give a per-centage of 1·18, and compared with the total number of deaths the above 20 deaths give a percentage of 3·67.

Sanitation during the past year.—In Table VI. in the Appendix is shown the large amount of sanitary work done by the Surveyor and his two able Assistants, who

have from time to time examined almost every house in the parish, with a view of finding out any defective sanitary arrangements that existed, in order that they might at once be remedied. It may be noticed that 78 houses were disinfected after the occurrence of contagious diseases, and seven houses where they recurred after disinfection; in twelve houses the bedding was taken away, burnt, and new bedding supplied; 6,061 feet of new sewers and branch drains constructed, as well as many other necessary works carried out during the past year; three cesspools were abolished; it would be well that all the cesspools in the parish were abolished.

Cow and Slaughterhouses.—According to my annual custom, I visited all the cow houses in this district and examined them as to their capabilities of affording the necessary accomodation prescribed by law. In most cases I found the cows clean, the sheds well supplied with water, well drained, paved, and ventilated. In like manner, I examined all the slaughter houses and their appliances. Here also I found all the necessary receptacles prescribed by law in good order and everything in its place. With reference to the cows, I appealed to the owners, for their own interests, to afford sufficient space to each cow to stand up and lie down without pressing on its neighbours, or, better still, to have separate stalls, and to have them cleansed frequently.

JOHN MAC DONOGH,

Medical Officer of Health for Clapham.

PUTNEY AND ROEHAMPTON.

During the latter portion of the year 1882 an epidemic of Diphtheria appeared in this Sub-district, and added heavily to the mortality from Zymotic disease. Other diseases of this class were rather under the average in intensity, excepting Measles and Whooping Cough, which, in the early part of the year had considerable prevalence. The death-rate notwithstanding was not in excess of the average of this Sub-district.

Population.—The census made in April of last year gave us a population of 13,221 and if we regard the rate of increase as the same during the year and a quarter which has since elapsed as during the previous 10 years, the population in the middle of 1882 would be 13,689.

Births and Birth-rate.—A slight increase has taken place in the births, which were registered during 1882 over the numbers of the previous year. The number of births was 361, of which 187 were of males and 174 of females. Last year 340 births were registered, 185 of males and 155 of females. The birth-rate is 26·3 per 1,000. This is an increase upon the birth-rate of last year, but is under the average birth-rate of the sub-district. The birth-rate for London generally was 34·3 in 1882, and for the 28 largest towns in England 35·3, so that the birth-rate of Putney is, as usual, very low.

Deaths and Death-rate.—During the year of 1882, 208 deaths were registered, of which 111 were of males and 97 of females. This shows a substantial increase

upon the figures of previous years, especially upon those of last year, when the mortality was exceptionally low (167). The death-rate, however, was 15·1, and a glance at the table given below will show that this is our average death-rate. The death-rate for London generally is 21·4 per 1,000, and the 28 towns is 22·3, so that we have cause to congratulate the inhabitants of this sub-district upon possessing a low mortality in spite of adverse circumstances.

YEARS.	Births.	Birth-rate.	Number of Deaths from all Causes.	Death-rate.	Rate of Natural Increase.
1872	279	28·4	144	14·6	14·0
1873	320	30·6	125	13·3	18·3
1874	290	27·8	156	15·0	12·8
1875	292	27·3	167	15·7	11·6
1876	300	27·3	143	13 0	14·3
1877	351	31·1	170	15·0	16·0
1878	338	29·1	186	16·0	13·1
1879	327	27·4	179	15·0	12·2
1880	348	27·3	177	13·6	13·2
1881	340	25·5	167	12·5	12·9
1882	361	26·3	208	15·1	11·1

The births exceeded the deaths by 163, which gives a natural increase of the population of 11·1 per 1,000.

The table which follows is, in an abridged form, the same as that employed by the Registrar-General, and also arranged according to the classification of diseases drawn up the College of Physicians of London, for use in certifying the causes of death. Some sub-classes, which appeared to me unnecessary, have been omitted, and others which I deemed useful in classifying the causes of death, adopted.

STATISTICS OF MORTALITY.

PUTNEY AND ROEHAMPTON. Population (Census) 1881 13,235. Official Population in middle of 1882 ... 13,689. Area in Acres 2,176.		Total Deaths from each Class of Disease, &c., in the Sub-District.	Sex		Age								Social Position			
DISEASES, And other Causes of Death.			Males.	Females.	Under 1 year.	From 1 to 5 years.	From 5 to 10 years.	At 10 and under 20 years of age.	At 20, and under 40 years of age	At 40, and under 60 years of age.	At 60, and under 80 years of age.	80 years and upwards.	Nobility and Gentry.	Professional Class, Merchants, Bankers, &c.	Middle & Trading Class, Shopmen, Clerks, &c.	Industrial & Labouring Classes.
Classes :— I. Zymotic	Small Pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Measles ...	13	8	5	4	8	...	1	...	...	...	...	...	1	1	11
	Scarlatina ..	4	2	2	...	2	2	...	...	...	...	..	...	...	..	4
	Diptheria ...	29	15	14	1	20	6	2	...	...	...	...	1	1	7	20
	Typhoid & Typhus Fever ...	4	2	2	...	1	...	...	1	2	...	...	...	...	1	3
	Remittent and other Fevers ...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...
	Puerperal Diseases ..	2	...	2	...	...	...	...	2	...	...	...	...	...	1	1
	Croup	2	2	...	...	2	...	...	...	...	...	...	...	...	1	1
	Whooping Cough ...	8	4	4	5	2	1	...	...	...	...	...	...	...	2	6
	Erysipelas...	1	...	1	...	...	...	...	1	...	...	...	...	...	...	1
	Diarrhœa, Dysentery, & Cholera	5	1	4	3	1	...	...	...	...	1	...	1	...	...	4
	Other Zymotic Diseases	1	...	1	...	1	...	...	...	...	...	...	...	...	...	1
Totals of Zymotic Class		69	34	35	13	37	9	3	4	2	1	...	2	2	13	52
II. Constitutional	Gout, and Rheumatism	4	3	1	...	...	...	...	1	1	2	...	1	...	2	1
	Cancer & other Tumours ..	6	1	5	...	...	...	...	...	4	2	...	2	1	...	3
	Tubercular...	12	8	4	2	2	...	...	7	...	1	...	...	1	3	8
III. Local	Nervous ...	33	21	12	4	4	2	2	4	4	11	2	6	5	10	12
	Circulatory	12	7	5	...	...	...	...	4	2	6	...	3	2	2	5
	Respiratory	29	12	17	12	9	...	1	...	2	4	1	1	...	9	19
	Digestive ...	15	9	6	2	1	2	1	2	2	4	1	1	...	6	8
	Urinary ...	6	1	5	...	...	...	...	2	1	2	1	1	1	3	1
	Generative	2	...	2	..	...	...	...	1	...	1	...	...	...	2	...
	Locomotory	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Integumentary	1	...	1	...	1	...	...	...	...	...	...	...	...	...	1
IV. Developmental	Premature Birth, Atrophy, &c ...	7	6	1	7	...	...	...	...	...	...	...	...	2	1	4
	Old Age ...	5	4	1	...	...	...	...	...	...	1	4	1	1	3	...
V.	Violence ...	7	5	2	1	...	1	...	2	2	1	...	...	...	...	7
	Totals	208	111	97	41	53	14	7	27	20	36	9	18	15	54	121

Zymotic Diseases.—An epidemic of considerable magnitude has occurred in this sub-district during the year 1882. No less than 29 fatal cases of Diphtheria were registered. From the following table it will be seen that this is the largest number of deaths from that cause we have had for at least 10 years.

