

Report on the sanitary condition of the Limehouse District (comprising the Parishes of Limehouse, Shadwell, and Wapping, and the Hamlet of Ratcliff) for the year 1898.

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REPORT

ON THE

SANITARY CONDITION OF THE LIMEHOUSE DISTRICT,

*(Comprising the Parishes of Limehouse, Shadwell, and Wapping,
and the Hamlet of Ratcliff)*

For the Year 1898.

BY

DANIEL LEWIS THOMAS,

MEDICAL OFFICER OF HEALTH AND PUBLIC ANALYST.



— 1899. —

—
OFFICES OF THE BOARD :

WHITE HORSE STREET, COMMERCIAL ROAD EAST, E.



TO THE

BOARD OF WORKS

FOR THE

LIMEHOUSE DISTRICT.

GENTLEMEN,

I have the honour to submit to you my second Annual Report on the Health and Sanitary Condition of the Limehouse District, for the year 1898.

The population estimated to the middle of 1898 was 58,728.

BIRTHS.—The births registered during the year numbered 1912.

1153	were registered in	Limehouse.
442	„ „	Ratcliff.
317	„ „	Shadwell and Wapping.

This corresponds to a birth rate of 32·5 per 1,000 of the population. The birth rate is 3 per 1,000 more than that of London as a whole.

The birth rate in this District has been gradually decreasing for the last 3 years.

In 1891 it was 34·6 per 1,000.

„ 1892	„	33·6	„
„ 1893	„	33·9	„
„ 1894	„	33·1	„
„ 1895	„	35·5	„
„ 1896	„	34·6	„
„ 1897	„	34·1	„
„ 1898	„	32·5	„

MARRIAGES.—The marriages during the year numbered 419, or 50 less than in 1897. The number in 1898 was larger than the average for the last 10 years. The proportion of persons married was 14·2 per 1,000 of the population. The marriage rate for the whole of London was 18·7 per 1,000 ; the highest rate recorded since 1877.

DEATHS.—The registered deaths exclusive of those of non-residents which occurred in the Public Institutions situated in the District, but inclusive of those of residents which occurred in outlying Institutions numbered 1390 or 72 less than in 1897. This corresponds to a death rate of 23·7 per 1,000 of the population. By referring to Table II. you will find that this death rate, which is the same as in 1896, is lower than that of any year since 1889.

These deaths were distributed over the District as follows :—

Limehouse	...	...	...	...	...	527
Ratcliff	...	...	...	...	...	228
Shadwell and Wapping	...	...	...	...	...	152
East London Children's Hospital	...	...	...	...	...	355
						1262
Deaths occurring outside the District among persons						
belonging thereto	...	...	...	...	...	401
						1663
Deduct deaths occurring within the District among						
persons not belonging thereto	...	...	...	...	...	273
						1390

Compared with 1897 the causes of death were as follows :—

	1897.	1898.	Increase.	Decrease.
Scarlet Fever	12	5	—	7
Diphtheria	26	25	—	1
Membranous Croup	3	1	—	2
Enteric Fever	4	8	4	—
Continued Fever	—	1	1	—
Puerperal Fever	1	—	—	1
Erysipelas	8	—	—	8
Measles	63	57	—	6
Whooping Cough	37	62	25	—
Diarrhœa and Dysentry	61	90	29	—
Cholera Infantum	1	1	—	—
Rheumatic Fever	4	2	—	2
Phthisis	149	136	—	13
Bronchitis, Pneumonia and Pleurisy	260	219	—	41
Heart Disease	125	96	—	29
Influenza	5	19	14	—
Injuries	86	70	—	16
All other Diseases	617	598	—	19
	1462	1390	73	145

The excess of births over deaths was 522.

The following is a list of the outlying Institutions and other places where residents of the Limehouse District died during the year :—

Brook Fever Hospital	2
Brompton Hospital	3
Banstead Asylum	1
Cane Hill Asylum	2
Claybury Asylum	8
Colney Hatch Asylum	6
Cancer Hospital, Chelsea	1
Childrens' Hospital, Great Ormond Street	1
Darenth Asylum	3
Eastern Fever Hospital	4
Guy's Hospital	1
German Hospital	1
Hoxton House Asylum	1
Hanwell Asylum	3

King's College Hospital	..	...	...	...	...	2
Leavesden Asylum	...	...	...	...	...	3
Limehouse Cut	...	...	...	...	...	1
London Hospital	...	...	...	...	...	53
Middlesex Hospital	...	...	...	...	...	1
Mother's Home, Commercial Road...	...	...	...	...	...	2
Mile End Infirmary	...	...	...	...	...	1
Park Fever Hospital	...	...	...	...	...	1
Poplar Hospital	...	...	...	...	...	2
River Lea	...	...	...	...	...	1
S.S. "Brablock," West India Docks	...	...	...	...	...	1
Sick Asylum...	...	...	...	...	...	176
Stepney Workhouse	...	...	...	...	...	87
South Eastern Fever Hospital	...	...	...	...	...	17
St. Bartholomew's Hospital...	...	...	...	...	...	9
St. George's Infirmary	...	...	...	...	...	3
St. Anne's Home, Stoke Newington	...	...	...	...	...	1
St. Pelagra's Crèche...	...	...	...	...	...	1
Whitechapel Infirmary	...	...	...	...	...	2
						—
						401
						—

SMALL POX.—No case of Small Pox has been notified during the year.

SCARLET FEVER.—The corrected number of deaths was 5 ; the annual average for the last 10 years being 21·2. 191 cases were reported during the year, of which 136 were removed to Hospital. 103 occurred in Limehouse, 37 in Ratcliff, 51 in Shadwell and Wapping. This is a decrease of 229 from the number reported in 1897. The death rate was '08 per 1,000 of the population. The death rate for the whole of London from Scarlet Fever was '13 per 1,000.

DIPHTHERIA.—The corrected number of deaths from Diphtheria was 25, the annual average for the last 10 years being 33·8. One hundred and thirty four cases were notified, and 94 removed to Hospital. This number is 46 less than in 1897. 61 occurred in Limehouse, 34 in Ratcliff, 39 in Shadwell and Wapping. The death rate was '4 per 1,000 of the population, that for the whole of London being '39 per 1,000.

MEMBRANOUS CROUP.—There was only 1 death from Membranous Croup. Two cases were notified, both having occurred in Limehouse.

TYPHUS FEVER.—No case was reported during the year.

ERYSIPELAS.—There were no deaths from Erysipelas. 90 cases were notified during the year, and 26 were removed to different Infirmaries and Hospitals. 56 occurred in Limehouse, 18 in Ratcliff, 16 in Shadwell and Wapping.

PUERPERAL FEVER.—One case only was notified, which did not prove fatal.

ENTERIC FEVER.—The corrected number of deaths was 8. The average annual number for the last 10 years was 8.1. 42 cases were notified during the year, being a decrease of 7 from the number in the previous year, and 28 were removed. 19 occurred in Limehouse, 11 in Ratcliff, 12 in Shadwell and Wapping.

From Jan. 1st to May 1st, 7 notifications of Typhoid Fever were received

„ May 1st to Sep. 3rd, 8	„	„	„
„ Sep. 3rd to Dec. 12th, 24	„	„	„
„ Dec. 13th to Dec. 31st, 3	„	„	„

In the period from September 3rd to December 12th, the inhabitants of the District were without a constant supply of water. The number of cases of Typhoid Fever was similar to the same period in other years.

WHOOPING COUGH.—The corrected number of deaths was 62. The average number for the past 10 years was 47.7. The death rate was 1.06 per 1,000 of the population. The death rate for the whole of London was .48 per 1,000.

DIARRHŒA.—The corrected number of deaths was 90. The annual average for the last 10 years was 43 ~~per 1,000~~. The increase in the number of deaths from Diarrhœa was due to the

very warm summer. The rise in the Diarrhœa death rate does not begin till the average weekly temperature of the thermometer (suspended in an iron tube 4 feet deep in the earth) has reached 56° F. This takes place about a week later than that in the air. The temperature was above 56° F. for 16 continuous weeks, from the third week in June to the last week in September.

MEASLES.—The corrected number of deaths was 57. The annual average number for the last 10 years was 55·8. These deaths were equal to a rate of '97 per 1,000 of the population, that for the whole of London being '68.

The deaths from Zymotic Diseases numbered 249, and correspond to a death rate of 4·24 per 1,000 of the population. The Zymotic death rate for the whole of London was 2·77 per 1,000. Such deaths include Small Pox, Measles, Scarlet Fever, Diphtheria, Membranous Croup, Whooping Cough, Puerperal Fever, Enteric and Simple Continued Fevers, and Diarrhœa.

The deaths from Inflammatory Affections of the Lungs numbered 219, and correspond to a death rate of 3·5 per 1,000 of the population.

The number of deaths of infants under 1 year of age was 388. This corresponds to a infantile mortality of 208 for every 1,000 registered births. The infantile mortality for London as a whole was 166 per 1,000 births.

Seventy-seven deaths were due to old age. This corresponds to a death rate of 1·3 per 1,000 of the population.

