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

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SANITARY DEPARTMENT.

REPORT

ON THE

SANITARY CONDITION

OF THE SEVERAL PARISHES COMPRISED IN THE

WANDSWORTH DISTRICT,

DURING THE YEAR 1876.

BY THE

MEDICAL OFFICERS OF HEALTH.

London:
JOHN SMITH & CO., 52, LONG ACRE, W.C.

1877.

REPORT,

1876.

To the Board of Works for the Wandsworth District.

GENTLEMEN,

We have the honour to present the twenty-first Annual Report upon the health and sanitary condition of the Wandsworth District.

We have considered it undesirable, even at the commencement of a third decade, to make any material alterations in the general plan, or the statistical tables, of previous reports; as the advantages of comparison with these would in great measure have to be sacrificed in favour of any important innovations.

We trust the following pages will prove useful and interesting to all who take cognisance of the sanitary progress of our District; and be evidence to you that your officers are endeavouring, to their best ability, to fulfil the duties assigned to them.

We have the honour to remain,

GENTLEMEN,

Your obedient Servants,

The Medical Officers of Health for the Wandsworth District.

HEALTH AND SANITARY CONDITION OF THE ENTIRE DISTRICT.

The year 1876 has been distinguished by no very remarkable outbreak of disease, and no relative increase in the deaths or death-rate. Yet we have the misfortune to report the occurrence of one disease at least in an epidemic form, and an increase in most of the diseases of the Zymotic class. But, leaving the consideration of these details for a future page, we will, as usual, introduce our report with the preliminary statistics.

Population.—In giving an estimate of the population of a rapidly increasing District such as ours, it is necessary to say that we are compelled to adopt the official method of obtaining it; namely, by calculating the rate of increase since the census of 1871, as the same as that of the previous ten years. It is evident that such a method must result in very much underestimating our population, and so, in unduly increasing our death and birth-rate, especially in the later periods of a census decade, and must materially affect our position as compared with districts having a stationary or decreasing population. As will be shown subsequently, the discrepancy between the official and the (probably) actual population has become

very considerable. The population of the entire Wandsworth District at the *middle* of the year, 1876, according to the official method, was 153,648.

Deaths and Death-rate.—During the past year 3154 deaths have been registered in the District, of which 1640 were of males, and 1514 of females. The death-rate, according to the above population, is 20·5 per 1000 persons living, or 1 in 48 persons. For reasons already stated, this death-rate is probably much too high; still it is 2 per 1000 less than that of the Metropolis, and more than 3 per 1000 less than that of 21 chief towns of the United Kingdom. The above death-rate is also subject to an important modification, from the fact that several public institutions—and those too contributing a higher rate of mortality than the surrounding District—are situated within our boundaries. The following Table will illustrate this remark, and also show the proportion each Sub-district bears in the total death-rate :—

SUB-DISTRICTS.	Estimated Population in the middle of		Deaths.		Ratio of Deaths to Population.		Excluding Non-Parishioners who have Died in Public Institutions.
	1875	1876	1875	1876	1875	1876	1876
Battersea	68,648	70,144	1,724	1,745	1 in 40	1 in 40	1 in 44
Wandsworth	22,524	23,169	420	461	1 in 53	1 in 50	1 in 65
Clapham	30,088	30,734	548	545	1 in 55	1 in 56	Inappreciable difference
Streatham, Tooting, & Balham	16,340	16,781	237	260	1 in 69	1 in 64	
Putney & Roehampton	10,693	10,990	167	143	1 in 64	1 in 77	

The number of deaths to be thus excluded from the total mortality of the District was 272. The total deaths

therefore, with the above exclusions, were 2882, and the death-rate 18·7 per 1000. Of course the deaths of parishioners of the Parishes in which these institutions are situated and who died in these institutions should not be excluded from the total; but for such details see the Local Summaries for Battersea and Wandsworth.

It will be seen that, as regards the first two parishes, the deaths in public institutions have greatly modified the death-rate, especially in Wandsworth, where such deaths constituted nearly a third of the deaths in rest of the parish.

A comparative Table of the death-rates for six years will be found in the next paragraph.

Births and Birth-rate.—During the year 5999 births occurred in the district, 3121 of males and 2878 of females. The birth-rate, according to the official population, is 39·04 per 1000, or about 1 in 25. The following Table shows the birth and death statistics for six years ending 1876—

Year	1871	1872	1873	1874	1875	1876
Births	4380	4540	5053	5221	5529	5999
Birth-rate per 1000.....	34·5	34·4	36·4	36·5	37·3	39·5
Deaths	2867	2421	2580	2796	3096	3154
Death-rate per 1000 ...	22·6	18·3	18·7	19·5	20·87	20·0

In the introductory report of the year 1875 page 7, a method of calculation is explained for obtaining the population and death-rate with much more accuracy than by the official method. It is admitted that a given population, under similar conditions, in a given time, produces a fixed and constant ratio of increase. Upon this law of natural increase, therefore, we have a basis on which to found our calculations; so that, from a given number of births, we may find the population that may be fairly supposed

to have produced that increase, and then of course calculate the death-rate from the population. Thus, in 1851 or in 1871, the birth-rate was 34 per 1000 (in round numbers), or about 1 in 29. The mean birth-rate for the decade 1861–71 was 33·25 per 1000, or 1 in 30. In all London it was 1 in 28. It will be seen how nearly these figures correspond, even at long intervals of time, and how safe a guide they form as to the population. Additional proof of this theory will be found in the above Table; for, in the short space of six years, the birth-*rate* commences with 34·5 and ends with 39 per 1000, while the *number of* births does not increase in the same proportion, showing conclusively that the rates are calculated on lower estimates of the population than there should be. That is, that the official population is not keeping abreast of the actual population. Taking, therefore, 97,720 as the mean population, and 3384 as the mean number of births during the decade 1861–71, it follows that the present population, instead of 153,648, should be 173,233, and the death-rate 18·2 instead of 20·5, or 16·6 excluding the deaths in public institutions, and the birth-rate 34·6 instead of 39.*

Causes of Death.—In Table I. in the Appendix the causes of death, and the sex, age, and social position of the deceased, may be found for the entire district. As the object of a report such as the present, is not only to collate and comment upon sanitary and other pertinent facts of the year under review, but also to compare or contrast these with those of previous years, the following new Table has been introduced for the first time, with the view and hope of assisting such comparison or contrast. Such a Table, moreover, may be useful in tracing out the effect of sanitary legislation and other efforts in checking or preventing the occurrence of some diseases, especially those of an epidemic character.

By making use of both of the Tables referred to, the reader will be better able to follow our remarks.

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* The excess of births over deaths during the year 1876 was 2845, giving a rate of natural increase of 18·5.

DISEASES. And other causes of Death	1866	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876
Classes :—											
1. Zymotic — Small Pox.....	34	24	2	21	15	377	26	9	5	3	26
Measles.....	102	18	35	52	46	52	86	55	66	27	88
Scarlatina.....	49	32	66	133	352	126	26	2	94	134	86
Diphtheria ...	22	8	27	14	12	6	26	11	12	28	15
Quinsy	1	1	1	...	4	1	2	1	2	...	...
Croup	27	26	20	22	25	13	18	21	40	26	27
Whooping Cough	78	41	77	96	51	52	108	74	89	107	126
Typhus and other Fevers	61	44	66	61	68	54	52	65	48	39	47
Erysipelas ...	2	4	12	8	13	22	13	12	20	24	13
Metria, Childbirth	14	10	21	23	16	13	15	28	34	15	26
Carbuncle.....	...	...	...	2	...	2	1	...	1	...	...
Influenza	...	...	1	...	1	...	...	...	...	...	...
Diarrhœa & Choleraic Disease ...	107	74	133	139	148	140	140	126	117	134	159
Totals of Zymotic Class...	497	282	461	571	751	858	513	411	528	537	613
2. Tubercular	334	338	382	326	374	423	419	426	469	565	555
3. Of Brain, Nerves, &c.	277	306	339	353	365	371	341	370	426	455	416
4. Of the Heart, &c. ...	107	101	124	119	132	152	127	139	146	176	170
5. Of Respiratory Organs	334	316	285	396	411	431	400	543	541	630	561
6. Digestive Organs.....	74	76	89	93	104	118	87	96	111	136	126
7. Urinary Organs	21	29	25	40	39	20	27	34	26	55	62
8. Of Organs of Generation	23	24	17	13	8	16	9	17	21	13	23
9. Of Joints, Bones, &c.	15	8	10	6	4	5	7	10	14	11	14
10. Of Skin	14	11	7	6	3	2	3	4	9	4	5
11. Premature Birth, Low Vitality, Malformation, &c. ...	129	149	154	176	191	145	143	143	168	177	226
12. Uncertain Seat	45	64	64	62	154	69	118	126	77	105	97
13. Age	106	125	107	114	133	125	105	144	106	130	150
14. Violence	60	56	52	64	50	56	87	70	75	68	90
15. Not Specified	30	52	52	54	40	76	35	47	79	34	46
Totals	2072	1937	2168	2393	2659	2867	2421	2580	2796	3096	3154

Epidemic Diseases.—The fatality from Measles and Scarlatina is high, especially that from the former, which is exceeded by only one year in the above series. Whooping Cough might almost be called a severe epidemic, so high has its mortality mounted during the past year. It has been approached by no other year in the series. The same, unfortunately, can be said of the fatality from Diarrhœa. It contributes the largest share to the Zymotic mortality of the year. But in point of importance we must concede the first place in the present year to the re-appearance amongst us of a Small Pox epidemic. The number which represents on our tables the mortality from this disease seems quite a modest figure; but it must be remembered that it is no criterion of the number of cases which occurred, or even of those of them that proved fatal. This of course is due to the fact as the cases appeared they were–as many and as soon as possible-sent to the hospital. In fact, the mortality which did occur *in* the District, is evidence that the hospital accommodation for the epidemic was miserably deficient. This is corroborated by the local summary for Clapham--where the largest number of fatal cases occurred—in which a strong complaint is made regarding the lack of hospital accommodation. When this epidemic first made its appearance, though its approach was expected, and its severity anticipated, no preparations were made in an energetic manner, or on an adequate scale. No one would assume the responsibility of the situation, or accept the onus of providing the means of isolation. It was made painfully evident that both our powers and our zeal were sadly restricted in dealing with the malady. But we have reason to complain that this scourge is still so strong in our land, and to lay a very heavy load of guilt at the doors of those who, in spite of overwhelming evidence, evade or resist the Vaccination Act, and lead other ignorant and misguided persons to follow their evil example. To such persons we can give a reason but not an intellect, and against such invoke the only instrument fitted to overcome unreasoning obstinacy--the law of the land. By the evasion of the Vaccination Act, as well as the too limited

employment of revaccination in adults, a virgin soil, so to speak, still exists for this disease to spring up and thrive. Hence we must be prepared to meet the outbreaks of Small Pox which consequently will continue to occur. We need a scheme which will expand to an unlimited extent, when occasion requires, and yet be no burden when the necessity for it has passed. The ordinary Hospital, with its buildings, stores, staff, &c., will not, except at great expense and loss, meet the case. The difficulty of procuring a site, isolated and yet reachable, of maintenance during the latency of the disease, of transit from distances, &c., all militate against the ordinary hospital system. Perhaps the cottage hospital in scattered districts, by being procurable at short notice, by diminishing the risk of conveyance, by confining the disease to each parish, and probably by not mixing different types of the epidemic under one roof, presents great advantages, and should claim careful consideration, and improved development. A point of great importance has been brought out during the present epidemic; viz., the necessity for providing for non-pauper cases. It is naturally a repugnant idea to an independent person, to undergo the degradation of being pauperized before being taken to the hospital. Another point is worthy of attention; viz., the powers at present possessed under the Public Health Act in regard to the *compulsory* removal of infectious cases. At present only in cases of overcrowding can such force be exercised, and *then* only after a tedious application to a local Justice, during which the time for action is lost and the mischief done. It seems no infringement of the spirit of our liberal constitution, if the law should give the local authority power to remove a case of infectious disease, if the patient's life would not be greatly endangered by such removal, whenever the health of neighbouring families or even of the same family is obviously imperilled.

The following Table illustrates the relative position of

the different sub-districts as regards epidemic disease during the year 1876.

SUB-DISTRICTS	No. of Deaths from Epidemics per 1000 of the Estimated population.	Ratio of Deaths from Epidemics to every 100 of the total deaths.
Battersea	4·8	19·5
Clapham	2·8	13.3
Wandsworth	3·06	15·4
Putney	1·7	13·2
Streatham	1·8	11·9

We also refer the reader to Table IV. in the Appendix for a comparison of the intensity of epidemic disease during the last eleven years.

Non-Zymotic Diseases.—Diseases of the Respiratory System were the most fatal of the group, though less so than in 1875 and rather under the average of the previous ten years. Tubercular diseases stand next in point of fatality, and diseases of the Nervous System occupy the third place. The diseases grouped under the title of Premature Birth, &c., form a numerous and important class, and naturally lead up to the next paragraph.

Mortality according to Age.—The infantile mortality from a medico-legal, as well as a sanitary standpoint, is a very important subject. No less than 43·3 per cent of the total mortality occurred amongst infants. A similar ratio for the whole of London was 42·5, nearly 1 per cent. less than in our district. If we glance at our causes of death, it will be seen that Diarrhœa and Premature Birth, &c., are

among the chief causes of this infantile mortality. As we know that improper and insufficient food and clothing, as well as exposure to climatic changes, are the chief causes of the former disease, we protest strongly against the inhuman custom of leaving infants to the care of children, or in the hands of unprincipled persons, that their mothers may undertake the duties of wet nurses or hands in factories, &c., while the father is alive and in full work. Then as regards the latter group of diseases, we are well aware that most of the mortality is due to stupidity, neglect, or wilful misconduct; and medical men, in giving certificates of death, often feel they are encouraging vice and offending their own consciences. And yet, there is no help for it, for disease and neglect are oftentimes so indistinguishable that it would be impossible to bring a charge home to the culprits. The mortality among the very aged (80 and upwards) is high. It constitutes 3·48 per cent. of the total mortality (that of the whole city is 3·45.) The oldest person who died last year was within a year of being a centenarian, another died at 97, and a third at 95.