Years.	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882
Small-pox	...	...	...	...	1	...	1	...	..	...	...
Measles ...	...	2	3	...	1	2	7	...	...	6	13
Scarlatina	7	...	...	...	3	6	...	3	1	8	4
Diphtheria	1	...	1	4	...	1	1	...	...	1	29
Whooping-cough ...	6	1	...	9	7	...	4	8	9	3	8
Typhoid&c.	...	2	...	...	...	4	3	2	4	1	4
Diarrhœa & Cholera	5	1	6	7	5	7	10	7	10	3	5
Totals ...	19	6	10	20	17	20	26	20	24	22	63
Percentage of Deaths from Epidemics to deaths from all causes.	13·1	4·8	6·4	11·9	13·2	13·0	13·8	11·2	13·5	13·17	30·1

Diphtheria appeared first at the Convent, Roehampton, in May and June resulting in 2 deaths. A month afterwards it appeared in Putney and caused 6 deaths in July, 3 in August, 6 in September, 5 in October, 3 in November, and 3 in December. The locality where it first appeared was Gay Street. The condition of the east side of that street had been frequently engaging our attention. The drain which ran at the back of the houses had a very slight fall, and the house drains connected with it were constantly

being choked and out of order. The old brick drain was taken up and a good sized pipe introduced. As far as I could discover, the cases were first noticed on that side of the street. From Gay Street it spread with tolerable regularity outwards from a centre—South Place, Stratford Grove, Seymour Row, Lifford Street, High Street, &c. But with the exception of one case at the Hill, one in Upper Richmond Road, one in Dyers Lane, and 2 in Upper Park Fields, all were confined to a small district, comprising the more crowded parts of the town, and abounding in *cul-de-sacs* and dead ends. No special source of communication could be traced. A number of the cases, of course, occurred among pupils in the Infant School, and to prevent bringing together children of such susceptible age, it was thought advisable to close the school for a short time. About the same time (September) a number of cases occurred in a group, and it was found that most of them belonged to a dame school. Opposite the window of the school a ventilating pipe of a drain was carried up a lamp-post and terminated exactly on a level with the window. This was at once removed. It was found that the sources of milk supply were very various. In many cases family or social relationships were found between the households, the children being actually brought into contact. In 4 cases more than one of the same family died, and in several instances the whole family was affected with the disease. The average ages of these fatal cases were a little over 4 years. In many of the houses serious sanitary defects were discovered, and the status of the houses was below the average in this neighbourhood. The locality was the most favourable to the development of epidemic disease which exists in this Sub-district, and it speaks well of the sanitary condition of surrounding streets that the disease did not spread far and wide. The class of persons affected was chiefly of the working class and small tradesmen.

At the beginning of the year Measles and Whooping Cough prevailed rather extensively. The distribution of the cases of epidemic disease during the year may be seen at a glance in the following table.

DISEASE.	1882			
	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.
Mean Temperature...	42°7	53°0	58°1	44°8
Small Pox	...	..	...	...
Measles	13	...	...	...
Scarlatina	2	2	...	...
Diphtheria	...	2	15	12
Whooping Cough..... ..	8	...	...	...
Diarrhœa	1	...	3	1
Fever	2	1	...	1
TOTAL...	26	5	18	14

Constitutional and Local Diseases.—The following table will explain the relative proportions of the subclasses of this group during the past 10 years, it will be observed how closely the figures approximate year by year, the different diseases holding very much the same positions numerically throughout the series. The reduction noted during the last few years in the tubercular class is still more marked in the present year. Diseases having an accidental origin (premature birth, violence, &c.) are more liable to fluctuation, and this year they are below the average.

	Years.	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882
C	Gout and Rheumatism	...	...	...	...	..	...	3	1	4	4	4
C	Cancer and Tumours	...	...	...	...	...	...	7	3	6	1	6
C	Tubercular	24	19	24	26	26	26	32	23	18	17	12
L	Nervous	20	26	39	23	26	29	28	34	33	21	33
L	Circulatory	14	13	8	13	6	8	12	13	13	14	12
L	Respiratory	26	21	30	36	23	29	37	42	27	24	29
L	Digestive	7	12	11	7	5	12	10	9	13	17	15
L	Urinary	5	4	3	8	7	11	2	4	6	2	6
L	Generative	...	2	...	1	1	2	...	1	...	2	2
L	Locomotory	1	1	...	1	1	2	...	...	...	...	...
L	Integumentary	...	...	...	...	...	1	...	2	1	1	1
D	Premature Birth, Atrophy, &c.	5	7	7	16	10	8	7	8	16	18	7
D	Old Age	3	3	6	11	8	8	7	5	9	6	5
V	—Violence	6	5	6	4	7	9	5	7	6	13	7
	(Other diseases)	13	3	12	1	1	3	...	...	...	...	...
	Totals	124	116	146	147	121	148	150	152	152	140	139

Ages of the Deceased.—The mortality among infants under 1 year, continues to decline. Forty-one deaths were registered under that age, or 19·2 per cent. of the total, the per centage for the last two years being 28·7 and 30·0 respectively. The mortality amongst persons of more advanced life, on the other hand is slightly

increased, the deaths of 45 persons, upwards of 60 years were registered—a per centage of 21·2. At the intermediate ages, the mortality of the year under review, has been very heavy, especially from 1 to 5 years. Amongst very aged persons, the deaths were not so numerous, 9 persons of 80 and upwards died during the year, and the preponderance, as usual, being towards the female sex, in the proportion of 6 to 3. The oldest was a woman of 90. The equable temperature of the year may account for the lower mortality among the aged.

Social Position.—The classes are somewhat irregularly divided in the year 1882.

Nobility and Gentry	8·3
Professional Classes, &c.	7 7
Middle Class	25·4
Industrial Class	58·6
	100·0

The usual proportion in this neighbourhood is better represented by a smaller number of the lowest and the highest classes, and an increase of the professional and middle classes.

Inquests, &c.—Eight inquests were held during the year, with the following verdicts :—

I. Accident—Fall, 1; Concussion, 1; Drowning, 1; Run over 1.
II. Natural—Apoplexy, 1; Epilepsy, 1.
III. Suicide—Cut throat, 1.
IV. Found drowned, 1.

Five deaths were referred to the coroner and certified by his direction as follows :—Diphtheria, Whooping Cough, Painter's Colic, Hæmorrhage, and "Found Dead." Two deaths were registered under the certificate of an unregistered medical man.

Sanitary Proceedings, &c.—A summary of these will be found at Table VI. Appendix.

ALEXANDER WALKER, M.D.

Medical Officer of Health for Putney and Roehampton.

STREATHAM,

INCLUDING

BALHAM AND TOOTING.

The public health in this Sub-District was exceedingly good during the year 1882, but the death-rate was slightly above the extremely low death-rate of the previous year. The rate of natural increase was a high one; there was a diminution in the mortality of infants under one year of age, and an increase in the number of deaths of persons who died at an advanced age.

There was, moreover, a marked decrease in the prevalence and fatality of infectious diseases, especially in those which more particularly claim the attention of the Sanitarian, in consequence of their highly contagious character and fatal tendency, as well as from the fact that they are more within the scope of Sanitary measures for their prevention and control.

The following statistics derived for the most part from an analysis of the Registrar General's Returns, afford satisfactory evidence of the truth of these remarks.

Vital Statistics.

Population.—The population of Streatham and Tooting in 1881 was 25,553, according to the census of that year. Calculated from these figures by the official method, the mean population in the middle of 1882, was 26,935.

Birth-rate.—The number of births registered during the year was 891, of these 470 were males and 421 females. The birth-rate calculated upon the total number of births and the foregoing estimate of the population was 33·0 per 1000 persons living during the year.

The excess of births over deaths was 550, thus yielding 20·4 as the rate of natural increase.

Death-rate.—There were 341 deaths registered during the year, 164 of males and 177 of females. The death-rate deduced from the whole of the deaths registered and the officially estimated population was 12·6 per 1000 persons living during the year. This extremely low death-rate – below even that of the healthiest rural districts—places this Sub-District in a high position from a sanitary point of view.

The following table shows clearly the cause of death, sex, age and social position of all persons whose deaths were registered during the year.

STATISTICS OF MORTALITY.