One hundred and thirty six deaths were due to Phthisis which is equal to a death rate of 2·3 per 1,000. The death rate for London was 1·72 per 1,000. In addition there were 51 deaths of other diseases of a Tubercular nature. The death rate for all diseases of a Tubercular nature was 3·1 per 1,000. In other words 13 per cent of all deaths were due to Tubercle in some form or other. Great prominence has been given lately to the large number of deaths due to Tuberculosis. As you know a

Society has been formed for the purpose of trying to diminish this number, by educating the people as to the best means of preventing this disease. Though the mortality from Phthisis or Consumption is gradually becoming less every year, that from Tabes Mesenterica, or Consumptive Bowels, is gradually becoming higher. In the latter class it is maintained that it is largely due to the milk from Tuberculous cows and Tuberculous meat. It is suggested that all dairies should be frequently inspected by experts and in the event of any signs of Tuberculosis appearing in a cow, that it be immediately slaughtered and the owner compensated, and that abattoirs or public slaughter houses should be established instead of the private ones now in use. That an expert be attached to each abattoir who would thoroughly examine all the carcasses before they could be placed on the market. It is admitted that density of population is an important factor in the spread of Tuberculosis. Persons living in one room suffer more from this disease than those living in two rooms, those living in two rooms suffer more than those living in three rooms. But it must be remembered that want of open air exercise, want of proper food and other such conditions, also favour its spread ; and it is only fair to assume that people living in one room cannot afford as much time in the open air and buy as substantial food as those that can afford to live in three or four roomed houses. The essential factor in the Causation of Consumption and its allied diseases is the Tubercle Bacillus. This organism is found under various conditions in regions frequented by consumptive patients. Strauss experimented at the Charitè Hospital, Paris, by placing in the nostrils of 29 assistants, nurses and ward maids, plugs of cotton-wool to collect the dust of the wards. In nine of the 29 cases these contained Tubercle Bacilli, which proved infective to animals. The breath of persons suffering from Consumption is not infective but the expectoration contains the bacilli in enormous quantities. The expectoration when allowed to become dry is widely spread in the form of dust. The bacilli attach themselves to fine particles of dust, gain entrance to the system through the Lungs. When inhaled into the Lungs of a healthy individual they are readily and rapidly destroyed, but if they are received on suitable ground where the tissues are more vulnerable and less capable of resisting infection, the bacilli increase in number and the person ultimately becomes infected with Tuberculosis. It has been proved that the dust in a room where a consumptive patient

lived was infective six weeks after his death. This shows how necessary it is to have rooms that have been occupied by Consumptive people thoroughly disinfected. This fact will in time become generally known and when it is also known that disinfection of the premises will be carried out by employees of the Board free of charge, I have no doubt it will be always done. To go further and include it in the list of notifiable Infectious Diseases and strictly isolate every person suffering from Phthisis is in my opinion absurd, and would be an unjustifiable expense. Far more good can be done by establishing open air Sanatoria, which has been strongly advocated lately, and to give Medical Practitioners leaflets, containing a few simple directions as to the mode of disposal of the sputum, &c., to be distributed amongst their Consumptive patients. I may remind you that this was done by your Board in the early part of 1897.

During the year 461 notifications were received, of which 191 referred to Scarlet Fever, 134 to Diphtheria, 2 to Membranous Croup, 90 to Erysipelas, 1 to Puerperal Fever, and 42 to Typhoid Fever; of these 136 cases of Scarlet Fever, 94 cases of Diphtheria, 26 cases of Erysipelas, and 28 cases of Enteric Fever were removed to Hospital. This is by far the smallest number of notifications of Infectious Diseases received in one year since the year when notifications were made compulsory. For the sake of comparison, I give the number in each year —

In 1892 the number of notifications was	771
1893 " " "	1298
1894 " " "	719
1895 " " "	755
1896 " " "	764
1897 " " "	754
1898 " " "	461

This satisfactory reduction happened in spite of the water famine. During the time that the District was supplied for four hours a day only (from September 3rd to December 12th), water-carts distributed water through all the streets. The water was stored in jars supplied by the East London Water Company and the *Evening News*. Nearly 4,300 jars were given away. Bills were posted throughout the District to the effect that notice of a stopped drain should be immediately given to the Board of

Works, and that water jars and disinfectants could be obtained free of charge. Nearly 800 2-lb. bags of Carbolic Acid Powder were given away. Carts containing water and Carbolic Acid were daily sent through the poorer districts to flush the water-closets, and the gulleys were flushed with water and Carbolic Acid (1 in 1000).

HOUSING OF THE WORKING CLASSES ACT.

CHUSAN PLACE AREA.—Towards the end of 1897, 1, 2, 3 and 4, Chusan Place, 1 to 8, Marchant's Row, and 2, 4 and 13, St. Anne's Row, were closed by a Magistrate's order. The houses in Marchant's Row were demolished, those in St. Anne's Row were repaired and put in such a condition that when they were inspected by the Sanitary Committee in June, it was decided not to oppose the application of their owners to have them re-opened. Nos. 1, 2, 3 and 4, Chusan Place are still closed and in the same condition.

After inspecting 1, 1A and 2, Twine Court, and 1 to 12, Newton Rents, I made an official representation to the Board that these houses were in a state so dangerous to health as to be unfit for human habitation. An order was obtained from the Magistrate to have the houses in Twine Court closed, but after visiting the houses in Newton Rents on three different occasions, the last time after extensive alterations and repairs had been completed, he decided not to close them and dismissed the summons, but allowed the Board four guineas costs.

There is a slight difficulty in correctly stating the number of people to each acre of land in the District. The area of the District given by the Registrar-General is 465 acres, but the Officials of this Board have always taken it to be 562 acres. The discrepancy is probably due to the fact that the latter include the space occupied by the docks and half of the river. Taking the latter figures, the number of persons to an acre is 104. This compares very favourably with the rest of London. Some parts of the District are very much more populous than others. At the request of the Board I had the census taken in certain streets in order to find out whether there was gross overcrowding.

The number of persons in each street was :—

Albert Street	...	...	...	222
Albert Street Buildings	...	...	...	138
Newton's Rents	...	...	...	40
Sage Street	...	...	...	215
Settles Cottages	...	...	...	32
Twine Court	...	...	...	217
				864

The area of this District is about two acres, so that there are about 432 persons to an acre.

	Total Number of Deaths.	Death Rate per 1,000.
Albert Street (including Buildings) ...	¹⁸⁹⁸ 10	27·7
Newton's Rents ...	1	25·0
Sage Street (and Settles Cottages) ...	6	24·2
Twine Court ...	13	59·9

This makes 30 the total number of deaths, with a death rate equal to that of 34·2 per 1000 of the population, which is much higher than that of the whole District.

LIST OF ARTICLES DISINFECTED IN THE APPARATUS,
From January 1st to December 31st, 1898.

ARTICLES.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Beds	24	36	34	31	33	26	22	38	40	30	36	44	394
Sheets	34	42	36	50	60	40	54	44	56	42	56	62	576
Blankets	42	46	30	41	36	22	30	76	48	36	43	49	499
Bolsters... ..	22	30	28	36	28	20	16	34	44	24	32	41	355
Pillows	56	72	62	76	67	60	82	79	86	79	82	96	897
Quilts	33	44	36	24	32	22	34	40	52	40	32	36	425
Mattresses	32	36	30	26	24	28	18	36	28	30	29	32	349
Sundries	260	227	273	197	192	202	197	292	127	264	186	241	2658
Total	503	533	529	481	472	420	453	639	481	545	496	601	6153

INCINERATOR.—The following articles were destroyed in the Incinerator :—

1 Sheep.
90 Tins of Salmon.
220 Sacks of Paper.
21 Beds.
10 Pillows.
32 Mattresses.
Clothing &c. from the Mortuary.

THE SHELTER.—Nine families were received in the shelter during the year, whilst their homes were disinfected. These families consisted of 22 children and 15 adults.

MORTUARY.

The number of bodies deposited in the Mortuary during the year was 180 ; 145 were removed to the Mortuary by the Coroner's orders, 24 by the Police, 5 by the Medical Officer of Health's Orders, 2 by the Relieving Officer's orders, 3 from the Children's Hospital, and 1 was taken by the friends for the sake of convenience.

Five bodies were deposited in that part of the Mortuary set apart for infectious cases, 2 of the deaths were due to Diphtheria, 1 to Typhoid Fever, 1 to English Cholera and 1 to Measles.

In 179 of the cases Inquests were held, and in 18, post-mortem examinations were made.

The deaths of the above were due to the following causes :—

Alcoholism	...	...	...	...	...	1
Convulsions	...	...	...	...	...	23
Constitutional Diseases	...	...	...	...	...	9
Diarrhœa	...	...	...	...	...	13
Drowning	...	...	...	...	...	18
Diseases of the Heart	...	...	...	...	...	23
" " Respiratory System	...	...	...	...	...	22
" " Nervous System	...	...	...	...	...	7
Influenza	...	...	...	...	...	2
Improper Feeding	...	...	...	...	...	5
Premature Births	...	...	...	...	...	6
Thrush	...	...	...	...	...	1
Still-born	...	...	...	...	...	3

	133
Suffocation while in bed with the parents ...	18
Suicide	7
Violence, Accidents, &c.	14
Zymotic Diseases	5
Other causes	2
	179

THE SALE OF FOOD AND DRUGS' ACT.

The total number of articles analysed during the year was 152, of which 146 were submitted by the Board's Inspectors, 3 by the Master of Ratcliff Workhouse, and 3 by the Inspector to the Pure Butter Association. This number consisted of 84 milks, 34 butters, 10 coffees, 4 mustards, 5 peppers, 1 lard, 1 oatmeal, 3 flours, 2 breads, 1 gin, 1 bitter, 1 stout, 2 porters, and 3 ice-creams. Of these 63 milks, 18 butters, 7 coffees, the mustards, peppers, lard, oatmeal, flours, breads, gin, bitter, stout, porters, and ice-creams were genuine.

ARTICLE.	EXTENT OF ADULTERATION.	RESULT.
Milk ...	13 per cent. of added water	Fined 40s., and 23s. costs.
Milk ...	14 per cent. of added water	Fined 40s., and 23s. costs.
Milk ...	5 per cent. of added water	Cautioned.
Coffee ...	Contained 17 per cent. of chicory... ..	Informality of purchase.
Butter ...	Contained 75 per cent. of foreign fat	Fined 20s., and 23s. costs.
Butter ...	Contained 80 per cent. of foreign fat	Informality of purchase.
Milk ...	5 per cent. of added water	Cautioned.
Milk ...	Adulterated with 3 per cent. of added water, and deficient in cream to the extent of 10 per cent.	Cautioned.