Social Position of the Deceased.—This portion of the mortality table takes its colouring from the most populous of the Sub-districts. Hence the poorer classes are found to be more dominant in this than in several of the tables in our Local Summaries. Still, certain causes of death, such as old age, brain disease, and diseases of the digestive system, show their usual partiality for the better classes (proportionally, of course). Epidemic diseases are relatively more numerous among the superior classes than we could expect, considering their better chances of avoiding infection, exposure, &c.

Sickness and Mortality among the Parochial Poor.—Table V. in the Appendix gives all the necessary statistics. The deaths are only 137 to 3157 cases treated, or 4·3 per cent., nearly 1 per cent. below the average ratio.

Inquests, &c.—During the year 137 inquests were held. The verdicts may be tabulated as follow :—

I. Accidental - - -	67
II. Natural - - - -	51
III. Suicidal - - - -	13
IV. Found dead - - -	5
V. Murder - - - -	1

Unattested Deaths.—No less than 25 deaths were registered as "uncertified." 16 in Battersea, 7 in Wandsworth, and 2 in Streatham. Surely no method could be devised more calculated to diminish the protective power of registration and valuable nature of the vital statistics it gives, than the method of taking the crude notions of friends or the questionable authority of unskilled persons, to avoid and often evade an inquest. But it appears a matter of serious import when we find a death registered as "unknown" without any inquest having been held upon it; and we are compelled to ask if such discretionary power is given to the Coroner as to allow such an entry to be made, and, if so, to question the wisdom of such latitude. It seems almost incredible that so many deaths should be uncertified in a community, where not even the question of expense need stand in the way of having proper medical attendance and a legal certificate.

Sanitation.—In Table VI. in the Appendix the sanitary labours of the year are represented in a tabulated manner; but it is needless to say that these figures can convey no adequate idea of the work accomplished. A general improvement has been made in all the branches of sanitary work. More houses, &c., have been inspected during the past year than during the previous years. A much larger number of cesspools have been abolished, and better drainage arrangements presumably made. There is increased activity in the removal of piggeries, and of refuse accumulations, as well as in the cleansing and

repair of dilapidated and unwholesome houses. In several parishes recourse had to be taken to legal proceedings in carrying out necessary improvements. But it is satisfactory to note that such appeals to force are year by year decreasing in frequency; evidence, we hope, that the public are accepting sanitary truths with a better grace than heretofore, and lending a more willing hand in bringing about the improvements which they suggest. A point of some importance is urged in the Local Summaries for Battersea regarding the control of the Board and its Officers upon the internal drainage arrangements of houses. It is highly desirable that extended power should be procured in inspecting the appliances for household drainage, and in enforcing necessary alterations. In connection with this subject we would give a word of warning to the public against the folly of having washing and other apparatus in various parts of the house connected with the sewer by means of waste pipes, as no amount of trapping can ensure these from admitting, in certain conditions of the atmosphere, most dangerous and noxious gases into their apartments. For the same reason we would also protest against the custom of connecting the overflow pipe from cisterns with the sewer, especially when the cistern is covered and there is no free access of air to the surface of the water.

The Water Supply.— In several of the Sub-districts, particularly Battersea and Clapham, strong representations have been made regarding the water supply. Some of the complaints have been unnecessarily directed against the Water Company; for it must ever be remembered, that the *source* of our supply is the grand cause for dissatisfaction. So long as our water is obtained from the Thames, *no* company can supply water good enough for dietetic purposes. It should also be remembered that cisterns, and other receptacles for the daily supply, are attended with many evils; and want of proper cleanliness is the source of a very large number of the complaints raised against the condition of the water. So far back as 1866, when

opinions were invited by the Metropolitan Board of Works on the system of water supply to the Metropolis, pertinent remarks were made in reply in the local summary for Wandsworth in our annual report of that year. As they convey in substance our opinions on the subject, and as they have an important bearing on the question at the present juncture, we venture to reprint them here entire.

"I would most strongly urge upon your notice the great "sanitary and economic benefits which would result from "a constant supply, and the consequent removal of the "necessity which at present exists for the use of cisterns, "butts, and other objectionable receptacles. The following "conditions also require consideration. Water for domestic "use is required for two distinct and very different purposes: "the one for dietetic, and the other for general sanitary "purposes, including drainage. The first—as shewn by "abundant evidence of the evil influence of impure water "in the Cholera epidemic of 1854, and of the present year— "(1866) must of necessity be of the purest quality. The "requirements of the second would be fulfilled by ordinary "unfiltered river water, or by sea water, and could be "supplied in unlimited quantity for public baths, foun- "tains, the cleansing of streets, drainage, and all other "sanitary purposes. Under the present system the great "bulk of the water which has been purified by filtration "for drinking use, and representing much money, is lost "in being used for all other purposes than that for which "the expensive process of filtration is employed. As it is "necessary for the Water Companies to economise such "expensive water to the utmost, the result is a necessity "for storage--in itself an unnecessary and expensive evil "to the consumer--and a stint in the general supply, "even to an insufficiency, for the purpose of drainage. "Looking to these conditions, it becomes a matter for "consideration whether a sufficient supply of the purest "water for drinking use only, could not be obtained from "the chalk strata by Artesian borings, the general supply "for drainage, and all other sanitary purposes being fur- "nished by ordinary river water, or by sea water. In

"the employment of such a system of distribution, a "necessity would exist for a double system of pipes, but "the expense of these would be amply compensated for "by the removal of the entire cost of filtration. This "District could be easily and economically supplied in the "manner here indicated."

But, as regards the present supply, we have reason to complain that filtration has not been carried out as it ought. The filter beds have been improperly constructed, and the water has been taken constantly from the river, in whatever condition it happened to be, and poured on the filtering surfaces without any subsidence of the heavier particles. At certain seasons, according to the evidence of Col. Bolton, the Water Examiner to the Government, a vegetable fungus has grown rapidly on the surface of the bed, and formed an impervious coating, through which no water whatever has passed. In such extremities the Company has been tempted to pass into the mains water which has never been filtered at all. Then, no attempt has, as yet, been made by the Vauxhall Company to carry out the Act of Parliament by providing a constant service of water, and so taking away the necessity for the objectionable cistern system. All these are serious and just causes of complaint against the Company.

In the meantime, we would strongly suggest the adoption, into the New Public Health Bill, of a clause providing for the proper inspection and control of cisterns by the Officer of the Board.

We would also suggest the immediate amendment of the law regulating the power of the Government Water Examiner, by giving him authority to stipulate for *quantity* as well as quality of the Metropolitan water supply. This singular omission of the legislature has been noticed in the local summary for Battersea, and is a subject of the utmost importance, as several parishes have found to their cost.

We would suggest the following indications to the Company, in the improvement of their water supply :—

I. The proper management of efficiently constructed filter-beds.

II. The construction of reservoirs capable of holding several days' supply, for the purpose—

1. Of allowing of the subsidence of the heavier portions of the mechanically-suspended matter.

2. Of allowing of the intake being closed against the reception of water in a time of flood, when the water is in a particularly foul and unsuitable condition.

III. The establishment of a constant service of water according to the Act providing for the same.

For all matters of less general and more local interest, we refer the reader to the local summaries; and, in concluding our introductory remarks, we venture to express the hope that the success which has hitherto attended the operations of your Board may continue to reward its future efforts to secure the sanitary welfare of the Wandsworth District.

LOCAL SUMMARIES.

WANDSWORTH.

The following Statistics, derived as usual from an analysis of the Registrar-General's Returns and the Public Records of sickness and mortality, will be found on examination to furnish satisfactory evidence that the health of this Sub-district during the year 1876, although it did not attain the exceptionally high position of the year preceding, was in a very favorable state.

VITAL STATISTICS.

Population.—The mean population living during the past year, estimated on the assumption that the same rate of increase had prevailed since the period of the last census as that which obtained during the preceding ten years, was 23,169.

Mortality.—The total deaths registered during the year numbered 461; 247 were of males and 214 of females. 115 of the number took place in the following public institutions; viz., in the Surrey County Lunatic Asylum, 94; in St. Peter's Hospital, 4; in the House of Correction 4; in the Hospital for Incurables, 12; and 1 in the Royal Patriotic Asylum for Girls. In addition to the deaths recorded on the register 21 deaths of Wandsworth parishioners occurred in the Infirmary of the Union; these it is

necessary to take into account in the determination of the death-rate.

Death-Rate.—Calculated from the number of deaths registered and the foregoing estimate of the population, the death-rate was 19·89 per 1000 persons living on an average during the year. But, as explained in previous reports, this rate so determined is inclusive of the mortality of the Surrey County Lunatic Asylum, St. Peter's Hospital and the Hospital for Incurables, the inmates of which institutions are derived, with a fractional exception, from without the parish, undergo no natural increase, and are subject to a high mortality; they moreover contribute such a large proportion of the deaths, amounting last year to nearly a fourth part, that a calculation so derived must be entirely worthless. It becomes necessary, therefore, in order to arrive at the *natural* death-rate of the Sub-district, to eliminate from the calculation the population and mortality of the above named institutions, and, for greater accuracy, to add to it the deaths of the Wandsworth parishioners who died in the Infirmary of the Union during the year. Thus determined, after correction made in the manner indicated, the death-rate of the past year was 16·73 per 1000 of the inhabitants. This rate, although upwards of 1 per 1000 higher than that of last year, is still somewhat below that of rural districts.

Birth-Rate.—The births numbered 679; 373 of males and 306 of females, representing a rate, calculated on the foregoing estimate of the population, of 30·53 per 1000 persons living of all ages. The rate of *natural increase* was 13·80 per 1000.

The following Table contains a summary of all the causes of death arranged in accordance with the classification of the Registrar-General, shewing the sex, social position and age at death at different periods, and particularizing the several diseases of the Zymotic class:—

STATISTICS OF MORTALITY.

WANDSWORTH. Population in 1871—19,783. Estimated population in middle of 1876—23,169. Area in Acres—2,478. DISEASES, And other causes of Death. Diseases Classified.	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 and Trading Class, Shopmen, Clerks, &c.	Industrial and Labouring Classes
Classes :—															
1. Zymotic — Small Pox	1	...	1	...	...	...	1	...	...	...	...	...	...	1	...
1. Zymotic — Measles	17	10	7	2	15	...	17	...	...	...	...	...	...	...	17
1. Zymotic — Scarlatina ...	12	7	5	...	6	5	11	1	...	...	...	1	...	...	11
1. Zymotic — Diphtheria	1	1	...	...	...	...	1	...	...	...	...	...	...	...	1
1. Zymotic — Quinsy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1. Zymotic — Croup	3	1	2	...	3	...	3	...	...	...	...	...	...	...	3
1. Zymotic — Whooping Cough	10	5	5	4	4	2	10	...	...	...	...	...	...	1	9
1. Zymotic — Typhus & Infantile Fever	12	7	5	...	4	1	7	4	1	...	...	...	...	2	10
1. Zymotic — Erysipelas...	2	1	1	1	...	...	1	1	...	...	...	...	...	1	1
1. Zymotic — Metria, Childbirth	4	...	4	...	...	...	...	4	...	...	...	...	1	3	...
1. Zymotic — Carbuncle ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1. Zymotic — Influenza ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1. Zymotic — Diarrhœa & Dysentery	16	12	4	8	3	...	11	...	4	1	...	...	4	3	9
1. Zymotic — Cholera	2	2	...	1	1	...	2	...	...	...	...	...	...	...	2
Totals of Zymotic Class	80	46	34	16	36	8	64	10	5	1	...	1	5	11	63
2. Tubercular.....	64	34	30	12	8	1	28	19	13	4	...	2	3	8	51
3. Of Brain, Nerves, &c.	125	72	53	13	6	2	28	21	41	35	...	5	8	15	97
4. Of the Heart, &c. ...	26	9	17	...	...	...	1	5	6	13	1	1	4	11	10
5. Of Respiratory Organs	58	33	25	18	8	...	26	2	12	17	1	3	1	8	46
6. Digestive Organs ...	29	10	19	8	1	1	11	3	9	5	1	1	4	6	18
7. Urinary Organs.....	6	5	1	...	...	...	...	2	...	4	...	...	1	2	3
8. Of Organs of Generation.....	2	...	2	...	...	...	...	1	...	1	...	...	1	...	1
9. Of Joints Bones, &c.	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10. Of Skin	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...
11. Premature Birth, Low Vitality, Malformation, &c. ...	22	14	8	22	...	...	22	...	...	...	...	...	...	4	18
12. Of Uncertain Seat...	18	6	12	1	...	...	1	2	5	10	...	2	2	4	10
13. Age.....	16	6	10	...	...	...	...	...	...	9	7	3	1	4	8
14. Violence.....	14	11	3	1	4	3	9	3	2	...	...	...	...	1	13
15. Not Specified.....	1	1	...	1	...	...	1	...	...	...	...	...	...	...	1
TOTALS	461	247	214	92	63	15	191	68	93	99	10	18	30	74	339

On reference to the Table it is seen that Class 3, comprising Diseases of the Brain and Nervous System, presents by far the largest share in the causation of mortality, forming over 27 per cent of the whole. But, as might be anticipated from the remarks already made concerning the death-rate, this class is unduly augmented by the deaths in the Surrey County Lunatic Asylum, which during the past year contributed about three-fourths of its total amount. Of other Diseases, Class 1., the Zymotic (Epidemic–Endemic–Contagious) took precedence as usual, forming considerably upwards of 17 per cent. of all deaths. Next in order of fatality was Class 2, the Tubercular, which includes Scrofula and Consumption, contributing 14 per cent. (nearly). Diseases of the Organs of Respiration, Class 5, furnished 12½ per cent., or upwards of half as much again as the average, Class 4 (Diseases of the Heart). Class 11, (Premature Birth, Low Vitality, &c.,) and Class 14,(Violence, &c.,) considerably exceeded the usual amount. Consumption was, as usual, the most fatal single disease, forming nearly 8½ per cent. of all deaths, but Bronchitis was attended with little short of the same fatality. The other classes present no variation from the average of sufficient importance to require notice.

Age at Death.—Upwards of 22 per cent. of all deaths occurred to infants under the first year of age; more than 33½ per cent. were of children under 5 years of age; and upwards of 41 per cent. of persons under 20 years of age. These numbers are each somewhat higher than those of the preceding year. 16 deaths are recorded as the result of old age unconnected with disease, but no less than 58, or nearly one-eighth part of all deaths, occurred above the age of 70: viz., from 70–75, twenty-six; 75–80, twenty-two; 80-85, five; three at 88; one at 89; and one at 95.