STREATHAM. INCLUDING TOOTING & BALHAM. — Population (Census) 1881 ... 25,553 — Official population in middle of 1882 26,935 — Area in Acres ... 3,465 — DISEASES. And other Causes of Death.	Total Deaths from each Class of Disease, &c., in the Sub-District.	Sex.		Age.								Social Position.			
		Males.	Females.	Under 1 year.	From 1 to 5 years.	From 5 to 10 years.	Under 20 years, including all under 10 years.	At 20 and under 40 years of age.	At 40 and under 60 years of age.	At 60 and under 80 years of age.	80 years and upwards.	Nobility and Gentry.	Professional Class, Merchants, Bankers, &c.	Middle & Trading Class, Shopmen, Clerks, &c.	Industrial and Laboring Classes.
Classes :—															
1. Zymotic — Small Pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1. Zymotic — Measles	5	2	3	...	4	1	5	...	...	..	...	...	...	1	4
1. Zymotic — Scarlatina	9	4	5	...	6	...	8	1	...	...	...	1	...	1	7
1. Zymotic — Diphtheria	4	1	3	...	3	1	4	...	...	...	...	...	2	1	1
1. Zymotic — Croup	4	...	4	2	2	...	4	...	...	...	...	...	1	...	3
1. Zymotic — Whooping Cough	9	5	4	2	7	...	9	...	..	...	...	...	1	...	8
1. Zymotic — Typhus and other Fevers	1	...	1	...	1	...	1	...	...	...	...	...	...	1	...
1. Zymotic — Erysipelas	2	...	2	1	...	...	1	1	...	...	...	...	2	...	...
1. Zymotic — Metria, Childbirth	3	...	3	...	...	...	...	3	...	...	...	1	1	...	1
1. Zymotic — Carbuncle	1	...	1	...	...	...	...	...	1	...	...	...	...	1	...
1. Zymotic — Influenza	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1. Zymotic — Diarrhœa & Choleraic Disease	2	1	1	1	...	...	1	...	...	1	...	...	...	1	1
1. Zymotic — Disease	1	...	1	...	...	...	...	...	1	...	...	...	...	...	1
Totals of Zymotic Class	41	13	28	6	23	2	33	5	2	1	...	2	7	6	26
2. Tubercular	34	16	18	3	10	1	16	14	4	...	...	1	3	7	23
3 Of Brain, Nerves, &c.	49	21	28	12	9	2	23	3	7	15	1	5	6	17	21
4. Of the Heart, &c.	32	16	16	1	1	1	3	5	7	13	4	7	9	4	12
5. Of Respiratory Organs	59	24	35	20	9	...	29	4	1	24	1	10	3	19	27
6. Of Digestive Organs	42	21	21	11	3	1	17	3	9	10	3	5	7	14	16
7. Of Urinary Organs	6	4	2	...	1	...	1	1	...	4	...	2	2	1	1
8. Of Organs of Generation	7	...	7	...	...	...	1	2	3	1	...	1	2	...	4
9. Of Joints, Bones, &c.	1	1	...	...	1	...	1	...	...	...	...	...	...	1	...
10. Of Skin	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11. Premature Birth, Low Vitality, Malformation, &c.	26	19	7	26	...	.	26	...	...	...	...	2	6	3	15
12. Of Uncertain Seat	7	4	3	1	1	...	2	2	1	2	...	...	1	2	4
13. Age	29	18	11	...	...	...	...	...	1	7	21	7	5	9	8
14. Violence	8	7	1	...	..	1	3	2	...	3	...	...	...	1	7
15. Not Specified	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...
Totals	341	164	177	80	58	8	155	41	35	80	30	42	51	84	164

Zymotic Diseases, their prevalence and mortality.

The total deaths in this class were 41—13 of males and 28 of females. They give a percentage of 12·0 upon the number of deaths from all causes during the year, as against 14·6 in the previous year, and a rate of 1·52 per 1000 of the population.

The following Table contrasts all the deaths which resulted from the seven principal epidemic diseases during the past ten years :—

DISEASE.		1873	1874	1875	1876	1877	1878	1879	1880	1881	1882
Seven principal Epidemics.	Small Pox	...	2	..	...	4	1	...	...	...	
	Measles	3	9	2	2	2	11	2	1	3	5
	Scarlatina	1	3	4	4	1	2	5	34	13	9
	Diphtheria	...	1	3	7	3	3	2	7	1	4
	Whooping Cough	8	3	5	7	6	11	21	8	9	9
	Typhus, &c.	7	2	2	5	5	1	3	5	2	1
	Diarrhœa and Choleraic Disease ...	10	6	9	6	4	13	3	6	9	3
	Totals ...	29	26	25	31	25	42	36	61	37	31

This Table shows that 31 deaths resulted from the seven principal diseases in this class, as against 37 in the previous year, and present a marked contrast to the figures 61 in the year 1880. The number recorded this year is below the average of the nine preceding years, without correction for increase of population.

Examined more in detail we find no death from Small Pox, and as no case was sent into Hospital, nor any house disinfected after the disease by the Inspector of Nuisances, it may fairly be said that Small Pox was not present in the District during the year.

The deaths from Scarlet Fever declined from 34 in 1880, and 13 in 1881, to 9 in 1882 when only 5 cases were sent into Hospital and 25 houses disinfected after the Disease.

Measles contributed five, and Whooping Cough nine deaths.

From Typhus and Typhoid Fevers only one death arose.

Diarrhœa, Dysentry, and Cholera proved fatal in three cases only.

The deaths from all these Epidemic Diseases fell below half the average number of the previous nine years. Doubtless climatic conditions conduced to this result, the temperature throughout the year was equable, there were few of those sudden changes from hot to cold in the summer months which so often occur in this country; the rainfall was superabundant, flushing well the sewers and otherwise retarding evaporation and preventing the diffusion of noxious gases, but though these conditions might retard they would not arrest the spread of such diseases as Small Pox and Scarlet Fever, and these diseases have been suppressed in the case of Small Pox, and reduced to an ordinary amount in the case of Scarlet Fever by the diligent and persistent use of the Sanitary measures we have at our disposal, viz., isolation, vaccination, disinfection, fumigations, etc., and though these means have proved effectual, still, I think the end would have been attained sooner had we had a more rapid and easy way of getting infectious cases removed to special Hospitals. The present method is tedious and brings persons from infected houses into frequent contact with the general public, and this tends to the spread of disease. The subject is now receiving attention, which will I hope lead to improvement in this direction.

Other Diseases.—The Table given below contrasts all deaths from these diseases. Taken altogether, the number does not exceed, and with correction for increase of population, it is below the average of the last eight years; in some of the classes there was a marked diminution in the mortality, thus in Class 2, Tubercular diseases, there were 34 deaths, as against 38 last year, and this is below the average of the previous seven years; this class caused 9·9 per cent. of all deaths, as against 12 per cent. last year, and 16 deaths in this class are attributed to Phthisis pulmonalis, 5 being of males, and 11 of females.

The diseases in the Classes 3, 4, 5, 6, 11 and 13 caused respectively, and in order 14·9, 9·3, 17·3, 12·3, 7·6 and 8·5 per cent. of all deaths during the year, as against 13·4, 10·4, 15·5, 9·2, 6·3 and 8·2 per cent. in the previous year. In Class 5, diseases of the Respiratory Organs, in Class 6, diseases of the Digestive Organs, and in Class 13, Age, the average mortality was high. There was a diminution of mortality in Classes 2, 4, 9, 10, 11 and 14.