ARTICLE.	EXTENT OF ADULTERATION.	RESULT.
Milk ..	Deficient in cream to the extent of 90 per cent....	Fined 40s., and 23s. costs.
Butter ..	Contained 75 per cent. of foreign fat	Informality of purchase.
Milk ..	3 per cent. of added water	Cautioned.
Butter ..	74 per cent. of foreign fat	Fined 30s., and 23s. costs.
Butter ..	75 per cent. of foreign fat	Fined 40s., and 23s. costs.
Milk ..	At least 5 per cent. of added water and 10 per cent. of cream abstracted	Vendor cautioned.
Milk ...	At least 5 per cent. of added water	Vendor cautioned.
Milk ...	The Vendor deliberately broke the bottles after they were sealed. ..	Fined 20s., and 23s. costs.
Milk ..	At least 14 per cent. of added water	Fined 20s., and 23s. costs
Coffee ..	At least 30 per cent. of chicory... ..	Informality of purchase.
Butter ..	At least 65 per cent. of foreign fat	Fined £3, and 23s. costs.
Butter ...	At least 85 per cent. of foreign fat	Fined £4, and 23s. costs.
Milk ..	At least 13 per cent. of cream abstracted ...	Vendor cautioned.
Milk ...	At least 16 per cent. of cream abstracted ...	Vendor cautioned.
Butter ...	At least 84 per cent. of foreign fat	Fined £3, and 23s. costs.
Butter ...	At least 87 per cent. of foreign fat	Fined 30s., and 23s. costs.
Milk ...	Contained at least 8 per cent. of added water ...	Vendor cautioned.
Butter ...	Contained at least 86 per cent. of foreign fat ...	Fined 30s., and 23s. costs.
Butter ...	Contained at least 50 per cent. of foreign fat ...	Fined 10s., and £2 6s. costs.

ARTICLE.	EXTENT OF ADULTERATION.	RESULT.
Milk ...	Contained at least 5 per cent. of added water ...	Vendor cautioned.
Milk ...	At least 14 per cent. of cream abstracted ...	Vendor cautioned.
Milk ...	Contained at least 10 per cent. of added water ...	Fined £5, and 23s. costs.
Milk ...	Contained at least 33 per cent. of added water ..	Fined £10, and 23s. costs.
Milk ...	Contained at least 3 per cent. of added water and 10 per cent. of cream abstracted ...	Vendor cautioned.
Milk ..	Contained at least 4.5 per cent. of added water, and 10 per cent. of cream abstracted ...	Vendor cautioned.
Coffee ...	Contained 50 per cent. of chicory ..	Fined 10s., and 23s. costs.
Butter ...	Contained at least 78 per cent. of foreign fat ..	Fined 30s., and 23s. costs.
Butter ...	Contained at least 84 per cent. of foreign fat ...	Fined £4, and £2 6s. costs.

ARTICLES SUBMITTED BY RATEPAYERS AND OTHERS.

Milk ...	Contained at least 18.3 per cent. of added water ...	This was submitted by the Master of Ratcliff Workhouse. The Magistrate decided that as 3 gallons of milk had been purchased, that quantity ought to have been divided into three, instead of a part of it. Case dismissed.
Butter ...	Contained at least 40 per cent. of foreign fat ...	Fined £5, and 23s. costs,
Butter ...	Contained at least 60 per cent. of foreign fat ...	Fined £20, and £3 3s. costs.
Butter ...	Contained at least 30 per cent. of foreign fat ...	Fined £2, and 14s. 6d. costs.

Nearly 25 per cent. of the samples taken were found to be adulterated. This is the first year that samples of milk have been taken on Sundays, and out of 48 samples so taken 12 were found to be adulterated. The total amount recovered in fines and costs by the Board was £69. This amount is £5 more than the whole of the penalties for the previous three years put together.

The Inspectors have performed their duties to my satisfaction, and I have to express my thanks to them for the manner in which they have assisted me in carrying out the duties of my office.

I have the honour to remain,

GENTLEMEN,

Your most obedient Servant,

D. L. THOMAS,

*Medical Officer of Health and
Public Analyst.*

BOARD'S OFFICES :—

WHITE HORSE STREET.

April 29th, 1899.

REPORT TO THE SUB-COMMITTEE

ON

INFANTILE MORTALITY.

GENTLEMEN,

I beg to present the following Report as a result of my enquiries into the causes, &c., of Infantile Mortality.

In 1898, the number of deaths of infants under 1 year of age was 388. This corresponds to 208 deaths for every 1,000 births. This means that for every 10 children born during the year only 8 lived 12 months. From enquiries made, I find that there are only two districts in London that have a higher infantile mortality, viz., Holborn, with 221 deaths for 1,000 births, and St. Saviour, Southwark, with 211.

Of the Eastern Districts, 3 have almost as high a rate of infantile mortality as the Limehouse District. These districts are Shoreditch, with 196 per 1,000 births, St. George's-in-the-East with 195, and Poplar with 191.

The infantile mortality for the whole of London is high, and last year was 166 per 1,000 births.

I have made enquiries into the causes of death of not only infants under a year old, but those that died under the age of 18 months, and in one of the Tables I have given you the result of those investigations. I ought to explain that these do not include the deaths of infants from notifiable Infectious Diseases, nor of those that died within a few hours of birth, due to being born prematurely or to Congenital Defects.

28 per cent. of all deaths in 1898 were children under 1 year of age, and 43 per cent. were those of children under 5 years of age.

Of the 266 cases that were actually investigated, in 35 it was their first and only child.

In 68 they had several children living, and the child in question was the only one that had died.

In 119 they had children living, and other children had previously died under the age of 1 year.

In 23 they had children living, and other children had died between 1 and 2 years of age.

In 8 they had children living, and other children had died between 2 and 5 years of age.

In 17, there were no children living, but other children had died under 1 year of age.

In 3 there were no children living, but other children had died between 1 and 2 years of age.

No. of families that had children living and none dead previously ...	66
" " " 1 child dead " ...	62
" " " 2 children " " ...	48
" " " 3 " " " ...	31
" " " 4 " " " " ...	21
" " " 5 " " " " ...	8
" " " 6 " " " " ...	3
" " " 8 " " " " ...	1
" " " 14 " " " " ...	1

The first Table I wish to present shows the manner in which these infants were fed.

Enquiries were made into 355 cases. Of these, in 85 instances the people were not known at the address given, or had gone away, their present address being unknown.

In 4 instances, information was refused.

Of the remaining 266, 234 were under 1 year of age, and 32 were between 12 and 18 months old.

Of those under 1 year of age, 104 were breast-fed and 130 were reared on artificial food, and the various foods used were as follows :—

Nestle's Milk ...	...	...	...	...	...	...	45
Cow's Milk ...	...	...	...	...	...	...	38
Mellin's Food ...	...	...	...	...	...	...	10
Ridge's Food ...	...	...	...	...	...	...	7
Hatfield's Food	...	...	...	...	...	...	3
Allen and Hanbury's Food	...	...	...	...	...	...	5
Condensed Milk	...	...	...	...	...	...	3
Humanised Milk	...	...	...	...	...	...	2
Corn Flour ...	...	...	...	...	...	...	1
Benger's Food	...	...	...	...	...	...	1
Nursery Biscuits	...	...	...	...	...	...	4
Mellin's Food and Hatfield's Food	...	...	...	...	...	2	} 11
„ Nestle's Milk	...	...	...	...	...	3	
„ Cow's Milk	...	...	...	...	...	1	
Allen and Hanbury and Cow's Milk	...	...	...	...	...	1	
Nestle's Milk and Ridge's Food	...	...	...	...	...	3	
„ Allen and Hanbury's Food	...	...	...	...	...	1	
							—
							130
							—

The second Table represents the diseases from which the infants died, and the relative percentage of breast-fed infants and of those brought up on artificial foods.

Diseases.	UNDER ONE YEAR.				ABOVE ONE YEAR.				Family gone away.
	Total.	Breast.	Artificial.	Breast.	Artificial.	Breast.	Artificial.	Breast.	
Bronchitis, Broncho-Pneumonia and Pneumonia	65	17	27	5	—	—	—	16	
Cardiac failure	1	1	—	—	—	—	—	—	
Convulsions	22	6	5	—	—	2	—	9	
Debility	2	2	—	—	—	—	—	—	
Inanition & debility from birth	14	6	4	—	—	—	—	4	
Dentition	17	7	5	2	—	1	—	2	
Dyspepsia	2	—	2	—	—	—	—	—	
Diarrhoea	73	12	38	5	—	3	—	15	
Gastritis, Enteritis, and Gastro-Enteritis	38	7	16	3	—	—	—	—	
Marasmus	35	9	13	1	—	1	—	11	

Diseases.	UNDER ONE YEAR.			ABOVE ONE YEAR.			Family gone away.
	Total.	Breast.	Artificial.	Breast.	Artificial.		
Meningitis	11	6	3	1	—	—	1
Prematurity	6	5	1	—	—	—	—
Tuberculosis	15	5	5	3	—	—	2
Tabes Mesenterica	6	4	1	—	—	—	1
Rickets	2	—	2	—	—	—	—
Hydrocephalus	3	1	—	—	—	—	2
Whooping Cough	18	9	4	1	1	—	3
Skin Disease	1	1	—	—	—	—	—
Thrush	4	2	1	1	—	—	—
Abscess of Thigh	1	1	—	—	—	—	—
Suffocation in bed with the parents	7	3	1	—	—	—	3
Accute inflammation of the stomach due to improper feeding	2	2	—	—	—	—	—
Convulsions due to improper feeding	1	—	—	—	—	—	1
Cirrhosis of Liver	1	—	—	—	—	—	1
Malnutrition	1	—	—	—	—	—	1
Measles	1	—	—	—	—	—	1
Cellulitis of Scalp	1	—	—	—	—	—	1
Collapse of Lung	1	—	—	—	—	—	1
	351	104	130	22	10	—	85

Refused to supply information, 4.

In the preceding Tables I have only represented the mode of bringing up the infants, and the diseases to which they ultimately succumbed. Besides the mode of feeding the infants, other conditions exist, which perhaps influence and undoubtedly modify this factor in infant life. During the last year I have made careful inquiries into other causes that may have operated in producing this high infantile mortality, and I have come to the conclusion that the factors which enter into its causation are numerous and complex. In many instances it is difficult and almost impossible to determine which factor predominated as the predisposing agent in the death of the child.

I have felt it would be of great value if we could decide to what extent these conditions could be improved by means of

the powers at present vested in the Sanitary Authority, and in what direction that power is deficient, and could profitably be strengthened by further legislation.