Social Position.—73½ per cent. of all deaths, and upwards of 78 per cent. of deaths from Zymotic diseases, took place amongst the labouring classes; the latter amount closely corresponding with the average.

Inquests, Violent Deaths, &c. – There were 25 inquests held during the year, with the following results: viz.,

Deaths from Natural Causes - - -		11
Deaths from Violence	Accident -	11
	Suicide -	1
	Cause Unknown	2

In 7 instances the cause of death was not certified by medical testimony, in each of which, it is scarcely necessary to observe, death *may* have resulted from other than natural causes. The intervention of a medical enquiry in every case of death, the cause of which has not been certified by medical testimony, is so obvious a necessity in the interests of society, that it ought to be invariably secured. (See last year's and previous Reports on the subject.)

Epidemic Diseases—their prevalence and fatality.— The following Table shews the deaths which have resulted from the 7 principal Epidemic diseases during the past and ten preceding years, and the relation which they bore to the deaths from all causes.

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
1866	3	23	10	2	5	7	18	5	73	351	20·7
1867	3	1	7	1	6	1	7	7	33	332	9·9
1868	...	8	5	2	20	...	22	7	64	394	16·2
1869	...	23	36	...	7	...	23	5	94	429	21·9
1870	...	2	48	4	16	...	33	10	113	450	25·1
1871	14	31	23	...	11	...	21	3	103	453	22·7
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

The total number of deaths which resulted from these diseases during the past year exceeded the average by a fourteenth part (nearly). This excess is seen on reference to the Table to have been due to the occurrence of a greater fatality from Fever, Scarlatina, and Measles, but chiefly from the last named disease, the fatality from which exceeded the average of the preceding ten years by about one-third; and was the most fatal of the Diseases in the Table. The proportion, however, which this class of diseases bore to the deaths from all causes was somewhat lower (0·78 per cent.) than the average of the preceding ten years; although it was higher by about one-third than that of the year 1875, which, it will be remembered, was exceptionally free from Epidemics. Next to Measles Diarrhœa was the most fatal of these diseases. Fever (Typhus and Typhoid) and Scarlatina were of equal fatality; the latter having been slightly above, and the former more than double, the decennial average. The following Table exhibits the months in which these diseases were attended with fatal results :—

DISEASE.	January	February	March	April	May	June	July	August	September	October	November	December
Small Pox	...	...	...	...	...	...	...	...	...	...	...	1
Measles	...	...	...	...	..	2	3	4	1	3	2	2
Scarlatina	2	...	1	...	...	...	3	1	...	2	1	2
Diphtheria	1	...	...	..	...	...	...	...	...	...	...	...
Whooping Cough	...	...	...	1	4	2	2	...	1	...	...	...
Diarrhœa	2	...	...	...	...	1	5	7	2	..	...	1
Fever	2	...	...	...	...	2	1	2	2	2	1	...
TOTALS.....	7	...	1	1	4	7	14	14	6	7	4	6

from which it is seen that by far the greater number of deaths occurred in the latter six months of the year, and

that the number in the autumn quarter was twice that in the winter quarter.

Inasmuch as it is against Epidemic diseases—long since declared to be preventible—that the projection of sanitary measures are susceptible of greatest success, it becomes a matter of the deepest moment to ensure the employment of those means for the arrest of their propagation which are at once the most simple, the most effectual, and the most capable of the widest application. Such means are most completely presented by "*Isolation*" —the separation of the sick from the healthy. But as yet isolation is carried out to a very limited extent. It is of late years only that its application has been partially directed to Fever and Small Pox, very slightly to Scarlatina, and only when occurring in the adult, while no attempt has been made to bring Measles within its operation; yet, from an examination of the relative figures in the Table as regards fatality, it is obvious that the last named disease claims as much consideration at the hands of the sanitarian as any other of the eruptive fevers, unless it be unjustifiably held that the security of infantile life is of less importance to Society and the State than that of adult life. By sanitary proceedings of a general nature these diseases are doubtless much lessened in amount and mitigated in intensity; but if their periodic recurrence is to be successfully grappled with and prevented, it is evident that a more complete system of isolation must be employed than the very partial and limited one now in use. Such considerations forcibly indicate the want of arrangements for the treatment of *all* diseases of the epidemic class in the local hospitals.

Sickness and Mortality amongst the Parochial Poor. —Table V., in the Appendix, exhibits, as usual, the amount, nature, and fatality, of the sickness which prevailed amongst the parochial poor during the year. The data furnished by the figures in the Table will be found to be in a marked manner confirmatory of the indications of

the health of the Sub-district derived from the statistics of the death register. The amount of sickness was greater than that of the year previous, but very considerably less than the average of the preceding ten years. The mortality was 4·46 per cent. of the cases treated, which is much higher than the average (3·32 per cent). The amount of Epidemic disease formed 16·7 per cent. of all cases of sickness, and although higher than that of the year previous, it was much less than the decennial average. Small Pox, which was very prevalent in some parts of the District, but very slightly affected this parish; as is seen in the Table, there were but 7 cases, and these were unattended with fatality.

Amount of General Sickness.—In the absence of any records available for the purpose, the amount of sickness which has prevailed generally throughout the Sub-district cannot of course be absolutely determined; but it may be approximately arrived at with sufficient accuracy for the purpose of making comparison with a similar calculation of previous years. Thus, estimated on the assumption that the proportion borne by the number of deaths to the cases of sickness occurring amongst the parochial poor, represents the proportion borne by the deaths to the cases of sickness amongst all classes, the amount of sickness which prevailed generally could not have affected less than 44 per cent. of the population. Such amount will be found to be somewhat less than the average.

Sanitary Proceedings.—In Table VI., Appendix, is contained a summary of the sanitary proceedings which were carried out during the year. A very much larger amount than usual of work of this kind will be found there recorded in comparison with that contained in the reports of previous years, especially as regards the inspection of and the cleansing and purification of unwholesome houses, and the removal of nuisances; and it is satisfactory to observe that all these operations were conducted without any necessity for the intervention of the law for their

enforcement. In addition to the proceedings so tabulated, all the Cow-houses and Slaughter-houses in the Sub-district were examined and reported on; and the conditions of the latter were such as to need no opposition to a renewal of their owners' licenses. Some sanitary defects formed the subjects of special reports, and several nuisances, which it is not necessary to particularise. The most important of the former related to the condition of the Waterside-houses. These were examined and reported on, it having been contemplated, in consequence of their dilapidated state, to deal with them under the provisions of the "Artisans' Dwellings Act." Eventually, however, such intention was not proceeded with. I have, as before, furnished your Surveyor with a tabulated list of the localities in which deaths from Epidemic diseases have occurred during the year, for guidance in the removal of any sanitary defects which may have been associated with the occurrence of those diseases.

In conclusion, the inhabitants may be fairly congratulated on the health and sanitary condition of this Sub-district during the past year.

GEORGE EDWARD NICHOLAS, M.D.,

Medical Officer of Health for Wandsworth.

June, 1877.

BATTERSEA.

The total number of Births registered in the whole of this rapidly increasing Parish during the year 1876 was 3455. The official mean population of the Registrar General, which is admittedly too low, is 72,235; which would give an estimated annual birth rate of 48 per thousand. This is equally too high, and it is therefore evident that a larger population is being dealt with than can be assumed by the ordinary methods. If the normal birth-rate in Battersea which has been found to exist during the years in which the census has been taken, be accepted as the true birth-rate, we get an estimated mean population for the year 1876 of 82,434; a number which may be assumed to be nearly the correct one.

In a like manner the official mean population gives a death-rate of 24 per thousand, which, it is unnecessary to observe, after the foregoing explanations, is far greater than is really the case in this parish. The estimated mean population, derived from the number of births, would give an estimated death-rate for the whole parish, *including all deaths in public institutions*, of 21 per thousand per annum. It will be observed that this is somewhat higher than the death-rates given in the reports relating to the Eastern and Western Sub-districts of the Parish, the difference being occasioned by the numerous persons dying in public institutions; the majority of whom had no previous residence in the Parish.

Sanitary operations during the year 1876 *in the Parish generally.*—The Sanitary work of the past year has been of a very important and varied character, as will be seen on reference to Table VI., and the Medical Officers of Health for both the Sub-districts have been so frequently directed to inspect and report upon various alleged nuis-

ances and other matters conjointly, that this resumé has been made to comprehend the operations of both Sub-districts.

The number of houses in Table VI. recorded to have been inspected during the year was 3357. In many of these houses infectious disease had been present, and disinfection by means of fumigation, and antiseptic chemical agents, was effectively applied, and the recurrence of similar disease has not, as far as we have been informed, taken place in any instance.

By these inspections many nuisances have been discovered, most of them having direct relation to defective drainage within the walls of dwellings. 359 1st notices were served and the majority attended to by the owners or occupiers of the premises. In 18 instances 2nd notices had to be served before the necessary repairs or alterations were executed. In reference to this subject numerous investigations have convincingly demonstrated the great necessity that exists for the extension of the control of the Board and its officers over the laying and construction of the drainage of houses *within the walls* as well as without. In nearly every complaint of nuisance the house drains have been the channel by which the offensive matter complained of gained admission; and the record of any great outbreak of Zymotic disease suggests that the disease has been frequently conveyed from house to house by the same means. It is imperatively necessary for the Public safety that all house drains should be well and efficiently trapped, that the joints should be effectively made with proper material, that a concrete foundation for the drains should be made through the basement, to prevent sinking and consequent leakage—which has many times in this parish been the cause of an immensity of illness and many deaths—and last, but certainly not least in importance; the drain pipes should in all cases be continued, of the same calibre, to the roof of the house, or, still better, some two feet above it. These precautions,

which cannot now be enforced in the present state of the law, are necessary to make our present system of sewers not only efficient, but safe. It should not be forgotten that the lamentable outbreak on St. John's Hill, some two years ago, affecting as it did some hundreds of persons in a single night, and causing the loss of several valuable lives, would not and could not have occurred if the above measures had been adopted. The usual water seal in traps of house drains is liable to get out of order in many ways, the most frequent of which is back pressure of sewer gases when a heavy fall of rain occurs; in which circumstances, and under the present arrangements, a sudden flooding of the main sewers takes place and their gaseous contents are forced through the thin water seal of the ordinary water closets with the greatest facility. It is obvious that if the drain pipes were carried to the top of each house any back pressure of gas would not be able to find its way into that house. There is no doubt that legislation giving the Board control over the manner in which house drains are laid throughout their whole length would be of the greatest possible value, as numerous cases have occurred in this parish where the cause of death has been distinctly traced to the influx of sewer gases by these channels. This matter is one that should be brought to the front in any future legislation on the subject.

Thanks in great measure to the members of the Anti-Vaccination League, and other foolish persons possessing a defective knowledge of the real effects of vaccination, and an ever ready belief in absurd and unreliable statements as to alleged subsequent outbreaks of disease, following and occasioned by this, the most beneficent discovery ever vouchsafed to the human race, another outbreak of Small Pox throughout the metropolis generally has to be reported. In this parish the deaths to the end of the year were 10, none of which were of unvaccinated children born in this parish; the two cases under 10 years of age which succumbed to the disease having been born elsewhere.

It will be seen upon reference to Table V. that 84 cases of Small Pox came under the care of the District Medical Officers; the majority within the last 3 months of the year. Every case where practicable was removed to one of the Small Pox Hospitals, at the earliest possible moment, the houses and apartments disinfected, and the rest of their inhabitants revaccinated in those cases where they could be induced to consent thereto.

When it is recorded by competent authorities that within the last few centuries the death-rate was about twice the present rate in the metropolis, and that one half of these deaths were caused by Small Pox, we are inevitably compelled to the conclusion that the mortality from Small Pox was then equal to the whole number of deaths from all causes at the present time. Nothing except vaccination and re-vaccination is known which is effectual as a preventitive to this disease; and its protective powers are shewn by the fact that during the present outbreak of the disease the majority of those who recovered had been vaccinated in early life; while those who died were either unvaccinated infants or adults in whom the protection afforded by primary vaccination, in many cases perhaps insufficient at the first in number of vesicles, had to a certain extent become exhausted by the changes which take place in the system during and after puberty, when in all cases re-vaccination should be performed—as is evidenced by the statements made by the Medical Superintendents in the Official Reports of the Small Pox Hospitals, that no case of Small Pox had been admitted into those institutions where undoubtedly successful re-vaccination has been performed,—and did we indeed need further proof of its efficiency, we have only to refer to the fact that ever since the establishment of special hospitals for the reception of patients suffering from this disease, a period of about 40 years, during which every official and servant has been re-vaccinated on joining the institution, in no instance, although in almost constant

contact with patients suffering from Small Pox in its worst forms, has any one of these persons taken the disease, with two significant exceptions, in which two nurses, who in the hurry consequent upon a sudden outbreak of the disease were allowed to enter upon their duties in the wards without this protective operation having been performed, and in each case a very severe attack of the disease occurred.

The following Table shews the result of the Vaccination Officer's work in the parish during the year, and the small number left unaccounted for, viz., 5 out of a total of 3459, reflects the highest credit upon the manner in which the duties devolving upon him have been carried out.

MONTHS.	Births registered during 1876	Successfully Vaccinated	Insusceptible	Had Small Pox	Died Unvaccinated	Postponed by Medical certificate	Removed to places unknown	Not accounted for
January to June	1757	1484	9	...	164	15	80	5
July to December	1702	1463	3	1	156	12	67	...
TOTALS.....	3459	2947	12	1	320	27	147	5

Water Supply.—The water supply has been the cause of many complaints, both as to the quantity and as to the quality of this absolutely necessary element. The parish is supplied by the Southwark and Vauxhall Water Company, and for many years past the public generally have complained of the defective and irregular nature of that supply. Other parishes have complained still more loudly than in our case,—notably the parish of Bermondsey some years since, when the so-called water famine occurred in that locality. By some strange inadvertence on the part of the legislature the water examiner has no control over the quantity, but merely over the quality, of the water supplied to the ratepayers.

It is but just to say that, during the latter part of year under report, a much better supply of water was given than had ever been the case before, as far as quantity was concerned; but the quality, as evidenced by Dr. Frankland's reports to the Registrar General, was amongst the worst given by any of the Metropolitan Water Companies drawing their supply from the Thames, and was indeed in many respects almost identical with that from the river at the intake near Hampton, which is the source of supply. At the same time it was not sufficiently bad to have been taken from the Thames at Battersea—as was formerly proved to have occurred; that source of supply having been effectively cut off under Captain Tyler's directions some years since.