The following Table contrasts all deaths from non-Zymotic diseases during the past eight years:—

Years	1875	1876	1877	1878	1879	1880	1881	1882
Tubercular	34	31	23	30	32	38	38	34
Of Brain, Nerves, &c.	41	39	33	57	41	54	41	49
Of the Heart, &c.	20	18	33	31	34	17	26	32
Of Respiratory Organs	34	52	36	44	64	52	48	59
Of Digestive Organs	21	22	25	29	16	25	33	42
Of Urinary Organs	6	6	7	7	10	5	10	6
Of Organs of Generation	...	6	11	2	1	5	8	7
Of Joints, Bones, &c.	1	2	7	2	...	3	2	1
Of Skin	1	...	2	...	1	...	1	...
Premature Birth, Low Vitality, Malformation, &c.	14	14	15	17	19	37	29	26
Of Uncertain Seat	8	2	4	3	6	9	2	7
Age	20	23	14	17	12	25	20	29
Violence	6	9	5	3	13	11	9	8
Not Specified	2	1	...	...	...	...	...	...
Totals.	208	225	215	242	249	281	267	300

Age at Death.—Infant Mortality.—The total mortality in early life was below that of 1881, allowance being made for an increased population, and there was a diminution of 2 per cent. in the mortality of infants under one year of age, without any such correction, 23·4 per cent. of all deaths were of infants in the first year of life, 40·4 per cent. of children under five years of age, and 45·4 per cent. of persons under twenty years of age.

Senile Mortality.—The mortality at the other extreme of life was large; twenty-nine deaths were registered as being solely due to old age, but no less than 111 persons died at and upwards of 60, forming nearly a third of the whole mortality; of these 43 were 70 and upwards, 25 were over eighty, and 4 were aged respectively, 90, 92, 94 and 98.

Of the persons who died at and over 70, 40 were males and 32 females.

Sickness and mortality amongst the out-door poor of the parish.

Table V. in the Appendix gives the number of persons who were under treatment, the nature and extent of the sickness that prevailed, as well as the deaths that took place among the out-door poor of the parish, 169 new cases were treated during the year, the attendances on these cases does not include that given to permanent paupers.

In the Zymotic class there were 20 cases, as against 30 in the previous year, including 2 of Measles, 6 of Scarlet Fever, 5 of Whooping Cough, 4 of Diarrhœa, 2 of Typhoid Fever, and 1 of Erysipelas, with one death from Typhoid Fever, which took place in Stockwell Fever Hospital.

In the other classes there were five deaths.

The ratio of deaths to cases treated was 4·1 per cent.

Social Position.—The following Table gives the percentage of deaths in the various classes during the year :—

Nobility and Gentry...	42	= 12·35	Per cent.
Professional Class	51	= 14.93	„
Middle and Trading Class	84	= 24·64	„
Industrial and Labouring Class ...	164	= 48·08	„
Total deaths in 1882	341	100.00	

The percentage of deaths was over the average proportion in the higher classes, and below in the trading and industrial.

Inquests, Violent Deaths, &c.—Nineteen inquests were held with the following results :—

I.	Natural	Apoplexy	2	
		Heart Disease	1	
		Spasm of the Glottis	1	
		Syncope	1	
		Convulsions	5	
		Bronchitis	1	= 11
II.	Accidental	Crushed heads and mortal injuries by locomotives in transit ...	3	
		Decapitation on Railway	1	
		Fall from window	1	
		Concussion of the brain	1	= 6
III.	Suicidal	Drowning	1	
		Hanging	1	= 2
				19

Sanitary Proceedings.—Table VI. in the Appendix contains a summary of the principal sanitary works that have been carried out during the past year, upwards of 2,000 houses and premises were inspected, an increase of 300 upon the number recorded last year.

Thirty-two houses were disinfected, fumigated, and cleansed after the occurrence of infectious diseases, 27 houses were so treated after Scarlet Fever, 2 after Diphtheria, and 2 after Typhoid. And in no case was there a recurrence of the disease after these sanitary measures had been employed.

I beg to refer the reader to the Table VI. for the figures in respect of the new sewers and branch drains constructed during the year, and also for the figures relating to the abatement, removal or abolishment of nuisances and for the other Sanitary Works set forth therein.

The Cowsheds and Slaughterhouses underwent the usual annual inspection. They were all found in a satisfactory condition and the owners obtained a renewal of their licenses.

I may, in conclusion congratulate the inhabitants of Streatham and Tooting on the high Sanitary position of the Sub-District which has, I think, been fully shewn in this Report.

F. F. SUTTON, M.D.,

Medical Officer of Health for Streatham and Tooting.

WANDSWORTH.

The following statistics, derived as usual from an analysis of the Registrar-General's Returns and the Parochial Records of sickness and mortality, will be found on examination to reveal the occurrence in this sub-district, during the year 1882, of an unusually large amount of epidemic diseases, principally Whooping-Cough, Measles, and Diarrhœa, by which much loss of infant life was sustained. Notwithstanding the greater fatality from these diseases, and, as might be anticipated, the consequent increase in the total mortality, the latter will be seen to have but slightly exceeded the average amount.

Vital Statistics.

Population.—During the year 1882, the mean number of the population, estimated, according to the usual method, from the rate of increase that prevailed during the 10 years preceding the period of the last census, amounted to 29,031.

Mortality.—The number of deaths registered was 544; 261 of males and 283 of females. The mean annual number of deaths during the preceding 10 years was 445, so that, had the same rate of mortality been maintained during the past year, the number of deaths, allowing for increase of population, would have been 540; the deaths of the past year therefore, exceeded, the decennial average by 4. Of the total number, 105 occurred in the following public institutions: viz., in the Surrey County Lunatic Asylum, 89; in the Hospital for Incurables, 6; in St. Peter's Hospital, 3; in the Prison, 5; in the Royal Patriotic Asylum for Girls, 1; and in the Reformatory for Boys, 1. In addition, the deaths of 37 Wandsworth parishioners, who went into the Infirmary of the Union during the year were registered in Battersea, in which parish the Infirmary is situated.

Death-rate.—The death-rate of the past year, calculated from the foregoing estimate of the population and the number of registered deaths, corrected for institutions, was 17·49 per 1000 persons living at the middle of the year. This rate is 0·49 per 1,000 only, or less than 5 deaths in 10,000, above the healthiest of rural districts. Correction is made in the above calculation for the Surrey County Lunatic Asylum, St. Peter's Hospital, and the Hospital for Incurables; and the necessity for such correction arises from the circumstance that the inmates of these institutions are almost entirely derived from without the parish, undergo no natural increase and are subject to a high mortality; the amount of the latter (which formed 18 per cent. of all deaths during the past year) being sufficiently great to cause a death-rate, derived solely from the death register, to fluctuate with the mortality of these institutions, and therefore, fail to represent the *natural* death-rate of the sub-district. On the other hand, correction is also made for the deaths of Wandsworth parishioners who enter the Infirmary and the Metropolitan Asylum District Hospitals during the year and die there, and whose deaths, therefore, do not appear on the Register. The corrections referred to consist in the withrawal of the population and mortality of the Asylum, St. Peter's Hospital, and the Hospital for Incurables from the calculation, and in adding to it the deaths of Wandsworth parishioners that have occurred in the Infirmary and the district hospitals. The death-rate, derived from the death-register uncorrected for institutions was 18·70 per 1,000, a by no means high rate compared with most suburban localities of corresponding density of population.

Births.—Birth-rate.—Natural increase.—The births registered in the year numbered 972, 489 of males and 483 of females, yielding the unusually high *birth-rate* of 35·28 per 1,000. The excess of births over deaths, which represents the *natural increase* of the population, gives a rate of no less than 17·79 per 1,000.

Causes of Death classified, shewing Sex, Age and Social Position of Deceased.