A few of the causes of this high mortality are, I am afraid, irremediable, and hopelessly beyond the control of any Sanitary Authority. Though aware of these conditions being beyond our control, yet that you may gauge their relative importance, I have recorded some of these, and shall briefly discuss them first. They may be divided into 6 groups:—

1. *Poverty.*
2. *Illegitimacy.*
3. *Overlaying.*
4. *Unhealthy surroundings*
5. *Hereditary Diseases.*
6. *Insurance.*

1. *Poverty.*—On account of poverty and other causes, wives work in factories, &c., even when pregnant. They are known to work up to within a day or two of their confinement. These conditions expose the mother to all sorts of risks, and very often cause the child to be prematurely born. In 1898, 33 deaths were registered as being due to Prematurity.

The following list will give you the length of time the child lived:—

5	lived less than 1 hour.
6	„ from 1 hour to 24 hours.
9	„ „ 1 day to 1 week.
9	„ „ 1 week to 1 month.
4	„ „ 1 month to 3 months.

33

This list does not include still-born children. But even when the child is born at full term and healthy, it does not stand a normal chance of surviving. The mother has soon to return to work, and the child has of necessity to be brought up on artificial food. This is not all, the mother cannot afford to pay a proper person to look after the child, and very often it is placed in the care of another child, who is probably only a few years older. The risks to which a child thus placed is exposed are obvious.

2.—*Illegitimacy*.—The mortality amongst Illegitimate children is twice as high as it is amongst Legitimate children. Fortunately, the number of children thus born in this district is very low when compared with England and Wales. In 1897, only 12 illegitimate children were born in the District, which is equal to 1 in 166 births, whereas in the rest of England and Wales it was 1 for every 20 births. The number of illegitimate children is very much larger in agricultural than in industrial districts. In Shropshire there was 1 illegitimate for every 11 legitimate births two or three years ago. If the mortality was not so high every twentieth person that you would meet would be an illegitimate.

3.—*Overlaying, or Suffocation of the Child whilst in Bed with the Parents*.—17 inquests were held during the year on infants belonging to this District, which had died in this manner. It may be interesting to notice that this accident occurs much oftener on some days than on others. For instance, in the case of these 17 deaths:—

4	occurred on	Sunday.
1	„	Monday.
2	„	Tuesday.
None	„	Wednesday.
2	„	Thursday.
4	„	Friday.
4	„	Saturday.
—		
17		
—		

So that 12 occurred on Friday, Saturday and Sunday, and only 5 on the remaining four days of the week.

4.—*Unhealthy Surroundings, and a Want of Sufficient Fresh Air and Daylight*.—A great many children are brought up amidst unhealthy surroundings. In many homes work is carried on daily by the parents, and the nuisance arising from fish offal, skin-dressing, and other similar occupations, must be injurious to the health of the children.

A great many of the courts and alleys in the District contain houses from which daylight is almost totally excluded, and this means lowered vitality to the inmates.

It is surprising how difficult it is to persuade people that fresh air will not injure children. They block up every aperture which might serve as an entry to fresh air and an exit to the foul air, and think that by so doing they serve the best interests of their children.

5.—*Hereditary Diseases*.—Diseases in the parents are often accountable for weak children. In some instances these diseases cause the children to be prematurely born, in other instances the children are born at full term, but the iniquities of the parents are visited upon the children. Under this heading might be included alcoholism in the parents. The question of whether acquired characteristics can be transmitted need not trouble us ; but it must be admitted that habitual drunkenness in the parents does tend to produce feeble children. Not only does drunkenness affect the children by causing the inherited capital with which the child starts life to be deficient, but it also acts indirectly on the infant in this way, that often their surroundings are unhealthy, and the mother neglects the child.

6.—*Insurance*.—It is often stated that infants that are insured stand a far worse chance of living than children that are not insured. I have been told that some of these are insured before they are born. The fact of there being a slight monetary advantage derived from its death, is asserted to render the mother more careless of its health, and less anxious to rear it. I am not in a position either to prove or to disprove the above statement ; but I have made inquiries from some of the best authorities. Knowing that Mr. Wynne Baxter, the Coroner for East London, at every inquest he holds on children particularly asks whether the child is insured or not, I made inquiries of him. He told me that 75 per cent. of the children that die, and are the subject of investigation by him, are insured ; but at the same time he does not think that the fact that they are insured has any influence or bearing on the death. Mr. Baxter's experience shows how prevalent the practice is amongst the poor of East London, but his opinion as to its effect must also be held as the highest and best in London.

From the figures which I have given under the various headings, you may gather to what extent these factors enter into the causation of a high infantile mortality. The above figures

must of course be taken only as an approximate estimate, in the sense that they are the predisposing causes in the etiology of infantile mortality, as in many instances the causes are numerous and the conditions existing complex. But, on the whole, I think that in the Limehouse District, the above figures are a fair index of their relative importance. The least important undoubtedly in this district are Illegitimacy and Insurance. This is fortunate for us, as they are also factors which could be least influenced by an efficient Sanitary Authority. The second condition, overlaying, is more important and almost as difficult to suggest in what direction legislation is needed. I can only suggest that it be made compulsory that an infant of a certain age should not sleep with the parents, but have a separate cot by the side of the bed, even it be only an old box, which can be made comfortable.

As is only natural in a district such as this, Poverty is an important question. Its dimensions are too vast to be touched on in a Report of this nature. I have been Medical Officer of Health for too short a time to express an opinion as to whether or no an improvement has taken place in this respect. It would be idle to expect legislation to abolish poverty.

If mothers must go out and work, some institutions, such as the Crèche in Stepney Causeway, might be established, where the infants could be left and looked after during the day whilst the mother is at work. Such institutions would be of undoubted benefit for such mothers as are compelled to go out and work.

The question of unhealthy surroundings is to a great extent intimately bound up with the question of Poverty. Useful legislation has been enacted in respect to various trades in centres of population. To carry reforms in this direction very much further brings with it the risk of unnecessarily crippling useful and indispensable manufactures.

To what extent legislation ought to be undertaken in respect of Hereditary Diseases is a vexed and much-debated subject. It is beset with many difficulties, and the prospect of legislation is remote. For instance, from the standpoint of public health, a law to prevent consumptive patients from marrying would be an excellent step towards the eradication of Tubercular disease; but any legislation that so interferes with the liberty of the subject would hardly be tolerated in England at present.

The last of these conditions which I have discussed, and which at present is beyond our control, is the question of Insurance. This question is again very closely connected with poverty, and assumes an importance only in poor districts. The expenses of a funeral falls very heavily on a poor household, and were it not for the insurance money, it might involve the family in a debt that would take a considerable time to liquidate.

The other conditions that may possibly be improved I will first briefly enumerate, and then discuss more fully in giving the different diseases that they are responsible for.

1. *Insanitary Dwellings*.—By this term I do not mean that the conditions which exist are ordinary, and remediable in the usual way. Many houses are insanitary by reason of their position, and can never be rendered sanitary except by the clearance of adjoining sites or other structural alterations.

2. *Improper Feeding*.—During the siege of Paris, the infant mortality was reduced to one-half of the average it had been for several years, though the ordinary death-rate had doubled. This was due to the mothers being obliged to suckle the babies, on account of the scarcity of milk and other food.

Improper feeding may be sub-divided into—

- (a) Starchy food.
- (b) Sour milk—condensed and otherwise.
- (c) Unsuitable and dirty bottles.
- (d) Germs from diseased cows.

Bronchitis, Pneumonia, and Broncho-Pneumonia.—Of the 65 deaths that I enquired into, 16 of the families had moved, 32 of the children were brought up on the breast, and 17 artificially. These diseases in infants have several causes; but undue exposure, draughts and insufficient clothing are the chief. There is nothing worse than to take an infant of a few months old to a concert, theatre, or a music-hall, and then from that hot and crowded room to expose it to the cold night air. This happens oftener in the East End of London than in the better-class districts.

With regard to the clothing, I cannot understand why women dress their new-born infants in robes of such length and shape that he is utterly incapable of using the muscles of his

legs—an exercise that is of as much importance to him as it is to an adult. Then when the baby is 3 or 4 months old, from being over-clothed he is suddenly put into short clothes, and becomes sadly underclothed. His neck and arms are bare as well as his legs. The thighs and hips are covered only by short skirts, which give very little protection to the child.

Summer Diarrhœa was very prevalent during July, August and September. It is due to a certain germ which migrates from the soil, and enters the milk and other food. The hotter the summer the more prevalent is the disease, and the higher is the mortality. I made inquiries into 73 deaths. Fifteen of the families had gone away. Eight of the deaths were children between 12 and 18 months old. Of these, 3 were brought up artificially, and 5 on the breast. Of the remaining 50, which were under a twelvemonth old, 38 were brought up artificially, and 12 only on the breast. Of the 12 brought up on the breast, only 2 were under 3 months old.

Gastritis (inflammation of the lining membrane of the stomach). *Enteritis* (inflammation of the lining membrane of the bowels), and *Gastro-Enteritis*.—Of the 38 deaths from these diseases that I enquired into, 10 of the families had gone away. Of the 5 deaths of children that were over a year old, 2 were fed artificially, and 3 were brought up on the breast. One suckled till he was 16 months old, a condition that was injurious to the mother as well as to the child. Of the 23 children under a twelvemonth old, 16 were brought up by artificial means, and 7 on the breast.

These diseases give rise to *Diarrhœa* and vomiting, and are caused by some irritation, such as sour milk, starchy or other indigestible food. The saliva, or spittle, in infants is at first of very small amount, especially in the first two months. It becomes more abundant when teething begins. The chief function of the saliva in the adult is to help the digestion of starch by turning it into grape-sugar by means of an active principle or ferment, which is present in the saliva. Not only is the saliva scanty in the baby, but this active principle is almost entirely absent till the baby is 6 months old. Therefore, to give starch to a baby under 6 months old, in the form of nursery biscuits, bread, corn flour, or patent babies' foods is to feed him on stuff that nature has never intended him to be fed upon, and the

digestion of which is practically impossible. These foods when so given will either cause the above diseases, or will pass through the infant without being assimilated, ~~but~~ will also cause the child great discomfort and pain.