The importance of a good supply of pure water cannot be overrated, as it is an undoubted fact that many diseases of a Zymotic nature can be and are readily conveyed by this medium. We cannot too strongly insist upon the duty of all concerned to provide water as free from organic impurities as possible, which, whilst the only available source of supply at present time is the Thames,—which receives above the intake of the Water Company the sewage of many towns, as well as the land water in time of flood, bringing with it decomposing organic matters,—is only to be obtained by preventing the drainage of the towns above the intake finding its way into the river; by impounding reservoirs having sufficient capacity for several weeks' supply, so as to obviate the necessity for the admission of the river water in times of flood; and further, by a careful and efficient method of filtration; as well as a more frequent cleansing of filters and of the filtering medium.

During the year under report 149 houses and water closets were supplied with water for the first time as the result of house to house inspection.

During the year matters of serious moment in connection with the various factories in the parish have claimed our constant attention ; the most notable of these being Messrs. Wallace's Chemical Works in the New Road ; and the Alum and Ammonia Company's premises in the Lombard Road. As legal proceedings are still pending in connection with nuisances alleged to exist at both these works it would obviously be improper of us to offer any observations referring to them in this report. We therefore defer them to a future occasion.

Further information relative to the sanitary condition of our respective Sub-districts will be found in the following pages.

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Medical Officers of Health
for East and West Battersea.

BATTERSEA EAST.

The greater the interval of time which has elapsed between the preceding census and the year under report, the greater becomes the difficulty of determining the real population of this important Sub-district, which increases in a probably accelerated ratio.

The *official* mean population of Eastern Battersea for the year 1876 is 36,567, but, as has been shown in former reports, this is undoubtedly far below the real number; the birth-rate would be, if this estimate were accepted as correct, 53·8 per thousand per annum, a perfectly preposterous rate, the birth-rate for the metropolis being only 36·5 per thousand during the year.

It is therefore necessary to use an *estimated* mean population, and as the birth rate in Eastern Battersea has, with remarkable uniformity, remained at 42 per thousand, an estimated mean population of 46,857 for the middle of the year 1876 has been deduced from the 1968 births registered, which is probably almost absolutely correct.

The *natural* increase of population, arrived at by deducting the 893 deaths from the 1968 births registered

during the year, was 1075, which is by far the largest number recorded in the Sub-district, and by its increase on the number of the year 1875, viz., 842, shews that a large amount of immigration of persons of child-bearing age has taken place. There is no doubt that to immigration is chiefly due the estimated increase of population of 4799 during the year.

Mortality.—The total number of deaths registered from all causes in the Eastern division of the parish of Battersea during the year 1876, was 893. Of these 463 were males and 430 females. The number registered in 1875 was 867; the increase in the number of deaths is only 26, while, as will be shown elsewhere, the births have increased 259.

Taking the *estimated* mean population as the *real* population, the death-rate for the year would be 19 per thousand persons living. The death-rate for all London in 1876 was 22·3 per thousand. It is but proper to state that the *official* mean population, which should not be applied to rapidly-increasing communities like our own, would give 24·3 per thousand as the annual mortality, but its inapplicability will be evident from the foregoing considerations.

The usual statistics of mortality are here appended in the usual form, presenting at a glance the sex, age, social position, and the total numbers of persons dying during the year under consideration, of the various diseases therein set forth.

STATISTICS OF MORTALITY.

BATTERSEA EAST. — Population, June, 1875—34,826. — Estimated mean population, 1876—36,567. — Area in Acres 1235.	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 — Small Pox.	7	3	4	...	1	1	...	2	3	1	1	...	...	...	...	7
Measles ...	20	11	9	6	11	3	...	20	...	...	...	...	...	2	1	17
Scarlatina...	34	20	14	3	22	7	2	34	...	...	...	...	...	...	4	30
Diphtheria.	3	1	2	...	3	...	...	3	...	...	...	...	...	1	...	2
Quinsy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Croup	11	6	5	1	9	1	...	11	...	...	...	...	...	...	...	11
Whooping Cough ...	53	31	22	19	34	...	...	53	...	...	...	...	...	4	3	46
Typhus, &c.	6	2	4	2	...	2	1	5	...	1	...	...	...	1	...	5
Erysipelas.	2	2	...	2	...	...	...	2	...	...	...	...	...	1	1	...
Metria, Childbirth	10	...	10	...	...	...	...	...	7	3	...	...	...	...	2	8
Carbuncle.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Influenza ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa & Cholera ...	60	27	33	53	4	...	...	57	..	1	1	1	...	3	8	49
Totals of Zymotic Class	206	103	103	86	84	14	3	187	10	6	2	1	...	12	19	175
2. Tubercular	205	121	84	81	37	6	9	133	40	29	3	...	3	10	14	178
3. Of Brain, Nerves, &c.	67	34	33	20	14	5	...	39	4	10	12	2	2	2	8	55
4. Of the Heart, &c. ...	36	16	20	...	3	1	2	6	7	11	11	1	...	4	5	27
5. Of Respiratory Organs	189	86	103	61	55	8	2	126	13	24	25	1	2	6	17	164
6. Of Digestive Organs	35	20	15	6	1	...	...	7	14	4	10	...	...	2	8	25
7. Of Urinary Organs.	16	5	11	...	2	1	2	5	2	4	5	...	1	...	2	13
8. Of Organs of Generation	1	1	...	...	...	...	...	...	...	...	1	...	...	...	...	1
9. Of Joints, Bones, &c.	4	3	1	...	2	...	1	3	...	...	1	...	...	...	...	4
10. Of Skin	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11. Premature Birth, Low Vitality, Malformation, &c.....	66	39	27	66	...	...	...	66	...	...	...	...	...	1	8	57
12. Of Uncertain Seat...	14	7	7	4	...	...	...	4	3	4	3	...	...	1	...	13
13. Age.....	13	2	11	...	...	...	...	...	...	...	9	4	...	...	1	12
14. Violence.....	32	25	7	7	3	1	8	19	6	4	3	...	...	2	1	29
15. Not Specified.....	9	3	6	4	1	1	...	6	1	1	1	...	...	...	2	7
TOTALS	893	465	428	335	202	37	27	601	100	97	86	9	8	40	85	760

Ages at Death.—The deaths under 1 year of age were 335 out of a total of 893 deaths, or 37 per cent., being very much the same as for 3 years past, with the exception of last year, when it was 34 per cent. It must, however, be mentioned that the law has lately been made more stringent on the subject of death-certificates, and great numbers of newly-born children, which may have survived but a few hours, or even minutes, are now registered, which were formerly interred as still-born children, mainly with the object of saving the interment fees. In this way the number certified as having died from "Premature Birth, Low Vitality, &c.," increased from 32 in 1875 to 66 in 1876.

Between 1 and 5 years 202 deaths were registered, being 25 less than the previous year. Altogether under 5 years of age 537 deaths were registered, or 54 per cent. of the total mortality, the percentage being 60 for the last two years, and this, despite the increased registration of deaths of newly-born infants; so that there seems to be some reason to hope that the appalling mortality amongst very young children, so frequently adverted to in former reports, is at last showing symptoms of diminution.

Nine persons have died above 80 years of age in the Sub-district during the year.

Social Position.—The rank or position in life of the deceased persons is given in this Table, together with the per centage each class bears to the others and the total.

		= per cent.
Nobility and Gentry	8	·9
Professional Class	40	4·5
Middle and Trading Class	85	9·5
Industrial and Labouring Class	760	85·1
Total	893	100·0

which varies but slightly from the averages of former years.

Zymotic or Epidemic Diseases.—The mortality from these, the so-called preventible diseases, during the year was 206, as contrasted with 196 during 1875. The numbers for either year are given in the following table for the purpose of comparison. The increased population is more than equal to the increased numbers.

	1876.	1875.
Diarrhœa (and Cholera) ..	60	44
Whooping Cough	53	42
Scarlatina	34	55
Measles	20	9
Croup	11	13
Diseases of Childbirth ..	10	4
Small Pox	7	0
Fevers	6	16
Diphtheria	3	6
Erysipelas	2	7
Totals	206	196

Twenty-three per cent. (or precisely the same proportion as last year) of the total number of deaths in the sub-district were recorded by the Registrar as the result of this class of disease.

Reviewing the diseases of this class as they occur in the table, it will be seen that Diarrhœa heads the list, 60 deaths being ascribed to this cause against 44 in 1875. The prolonged and excessive heat of the summer months was the direct cause of this increase, without doubt.

Whooping Cough was again very prevalent, 53 deaths against 42 in the preceding year. Scarlatina, one of the most malignant and infectious of this class of diseases, was the cause of death in 34 instances against 55. This disease is peculiar in leaving a train of diseases behind it in those who escape death, and its diminished frequency is, there-

fore, matter for congratulation. Measles was very prevalent, and caused death in 20 instances. Croup was fatal in 11 cases. Diseases incidental to Childbirth caused the death of 10 women ; when it is, however, remembered that 1968 children were born, it will be apparent that the maternal mortality was only about one-half, or ·5 per cent., a very low rate of puerperal mortality ; at the same time much higher than during 1875, when but 4 deaths occurred from this cause.

Small Pox again made its appearance in the Sub-district, and up to the last day of the year 10 deaths were registered. The number of deaths does not, however, by any means represent the number of persons afflicted by this, the most loathsome of all the Zymotic class of diseases Many persons were removed to the Small Pox Hospital, of whom several died. The District Medical Relief Book shows (vide Table V.) that 59 persons were attended amongst the parish poor alone suffering from this disease up to Dec. 31, of whom 1 died.

The number of deaths from Fever diminish year by year in this Sub-district, and but 6 are recorded during 1876 against 16 in 1875. Diphtheria caused death in 3 cases and Erysipelas in 2, contrasted by 6 and 7 respectively in 1875.

Other diseases.—Tubercular diseases, as Pulmonary Phthisis, Water on the Brain and Infantile wasting ; invariably cause the majority of deaths, and during this year their fatality included 205 cases, contrasting with 197 in 1875.

Diseases of the Respiratory Organs caused 189 deaths as against 196 last year.

From diseases of the Brain and Nerves 67 deaths were recorded. 100 was the number during each of the two preceding years.

From Premature Birth 66 cases were registered against 32. Diseases of the Heart appear as the cause of 36 deaths and diseases of the Digestive Organs for 35.

Thirty-two deaths were recorded as arising from Violence, particulars will be found under the head of Inquests.

Births. –The births registered in the Sub-district during the year 1876 were males 1001, females 967; total 1968. The number during 1875, 1709 births registered, being an increase of 259 births.

Vaccination.—During the year the Register of Public Vaccination shews the following results:—

Successful Primary Vaccinations	..	1133
,, Re-Vaccinations	..	140
Total	..	1273

These are of course in addition to the operations performed by private medical practitioners. It may be said that very few children escape vaccination in this Sub-district, as the Vaccination Officer discharges his duties in an effective manner. No death from Small-Pox has occurred in any child born in this parish, all the fatal cases occurring in un-vaccinated children born elsewhere.

Inquests.—The Coroner has held inquiry into the cause of death in 50 cases during the year. Of these 18 arose from natural causes, the other 32 were the results of violence. The findings of the Jury are tabulated below.

Natural Deaths. (Heart Disease 5)..	..	..	..	18
Accidental do.—				
Asphyxia (5 Infants overlaid)	..	..	..	8
Drowned (2 Suicide)	..	..	..	16
Killed on Railway ..	..	..	..	3
Scald 1, Fall 1, Poison 1	..	..	..	3
Suicide—Cut Throat 1, Hanging 1			..	2
				50

Of the so-called natural deaths two arose from excessive drinking,

Uncertified Deaths.—Sixteen cases of death, registered without medical certificate or inquest, occurred during the year. The majority are said to have died from Convulsions, 8 ; Natural Causes, such as Consumption or Diarrhœa, 7 ; and in one case the cause of death is said to be unknown. This condition of matters is very unsatisfactory indeed ; the cause of every death should, in the best interests of Society, be investigated, and as far as possible, determined by some competent authority.

W. H. KEMPSTER,
Medical Officer of Health
for East Battersea.

BATTERSEA WEST.

The health of this Sub-district, so far as the actual number of deaths are concerned, compares favourably with the previous year, those returned in the year under consideration being five less than 1875; and when it is remembered that considerable increase in population, both naturally and by immigration, has taken place, as shown by the birth-rate—which is the only means excepting actual census taking; by which a population can be estimated—we have cause for congratulation, especially when we consider that the great majority of our population is made up of the working class, who, as a matter of necessity, are much exposed to climatic changes.

With increase of population the mortality also usually increases, as it often implies over-crowding, poverty, impurity of air, deficiency of cleanliness, disease, &c.; but, as will be seen by reference to the Mortality Tables, this is not the case here. The efficient supervision in use by the Board for the removal of all those conditions which experience teaches us are the factors, if not of actual disease, certainly of injury to health, which render persons more susceptible, increase the severity of disease when it makes its appearance, and retards convalescence, conduces greatly to this result. Vapours, gases, and substances, are constantly passing into the atmosphere, all more or less injurious, directly or indirectly; it is with the gases from sewers we are chiefly concerned, seeing what a ready means they have of communicating with the whole District. In order to give a ready exit to these gases, special ventilators have been inserted at the stump-ends, but where ever these sewer gases are generated they must find their way amongst the people, either, if improperly trapped, into the houses by the drains, or by the ventilators into

the road; there to be diluted and disseminated by the winds. We may ventilate as much as we please, we may destroy, to all appearance, our sewer gases; but the only safe and effectual remedy consists in removing the animal and vegetable matter before decomposition sets in, and this can only be done by frequent and efficient flushings and cleansing. In seasons of wet weather, when there is much land-water, our sewers do not appear to be large enough to carry off the water, and, as a consequence, it finds its way backwards up the private drains into the basements of the houses. Many and serious complaints have been made, and very justly, as it is likely to be dangerous to the health, and certainly destroys the comfort of people.

Complaints have been made of the unhealthiness of certain parts of the District; notably of the Clapham Junction Estate, and Gwynne Road. With respect to the former it is said, and on good authority, that more persons attend the Consumption Hospital from the neighbourhood of Clapham Junction than any other district. What then is the cause? Some ten years ago there was scarcely a house on the Estate, now there are over a thousand. It was then a swamp. Can this previous condition be the remote cause? It is well known that chest complaints are more prevalent in persons who reside in damp localities than in dry. The streets are well drained and all made up; and the houses should be built with the basements well off the ground, and so arranged as to admit a free passage of air.