WANDSWORTH.	Total Deaths from each Class of Disease, &c., in the Sub-District.	Sex.		Age.								Social Position.			
Population (Census) 1881... 28,004															
Official population in middle of 1882 29,031															
Area in Acres ... 2,478															
DISEASES, And other causes of Death.		Males.	Females.	Under 1 year.	From 1 to 5 years.	From 5 to 10 years.	Under 20 years, including all under 10 years.	At 20, and under 40 years of age.	At 40, and under 60 years of age.	At 60, and under 80 years of age.	80 years and upwards.	Nobility and Gentry.	Professional Class, Merchants, Bankers, &c.	Middle & Trading Class, Shopmen, Clerks, &c.	Industrial and Laboring Classes.
Classes :—															
1. Zymotic — Smallpox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles ...	18	11	7	7	11	...	18	...	...	...	...	...	...	2	16
Scarlatina...	9	4	5	...	7	2	9	...	...	...	...	...	...	1	8
Diphtheria .	3	2	1	...	2	1	3	...	...	...	...	...	...	1	2
Quinsy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Croup	5	3	2	1	4	...	5	...	...	...	...	...	...	2	3
Whooping Cough ...	26	10	16	5	19	2	26	...	...	...	...	...	2	3	21
Fever	9	4	5	...	2	2	6	3	...	...	...	...	...	2	7
Erysipelas ..	2	1	1	...	...	...	...	1	...	1	...	...	...	1	1
Childbirth ..	6	...	6	...	...	...	...	6	...	...	...	...	1	1	4
Carbuncle ..	1	...	1	...	...	...	...	...	1	...	...	...	...	...	1
Influenza ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa & Dysentery	29	18	11	24	3	...	27	...	...	2	...	...	2	5	22
Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals of Zymotic Class	108	53	55	37	48	7	94	10	1	3	...	...	5	18	85
2. Tubercular.....	69	31	38	20	7	2	31	18	15	5	...	1	6	11	51
3. Of Brain, Nerves, &c.	106	61	45	18	10	1	30	21	35	17	3	5	2	19	80
4. Of the Heart, &c. ...	28	10	18	...	...	2	3	3	11	10	1	2	2	8	16
5. Of Respiratory Organs	87	38	49	29	16	3	49	5	13	19	1	2	5	13	67
6. Digestive Organs ...	28	10	18	4	2	1	7	4	9	8	...	1	...	9	18
7. Urinary Organs ...	20	8	12	...	...	...	1	4	8	5	2	2	1	4	13
8. Of Organs of Generation	4	...	4	...	...	...	...	1	1	2	...	2	...	...	2
9. Of Joints, Bones, &c.	1	...	1	...	...	1	1	...	...	...	...	...	...	1	...
10. Of Skin	1	1	...	...	1	...	1	...	...	...	...	...	...	1	...
11. Premature Birth, Low Vitality, Malformation, &c. ...	27	16	11	27	...	...	27	...	...	...	...	1	1	8	17
12. Of Uncertain Seat...	19	8	11	1	...	...	1	2	6	10	...	1	1	5	12
13. Age	27	9	18	...	...	...	...	...	2	17	8	3	1	5	18
14. Violence.....	18	14	4	3	...	...	9	5	3	1	...	...	1	3	14
15. Not Specified.....	1	1	...	...	...	...	...	...	...	1	...	...	...	...	1
Totals	544	260	284	139	84	17	254	73	104	98	15	20	25	105	394

On reference to the Table it will be seen that Class 1, the Zymotic (which includes epidemic or contagious diseases) occupies the first position in the order of fatality, forming nearly a fifth part of all deaths (19·85 per cent.). The deaths in this class exceeded the average, corrected for increase of population, by 35 per cent. Next in order, and almost equal in number, is Class 3 (Diseases of the Brain and Nerves), but, as 84 per cent. of the total deaths from these diseases occurred in the County Lunatic Asylum, it is evident for the same reasons as those referred to in connection with the disturbance of the death-rate, that this class must be excluded from consideration in estimating the relative proportion borne by the several classes in the causation of the mortality proper to this parish. The next most fatal class was No. 5 (Diseases of the Respiratory Organs) which formed 16 per cent. of all deaths, and exceeded the average by 6 per cent. Upwards of four-fifths of the deaths from this class were contributed by Bronchitis alone, which was extensively prevalent and unusually fatal and was the most fatal single disease. Class 2 (the Tubercular, which includes Scrofula and Consumption) was the next most fatal, constituting 12·5 per cent. of all deaths, and was somewhat under the average; of this number, Consumption contributed nearly two-thirds Class 4 (Diseases of the Heart), and Class 6 (Diseases of Digestive Organs) were of equal number during the past and preceding years and formed a little over 5 per cent. Class 11 (Premature Birth, &c.) and Class 13 (Age) which were of equal amount formed a little under 5 per cent. Class 7 (Diseases of the Urinary Organs) was nearly three times the average amount. Classes Age and Violence were each 4 in excess of the average The other classes present no deviation from their respective averages of sufficient importance to claim attention, the most prominent feature in the Table being, as is unfortunately too often the case, the great numerical preponderance of diseases of the zymotic class.

Deaths in relation to social position.—The subjoined Table exhibits the proportion per cent. of the total deaths and of the deaths that occurred from zymotic diseases in relation to the social position of the deceased :—

Social Position.	Total Deaths.		Deaths from Zymotic Diseases.	
	1882.	Decennial average.	1882.	Decennial average.
Nobility and Gentry	3·68	3·37	0·00	0·90
Professional Class, Merchants, Bankers, &c.	4·78	5·04	5·55	5·80
Middle and Trading Classes, Clerks, &c. ..	19·30	18·71	16·67	15·55
Industrial and Labouring Classes... ...	72·24	72·88	77·78	77·75
	100·00	100·00	100·00	100·00

The proportional amount of mortality from zymotic diseases borne by the labouring classes is seen to have been very slightly above the preceding decennial average, the corresponding amount of the total mortality borne by them, however, was considerably below such average. This result corroborates the conclusion arrived at in previous Reports that there has been a slight but noticeable diminution in the relative amount of mortality borne by the labouring classes, and furnishes a very reliable indication of sanitary improvement effected in the dwellings of the poor.

Deaths at different ages.—The proportion which the mortality of infants under one year of age bore to the total deaths was upwards of one fourth (25·5 per cent.), the average of the preceding decade having been 22·5 per cent. The number of deaths of children under five years of age was 41 per cent., nearly, (40·99), the decennial average having been 34·7 per cent.; and the collective deaths of children and adults under 20 years of age formed upwards of 46 per cent. of the total mortality, the average having been 41·7 per cent. The death-rate of infants, calculated from the proportion

which the deaths of infants under one year bear to the births registered, was 14·3 per cent., or 0·3 per cent. above the preceding decennial average. The higher mortality of infants during the past year was, as might be anticipated, due to the correspondingly higher fatality from zymotic diseases. Twenty-seven deaths were registered as having resulted from age unconnected with disease; 54, however, or nearly 10 per cent. were registered at 70 years of age and upwards, the decennial average having been 12 per cent. The 54 so recorded were from 70-75, twenty-four; 75-80, nineteen; 80-85, eight; at 86, three; and at 87, two, and they occurred to 18 males and 36 females, the latter as usual greatly exceeding the former.

Epidemic Diseases—their prevalence and fatality.—The deaths that have resulted from the seven principal epidemic diseases during the past and ten preceding years, with the proportion which they bore to the deaths from all causes, are exhibited in the following Table. They are found to have exceeded the preceding decennial average corrected for increase of population by 28. They formed 17·4 per cent. of all deaths, yielding a death-rate of 3·07 per 1000 of the estimated population. The excess in the mortality from these diseases during the past year was due to a greater fatality than usual from Diarrhœa, Measles, and Whooping-cough, each of which very considerably exceeded the average. Diarrhœa, which was the most fatal of these diseases, exceeded the average by nearly one third; it prevailed epidemically from June to October, and occurred almost wholly (indeed with two exceptions only) amongst children under 5 years of age. The next most fatal was Whooping-cough, which prevailed principally during the first six months, was most fatal during the first three months, and exceeded the average by upwards of one third. Measles prevailed during the whole year, but mostly in the June and September quarters, and exceeded the average by nearly one half.