Convulsions are more common in infancy than in adult age, and more especially towards the time of teething.

It is quite possible that there are several deaths registered as *Convulsions* that are really due to overlaying. The appearances of the body after death are very much alike, and even if a *post-mortem* examination be made it is very difficult to distinguish between the two.

Out of the 22 deaths that I enquired into, 9 of the families had moved, their present address being unknown. Seven were brought up artificially, and 6 on the breast.

Marasmus and Rickets are to a great extent food diseases. Out of 37 deaths that I enquired into, 11 of the families had gone away. Of the remaining 26, 10 were breast fed, and 16 were brought up by artificial means.

Thrush is due to neglect of cleanliness in feeding, or using an imperfectly cleansed teat, or to the presence in the mouth of sour milk. Of the four deaths that I enquired into only one was brought up artificially.

Four inquests were held where the jury brought in verdicts of Acute Inflammation of the Stomach due to improper feeding, and one of *Convulsions* due to improper feeding.

For the remaining causes of death I must refer you to the foregoing Table.

On September 28th, at the Board's request I attended the Sanitary Congress in Birmingham, where I had the pleasure of hearing of the work that was done by the Infant Life Protection Society of Chesterfield. A lady was appointed by the Society who had practical nursing experience, had passed the examination and possessed the Certificate of the Sanitary Institute, and had also been a Lecturer on Hygiene. Her method of work was to pay a visit to each house where a birth had taken place, and a Leaflet on "Infant Management" given. Information was imparted on many points, and where necessary practical

instruction was given in the care, feeding, and nurture of infants. Contrary to many predictions, a good reception, and in the majority of cases a hearty welcome was given to the visitor. The visits were so appreciated that the mothers always asked for leaflets for distribution amongst friends. Whenever second visits were paid, it was always found that some attempt had been made to carry out the teaching given. Simple homely talks were given to gatherings of women on such topics as fresh air, refuse disposal, care, feeding and management of infants, measles, summer diarrhoea, &c.

Any person can secure the services of the Officer by request at the Borough Health Department, and a practical demonstration of the success and value of the undertaking is shown by the large number of relatives, friends and neighbours who now report births and illnesses of babies, and who make requests for visits. I have not yet received a complete table of statistics from the Medical Officer of Health; but he told me that in August, 1897, the deaths from diarrhoea numbered 38, while in August, 1898, they only numbered 17, a decrease of over 50 per cent., whereas in our own district there was an increase of nearly 25 per cent. This was undoubtedly due to the fact that the mean temperature in August, 1898, was very much higher than in August, 1897. The higher the temperature the greater is the number of deaths from Summer Diarrhoea, and *vice versa*. Therefore a reduction of over 50 per cent. speaks volumes for the work that is done, and can be done in this direction, to lessen the large number of infants' lives that are sacrificed annually.

The only other practical suggestion that I can make is to have pamphlets printed, with instructions to mothers how to rear and bring up children, and that these pamphlets should be handed to the local Registrars, to be distributed by them whenever births are registered. This latter plan cannot, of course, compare with that adopted at Chesterfield. The only advantage it has, however, is that it is not so expensive.

I am,

Your obedient servant,

BOARD'S OFFICES :—

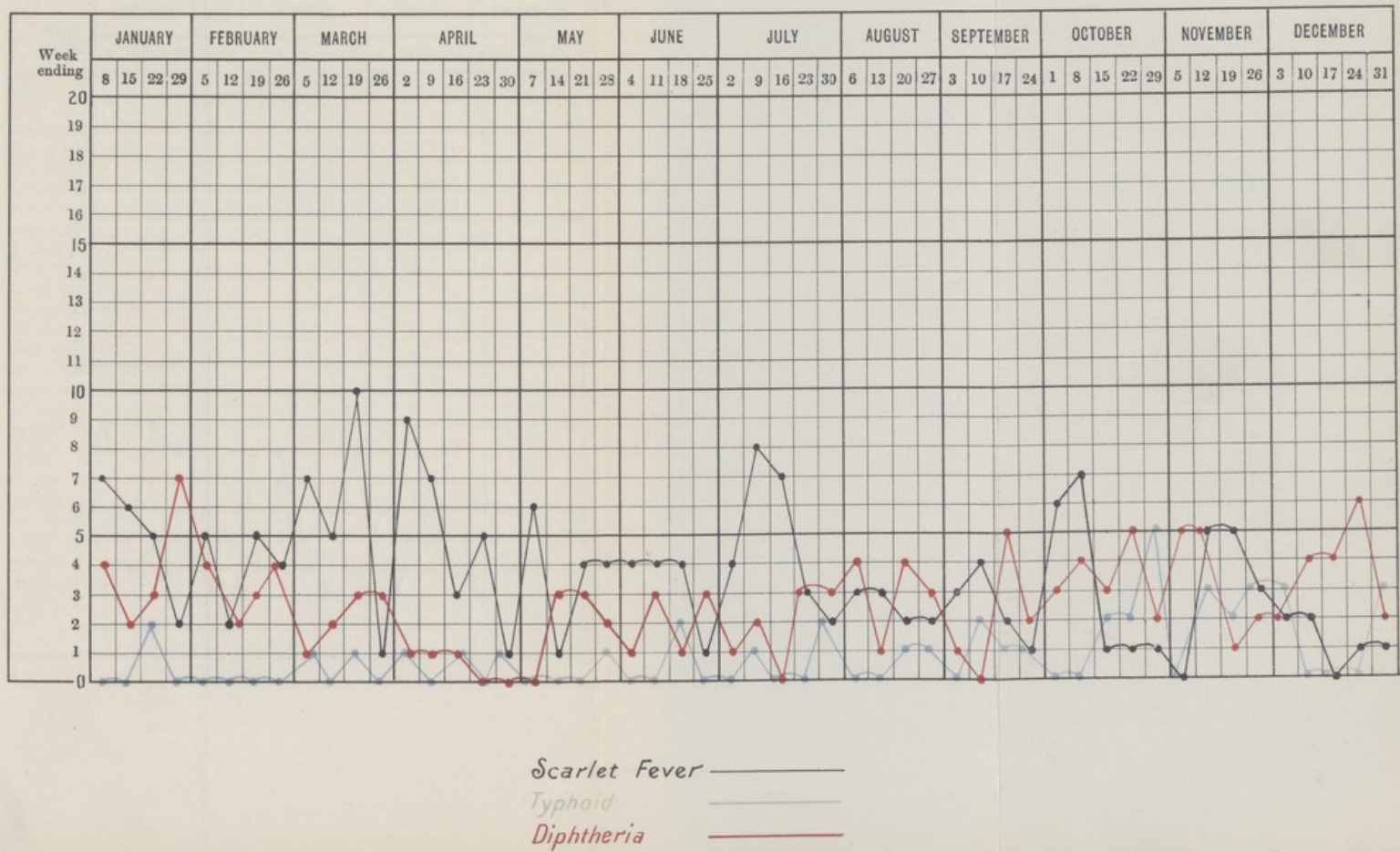
D. L. THOMAS.

WHITE HORSE STREET, E.



JANUARY, 1899.

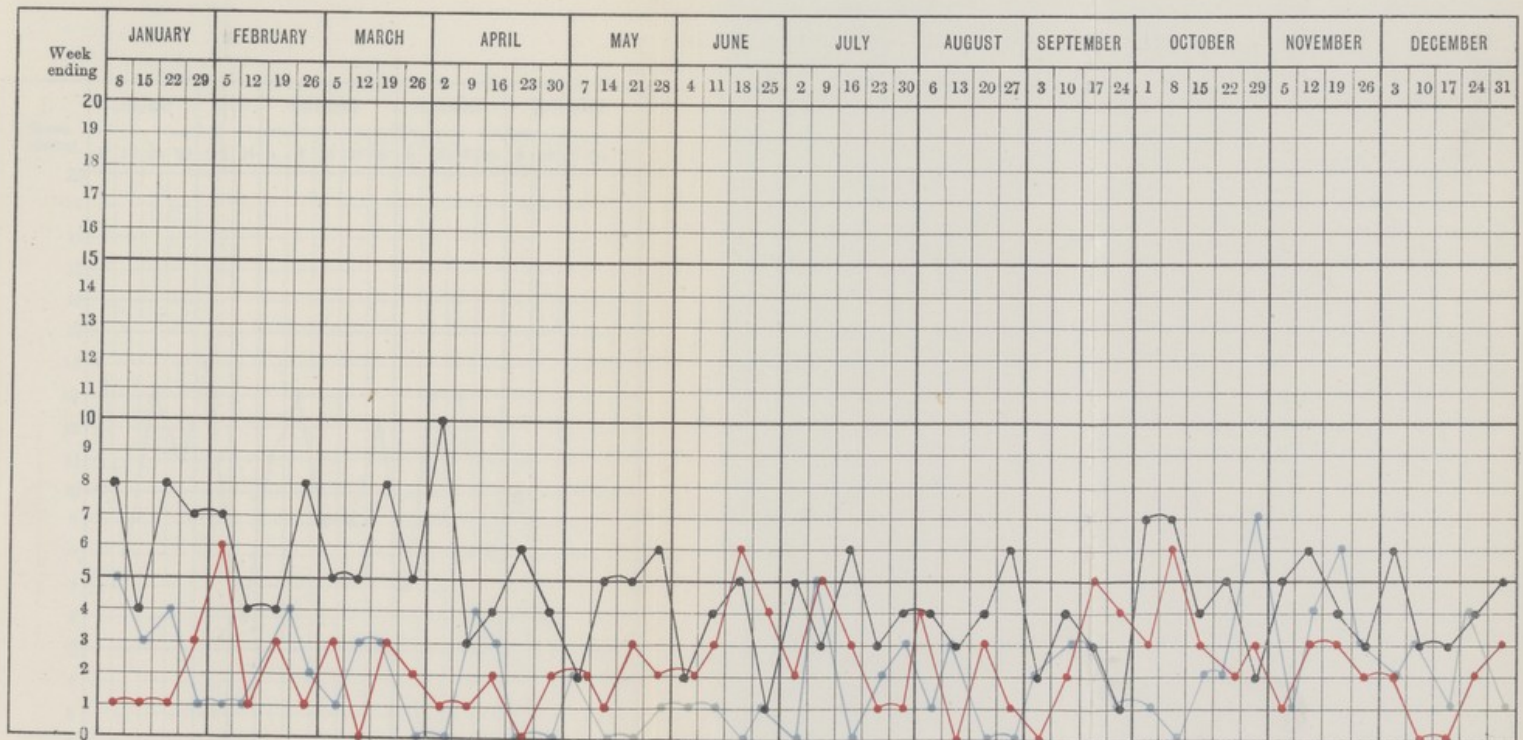
CURVE SHOWING THE NUMBER OF CASES NOTIFIED WEEK BY WEEK OF SCARLET FEVER,
DIPHTHERIA, AND TYPHOID FEVER, DURING 1898.