After carefully going over the deaths which have occurred from Lung diseases on this Estate—and this is the only means by which we can judge of the amount of sickness, no means for the registration of each case of disease existing--they are not more numerous than in any other equally populous portion of the District.

With respect to Gwynne Road and the abutting streets, cases of Diphtheria, Scarlet Fever, &c., were frequently occurring. An investigation took place, and the sewers were found to be unventilated; the stump-ends have been opened up in the usual way; and Gwynne Road itself has been made up under the orders of the Board. I trust the means taken will be efficient in checking the diseases which have hitherto visited this neighbourhood; at the same time it must be understood if the people themselves neglect those precautions so necessary to health, the utmost a Sanitary Board can do must in a measure fail.

The Mortuary is now complete, and open for the reception of bodies; it is situate at the rear of St. Mary's Church, in the churchyard, and consists of two rooms, one fitted up with four slate slabs, set on brick piers, and the other is used for the purposes of post-mortem examinations; it is light, well ventilated, and furnished with gas and water; the floor is of concrete. This building will prove of inestimable benefit to the public generally, and, being near the river, we shall be relieved of those sensational scenes which so often used to occur. The post-mortem room is accessible to all the medical gentlemen in the parish, for the purpose of making those examinations which are often attended with much inconvenience to themselves and distress to the persons in whose houses they are generally made. I could wish it was complete with disinfecting chamber and inquest room.

It also contains a shell made of galvanized iron, of sufficient size to admit of the largest coffin, the lid fits into a groove which contains water so as to prevent the escape of any gases, in the centre of the lid is a sheet of glass through which Jurymen may view the body on which any inquiry is being held.

It is made after the model so kindly placed before the Local Committee by Mr. Tully.

Mortality.—The total number of deaths registered as having occurred in this District during the year was 852, 450 being males and 402 females (the males exceeding the females by 50), being a decrease on the previous year of 5. Of the total number 163 took place in the Infirmary, 76 of which were parishioners of Battersea, leaving 87 belonging to the other parishes of the Union; these 163 deaths are a decrease on the previous year by 14, when 177 were returned.

Deducting, then, the 163 Infirmary deaths, which, as the inmates are derived from the whole union, it is but just to do, it will leave 689 as the correct number of deaths for this out-door District.*

Death-rate.—Calculating the death-rate on the assumption that the population has increased at the same rate as it did during the ten years ending 1871, we should have a population of 35,577 souls, and a death-rate of 19·5 per 1000.

Birth-rate.—The births registered were 1487, the excess of males over females being 71—779 being males and 708 females; and the rate, calculated in the same manner as the deaths, was 41·7 per 1000, the natural increase to population being 635; after including all deaths in the Infirmary, this is 121 in excess of last year. The birth-rate forms a very reliable means of judging of the population, as it rarely exceeds 35 per 1000 per annum; if, then, our birth-rate is nearly 42, there must be a far greater number of persons in the district than our method of calculation allows; this fact should not be lost sight of when perusing the death-rate, which, if calculated by a population that would yield the recognised birth-rate must be considerably lower than 19 per 1000.

The following Table shows the causes of all deaths classified at different ages, the sex, and social position, which have taken place in this Sub-district during the year 1876 :—

* Out-door with reference to Infirmary.

STATISTICS OF MORTALITY.

BATTERSEA WEST.	Total Deaths from each Class of Disease, &c., in the Sub-District	Sex		Age									Social Position			
Population June, 1875— 33,856. Estimated mean population June, 1876— (52 weeks) 35,577, Area 1108 acres.		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	3	1	2	2	...	...	1	3	...	...	...	...	...	...	...	3
1. Zymotic — Measles	35	22	13	11	22	2	...	35	...	...	...	...	1	1	4	29
1. Zymotic — Scarlatina	20	9	11	1	9	3	5	18	2	...	...	...	...	...	4	16
1. Zymotic — Diphtheria	5	...	5	...	1	3	1	5	...	...	...	...	...	...	2	3
1. Zymotic — Quinsy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1. Zymotic — Croup	6	4	2	...	5	1	...	6	...	...	...	...	...	...	1	5
1. Zymotic — Whooping Cough	32	13	19	14	16	2	...	32	...	...	...	...	...	...	8	24
1. Zymotic — Typhus & other Fevers	19	7	12	...	..	2	3	5	1	10	3	...	1	...	2	16
1. Zymotic — Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...
1. Zymotic — Metria, Childbirth	5	...	5	...	...	...	...	...	4	1	...	...	...	...	2	3
1. Zymotic — Carbuncle	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1. Zymotic — Influenza	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1. Zymotic — Diarrhœa & Choleraic Disease	43	23	20	35	2	2	...	39	...	2	2	...	1	...	6	36
Totals of Zymotic Class	168	79	89	63	55	15	10	143	7	13	5	...	3	1	29	135
2. Tubercular	149	79	70	41	10	4	11	66	56	23	4	...	3	...	23	123
3. Of Brain, Nerves, &c.	119	80	39	38	23	2	1	64	9	23	21	2	6	2	19	92
4. Of the Heart, &c.	49	28	21	4	1	...	1	6	6	13	21	3	1	1	5	42
5. Of Respiratory Organs	160	82	78	52	40	2	1	95	7	26	27	5	...	...	30	130
6. Digestive Organs	19	7	12	4	...	...	...	4	3	7	5	...	...	...	5	14
7. Urinary Organs	13	8	5	...	...	...	2	2	2	6	3	...	2	...	3	8
8. Of Organs of Generation	8	1	7	...	...	...	...	...	5	2	1	...	1	...	2	5
9. Of Cancer, &c.	22	2	19	3	...	...	...	3	1	8	9	1	...	1	2	19
10. Syphilis	4	...	4	2	1	...	...	3	1	...	...	...	...	...	...	4
11. Premature Birth, Low Vitality, Malformation, &c.	30	21	9	29	1	...	...	30	...	...	...	...	...	2	...	28
12. Of Uncertain Seat	37	23	14	3	4	3	...	10	6	7	13	1	1	1	7	27
13. Age	53	25	28	...	...	...	...	...	...	...	22	31	...	2	5	46
14. Violence	18	13	5	6	4	1	...	11	2	4	1	...	...	...	1	17
15. Joints and Bones	4	2	2	2	...	...	1	3	...	1	...	...	...	...	2	2
TOTAL	852	450	402	247	139	27	27	440	105	132	132	43	17	10	133	692

* This table includes all deaths in the Infirmary of the Union.

Zymotic Mortality.—The deaths from this class of diseases collectively give an increase on the previous year of 13. Scarlet Fever, which was so prevalent during 1865, continued for some months to yield fatal results during the year now under consideration, still, but 20 were registered against 48. There is an increase in Measles by 24, Whooping Cough by 19, Fevers by 5, Small Pox by 3, and Diarrhœa by 8. The 3 deaths from Small Pox are the first that have been registered for the past three years.

Of the 168 persons who succumbed, 79 were males and 89 were females, 118 were under 5 years of age, and 143, inclusive, were under 20, and 5 were 60 years and upwards; 2 of the deaths from Small Pox were under 1, and 1 was over 10 years of age, neither of them being stated whether vaccination had been performed or not.

The following Table contrasts all deaths in West Battersea from Zymotic causes from the past five years.

	1872.	1873.	1874.	1875.	1876.
Small Pox	4	1	0	0	3
Measles	24	11	8	11	35
Scarlatina	3	3	5	48	20
Diphtheria	15	3	5	7	5
Quinsy	0	0	0	0	0
Croup	7	6	16	5	6
Whooping Cough	31	24	30	20	39
Typhus, &c.	13	22	15	14	19
Erysipelas	5	4	4	9	0
Metria, Childbirth	2	4	11	6	5
Carbuncle	1	0	0	0	0
Influenza	0	0	0	0	0
Diarrhœa and Cholera	32	37	43	35	43
Totals	137	115	137	155	168

Other Causes of Death.—Diseases of the Respiratory Organs, excluding Phthisis, are again the highest in number of this class of diseases, 169 being registered; but

although this is the case they are 37 below those of the previous year. From Bronchitis 87 were registered, Pneumonia 49, Asthma 2, and other Lung diseases 22.

The Tubercular resulted in 149, of which 114 were from Phthisis, Atrophy 32, and Scrofula 3. Of the deaths from Consumption 79 occurred between the ages of 20 and 50, the ages at which I have noticed for years past this distressing disease has been most fatal. Conjointly this class of diseases are 1 in excess of the previous year, but there is an increase of 27 from Phthisis, and a decrease of 20 from Atrophy ; this latter I am glad to report, as I trust it shows a better knowledge on the part of mothers in reference to feeding their infants. Diseases of the Brain and Nerves also show a decline on those of the previous year, 119 being registered against 130. Disease of Heart 49, Cancer 22, Digestive Organs 19, Urinary 13, Generation 8, Syphilis 4, Joints and Bones 4, Violence 18, Premature Birth and Low Vitality 30, of Uncertain Seat 37, and Old Age 53. Of the 684 deaths from the non-epidemic classes of disease 371 were males and 313 females. 184 were under 1 year of age, 84 between 1 and 5, 297 under 20, inclusive, from 20 to 40–98, 40 to 60–119, 60 to 80–127, above 80–43. Of the total number of deaths from all causes the greatest period of freedom from any disease, except Phthisis, is from 10 to 40, in which period but 132 deaths were registered of the whole total 852, and 65 of these were from Phthisis ; the most fatal period is the first year of life, no less than 247 being returned under that age.

It is gratifying to observe the number of our parishioners who live to good old age ; between 60 and 80, 132 were returned, and above 80, 43, two of the latter reaching the great age of 97 and 92 respectively, the eldest being, as usual, a female ; it is also pleasing to remark that all but 5 of these aged persons died from diseases not of the acute nature which affects the younger portions of the population, most of the cases being of a chronic nature,

and we must hope that their sufferings were accordingly less severe.

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

	1872	1873	1874	1875	1876
Tubercular including Phthisis	106	106	113	148	149
Of Brain, Nerves, &c	76	100	115	130	119
Of the Heart, &c.....	24	34	31	37	49
Of the Respiratory Organs, excluding Phthisis.....	105	156	151	197	160
Of Digestive Organs.....	18	11	23	27	19
Of Urinary Organs	4	4	6	10	13
Of Organs of Generation ..	2	6	3	7	8
Of Joints, Bones, &c.	0	0	4	8	4
Of Cancer	15	14	10	2	23
Premature Birth, Low Vitality, Malformation, &c.	22	23	26	37	30
Of Uncertain Seat.... ...	61	50	27	39	37
Age..	46	51	22	39	53
Violence.....	28	4	15	15	18
Syphilis	0	0	6	9	4
Totals..	507	559	552	702	684

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

1872	1873	1874	1875	1876
644	674	686	857	852

The Death-rates per 1000, *excluding Infirmary deaths and its population, was—*

1872	1873	1874	1875	1976
17·0	17·6	17·2	20·2	19·5

Inquests.—During the year 28 Coroner's Inquests were held, viz., on the bodies of 18 males and 10 females,

this being a decrease on the previous year of 14; the verdicts returned were

From Accidental Causes - - -	17
Natural Causes - - - -	9
Suicide - - - - -	1
Found Dead. No evidence of cause - -	1

Of the accidental causes 4 were by Asphyxia under bed clothes, 3 by burning, the clothes taking fire, 3 by injuries, 2 by drowning, and 1 by the impaction of bread in the throat causing suffocation. The suicide was that of a male aged 46 by drowning whilst mentally deranged; the natural causes were principally from fits and heart disease. The noticeable feature, as compared with last year, is the decrease of suicides, there being but 1 as against 7.

Social Position.—The proportion of deaths in relation to Social Position was as follows;—

		Per cent.
Nobility and Gentry	17	2·
Professional	10	1·17
Middle and Trading	133	15·61
Industrial	692	81·22
	852	100·00

Disease and Mortality amongst the Union Poor:— The number of cases which came under treatment were 384, 145 being males and 239 females. These numbers are 3 in excess of those of 1875, and small they are when we consider the nature and extent of our population; it shews clearly that there cannot be a large number of actual poor amongst us, or else in the time of health and prosperity they adopt the manly and independent course of making provision for the time of adversity, which sooner or later is sure to come. These applications for parochial medical relief are less than they were ten years ago when the population was not more than half of what it is at present, this shows that although the immigration into

the district has been so great, that the people are of the industrial classes; what the condition of things will be as age creeps upon them, is a matter for conjecture.

Of these 384 cases, 22 were removed to Hospitals and 12 to Lunatic Asylums. There were 25 cases of Small-Pox, 10 of Scarlet Fever, Diarrhœa 19, Fever 7, Measles 5, Erysipelas 3, Lung diseases 75, Phthisis 11, Violence 20, and 222 from other diseases, principally Rheumatism, Old Age and Disease of the Nervous system. On reference to Table 5, Appendix, the nature of the different diseases will be found, and also the deaths. In comparing the diseases with the previous year, there will be found a decrease in Measles, and an increase in Small Pox, so much so that an Epidemic was then feared, which fears have unfortunately been realised during the present year. Remarks on this disease will be found in the general summary for the whole parish.

The number of deaths was 23 and the rate 7 per cent.; at the same time it must not be forgotten that several of those who were removed to Hospital succumbed and would under ordinary circumstances have been taken in the total death rate.

J. OAKMAN,

Medical Officer of Health,

West Battersea.

CLAPHAM.

In presenting for the twenty-first time my report as to the Sanitary condition of this Sub-district, I need make no apology for introducing, as usual, the following Table, believing that it will be found useful to those who are interested in the sanitary progress of this locality.

Years	1866	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876
Marriages	310	244	272	234	158	249	236	257	284	243	313
Births	711	777	801	838	867	864	858	929	937	965	1029*
Deaths	425	451	450	508	480	604	482	475	528	548	545
Excess of Births over Deaths ...	286	326	351	330	387	260	376	454	409	417	484

*Of this number I successfully vaccinated in 338 cases. — J. M. D.

It has been my habit to introduce into the above Table a return of the marriages solemnised in the district, as affording some indication of its material and social prosperity, and, it is satisfactory to notice, that the past year has been distinguished by a greater number of these events than any of the preceding nine years.