Years.	Small Pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough	Cholera	Diarrhœa.	Fever—Typhus and Typhoid.	Total Deaths from Epidemics.	Total Deaths from all causes.	Per centage of deaths from Epidemics to deaths from all causes.
1872	1	5	1	3	13	...	20	4	47	365	12·8
1873	...	4	...	3	8	...	22	7	44	433	10·1
1874	...	14	2	..	19	...	12	5	52	453	11·5
1875	1	2	5	2	14	..	17	5	46	420	10·9
1876	1	17	12	1	10	2	16	12	71	461	15·4
1877	...	...	21	...	11	...	16	9	57	384	14·8
1878	...	4	2	4	6	...	19	3	38	422	9·0
1879	1	16	15	1	44	...	7	8	92	516	17·8
1880	...	9	24	4	15	...	20	6	78	484	16·1
1881	9	5	19	1	12	...	19	4	69	507	13·6
1882	...	**18**	**9**	**3**	**26**	...	**29**	**9**	**94**	**544**	**17·2**

The months in which the deaths from epidemic diseases occurred, and the mean temperature of each quarter are shown in the following table.

The largest number is seen to have occurred in the first and third quarters, and by far the least in the fourth quarter, the number in the second quarter being intermediate in amount. The only climatic condition which appears to have had any direct relation to the periods of fatality from these diseases during the last year was the rainfall, which was much in excess of the average during the fourth quarter—the period of least fatality—and considerably below the average during the first and third quarters—the periods of the greatest fatality from such diseases.

DISEASE.	January	February	March	April	May	June	July	August	September	October	November	December
	Mean Temp. 42·7			Mean Temp. 53·0			Mean Temp. 58·1			Mean Temp. 44·8		
Small Pox	...	...	...	...	...	...	...	...	...	...	...	...
Measles	...	1	...	1	3	6	1	1	3	1	...	1
Scarlatina	2	...	1	...	2	...	1	...	...	1	1	1
Diphtheria	1	...	...	...	...	...	...	...	...	...	1	1
Whooping Cough	6	6	6	2	2	2	...	1	...	...	1	...
Diarrhœa	1	1	1	...	...	2	5	9	5	3	1	1
Fever	3	...	...	1	1	1	1	...	...	2	...	...
TOTALS	13	8	8	4	8	11	8	11	8	7	4	4
	29			23			27			15		

The most direct and simple means for preventing the spread of these diseases is "isolation," the separation of the sick from the healthy. This has been long and successfully employed against Small-pox and Fever, and, latterly, but very partially only, against Scarlatina; but to the present time Diphtheria, Whooping-cough, and Measles have been totally unprovided for in the hospitals, although Measles on an average is twice as fatal, and Whooping-cough, three times as fatal as Small-pox. A much more extended system of isolation, therefore, is required before the present measures adopted for the prevention of the periodical recurrence of this class of diseases can be attended with any great amount of success. (See Report for 1876, page 76 on this subject.)

Another very fertile means of the dissemination of infectious diseases is the return to school of children during convalescence from such diseases. This mode of propagation is especially observable at the Board Schools in which large numbers of children are massed together, and so escape due observation.

The remedies are these :—

1. The schools should be placed under medical supervision.

2. The following rule, which has been largely but not wholly adopted, should be universally enforced, viz., "That no children absent from school on account of sickness be allowed to return to school, except upon the production of a certificate from their medical attendant that they may do so without injury to themselves and others." See Reports for 1859 and 1874.)

3. A weekly return of the names and addresses of all children absent from school on account of sickness should be furnished to the Medical Officer of Health.

Sickness and Mortality amongst the Parochial Poor.—The nature, amount, and fatality of the sickness occurring amongst the parochial poor which came under treatment during the year will be found in Table V. in the Appendix. The total amount of sickness was nearly the same as that of the previous year—about a seventh part less than the average; and the resulting deaths nearly coincided with the average. The proportion of deaths to cases of sickness was 5·26 per cent. The total amount of epidemic disease was 30 per cent. less than the average, while the resulting deaths were of average amount. Of the epidemic diseases 9, viz., Modified Small-pox, 2; Fever, 6; and Scarlatina, 1, were sent to the Metropolitan Asylum District Hospitals, and there recovered. The prevailing epidemic diseases were Diarrhœa, Whooping-cough, and Measles, the two latter having been of equal amount and rather less than half the amount of the first-named disease.

Inquests, Violent Deaths, Uncertified Deaths.—Thirty-two inquests were held during the year, the verdicts of which are enumerated in the following tabular form, viz. :—

Deaths from Natural Causes			14
Deaths from Violence, viz. :—			
Accidental ...	Concussion	1	
	Suffocation	4	
	Run over by van ...	1	
	Burning	1	— 13
	Poisoning	2	
	Crushed by Machinery	1	
	Drowning	3	
Suicidal ...	Cut throat	1	
	Hanging	1	3
	Jumped into a copper of boiling water ...	1	
Execution			2
			32

The inquests were not so numerous in the past as in the preceding year by eleven. The deaths from violence were two less than in the previous year. Uncertified deaths were three more, viz., eight in number, andwere so many instances, therefore, in which death *may* have resulted from other than natural causes. The remedy for this condition of possible insecurity to human life is to be found (as has been submitted in these Reports for many years) in the employment of medical investigation in every case in which the cause of death has not been certified by a registered medical practitioner. (See Report for 1865 and following Reports.)

Sanitary Proceedings.—The principal Sanitary proceedings of the past year are enumerated in Table VI. in the Appendix. They are seen to have been of an extensive and important nature, especially those relating to the inspection of houses and the remedying of their sanitary defects. As might be anticipated from the increased prevalence of epidemic diseases, the disinfection of houses was more largely employed; and, it is gratifying to record, with such success that in the whole 165 houses so dealt with one instance only occurred in

which it was found necessary to have recourse to a second disinfection by reason of the recurrence of contagious disease. The Cowhouses and Slaughterhouses of the parish were all, as usual, examined and reported on as being in a satisfactory condition previous to the annual renewal of their owner's licenses. There were also many special reports—some the result of a lengthened investigation—on nuisances such as those arising from the "Wimbledon Sewage Irrigation," Messrs. Neal's "Manufacture of Tar Paving Materials" at Hendham Road; Messrs. Pease's "Fat boiling premises," Garratt; the "Pollution of the River Wandle," and others which would occupy too much space to reproduce here. It should be noted with satisfaction that the whole of the sanitary work of the year has been conducted without the necessity for the employment of any legal procedure.

GEORGE EDWARD NICHOLAS, M.D.,

Medical Officer of Health, for Wandsworth.

June, 1883.

APPENDIX OF STATISTICAL TABLES.

TABLE I.

Births and Deaths registered during the year 1882.

BIRTHS.

SUB-DISTRICTS.	Males.	Females.	Total.
Battersea { East—Males, 1168; Females, 1184 / West—Males, 1165; Females, 1067	2,333	2,251	4,584
Clapham	530	551	1,081
Putney and Roehampton	187	174	361
Streatham, including Tooting and Balham ...	470	421	891
Wandsworth	489	483	972
Total	4,009	3,880	7,889

DEATHS.

SUB-DISTRICTS.	Males.	Females.	Total.
Battersea { East—Males, 481: Females, 511 / West—Males, 615; Females, 607	1,096	1,118	2,214
Clapham	263	281	544
Putney and Roehampton	111	97	208
Streatham, including Tooting and Balham ...	164	177	341
Wandsworth	261	283	544
Total	1,895	1,956	3,851

*** The excess of Births over Deaths in the entire District is 4,038.

TABLE II.

Summary of Deaths and their Causes registered in the entire District during 1882, classified according to Sex, Age, and Social Position, and showing also the relative Numbers in each Sub-District.