JANUARY, 1899.

CURVE SHOWING THE TOTAL NUMBER OF INFECTIOUS DISEASES IN LIMEHOUSE, RATCLIFF, SHADWELL AND WAPPING.



Limehouse. —
 Ratcliff —
 Shadwell & Wapping —

CURVE SHOWING THE TOTAL NUMBER OF INFECTIOUS CASES NOTIFIED WEEK BY WEEK DURING 1898

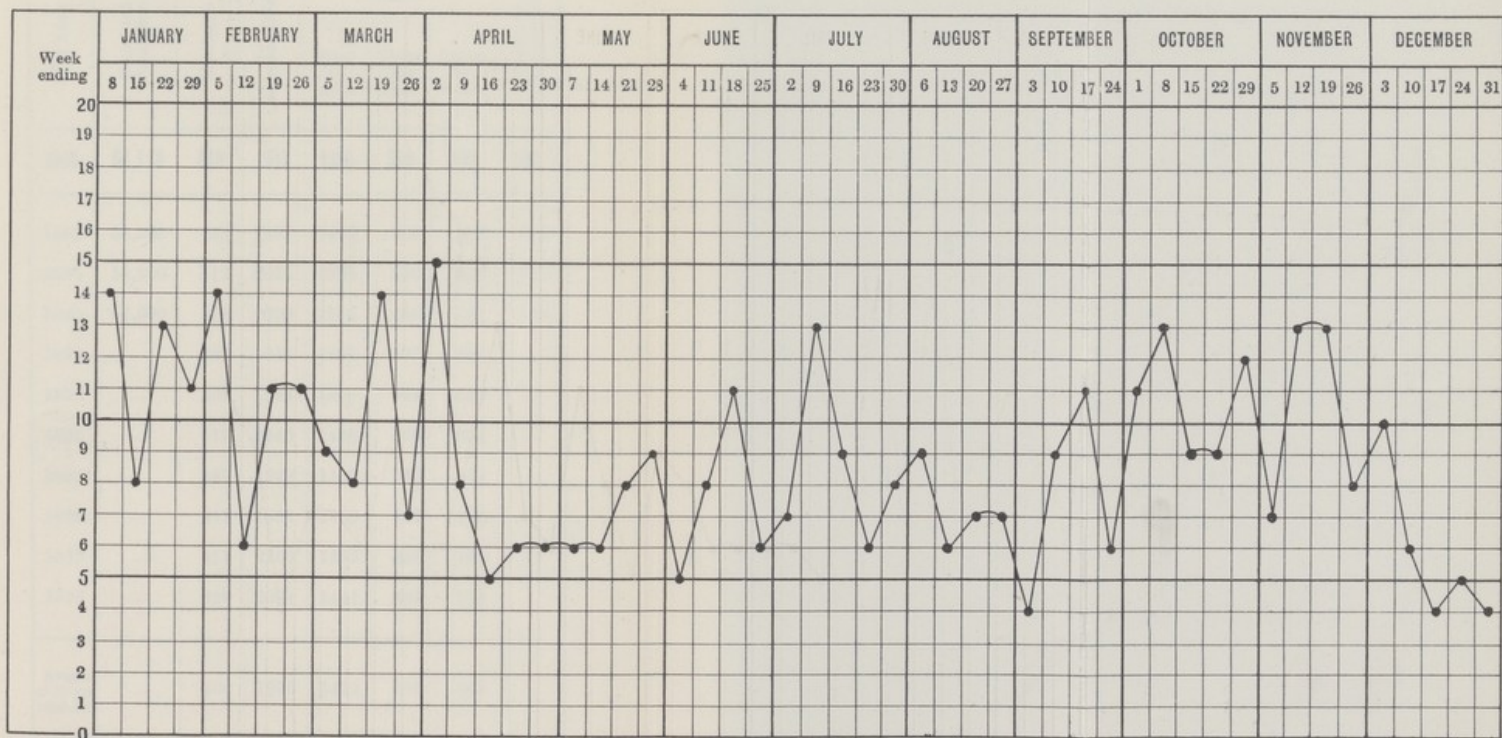


TABLE I.

Table shewing the Population, Inhabited Houses, Marriages, Births, and Deaths for the Year 1898, and 10 years preceeding.

The Year.	Estimated Population.	Marriages.	Registered Births.	Corrected No of Deaths.			Deaths in Public Institutions.
				Total All Ages.	Under One Year.	Under Five Years.	
1898	58,728	419	1912	1390	388	649	355
1897	58,508	459	1997	1462	386	715	342
1896	58,300	419	2012	1385	368	663	262
1895	57,600	378	2050	1575	456	736	255
1894	...	382	1911	1396	327	616	...
1893	...	402	1954	1597	394	640	...
1892	...	417	1940	1468	366	674	...
1891	...	387	1998	1500	349	564	...
1890	...	411	1851	1609	387	785	...
1889	...	411	2109	1363	336	582	...
1888	...	420	2084	1441	431	712	..
Avrge. of 10 yrs 1888-98.	...	408	1990	1479	380	668	...

TABLE II.

Table shewing the Annual Birth and Death Rates, Death Rates of Children in a Thousand Deaths for the Year 1898, and 10 Years preceeding.

In the Year.	Birth Rate per 1,000 of the Population.	Corrected Death Rate per 1,000 of the Population.	Deaths of Children under 1 year; per 1,000 of Registered Births.	Deaths of Children under 1 year; per 1,000 of Total Deaths.	Deaths of Children under 5 years; per 1000 of Total Deaths.
1898	32·5	23·7	208	280	438
1897	34·1	25·1	193	264	420·5
1896	34·6	23·7	182	265	478
1895	35·3	27·3	222	289	466
1894	33·1	24·2	161	234	441
1893	33·9	27·7	201	247	400
1892	33·6	25·5	188	249	459
1891	34·6	26·0	174	232	376
1890	30·8	26·8	209	240	445
1889	35·0	22·7	159	246	427
1888	35·5	24·6	207	299	494
Average of 10 years, 1888-98.	34·0	25·3	189	256	440

TABLE III.

Shewing the number of Deaths at all ages in 1898 from certain groups of Diseases, and proportions to 1000 of Population, and to 1000 Deaths from all causes; also the Number of Deaths of Infants under one year of age from other groups of Diseases, and proportions to 1000 Births and to 1000 Deaths from all causes under one year.

DIVISION I. (ADULTS).	Total Deaths.	Deaths per 1000 of population at all ages.	Deaths per 1000 of total deaths at all ages.
1. Principal Zymotic Diseases.....	249	4.24	179.3
2. Pulmonary Diseases.....	219	3.7	157.5
3. Principal Tubercular Diseases...	187	3.1	135.2
DIVISION II. (Infants under One Year).	Total Deaths.	Deaths per 1000 of Births.	Deaths per 1000 of total deaths under one year.
4. Wasting Diseases.....	123	64.8	317
5. Convulsive Diseases.....	73	38.1	188

NOTICE.

1. Includes Small Pox, Measles, Scarlet Fever, Diphtheria, Membranous Croup, Whooping Cough, Typhus, Puerperal, Enteric (or Typhoid), and Simple Continued Fevers, and Diarrhœa; 37 of the deaths occurred in Hospitals situated beyond the limits of the District.
3. Includes Phthisis, Scrofula, Tuberculosis, and Tabes.
4. Includes Marasmus, Atrophy, Debility, Want of Breast Milk, and Premature Birth.
5. Includes Hydrocephalus, Infantile Meningitis, Convulsions, and Teething.

TABLE IV.

Table shewing the Number of Deaths from the principal Zymotic Diseases, in the 10 years, 1888 to 1897, and in the year 1898.

DISEASE.	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	Annual Average of 10 years, 1888—1897.	Total Deaths in 1898.	Proportion of Deaths to 1000 Deaths in 1898.
Small Pox ...	—	—	—	—	—	7	1	1	—	—	·9	—	—
Measles	88	20	92	14	63	16	72	81	49	63	55·8	57	40·2
Scarlet Fever	23	27	15	5	27	31	41	17	14	12	21·2	5	3·5
Diphtheria...	23	41	25	15	28	62	42	41	35	26	33·8	25	18·
Membranous Croup	—	—	—	—	—	—	—	—	2	3	·5	1	·7
Whooping Cough	58	23	70	59	59	49	28	42	52	37	47·7	62	44·6
Influenza ...	—	—	—	—	—	—	—	—	5	5	1·	19	13·6
Fever {	Typhus	—	1	—	—	1	—	—	—	—	·2	—	—
	Enteric	9	13	14	6	—	16	6	10	3	8·1	8	5·7
	Simple contn'd	9	1	—	—	6	—	—	—	—	1·6	1	·7
	Puerprl.	—	—	—	—	—	—	—	1	1	·2	—	—
Diarrhoea ..	27	47	52	49	27	56	22	49	40	61	43·	90	64·7
Totals.....	237	173	268	148	210	238	212	241	201	212	214·	268	191·7

BOARD OF WORKS FOR THE LIMEHOUSE DISTRICT,
PUBLIC HEALTH DEPARTMENT.

TO DR. D. L. THOMAS,
*Medical Officer of Health
and Public Analyst.*

SIR,

We have much pleasure in submitting our tabulated statement showing the amount of work performed by us during the past year, the details of which came under your notice and supervision.