Of these 313 marriages, no less than 382 were solemnized in the usual manner, and the remaining 16 were contracted before the Registrar. The marriage rate was 1·4 per 1000 of the population.

The number of births, almost necessarily, I might say, have also shown a larger increase than usual. In 1875 965 births were registered, and during the past year 1029 (530 males and 499 females), giving an increase of 55 births. The birth rate is 34·3 per 1000.

While it is satisfactory to note an increase in the marriages and births, it is still more pleasant to record a decrease in the deaths. During the past year 545 deaths were registered, showing a decrease of 3 from those of 1875, and yielding a death rate of 17·7 per 1000. Such a death-rate is most creditable to our locality, and is evidence, I think, that its sanitary condition is improving notwithstanding its rapidly increasing population. The excess of births over deaths was 484, which, of course, represents the natural increase of the population.

Zymotic Diseases.—The fatality from this class of diseases is shown in the following Table, drawn up with a view of comparing at a glance the past with the preceding ten years. Such a Table affords the means of judging to some extent of the success of scientific sanitation in the reduction of the number, or at least the intensity, of these maladies.

Years.	1866	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876
Small-pox.	10	7	0	10	6	94	14	0	0	2	14
Measles ...	18	3	9	2	14	2	30	11	20	3	13
Scarlatina.	6	5	14	29	45	20	6	2	33	22	13
Diphtheria	5	3	7	0	2	3	3	3	4	6	0
Whooping-cough ...	14	7	25	29	9	18	25	14	15	17	17
Typhus ...	16	10	26	17	12	10	11	10	6	2	5
Diarrhœa & Cholera	17	21	28	30	31	31	39	25	27	22	24
Totals ...	86	56	109	117	119	178	128	65	105	74	86

It will be seen that Small-pox was fatal in 14 cases. In 1875 only 2 cases were fatal, in the two preceding years none, while in 1872 there were 14, and in 1871 (the epidemic year) 94 deaths from Small-pox. Measles shows an increase upon the previous exceptionally favorable year (1875). Scarlatina was considerably less fatal during the past than the two preceding years. Diarrhœa had a lower fatality than any year since 1867 with the exception of 1875. Diphtheria was fatal in no case, while Whooping Cough maintained its average.

During 1876, 98 cases of Small-pox occurred in this district, amongst the parochial poor alone. Fourteen cases were fatal in the district, and of those which were removed to various Hospitals, we can obtain no accurate account. The fact that many cases had to be removed to distant hospitals, because the authorities at Stockwell refused to utilize the empty wards of the adjacent Fever hospital for the reception of Small-pox cases, though entreated to do so, was most prejudicial to most of the cases and fatal to some. None of the cases I sent to hospital could afford to pay the hospital fees (£4. 4*s.*) but belonged to the poorer class, a class, moreover, which regards vaccination with dislike, and is most likely to suffer from the epidemic by evading preventive measures. No case of Small-pox occurred amongst those who had been successfully vaccinated recently.

The following table, as of old, exhibits in a condensed form all the important facts to be noted regarding the mortality statistics of the district, and calls for no comment save by way of comparison with the statistics of the previous year.

STATISTICS OF MORTALITY.

CLAPHAM. Population in 1871—27,347. Estimated Population in middle of year 1876—30,734. 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.	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.	14	4	10	1	1	1	5	8	1	...	...	...	...	2	12
Measles ...	13	6	7	8	5	...	13	...	...	...	...	...	...	4	9
Scarlatina .	13	10	3	4	6	3	13	...	...	...	...	...	1	5	7
Diphtheria.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Quinsy ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Croup	5	3	2	...	3	2	5	...	...	...	...	...	...	3	2
Whooping Cough ...	17	7	10	7	10	...	17	...	...	...	...	...	1	5	11
Typhus, &c.	5	2	3	...	...	...	1	2	1	1	...	...	...	2	3
Erysipelas .	6	3	3	1	...	...	1	...	1	3	1	...	2	1	3
Metria, Childbirth	5	...	5	...	...	...	1	4	...	...	...	...	1	2	2
Carbuncle .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Influenza...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa, etc. ...	24	17	7	17	4	...	21	...	...	3	...	...	5	3	16
Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals of Zymotic Class .	102	52	50	38	29	6	77	14	3	7	1	...	10	27	65
2. Tubercular*	80	44	36	7	7	4	24	33	21	2	...	...	5	23	52
3. Of Brain, Nerves, &c.	41	21	20	3	8	2	14	4	8	14	1	...	3	20	18
4. Of the Heart, &c. ...	35	17	18	...	...	...	3	7	14	11	...	...	3	13	19
5. Of Respiratory Organs	79	38	41	21	15	2	39	3	14	22	1	...	5	16	58
6. Of Digestive Organs	16	6	10	4	...	...	5	2	2	7	...	...	4	6	6
7. Of Urinary Organs .	14	6	8	2	...	...	3	2	2	7	...	...	1	6	7
8. Of Organs of Generation	5	2	3	...	...	...	1	1	2	1	...	...	1	1	3
9. Of Joints, Bones, &c.	3	2	1	...	...	...	...	...	1	2	...	...	1	1	2
10. Of Skin	1	1	...	...	...	1	1	...	...	...	...	...	...	1	...
11. Premature Birth, Low Vitality, Malformation, &c. ...	84	42	42	70	14	...	84	...	...	...	...	...	4	29	51
12. Of Uncertain Seat .	3	3	...	...	...	...	...	...	...	2	1	...	...	1	2
13. Age.....	37	16	21	...	...	...	...	...	...	13	24	...	12	7	18
14. Violence.....	10	7	3	1	...	...	2	1	3	4	...	...	...	3	7
15. Not Specified	35	14	21	3	1	1	5	4	8	17	1	...	5	13	17
TOTALS	545	271	274	149	74	16	258	71	78	109	29	...	53	167	325

* Of the 71 deaths from Tubercular disease 54 were due to Phthisis.

In the absence of an accurate estimation of the population, I have given, in round numbers, 30,000 as an approximate calculation of our population at the middle of 1876. I have already noticed the chief points regarding the Zymotic class of diseases in the table.

Non-Zymotic Diseases.—During the past year diseases of this class are rather under the average, though their relative proportions remain very much the same as usual. Tubercular diseases are rather more numerous relatively than diseases of the Respiratory Organs. The number of Unspecified Diseases is decidedly above the average. But the notable point in the list is the high mortality from causes grouped under the title of Premature Births, &c. This leads me to notice prominently the

Infant Mortality.—No less than 84 children under 5 years, of whom 70 were under 1 year, died from Premature Birth, Low Vitality, Malformation, &c., and 155 children, more than half of whom were under 1 year, from other causes.

In all, 239 children, only 23 less than one-half of the total mortality of the district, died during the past year. This number is less by 30 than in 1875, and more by a like number than in 1874. I have in former reports expressed my regret at such a large infant mortality, and endeavoured to point out many of its preventable causes.

Senile Mortality is also large, but, unlike the last, this is a matter of congratulation and encouragement. From Old Age 37 deaths occurred, 24 of which were of persons above 80, and 4 above 90, one of whom would next year have been a centenarian. From other causes 5 died upwards of 80, and 96 between 60 and 80.

Sickness and Mortality among the Poor.–From Table V. in the Appendix it will be seen that a very large number of cases of sickness were attended during the past year, namely 1005. An important item in this total was the 98 cases of Small Pox already mentioned. The cases

of Fever 109 (96 of which were of the remittent type, and 13 infantile), also constitute a large and important item. The number of deaths resulting from these cases was 38, a small proportion, considering the amount of epidemic disease. There were no deaths from any epidemic disease except Small Pox, from which two deaths occurred.

Inquests, &c.—In the course of the past year 15 inquests were held by the Coroner. The following is a list of the verdicts arrived at after a diligent and searching examination :

3 were suicidal—by poison, &c.
3 were accidental.
5 were natural from heart disease.
3 „ „ „ brain „
1 was found dead (overlaid).

The Sanitation of the Year.—From Table VI. in the Appendix it will be seen that a large amount of sanitary work was accomplished during the year. More than 2000 houses were specially examined by the Surveyor, the Inspector of Nuisances and myself; 5574 feet of new sewers and branch drains were constructed during the year. Few compulsory orders were required during the year, indicating a desire on the part of proprietors and others to execute necessary sanitary work without being compelled by legal processes.

The slaughter houses and cow houses have been duly examined during the year, and the excellent enactments of the Legislature regarding these buildings, though at first complained of as unnecessary and expensive by the owners, have brought about a durable and permanent improvement in their condition which has given the greatest satisfaction to all parties. Still there is room for further improvements which time will suggest.

The water supply is not complained of in the matter of quantity, but as to quality it is not only bad, but very

bad. According to Dr. Frankland's returns in the Registrar General's report, it seems positively unfit for domestic use, and worse than any other water supplied to the Metropolis. The great importance of pure water to the health of a community is an admitted fact, and we have, therefore, good cause to complain of the water supply of our district. If water could be procured from another and better source of supply than the Thames, as from deep-well borings, we might have a better quality supplied.

Another point of great moment is the present frequent and close connection of the cistern and the water-closet. I have the Surveyor's authority for stating that one-half of the houses in this parish have the same cistern supplying water to the closet and for dietetic purposes. This state of matters could easily be remedied at a very trifling expense. Of course, in present circumstances, it is highly necessary to filter the water used for dietetic purposes in an efficient manner. Charcoal seems to be the best filtering medium.

JOHN MAC DONOGH,

Medical Officer of Health

for Clapham.

STREATHAM,

INCLUDING

BALHAM AND TOOTING.

The population of this Sub-district at the middle of the past year was estimated, according to the authorized method of calculation, at 16,781.

Deaths and Death-Rate.—The number of deaths during 1876 in the district was 260, of which 139 were of males and 121 of females. The death-rate was accordingly 15·5 per 1000 persons living. This is an increase of 23 deaths upon the total mortality of 1875, and of 30 upon that of 1874, and is due, chiefly, to the excessive mortality from diseases of the Respiratory Organs.

Births and Birth-Rate.—During the year 536 children were born, 280 males and 256 females. This is an increase of 17 over the number born last year. The birth-rate was, therefore, 32·06 per 1000 per annum.

The excess of births over deaths was 276, giving a rate of natural increase of 16·4 per 1000 of the population.

Zymotic Diseases —There is an increase this year in deaths from diseases of an epidemic character, as may be seen by referring to the following comparative table, showing the deaths from seven of the chief Zymotic maladies.

This increase has occurred in the cases of Diphtheria, Whooping Cough, and Fevers.

DISEASES.		1875	1876
Seven principal Epidemics.	Small Pox	...	...
	Measles	2	2
	Scarlatina	4	4
	Diphtheria	3	6
	Whooping Cough	5	7
	Typhus, &c.	2	5
	Diarrhœa and Choleraic Disease	9	7
	Totals :—	25	31

Diarrhœa shows a slight decrease this year as compared with last. No death from Small Pox occurred. The above epidemic mortality yields a per-centage of 11·9 upon the number of deaths from all causes. Besides the seven epidemics in the above table, Croup was fatal in one case, Erysipelas in one, and Metria in two. This brings the Zymotic mortality to a total of 35 cases.

The Table which follows indicates the cause of death, sex, age, and social standing of all persons whose deaths were registered during the year in this District. It is quite unnecessary to put into words what can be better understood by figures, and it is superfluous to make more than a few remarks by way of comparing the figures with those of former years. This has already been done with respect to the diseases grouped under the first heading.

STATISTICS OF MORTALITY.

STREATHAM, INCLUDING TOOTING & BALHAM. Population in 1871—14,475. Estimated Population middle of 1876—16,781 Area in Statute 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	2	2	...	1	1	...	2	...	...	...	...	...	...	1	1
1. Zymotic — Scarlatina	4	3	1	...	1	2	3	1	...	...	...	...	2	...	2
1. Zymotic — Diphtheria	6	2	4	1	2	1	5	...	1	...	...	1	3	1	1
1. Zymotic — Quinsy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1. Zymotic — Croup	1	1	...	...	1	...	1	...	...	...	...	...	1	...	...
1. Zymotic — Whooping Cough	7	5	2	3	4	...	7	...	...	...	...	...	1	2	4
1. Zymotic — Typhus and other Fevers	5	5	...	...	...	1	1	3	1	...	...	...	...	2	3
1. Zymotic — Erysipelas	1	1	...	...	...	...	...	...	1	...	...	...	...	...	1
1. Zymotic — Metria, Childbirth	2	...	2	...	...	...	...	2	...	...	...	...	1	1	...
1. Zymotic — Carbuncle	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1. Zymotic — Influenza	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1. Zymotic — Diarrhœa & Choleraic Disease	7	4	3	4	2	...	6	...	...	1	...	2	1	1	8
Totals of Zymotic Class	35	23	12	9	11	4	25	6	3	1	...	3	9	8	15
2. Tubercular*	31	19	12	8	4	1	16	8	4	3	...	2	2	9	18
3. Of Brain, Nerves, &c.	39	19	20	8	4	...	14	4	7	12	2	6	7	10	16
4. Of the Heart, &c.	18	9	9	...	...	...	1	...	5	10	1	4	4	2	8
5. Of Respiratory Organs	52	25	27	11	4	...	15	6	11	18	2	2	8	13	29
6. Of Digestive Organs	22	12	10	3	...	...	3	1	7	10	1	7	1	5	9
7. Of Urinary Organs	6	5	1	...	...	...	1	1	3	1	...	...	1	...	5
8. Of Organs of Generation	6	...	6	...	...	...	...	...	5	1	...	1	2	1	2
9. Of Joints, Bones, &c.	2	1	1	...	...	...	1	...	...	1	...	1	...	...	1
10. Of Skin	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11. Premature Birth, Low Vitality, Malformation, &c.	14	8	6	13	1	...	14	...	...	...	...	...	1	3	10
12. Of Uncertain Seat	2	1	1	...	...	...	...	...	...	1	1	1	...	...	1
13. Age	23	11	12	...	...	...	...	...	...	16	7	7	3	3	10
14. Violence	9	6	3	...	1	...	1	2	4	2	...	...	1	3	5
15. Not Specified	1	...	1	...	...	...	...	...	...	1	...	...	...	...	1
Totals	260	139	121	52	25	5	91	28	49	78	14	34	39	57	130

* Of the Tubercular class of Diseases, 21 deaths appear to have resulted from Phthisis.