POPULATION OF ENTIRE DISTRICT. As corrected by the Registrar General.	Total Deaths from each class of Disease, &c., in the entire District.	Sub-Districts.					Sex.		Age.							Social Position.			
Population (Census) 1881 ... 210,434		Battersea—Population 113,872, area in acres, 2,343.	Clapham—Population 37,502, area in acres, 1,233.	Putney—Population 13,689, area in acres, 2,176.	Streatham, Tooting and Balham—Population 26,935, area in acres, 3,465.	Wandsworth—Population 29,031, area in acres, 2,478.	Males.	Females.	Under 1 year.	From 1 to 5 years.	From 5 to 10 years.	Under 20 years, including all under 10 years.	At 20 and under 40 years of age.	At 40, and under 60 years of age.	At 60, and under 80 years of age.	80 years and upwards.	Nobility and Gentry.	Professional Class, Merchants, Bankers, &c.	Middle and Trading Class, Shopmen, Clerks, &c.	Industrial and Labouring Classes.
Official population in middle of 1882 221,029																			
Area in Acres ... 11,695																			
Density 18·89 persons to an Acre.																			
DISEASES, And other causes of Death.																			
Classes :—																			
1. Zymotic — Small Pox ...	1	...	1	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	1	...
1. Zymotic — Measles ...	115	64	15	13	5	18	61	54	30	81	3	115	...	...	...	...	1	2	19	93
1. Zymotic — Scarlatina...	119	71	26	4	9	9	49	70	8	79	25	116	3	...	...	...	2	1	18	98
1. Zymotic — Diphtheria	51	11	4	29	4	3	23	28	1	32	14	50	1	...	..	...	2	4	14	31
1. Zymotic — Whooping Cough ..	163	103	17	8	9	26	66	97	59	97	7	163	...	...	...	...	1	4	25	133
1. Zymotic — Typhus & other Fevers	49	28	7	4	1	9	20	29	...	10	8	24	16	6	3	...	...	1	10	38
1. Zymotic — Diarrhœa &Choleraic Disease	117	76	4	5	3	29	58	59	87	20	...	107	...	4	6	...	1	2	22	92
1. Zymotic — Erysipelas	18	12	1	1	2	2	8	10	5	1	...	7	5	4	2	...	...	2	2	14
1. Zymotic — Metria, Childbirth	19	7	1	2	3	6	...	19	...	...	...	1	18	...	...	...	1	2	3	13
1. Zymotic — Carbuncle...	3	1	...	...	1	1	1	2	...	...	...	...	1	2	...	...	..	...	2	1
1. Zymotic — Influenza ...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1. Zymotic — Croup	31	15	5	2	4	5	17	14	5	21	5	31	...	...	...	...	...	1	10	20
1. Zymotic — Quinsy	1	...	...	1	...	...	...	1	...	1	...	1	...	...	...	..	...	...	...	1
Totals of Zymotic Class	687	388	81	69	41	108	304	383	195	342	62	615	44	16	12	...	8	19	126	534
2. Tubercular	521	390	15	13	34	69	261	260	178	80	15	290	128	87	16	..	3	17	89	412
3. Of Brain and Nerves	539	285	65	34	49	106	274	265	124	95	20	251	52	106	114	16	28	24	119	368
4. Of the Heart	251	130	47	14	32	28	105	156	1	3	8	19	41	78	102	11	16	26	55	154
5. Of Respiratory Organs	850	530	145	29	59	87	440	410	252	126	15	483	72	114	155	26	23	23	170	634
6. Of Digestive Organs	195	75	34	16	42	28	93	102	30	14	7	58	21	55	54	7	15	16	62	102
7. Of Urinary Organs	89	41	16	6	6	20	50	39	1	3	2	9	18	25	33	4	6	8	23	52
8. Of Organs of Generation	32	17	1	3	7	4	1	31	...	..	...	1	11	12	8	...	5	3	8	16
9. Of Joints, Bones, &c.	25	14	9	...	1	1	8	17	4	4	3	15	3	1	5	1	...	4	8	13
10. Of Skin	9	7	1	...	...	1	6	3	7	1	...	8	...	1	...	...	...	2	1	6
11. Premature Birth, Low Vitality, Malformation, &c. ...	234	141	34	6	26	27	135	99	234	...	...	234	...	...	...	...	3	11	38	182
12. Dropsy, Cancer, & others of Uncertain Seat.....	144	67	45	6	7	19	68	76	24	11	3	40	19	38	46	1	5	6	36	97
13. Age	153	55	37	5	29	27	63	90	...	...	...	...	...	4	73	76	19	10	52	72
14. Violence	104	60	11	7	8	18	79	25	30	6	8	57	19	15	10	3	1	2	13	88
15. Not Specified	18	14	3	...	...	1	7	11	4	4	...	8	...	5	5	...	...	...	3	15
Totals.....	3851	2214	544	208	341	544	1894	1957	1082	752	143	2087	428	557	634	145	132	171	803	2745

TABLE III.

Showing the total number of deaths and their causes registered in the entire District, during the eleven years 1872-82, with the relative numbers of each class of disease.

DISEASES, And other causes of Death		1872	1873	1874	1875	1876	1877	1878	1879	1880	1871	1882
Classes :—												
1. Zymotic	Small Pox ...	26	9	5	3	26	57	19	4	3	37	1
	Measles	86	55	66	27	88	64	84	125	59	134	115
	Scarlatina ...	26	9	94	134	86	58	39	134	173	100	119
	Diphtheria ...	26	11	12	28	15	7	19	17	19	18	51
	Whooping Cough ...	108	74	89	107	126	73	149	148	123	105	163
	Typhus and other Fevers	52	65	48	39	47	64	39	62	44	37	49
	Diarrhœa & Choleraic Disease ...	140	126	117	134	159	114	182	94	213	149	117
	Erysipelas ..	13	12	20	24	13	13	5	13	10	15	18
	Metria, Childbirth	15	28	34	15	26	20	7	28	23	29	19
	Carbuncle ...	1	...	1	...	...	..	...	...	...	...	3
	Influenza.....	...	...	...	...	...	1	...	...	...	...	...
	Quinsy	2	1	2	...	...	...	1	..	1	...	1
	Croup	18	21	40	26	27	20	39	40	19	18	31
Totals of Zymotic Class...		513	411	528	537	613	491	583	665	687	642	687
2. Tubercular.		419	426	469	565	555	514	501	513	625	557	521
3. Of Brain, Nerves, &c. .		341	370	426	455	416	450	503	474	464	540	539
4. Of the Heart, &c.		127	139	146	176	170	204	212	203	193	245	251
5. Of Respiratory Organs		400	543	541	630	561	519	694	891	657	695	850
6. Digestive Organs		87	96	111	136	126	155	150	117	155	208	195
7. Urinary Organs.....		27	34	26	55	62	63	42	74	66	70	89
8. Of Organs of Generation		9	17	21	13	23	29	19	25	20	35	32
9. Of Joints, Bones, &c...		7	10	14	11	14	13	15	8	15	25	25
10. Of Skin		3	4	9	4	5	6	1	3	8	3	9
11. Premature Birth, Low Vitality, Malformation, &c.....		143	143	168	177	226	212	177	170	266	232	234
12. Dropsy, Cancer, and others of Uncertain Seat		118	126	77	105	97	101	106	91	110	118	144
13. Age		105	144	106	130	150	126	141	141	136	120	153
14. Violence		87	70	75	68	90	82	75	83	96	113	104
15. Not Specified		35	47	79	34	46	26	56	68	95	44	18
TOTALS		2421	2580	2796	3096	3154	2991	3275	3526	3593	3647	3851

TABLE IV.

Showing the total Deaths from the seven principal Epidemic Diseases registered in each Sub-District, and in the entire District, and the relation which they bore to the total Mortality in the several years 1872-82.