Diligent attention has been given throughout the year to the Meat, Fish, Fruit and Vegetables exposed for sale in the shops and thoroughfares in the District.

The cases of Infectious Disease have had our immediate attention and constant vigilance day and night, and occasionally on Sundays.

The scarcity of the water supply during the Summer months caused us considerable anxiety and extra work, necessitating our being on duty for seven days of the week early and late. Our work consisted of distributing water bottles and water for sanitary and domestic purposes ; this, in our opinion, preventing an epidemic.

We are,

Yours obediently,

JOHN WILLIAM JOHNSON,
GEORGE OSBORNE PAVITT,
EDWIN THOMAS CROOK.

INSPECTORS' REPORT OF THE SANITARY WORK, &c.

Completed in the year ending December 31st, 1898.

SANITARY WORK, &c.	No. 1 District.	No. 2 District.	No. 3 District.	TOTAL.
Houses, Premises, &c., inspected	1273	1386	1159	*3818
Orders issued for amendments	3286	2204	1541	7031
Houses cleansed and whitewashed	147	154	130	431
Rooms disinfected, stripped and cleansed... ..	101	56	97	254
Drains repaired, cleansed and trapped	697	389	355	1441
Drains new and reconstructed	151	125	110	386
Yards paved, and paving repaired... ..	299	263	165	727
Water Closets cleansed and repaired	437	323	270	1030
Closets and urinals supplied with water	73	138	64	275
New Closets supplied	2	14	12	28
Water supply laid on	46	63	16	125
Cisterns cleansed and covered, and defective water fittings	377	117	160	654
Waste and stack pipes disconnected from drains... ..	108	30	30	168
Dust-pails supplied... ..	527	638	381	1546
Dust removal complaints attended to	15	12	12	39
Removal of accumulations, &c.	3	21	7	31
Dead bodies removed to mortuary	—	2	1	3
Canal Boats inspected	59	—	—	59
Flooring, stairs, window sashes and eaves gutters provided, and roofs repaired	676	452	150	1278
Overcrowding abated	3	12	12	27
Notices to Schools	129	95	88	312
Factory inspections	19	12	120	151

Factory nuisances abated	14	4	1	19
Bake-houses inspected	40	28	20	88
Licensed Slaughter-houses inspected	8	2	—	10
Legal Proceedings, <i>i.e.</i> , Summonses	41	18	16	75
Houses closed, unfit for habitation	10	1	5	16
Houses demolished..	8	13	2	23
Notices given to London County Council of dangerous and dilapidated premises	18	57	5	80
Drain test used	1007	814	665	2486
Improved ventilation in houses	139	23	55	217
Basements discontinued to be used as dwellings ..	—	—	4	4
Drinking water supplies separate from the w.c.'s	10	2	—	12
Animals removed	2	12	—	14
Cesspools abolished... ..	—	—	1	1
Free Shelters inspected	1	24	1	26
New dung pits provided	5	—	3	8
Water closets discharging into the river Thames	—	—	5	5
Notices to provide crossings, area gratings, flaps and trap doors in footways	4	4	6	14
Samples taken under Sale of Food and Drugs' Act	48	50	52	150
Dust-bins defective	—	—	—	—
Licensed Cow-sheds inspected	6	3	6	15
Smoke nuisances abated	2	—	14	16

* This does not include re-inspection to premises to ascertain works in progress ; such, if added would probably treble the number.

In addition to this, we have had destroyed, as unfit for human food, during the year, the following articles, viz :—42 Cases of Oranges, 56 Cases of Herrings, 1 Sheep, 90 Tins of Salmon, and a quantity of Bacon, Fish, and Oranges.

JOHN WILLIAM JOHNSON.
GEORGE OSBORNE PAVITT.
EDWIN THOMAS CROOK.

SPECIAL RETURNS

REQUIRED BY THE

LOCAL GOVERNMENT BOARD.

AREA OF DISTRICT...	...	...	562 Acres
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POPULATION in 1891	...	...	...	57,599
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„	Enumerated in 1896	...	...	58,305
---	--------------------	-----	-----	--------

„	Estimated to middle of 1898	...	58,728
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TABLE V.—TABLE OF DEATHS during the Year 1898, in the Metropolitan Sanitary District of Limchome, classified according to DISEASES, AGES and LOCALITIES.

NAMES OF LOCALITIES adopted for the purpose of these Statistics; public institutions being shown as separate localities. (Columns for Population and Births are in Table B.) (a)	MORTALITY FROM ALL CAUSES, AT SUBJOINED AGES.							(i)	MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.																					
	At all ages.	Under 1 Year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	(b)	(c)	(d)	(e)	(f)	(g)	(h)		Small Pox	Scarlatina	Diphtheria	Measles and Croup	Typhus	Etiotic or Typhoid	Cerebral	Scarlatina	Scarlatina	Cholera	Erysipelas	Measles	Whooping Cough	Dysentery and Dysentery	Rheumatic Fever	Phthisis	Scrophulous and Pulmonary	Heart Disease	Influenza	Injuries	All Other Diseases	Total
	(b)	(c)	(d)	(e)	(f)	(g)	(h)		Small Pox	Scarlatina	Diphtheria	Measles and Croup	Typhus	Etiotic or Typhoid	Cerebral	Scarlatina	Scarlatina	Cholera	Erysipelas	Measles	Whooping Cough	Dysentery and Dysentery	Rheumatic Fever	Phthisis	Scrophulous and Pulmonary	Heart Disease	Influenza	Injuries	All Other Diseases	Total
Limchome	527	215	115	5	15	108	69	Under 5 5 upwds.	...	1	...	1	...	...	...	...	...	1	...	37	38	48	...	...	51	...	1	12	140	356
Ratcliff	228	72	36	6	13	80	21	Under 5 5 upwds.	...	...	1	...	...	...	1	...	...	...	...	3	8	12	...	...	24	...	...	9	50	108
Shadwell and Wapping	152	41	34	5	6	46	20	Under 5 5 upwds.	...	...	2	...	...	...	...	...	...	...	...	7	11	1	...	2	18	...	...	1	35	75
East London Children's Hospital	355	219	109	25	1	1	...	Under 5 5 upwds.	...	...	4	...	...	...	...	...	...	4	...	9	6	81	...	...	59	...	...	...	155	328
Totals	1262	547	294	41	35	255	110	Under 5 5 upwds.	...	1	8	1	...	...	...	...	...	5	...	56	63	142	...	...	162	...	...	...	378	841

The subjoined numbers have also to be taken into account in judging of the above records of mortality.

Deaths occurring outside the district among persons belonging thereto	488	60	76	23	19	203	102	Under 5 5 upwds.	...	...	3	15	...	...	...	...	...	...	10	4	15	...	...	22	...	...	...	6	59	156
Deaths occurring within the district among persons not belonging thereto	273	171	81	21	...	...	...	Under 5 5 upwds.	...	...	4	...	...	...	...	...	...	4	...	7	6	59	...	...	42	...	...	...	124	252



TABLE VI.—TABLE OF POPULATION, BIRTHS, and of NEW CASES OF INFECTIOUS SICKNESS, coming to the knowledge of the Medical Officer of Health, during the year 1898, in the Limehouse District; classified according to DISEASES, AGES and LOCALITIES.

NAMES OF LOCALITIES adopted for the purpose of these Statistics; public institutions being shown as separate localities.	Population at all Ages.		Registered Births.	Aged under 5 or over 5.	New Cases of Sickness in each Locality coming to the knowledge of the Medical Officer of Health.											Number of such Cases Removed from their Homes in the several Localities for Treatment in Isolation Hospital.															
	Last Census.	Estimated to middle of 1898.			1	2	3	4	5	6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10	11					
					Small Pox	Scarlatina	Diphtheria	Membranous Croup	FEVER.							Cholera	Erysipelas	Small Pox	Scarlatina	Diphtheria	Membranous Croup	FEVER.							Cholera	Erysipelas	
									Typhus	Enteric or Typhoid	Continued	Relapsing	Puerperal	Typhus	Enteric or Typhoid							Continued	Relapsing	Puerperal	Typhus	Enteric or Typhoid	Continued	Relapsing			Puerperal
(a)	(b)	(c)	(d)	(e)																											
Limehouse	32917	33243	1153	Under 5 5 upwards.	...	36 67	20 41	1 1	...	...	...	...	...	...	9 47	...	22 42	11 27	1 ...	...	...	...	...	...	...	1 17					
Ratcliff	14954	14966	442	Under 5 5 upwards.	...	8 29	17 17	...	...	...	...	...	...	...	...	...	5 20	12 13	...	...	...	...	...	...	...	...					
Shadwell and Wapping	10434	10519	317	Under 5 5 upwards.	...	22 29	18 21	...	...	1 11	...	...	...	...	...	5 11	...	20 27	13 18	...	...	1 9	...	...	...	...					
Totals	58305	58728	1912	Under 5 5 upwards.	...	66 125	55 79	1 1	...	1 41	...	...	...	...	14 76	...	47 89	36 58	1 ...	...	1 27	...	...	...	...	3 23					



TABLE VII.

Shewing the Localities in which certain Diseases of a Zymotic character occurred during the year 1898, with total number of deaths from all causes.