Of the non-Zymotic diseases, it has been already remarked, the diseases of the Respiratory Organs occupy a prominent position. The number of deaths from these diseases this year is larger than it has ever before been in this district. Diseases of the Brain and Nervous System stand next in point of fatality, though they do not seem to be much above the average. Tubercular diseases show a slight decrease upon the fatality for the last few years. The other causes of death maintain very much their usual relative proportions.

Sickness and Mortality among the Poor.—It will be seen from Table V. in the Appendix that 107 cases of sickness occurred among the pauper population, of these 12 died, that is, 11·2 per cent. There was exceedingly little epidemic disease, and no deaths from Zymotic maladies. The diseases of the Chest caused three-fourths of the above death-rate.

Ages at Death.—The mortality among children during the past year was slightly in excess of the last two years. It compares favourably with other districts. Of the 82 fatal cases among children, 24 were of Zymotic origin, chiefly from Whooping Cough, Diarrhœa, and Diphtheria, 14 were grouped under the title of Premature Birth, Low Vitality and Malformation, and the remaining 44 were distributed amongst the Respiratory, Tubercular and Nervous groups. There were comparatively few deaths of persons between 10 and 60 years of age. One case of Scarlet Fever, one of Diphtheria, and four cases of other fevers occurred between these ages. The other cases were chiefly of Tubercular, Respiratory and Nervous diseases.

The Senile mortality is most encouraging and speaks well for the salubrity of the district. More than a third of the total mortality was of persons above 60, namely 92 cases, of which 14 were above 80. The oldest was 90 years. Of course Old Age was the most frequent cause of death, followed by Respiratory, Nervous diseases and diseases of the Heart and Digestive organs.

Social Position.—About one eighth of the total deaths occurred amongst the nobility and gentry, a seventh from the ranks of professional men, merchants, &c., a fifth from the middle and trading class, and exactly one half from the industrial and labouring class. It is of importance to observe how few cases of Zymotic disease occurred among the first-mentioned class, while Old Age claims more than the average of deaths from that class, as also, diseases of the Digestive Organs, and of the Brain. Diseases of Tubercular origin, and of the Respiratory Organs, show a decided partiality for the lower ranks.

Inquests, &c.,—Eleven inquests were held during the year. The verdicts may be thus grouped–

I. Accident—(1) Spasm of Glottis, (2) Asphyxia, (3) and (4) Falls, (5) Drowning.

II. Natural—(1) Heart Disease, (2) Old Age. (3) Painter's Colic.

III. Suicide—(1) Shooting, (2) Poisoning.

IV. Murder—(1) Poisoned by antimony.

The last mentioned is too well known as "The Bravo Case" to need further remark. Two cases of death were registered as uncertified by any medical man. As one of these was described as "unknown," it seems strange that no inquest was held upon the case, and, whatever may be said of accepting the guesses of friends or the dictum of an unqualified man in registering the cause of death, surely a registration such as the above tends to stultify all vital statistics, and makes the protection the register ought to afford little short of a sham.

Sanitary Work of the Year.—It is hardly necessary to do more than refer the reader to Table VI. in the Appen-

dix, where a summary of the work of the year is found in its appropriate column. It is satisfactory to note that no cases have been brought before the magistrates, showing the readiness of our population to carry out required improvements voluntarily.

The cow and slaughter houses received due inspection and were found in a satisfactory condition.

D. C. NOËL,

Medical Officer of Health
for Streatham & Tooting.

PUTNEY AND ROEHAMPTON.

In presenting, for the first time, my own contribution to the Annual Report of the Medical Officers of Health, it seems only a just tribute to the memory of my worthy and respected predecessor, to express my sense of the loss his fellow officers have sustained by his death, and my determination that honest effort and assiduous care shall not be wanting on my part in taking up the duties he has so faithfully performed for twenty years, and in cultivating to the best of my ability the qualities which distinguished him as a sanitary reformer as well as an officer.

Population.—At such a late period of the census decade, the population of a growing Suburban District such as ours can be only approximately determined, since the ratio of increase is being annually accelerated. Taking, however, the recognised method of calculation, the population of the combined parishes of Putney and Roehampton may be estimated at 10,990.

Deaths and Death-rate, &c.—It is my good fortune to have to record an exceedingly low death-rate during the past year. Only 143 deaths were registered in this Sub-district during the year, of which 78 were of males and 65 of females. This gives the exceedingly low death-

rate of 13·01 per 1000 persons living, or 1 death in 77. These figures are almost unprecedented, even in similarly favoured districts; and a comparison with the death-rates of the towns and districts, as given in the Registrar-General's Summary for the year 1876, will fail to discover their equals. The death-rate of the whole of London was 22·3; that of 23 of the principal towns of the United Kingdom was 23·7; and that of other 50 large towns 21·9 per 1000. In a Table given on page 71 will be found the death-rate in this District for the last eleven years, and it will be seen that the death-rate of the past year has never been attained before. I think the inhabitants of this Sub-district may be fairly congratulated on this encouraging fact, and may justly consider this one of the very healthiest parishes in all the five groups of Metropolitan Districts.

Births and Birth-rate.—During the year 1876 300 births were registered, of which 158 were of males and 142 of females. The birth-rate is 27·3 per 1000, or 1 in 36. The excess of births over deaths was 157, and the rate of natural increase 14·3 per 1000.

Distribution of Births and Deaths.—The following Table gives the total births and deaths in each quarter of the year, distinguishing also the number of deaths from Zymotic Diseases:—

Quarters of the Year.	Births.	Total Deaths.	Zymotic Deaths
1	84	43	8
2	75	24	1
3	75	36	10
4	66	40	3

Both births and deaths were most numerous in the first

quarter. The Zymotic mortality was highest in the third quarter.

Zymotic Diseases.—There were 22 deaths from this class of diseases. These were distributed over 7 of the sub-classes of the group, and so, are rather in excess of the average of the Zymotic mortality, but indicative rather of the variety than the intensity of the Zymotic diseases. A noticeable feature is the absence of Diphtheria from the list. The Table given below presents a comparative view of the mortality from the chief Zymotic diseases for 11 years ending 1876.

Years.	1866	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876
Small-pox.	...	1	...	...	...	1	...	...	...	...	1
Measles ...	8	...	1	5	4	1	...	2	3	...	1
Scarlatina.	1	1	2	6	3	21	7	...	...	...	3
Diphtheria	...	2	1	2	1	1	1	...	1	4	...
Whooping-cough ...	1	9	...	6	3	1	6	1	...	9	7
Typhus, &c.	1	3	2	5	...	1	...	2	...	...	...
Diarrhœa & Cholera	5	4	5	7	8	6	5	1	6	7	7
Totals	16	20	11	31	19	32	19	6	10	20	19

Whooping-cough, it will be seen, was severe; though less so than last year, or the year 1867. Scarlatina has again appeared after omitting three years. It was severely epidemic in 1871. Diarrhœa is rather over the average, and is only exceeded in one year (1870). The following Table may be interesting, as showing the season of year at which the cases of Zymotic diseases occurred. Whooping-cough and Diarrhœa are conspicuous. It may be remembered that the autumn of last year was excessively hot, which accounts for the mortality from the latter cause.

DISEASE.	1876.			
	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.
Small Pox	...	...	1	...
Measles.....	1	...	...	...
Scarlatina.....	1	...	2	...
Diphtheria	...	...	...	...
Whooping Cough	5	...	1	1
Diarrhœa	1	...	6	...
Fever	...	...	...	...

It is a matter of regret to observe, for the first time since 1871, a fatal case of Small Pox in our District. Though only one case was fatal, it is proper to add that, not only does this solitary case, in common with fatal cases of other diseases, fail to give us any idea of the prevalence of the disease, but, unlike them, is no criterion even of its intensity. This is of course due to the fact that this disease, like Cholera, is beginning to be treated, as *all* serious epidemic diseases ought to be, by the common-sense method of isolation. I say, beginning to be treated, because, if any fact regarding this epidemic was made conspicuously evident, it was the very inadequate preparation for the hospital accommodation of the cases. In many instances patients had to be left in crowded districts to spread the deadly infection, and themselves to die for want of proper nursing. In the introduction will be found the suggestions I, along with my fellow officers, have to make on this subject, and it is unnecessary to enter upon it here. Seven cases of Small Pox were removed to the Hospital during the year from this Sub-district, of which one died; of those not removed, of which there were about the same number, one died. Both the fatal cases were of adults, said to be vaccinated, and were of the confluent type. The most of

the cases were mild in character. There was the greatest difficulty in some cases in getting their removal to Hospital accomplished, even when there was Hospital accommodation for them, on account of the scruples of the patient or friends to entering a pauper institution, and especially to being taken there in the parish ambulance.

The following Table presents a variety of Statistics, arranged under the eleven years ending 1876, for the purposes of comparison. It should be remembered that the population has been steadily increasing during the decade from the estimated population of 1866—8,030, to that of 1876—10,990, a difference of nearly 3,000. The Table will explain itself.

YEARS.	Births.	Birth-rate.	Number of Deaths from all Causes.	Death-rate.	Rate of Natural Increase.	No. of Deaths from Seven of the principal Epidemic Diseases.	Percentage of Deaths from seven principal Epidemics to Deaths from all causes.
1866	225	28·0	121	15·1	12·9	16	13·2
1867	207	24·8	128	15·4	9·3	20	15·6
1868	263	30·5	118	13·6	16·8	11	9·3
1869	248	26·6	133	14·9	12·8	31	23·3
1870	271	29·5	145	15·7	13·7	19	12·4
1871	275	28·9	151	15·8	13·0	32	21·4
1872	279	28·4	144	14·6	14·0	19	13·1
1873	320	30·6	125	13·3	18·3	6	4·8
1874	290	27·8	156	15·0	12·8	10	6·4
1875	292	27·3	167	15·7	11·6	20	11·9
1876	300	27·3	143	13·0	14·3	19	13·2

The Mortality Statistics of this Sub-district are tabulated below, according to the cause of death, and the age, sex, and social status of the deceased. It needs little comment, save by way of comparison with the statistics of former years.

STATISTICS OF MORTALITY.

PUTNEY AND ROEHAMPTON. Population (Census) 1871—9,439. Estimated population in middle of the year 1876—10,990. Area in Statute Acres—2,176. 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 & Labouring Classes.
Classes:—															
1. Zymotic — Small Pox	1	1	...	...	...	...	...	...	1	...	...	...	...	1	...
1. Zymotic — Measles	1	...	1	...	...	1	1	...	...	...	...	...	...	1	...
1. Zymotic — Scarlatina	3	2	1	...	3	...	3	...	...	...	...	...	1	...	2
1. Zymotic — Diphtheria	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1. Zymotic — Quinsy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1. Zymotic — Croup	1	1	...	...	1	...	1	...	...	...	...	...	...	1	...
1. Zymotic — Whooping Cough	7	3	4	3	4	...	7	...	...	...	...	...	1	3	3
1. Zymotic — Typhus and other Fevers	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1. Zymotic — Erysipelas	2	2	...	...	...	...	...	...	1	1	..	...	...	1	1
1. Zymotic — Metria, Childbirth	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1. Zymotic — Carbuncle	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...
1. Zymotic — Influenza	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1. Zymotic — Diarrhœa & Choleraic Disease	7	3	4	7	...	...	7	...	...	...	...	...	...	5	2
Totals of Zymotic Class	22	12	10	10	8	1	19	...	2	1	...	...	2	12	8
*2. Tubercular	26	14	12	3	2	...	6	15	5	...	...	...	3	11	12
3. Of Brain, Nerves, &c.	26	15	11	7	5	...	12	2	2	9	1	1	10	6	9
4. Of the Heart, &c.	6	4	2	...	...	...	...	1	1	4	...	1	1	1	3
5. Of Respiratory Organs	23	9	14	6	4	...	10	3	4	6	...	2	3	7	11
6. Digestive Organs	5	2	3	...	1	...	1	...	1	3	...	...	2	2	1
7. Urinary Organs	7	5	2	...	...	...	...	2	2	2	1	...	3	3	1
8. Of Organs of Generation	1	...	1	...	...	...	...	...	...	1	...	...	...	...	1
9. Of Joints, Bones, &c.	1	1	...	...	...	...	...	...	1	...	...	...	...	1	...
10. Of Skin	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...
11. Premature Birth, Low Vitality, Malformation, &c.	10	6	4	10	...	...	10	...	...	...	...	...	...	3	7
12. Of Uncertain Seat	1	1	...	...	...	...	...	1	...	...	...	...	1	...	...
13. Age	8	3	5	...	...	...	...	...	...	6	2	...	3	2	3
14. Violence	7	6	1	1	...	...	2	1	...	4	...	...	1	4	2
15. Not Specified	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS	113	78	65	37	20	1	60	25	18	36	4	4	29	52	58

* Of the Tubercular class of diseases there were 18 deaths registered as being due to Pulmonary Phthisis.

Non-Zymotic Diseases.—Tubercular diseases and diseases of the Nervous System, it will be seen, were equally fatal, while those of the Respiratory System almost as much so. To assist us in comparing these figures with those of former years the following Table may be useful.

Years.	1866	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876
Tubercular.....	17	21	24	20	18	22	24	19	24	26	26
Of Brain, Nerves,&c.	20	19	16	17	18	19	20	26	39	23	26
Of the Heart, &c. ...	7	9	9	6	9	9	14	13	8	13	6
Of Respiratory Organs	21	20	21	15	31	29	26	21	30	36	23
Of Digestive Organs	8	9	8	11	17	8	7	12	11	7	5
Of Urinary Organs	1	2	2	...	5	1	5	4	3	8	7
Of Organs of Generation	...	2	2	1	...	1	...	2	...	1	1
Of Joints, Bones,&c.	1	...	2	...	1	...	1	1	...	1	1
Of Skin	...	1	...	...	...	...	...	...	...	...	...
Premature Birth, Low Vitality, Mal formation, &c.....	9	13	9	11	8	11	5	7	7	16	10
Of Uncertain Seat...	5	2	4	6	5	5	5	2	6	1	1
Age.....	4	5	1	4	8	7	3	3	6	11	8
Violence	9	4	6	8	4	4	6	5	6	4	7
Not Specified.....	2	1	..	...	1	2	2	1	2	...	...
Totals	104	108	104	99	125	118	124	116	146	147	121

The alteration in the population, and therefore the relative proportion of the figures, must be remembered in this as in all comparative Tables. The fatality from Nervous Diseases was slightly above the average, and that from Respiratory Diseases and from Premature Birth, &c., decidedly under it. Other diseases were about the average. It will be seen that there is an alteration in the relative proportion of Respiratory to Tubercular diseases, the former being usually in excess of the latter.