Years.	Deaths from the seven principal Epidemics in each Sub-District.					Entire District.		
	Battersea.	Clapham.	Putney.	Streatham.	Wandsworth.	Total Deaths from the Seven Epidemics.	Total Deaths Registered from all causes.	Percentage of Deaths from the Seven Epidemics to Total Deaths.
1872	220	128	20	31	47	446	2421	18·4
1873	205	65	6	32	43	351	2580	13·6
1874	238	114	10	26	52	440	2796	15·7
1875	307	74	20	25	46	472	3096	15·2
1876	340	86	19	31	71	547	3154	17·4
1877	280	55	22	25	57	439	2991	14·2
1878	322	103	26	42	38	531	3275	16·9
1879	355	81	20	36	92	584	3526	16·9
1880	383	112	25	61	78	659	3593	18·3
1881	381	71	22	37	69	580	3647	15·8
1882	**353**	**74**	**63**	**31**	**94**	**615**	**3851**	**15·9**

*** The Diseases included in the above Table constitute, as in the Registrar-General's Returns, the seven principal maladies only of the Zymotic class—viz.: Small Pox, Measles, Scarlatina, Diphtheria, Whooping Cough, Diarrhœa and Cholera, and Fever

TABLE V.

Cases of Sickness amongst the Poor under the treatment of the Union Medical Officers, with the Deaths from each class of Disease, during the year ended 31st December, 1882 Compiled from the District Medical Relief Books.

SUB-DISTRICTS.	Total Cases of Sickness treated in each Sub-District.	1—Small Pox.		2—Measles.		3—Scarlatina and Diphtheria		4—Whooping Cough.		5—Diarrhœa and Dysentery.		6—Cholera.		7—Fever.		8—Erysipelas.		9—Puerperal Fever.		10—Lung Diseases. except Phthisis.		11—Phthisis.		12—Hydrocephalus, Atrophy, Scrofula, and Convulsions of Children.		13—Other Diseases.		14—Violence, Privation, and Premature Birth.		Total Deaths in each Sub-District.
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
Battersea... East ...	756	4	...	7	...	11	1	12	1	19	...	...	...	10	...	11	...	1	...	107	9	15	1	2	...	548	4	9	...	16
Battersea... West ...	331	5	...	12	1	18	...	8	2	9	1	...	...	11	1	2	...	...	...	75	6	8	5	4	...	174	7	5	...	23
Clapham	443	7	...	8	...	15	...	9	1	16	...	...	...	51	...	3	...	1	...	52	3	1	1	14	1	229	14	37	...	20
Putney and Roehampton	172	2	...	1	...	4	2	...	..	2	...	...	...	...	...	2	...	...	...	37	...	9	...	...	...	108	2	7	...	4
Streatham, including Tooting and Balham	169	...	...	2	...	6	...	5	...	4	...	...	...	2	1	...	...	...	...	17	1	4	...	1	1	128	4	...	...	7
Wandsworth	608	2	...	13	1	3	..	13	2	28	...	...	...	8	2	3	...	...	...	136	12	6	5	1	1	367	7	28	2	32
Totals	2479	20	...	43	2	57	3	47	6	78	1	...	...	82	4	21	...	2	...	424	31	43	12	22	3	1554	38	86	2	102

*** The ratio of deaths to cases treated is 4·1 per cent.

TABLE VI.

SUMMARY of the Sanitary Operations in the entire District during the year 1882.

	Battersea.	Clapham.	Putney and Roehampton.	Streatham, including Tooting and Balham.	Wandsworth.	TOTALS.
Number of Houses & Premises inspected	3,969	1,500	1,757	2,096	919	10,241
1st Notices served	549	206	221	57	112	1,145
2nd Notices served	61	63	7	1	3	135
Number of Houses disinfected after contagious diseases ...	143	78	40	34	165	460
Number of Houses in which contagious disease occurred after disinfection	...	7	...	...	1	8
Number of Houses from which bedding, &c., was burnt ...	7	12	...	...	...	19
Overcrowding abated	5	2	...	...	...	7
Disinfecting apparatus at Putney number of times used ...	...	...	40	...	...	40
Cesspools emptied and cleansed	...	...	...	...	...	...
Cesspools abolished...	11	3	3	...	1	18
Waterclosets constructed or repaired	290	29	21	21	7	368
Houses supplied with water ...	12	3	3	17	1	36
Drains constructed or connected with Sewer...	323	12	30	444	146	955
No. of feet of New Sewers and Branch Drains	16,477	6,061	1,887	29,903	5,211	59,539
Drains repaired or trapped, or obstructions removed ...	290	111	32	23	56	512
Open Ditches, Ponds, &c., cleansed	...	2	...	...	4	6
Dust-bins provided...	140	13	59	27	10	249
Pig Nuisances removed	46	2	...	4	15	67
Accumulations of Offal, Manure, &c., removed	39	6	3	5	4	57
Unwholesome and dilapidated Houses cleansed or repaired	179	3	5	34	5	226
Cases investigated by Magistrates	28	13	2	...	...	43
Compulsory Orders obtained...	28	2	2	...	...	32
Compulsory works executed ...	28	...	2	...	...	30
Works remaining in abeyance from various causes	...	...	...	...	...	...

TABLE VII.

METEOROLOGICAL TABLE FOR LONDON, 1882.

(Deduced from Observations at Greenwich, under the Superintendence of the Astronomer Royal, and compiled from Quarterly Tables, furnished to the Registrar General by James Glaisher, Esq., F.R.S.)

Winter . . Jan., Feb., March.
Spring . . April, May, June.
Summer . . July, Aug., Sept.
Autumn . . Oct., Nov., Dec.

1882.	Temperature of Air. Mean.	Air. Diff. from Average of 110 years.	Air. Diff. from Average of 40 years.	Evaporation. Mean.	Evaporation. Diff. from Average of 40 years.	Dew Point. Mean.	Dew Point. Diff. from Average of 40 years.	Air—Daily Range. Mean.	Air—Daily Range. Diff. from Average of 40 years.	Elastic Force of Vapour. Mean.	Elastic Force of Vapour. Diff. from Average of 40 years.	Weight of Vapour in a Cubic Foot of Air. Mean.	Weight of Vapour in a Cubic Foot of Air. Diff. from Average of 40 years.	Degree of Humidity. Mean (Sat.=100).	Degree of Humidity. Diff. from Average of 40 years.	Reading of Barometer. Mean.	Reading of Barometer. Diff. from Average of 40 years.	Weight of a Cubic Foot of Air. Mean.	Weight of a Cubic Foot of Air. Diff. from Average of 40 years.	Rain. Mean.	Rain. Diff. from Average of 40 years.	Reading of Thermometer on Grass. Number of Nights it was At or below 30°.	Between 30° and 40°.	Above 40°.	Lowest Reading at Night.	Highest Reading at Night.
	°	°	°	°	°	°	°	°	°	in.	in.	grs.	gr.			in.	in.	grs.	grs.	Sum in.	in.	Sums.			°	°
YEAR.	49·7	+1·1	+0·3	47·2	+0·7	44·7	+1·0	15·2	—0·7	·303	+0·008	3·5	0·0	84	+3	29·758	—0·015	541	—1	25·16	+0·07	91	136	138	16·3	55·8
First Quarter	42·7	+4·0	+2·9	41·0	+3·1	38·9	+3·4	12·7	+0·9	·239	+0·032	2·8	+0·4	87	+3	30·026	+0·261	554	+1	3·63	—1·41	42	40	8	16·3	46·6
Second do.	53·0	+0·7	+0·1	49·7	+0·6	46·5	+1·1	19·1	—0·9	·318	+0·014	3·6	+0·1	79	+4	29·737	—0·046	537	—2	6·13	+0·30	18	33	40	23·7	53·2
Third do.	58·1	—1·6	—2·2	55·0	—1·5	52·1	—0·9	18·3	—1·4	·391	—0·019	4·4	—0·3	81	+3	29·709	—0·086	530	+1	6·01	—1·41	1	29	62	29·0	55·8
Fourth do.	44·8	+1·2	+0·3	43·1	+0·5	41·2	+0·5	10·5	—1·3	·263	+0·004	3·0	0·0	88	+1	29·560	—0·191	543	—4	9·39	+2·25	30	34	28	18·2	54·2

In this Table, + and — respectively signify that the numbers in the *preceding* column are *above* or *below* the average to the extent of the quantities to which these signs are prefixed.