Ages of the Deceased.—The mortality among children shows a decrease of thirteen from that of 1875 and a

slight increase upon that of 1874. The deaths from Zymotic diseases from all causes, except Small Pox and Erysipelas, were of children. Respiratory and Nervous diseases were especially fatal to children. The mortality from Premature Birth, &c., is less severe than usual.

The mortality at other ages was about the average excepting that among the very aged, which is remarkably low. Only four died above 80 in the past year, as compared with 11 in 1875, and 7 in 1874. The oldest was (as usual, a female) aged 84 years.

Social Position.—It will be seen that the usual proportion between the classes is not preserved in the past year. The mortality amongst the Industrial class is far exceeded by that of the other classes. The Professional and Merchant class have more than their usual share, and the Nobility and Gentry rather less. Brain diseases were especially fatal amongst the Professional class, and Epidemic diseases in the middle class. The deaths from Premature Birth, &c., were most frequent amongst the lowest classes, which is not surprising.

Sickness and Mortality amongst the Union Poor.—The sickness amongst the pauper population was very slight. Scarlatina and Whooping Cough were somewhat more prevalent than usual. No deaths occurred among the cases of Epidemic disease, and there was a mortality of only three in the whole number of cases treated, or only about 2 per cent. See Table V. in Appendix.

Inquests.—Eight inquests were held during the year, exactly double the number of those in the previous year. The Verdicts were as follow :—

I. Accidental, (1) drowning, (2) suffocation, (3) burning.
II. Suicidal, (1) drowning, (2) cutthroat.
III. Natural, from heart disease, (2)
IV. Found drowned; no marks of violence or proof of how he came into the water.

Sanitary Proceedings, &c.—Table VI. in the Appendix gives an epitome of the sanitary work of the year, and to it I refer the reader. An important improvement was the removal of nine cesspools from various parts of the District. The removal of one pig nuisance is another encouraging improvement, as well as the riddance of no less than 37 accumulations of offal, manure, &c. It was necessary in three cases to obtain legal assistance in getting improvements effected. In two of these cases compulsory orders were obtained, and, of course, complied with.

The Cow and Slaughter-houses underwent their usual inspection. Most of them were in a highly creditable condition. The regulations imposed on the slaughter-house keepers have effected great improvement, and it would be productive of good if somewhat similar rules were imposed on the dairy-keepers, though in this District restrictions are hardly necessary.

The Water Supply.—Complaints have frequently been made to me of the condition of the water supplied to the District. For remarks and suggestions on that subject see introductory report, pages 15–18.

ALEXANDER WALKER, M.B.,

Medical Officer of Health
for Putney and Roehampton.

APPENDIX OF STATISTICAL TABLES.

TABLE I.

Summary of Deaths and their Causes, registered in the entire District during 1876, 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. Census 1871—125,060. Estimated Population for middle of year, 1876,—153,648. Area in Statute Acres, 11,695.	Total Deaths from each Class of Disease, &c., in the entire District.	Sub-Districts.					Sex.		Age.								Social Position.			
DISEASES, And other Causes of Death.		Clapham—Population in 1871, 27,347, area in acres, 1,233.	Wandsworth—Population in 1871, 19,783, area in acres, 2,478.	Battersea—Population in 1871, 54,016, area in acres, 2,348.	Putney—Population in 1871, 9,439, area in acres, 2,176.	Streatham, Tooting, and Balham—Population 1871, 14,475, area in acres, 3,465.	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.
Classes:—																				
1. Zymotic — Small Pox	26	14	1	10	1	...	9	17	3	2	2	11	11	3	1	...	...	...	4	22
1. Zymotic — Measles	88	13	17	55	1	2	51	37	28	54	6	88	...	...	...	...	1	3	11	74
1. Zymotic — Scarlatina	86	13	12	54	3	4	51	35	8	47	20	82	4	...	...	...	1	4	13	68
1. Zymotic — Diphtheria	15	...	1	8	...	6	4	11	1	6	2	14	...	1	...	...	1	4	3	7
1. Zymotic — Quinsy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1. Zymotic — Croup	27	5	3	17	1	1	16	11	1	22	4	26	...	...	...	...	...	1	5	21
1. Zymotic — Whooping Cough	126	17	10	85	7	7	62	64	50	72	4	126	...	...	...	...	...	7	22	97
1. Zymotic — Typhus & other Fevers	47	5	12	25	...	5	23	24	2	4	6	19	9	14	4	1	1	1	8	37
1. Zymotic — Erysipelas	13	6	2	2	2	1	9	4	4	...	..	4	1	3	4	1	...	3	4	6
1. Zymotic — Metria, Childbirth	26	5	4	15	...	2	...	26	...	...	...	1	21	4	...	...	...	3	10	13
1. Zymotic — Carbuncle	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1. Zymotic — Influenza	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1. Zymotic — Diarrhœa & Choleraic Disease	159	24	18	103	7	7	88	71	123	16	2	143	...	7	8	1	3	13	26	117
Totals of Zymotic Class	613	102	80	374	22	35	313	300	220	223	46	515	46	32	17	3	7	39	106	461
2. Tubercular	555	80	64	354	26	31	311	244	152	68	16	273	171	95	16	...	10	23	89	433
3. Of Brain and Nerves	416	41	125	185	26	39	240	176	89	60	10	170	44	92	102	8	20	31	78	287
4. Of Heart	170	35	26	85	6	18	83	87	4	4	1	17	28	50	70	5	7	17	37	109
5. Of Respiratory Organs	561	79	58	349	23	52	273	288	169	126	12	312	34	91	115	10	9	23	91	438
6. Of Digestive Organs	126	16	29	54	5	22	57	69	25	3	1	31	23	30	40	2	8	13	32	73
7. Of Urinary Organs	62	14	6	29	7	6	34	28	2	2	1	9	12	17	22	2	3	6	16	37
8. Of Organs of Generation	23	5	2	9	1	6	4	19	...	...	...	1	7	9	6	...	2	4	4	13
9. Of Joints, Bones, &c.	14	3	...	8	1	2	9	5	2	2	...	7	...	3	4	...	1	...	4	9
10. Of Skin	5	1	...	4	...	...	1	4	2	1	1	4	...	...	1	...	...	...	1	4
11. Premature Birth, Low Vitality, Malformation, &c.	226	84	22	96	10	14	130	96	210	16	...	226	...	...	...	...	...	8	47	171
12. Of Uncertain Seat	97	3	18	73	1	2	43	64	11	4	3	18	13	24	38	4	4	8	14	71
13. Age	150	37	16	66	8	23	63	87	...	...	...	...	...	...	75	75	10	20	22	98
14. Violence	90	10	14	50	7	9	68	22	16	12	5	44	15	17	14	...	1	3	13	73
15. Not Specified	46	35	1	9	...	1	20	26	8	2	2	12	5	9	19	1	...	5	15	26
Totals	3154	545	461	1745	143	260	1640	1514	910	524	99	1638	398	468	540	110	82	201	568	2303

TABLE II.

Births registered during the year 1876.

SUB-DISTRICTS.	Males.	Females.	Total.
Clapham	530	499	1,029
Wandsworth	373	306	679
Battersea { East—Males, 1,001; Females, 967 / West—Males, 779; Females, 708 }	1,780	1,675	3,455
Putney and Roehampton	158	142	300
Streatham, including Tooting and Balham ...	280	256	536
Total	3,121	2,878	5,999

*** The excess of Births over Deaths in the entire district is 2,845.

TABLE III.

METEOROLOGICAL TABLE FOR LONDON, 1876.

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

Winter . . Jan., Feb., March. Spring . . . April, May, June. Summer . . . July, Aug., Sept. Autumn . . Oct., Nov., Dec.	Temperature of Air. Mean.	Temperature of Air. Diff. from Average of 105 Years.	Temperature of Air. Diff. from Average of 35 Years.	Temperature of Evaporation. Mean.	Temperature of Evaporation. Diff. from Average of 35 Years.	Temperature of Dew point. Mean.	Temperature of Dew point. Diff. from Average of 35 Years.	Temperature of Air—Daily Range. Mean.	Temperature of Air—Daily Range. Diff. from Average of 35 Years.	Elastic Force of Vapour. Mean.	Elastic Force of Vapour. Diff. from Average of 35 Years.	Weight of Vapour in a Cubic Foot of Air. Mean.	Weight of Vapour in a Cubic Foot of Air. Diff. from Average of 35 Years.	Degree of Humidity. Mean (Sat^{n} = 100).	Degree of Humidity. Diff. from Average of 35 Years.	Reading of Barometer. Mean.	Reading of Barometer. Diff. from Average of 35 Years.	Weight of a Cubic Foot of Air. Mean.	Weight of a Cubic Foot of Air. Diff. from Average of 35 Years.	Rain. Amount.	Rain. Diff. from Average of 61 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.
1876.	°	°	°	°	°	°	°	°	°	in.	in.	grs.	gr.			in.	in.	grs.	grs.	in.	in.	Sums.			°	°
YEAR	50·1	+1·3	+0·6	46·9	+0·3	43·7	0·0	16·3	+0·3	0·295	−0·000	3·4	0·0	80	−2	29·719	−0·057	540	−2	24·2	−1·1	75	130	161	14·0	59·7
First Quarter	39·8	+1·0	−0·1	37·7	−0·2	34·9	−0·5	12·0	+0·2	0·203	−0·004	2·4	−0·1	83	−2	29·705	−0·058	552	0	4·9	0·0	44	38	9	14·0	44·8
Second do. .	51·7	+1·3	−1·3	47·6	−1·6	43·5	−2·0	21·0	+0·9	0·287	−0·022	·	−0·2	74	−2	29·817	+0·028	540	+1	3·5	−2·3	17	40	34	·1	55·8
Third do. .	61·8	+2·1	+1·5	57·1	+0·7	53·1	+0·1	21·8	+2·0	0·406	+0·002	4·5	+0.1	74	−4	29·763	−0·038	528	−2	5·3	−2·2	0	11	81	34·1	59·7
Fourth do. .	47.0	−3·3	+2·4	45·1	+2·4	43·1	+2·3	10·3	−1·7	0·282	+0·022	3·2	+0·2	87	−1	29·590	−0.161	541	−6	10·5	+3·4	14	41	37	20·3	53·9

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.

TABLE IV.

Showing the total Deaths from the 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 1866—76.

Years.	Deaths from the seven principal Epidemics in each Sub-District.					Entire District.		
	Clapham.	Battersea.	Wandsworth.	Putney.	Streatham.	Total Deaths from the Seven Epidemics.	Total Deaths Registered from all causes.	Per centage of Deaths from the Seven Epidemics to Total Deaths.
1866	86	244	73	16	34	453	2072	21·3
1867	56	122	33	21	10	242	1937	12·4
1868	99	194	64	14	28	399	2168	18·4
1869	117	247	94	31	27	516	2393	21·5
1870	119	404	113	19	37	692	2659	26·0
1871	178	463	103	32	31	807	2867	28·8
1872	128	220	47	20	31	446	2421	18·4
1873	65	205	43	6	32	350	2570	13·6
1874	105	238	52	10	26	440	2 96	15·7
1875	74	307	46	20	25	472	3096	15·2
1876	**86**	**340**	**71**	**19**	**31**	**547**	**3154**	**17·4**

*** The Diseases included in the above Table constitute, as in the Registrar-General's Returns, the 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, 1876. 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 Malignant Sore Throat.		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	
Clapham	1005	98	2	5	...	28	...	4	...	31	...	...	...	109	...	1	1	3	...	114	6	23	6	...	...	478	12	111	11	38
Wandsworth	806	7	...	54	6	19	...	10	2	37	...	...	...	4	1	4	...	...	...	162	6	3	3	...	...	460	14	46	1	36
Battersea East ...	707	59	1	6	...	11	3	17	4	18	...	...	...	16	...	9	...	...	...	99	8	41	5	...	...	431	7	...	...	25
Battersea West ...	384	25	1	5	...	10	...	4	1	19	...	...	...	7	...	3	...	1	...	74	5	11	6	2	2	203	8	20	...	23
Putney and Roehampton...	148	...	...	1	...	7	...	6	...	9	...	...	...	2	...	2	...	...	...	19	...	6	...	4	1	82	2	10	...	3
Streatham, including Tooting and Balham	107	1	...	1	...	...	...	2	...	3	...	...	...	1	...	1	...	...	...	21	5	3	3	...	...	74	4	5	...	12
Totals	3157	190	4	72	6	75	3	43	7	117	...	...	...	139	1	20	1	4	...	489	30	87	23	6	3	1728	47	192	12	137

*** The ratio of deaths to cases treated is 4·3 per cent.

TABLE VI.

Summary of the Sanitary Operations in the entire District during the year 1876.

	Clapham.	Battersea.	Wandsworth.	Putney and Roehampton.	Streatham, including Tooting and Balham.	Totals.
Number of Houses and Premises inspected	2000	3,357	135	217	220	5,929
1st Notices served	267	359	64	59	25	774
2nd Notices served	59	18	...	3	...	80
Cesspools emptied and cleansed ...	...	...	...	...	8	8
Cesspools abolished	6	8	...	9	8	31
Waterclosets constructed	6	14	...	5	140	165
Houses supplied with water ...	...	149	3	13	148	313
Drains constructed or connected with Sewer	156	187	2,286	61	83	2,773
No. of feet of New Sewers and Branch Drains	5,574	9,435	5,350	2,071	4,823	27,253
Drains repaired or trapped, or obstructions removed	160	146	13	29	30	378
Open Ditches, Ponds, &c., cleansed ...	...	...	3	...	1,500 ft.	...
Dust-bins provided	142	110	...	7	140	399
Pig Nuisances removed	7	7	17	1	5	37
Accumulations of Offal, Manure, &c., removed ...	19	32	11	37	5	104
Unwholesome and dilapidated Houses cleansed or repaired	143	49	24	17	10	243
Cases investigated by Magistrates...	1	8	...	3	...	12
Compulsory Orders obtained	1	8	...	2	...	11
Compulsory works executed	1	8	...	...	...	11
Works remaining in abeyance from various causes ...	...	...	...	...	...	...