LOCALITY.	Diphtheria.	Membranous Croup.	Erysipelas.	Scarlatina.	Enteric Fever.	Puerperal Fever.	Continued Fever.	Total No. of Cases.	Total No. of Deaths from all Causes.
Acland-street	...	...	2	2	...	...	..	4	5
Albert-street	...	...	...	...	...	...	...	..	10
Albion-cottages	...	...	...	...	...	...	...	...	2
Albert-square	...	...	1	2	..	...	...	3	5
Anchor-street	...	1	...	...	...	...	...	1	1
Ann-street	...	1	...	1	2	...	...	6	7
Arno-place	...	1	...	1	...	..	...	2	1
Aston-street	...	2	...	...	2	1	...	5	12
Agnes-street	...	...	...	...	1	...	...	1	...
Barnes-street	..	1	...	1	...	...	...	2	7
Balls-buildings	...	..	...	..	...	...	...	...	3
Batson-street	...	1	...	...	1	...	..	2	1
Belgrave-street	..	...	...	1	3	...	...	4	16
Beachcroft-bldgs.	...	...	...	1	...	...	...	1	3
Ben Jonson-road	...	1	...	1	..	...	...	2	5
Bewley-buildings	...	1	...	...	...	...	...	1	6
Beccles-street	..	...	...	...	...	...	...	...	2
Birchfield-street	..	...	...	...	...	...	...	...	2
Blount-street	..	1	1	1	4	...	...	7	13
Black Bull-court	...	...	...	...	...	...	...	...	2
Bow Common-lane	...	...	...	1	...	...	...	1	..
Bower-street	..	..	...	...	...	1	...	1	2
Bridge-terrace	..	1	...	...	...	...	...	1	...
Brenton-street	...	2	...	...	4	...	...	6	15
Bromley-street	...	5	...	1	2	...	...	8	8
Broad-street	...	2	...	...	1	...	...	3	7
Brook-street	..	1	...	...	1	1	...	3	30
Brunswick-place	...	...	...	...	...	...	...	...	1
Brunton-cottages	...	...	...	...	...	...	..	...	1
Burdett-road	...	...	1	1	...	...	...	2	6

TABLE VII. (*Continued*).

LOCALITY.	Diphtheria.	Membranous Croup.	Erysipelas.	Scarlatina.	Enteric Fever.	Puerperal Fever.	Continued Fever.	Total No. of Cases.	Total No. of Deaths from all Causes.
Dupont-street ...	...	..	...	...	1	...	...	1	6
Dundee-street ...	2	...	...	2	...	...	...	4	5
Durham-row ...	...	...	...	...	...	...	...	...	4
Eastfield-street ...	6	...	2	3	...	...	...	11	32
East India Dock-road	1	...	1	...	...	...	...	2	4
East London Hospital ..	1	...	...	3	1	.	...	5	2
Ebenezer-place ...	...	...	...	..	..	...	...	...	1
Elbow-lane ...	...	...	...	...	...	...	...	...	1
Elm-row ...	...	...	...	...	...	...	...	...	1
Elsa-street ...	...	...	3	4	2	...	...	9	33
Emanuel's-alms- houses ...	...	...	...	...	...	...	...	...	1
Endive-street ...	...	...	...	2	...	...	...	2	5
Farrance-street ...	...	...	...	4	2	...	...	6	6
Galt-street ...	1	...	...	1	...	...	...	2	7
Gill-place ...	...	...	1	...	...	...	...	1	4
Gill-street ...	5	..	1	1	2	...	...	9	23
Globe-alley ...	1	...	...	...	...	...	...	1	2
Glamis-road ...	5	...	...	5	...	...	...	10	4
George-street ...	...	...	...	...	...	...	...	...	6
Gloucester-court ...	...	...	...	...	...	...	...	...	1
Goulds-Hill ...	1	...	...	...	...	...	...	1	2
Grove-court ...	...	...	...	...	...	...	...	...	1
Green-bank ...	...	...	...	...	...	...	...	..	1
Gun-lane . .	...	...	1	1	...	...	...	2	6
Halley-street ...	...	...	...	1	1	...	...	2	6
Harding-street ...	...	...	...	1	...	...	...	1	3

TABLE VII. (*Continued*).

LOCALITY.	Diphtheria.	Membranous Croup.	Erysipelas.	Scarlatina.	Enteric Fever.	Puerperal Fever.	Continued Fever.	Total No. of Cases.	Total No. of Deaths from all Causes.
Manning-street ...	...	...	...	...	...	...	...	...	1
Manor-court ...	...	...	..	...	...	...	...	...	1
Market-hill ...	...	...	...	...	...	..	...	...	1
Market-street ...	...	...	..	...	...	...	...	...	2
Market-buildings ..	...	..	1	1	...	...	...	2	3
Mays-cottages ...	...	...	...	...	...	...	...	...	1
Maroon-street ...	...	...	2	4	2	...	...	8	28
Matlock-street ...	...	...	...	...	...	...	...	...	2
Medland-street ...	...	...	2	...	...	...	...	2	5
Medland-hall ...	...	...	...	...	...	...	...	...	2
Mercer-street ...	...	...	1	...	...	...	..	1	7
Middle Shadwell ...	...	...	1	...	...	...	...	1	1
Milk-yard ...	...	...	...	...	...	...	...	...	1
Monza-street ...	...	...	...	1	2	...	...	3	6
Narrow-street ...	...	...	...	...	...	...	...	...	8
New Gravel-lane ...	...	...	...	1	...	...	...	1	11
Neptune-street ...	...	...	...	...	...	...	...	...	1
Nesbits-rents ...	...	..	...	...	...	...	...	...	1
Newtons-rents ...	...	...	2	...	...	...	...	2	1
Nightingale-lane ...	...	...	...	...	...	...	...	...	3
Northey-street ...	3	...	2	...	1	...	...	6	14
Norway-place ..	...	...	...	...	...	...	...	...	1
Notgrove-street ...	...	...	...	...	...	...	...	...	4
Oak-lane ...	1	...	...	...	...	...	...	1	3
Orchard, The ...	2	...	..	...	...	..	...	2	1
Park-street ...	1	...	...	1	...	...	...	2	6
Parnham-street ...	...	...	...	...	...	...	...	...	1
Painters-rents ...	...	...	...	...	...	...	...	...	2
Peabody-buildings	4	...	...	5	...	...	...	9	12
Peel-alley ...	...	...	...	1	...	...	...	1	1
Pelling-street ...	1	...	...	...	...	...	...	1	4

TABLE VII. (*Continued*).

LOCALITY.	Diphtheria.	Membranous Croup.	Erysipelas.	Scarlatina.	Enteric Fever.	Puerperal Fever.	Continued Fever.	Total No. of Cases.	Total No. of Deaths from all Causes.
Periwinkle-street ...	...	...	...	...	1	...	...	1	7
Phœbe-street ...	...	...	...	...	...	...	...	...	3
Pigott-street ...	1	...	1	1	...	...	...	3	8
Pier Head...	...	...	...	...	...	...	...	...	1
Pixley-street ...	...	...	...	...	...	...	...	...	1
Pope's-hill...	...	...	...	1	...	...	...	1	2
Portland-street ...	...	...	...	1	...	...	...	1	4
Princes-place ...	...	...	...	...	...	...	...	...	3
Prosperous-place ...	...	...	...	...	...	...	...	...	2
Queen's Head-alley	1	...	...	1	...	...	...	2	1
Railway-place ...	...	...	...	...	...	...	...	...	2
Ratcliff-cross ...	...	...	...	...	...	...	...	...	2
Ratcliff Workhouse	1	...	2	1	...	...	...	4	4
Red Lion-street ...	1	...	1	1	1	...	...	4	9
Red Lion-court ...	...	...	...	...	...	...	...	...	1
Reform-place ...	...	...	...	...	...	...	...	...	2
Regents-court ...	...	...	...	...	...	...	...	...	2
Repton-street ...	...	...	1	...	...	...	...	1	5
Rhodeswell-road ...	1	...	1	1	2	...	...	5	17
Rich-street ...	1	...	...	...	...	...	...	1	7
Ronald-street ...	...	...	...	...	...	...	...	...	7
Robert-street ...	...	...	...	1	...	...	...	1	2
Ropner-place ...	...	...	...	...	...	...	...	...	2
Ropemakers-fields...	1	...	...	...	...	...	...	1	12
Rose-lane ...	2	...	...	...	1	...	...	3	1
Rugg-street ...	...	...	...	...	...	...	...	...	1
Rectory-buildings...	...	...	...	1	...	...	...	1	...
Sage-street ...	1	...	1	1	...	...	...	3	5
Samuel-street ...	1	...	2	...	...	...	...	3	10
Salmon-lane ...	2	...	1	6	...	...	...	9	24
Salter-street ...	2	...	...	...	...	...	...	2	3

TABLE VII. (*Continued*).

LOCALITY.	Diphtheria.	Membranous Group.	Erysipelas.	Scarlatina.	Enteric Fever.	Puerperal Fever.	Continued Fever.	Total No. of Cases.	Total No. of Deaths from all Causes.
Sarah-street ...	1	...	...	2	...	...	...	3	2
Selsey-street ...	1	...	2	4	...	...	...	7	9
Settles-cottages ...	...	...	...	...	...	...	...	...	1
Shadwell-green ...	...	...	...	...	1	...	...	1	1
South-street ...	...	...	2	2	...	...	...	4	3
Silver-street ...	...	...	...	4	...	...	...	4	1
Spencer-street ...	1	...	...	...	...	...	...	1	5
Spenlow-street ...	...	...	...	...	...	...	...	...	2
Spring-gardens ...	...	...	...	...	...	...	...	...	3
St. Anne's-row ...	...	...	...	...	...	...	...	...	4
St. Anne's-street ...	...	...	...	...	...	...	...	...	8
St. George's-street...	...	...	...	...	...	...	...	...	6
St. Paul's-road ...	...	...	...	1	...	...	...	1	8
Stainsby-road ...	2	...	...	7	...	1	...	10	14
Streatfield-street ...	1	...	1	1	...	...	...	3	4
Stepney-causeway...	1	...	2	2	1	...	...	6	14
Stephen's-cottages ...	...	...	1	...	...	...	...	1	...
Stepney-causeway-court ...	...	...	1	...	...	...	...	1	...
Taylor's-place ...	1	...	...	...	...	...	...	1	4
Tenbury-place ...	1	...	1	...	...	...	...	2	4
Three Colt-street ...	3	...	1	1	...	...	...	5	11
Thirza-street ...	...	...	...	...	...	...	...	...	3
Thomas-street, Ratcliff ...	...	...	...	1	...	...	...	1	4
Thomas-street, Limehouse ...	...	...	...	...	1	...	...	1	24
Tower-bldgs. (new)	1	...	1	2	...	...	...	4	6
Tower-bldgs. (old)	3	...	...	...	...	...	...	3	5
Tomlin-terrace ...	2	...	2	2	...	...	...	6	7
Troon-street ...	...	...	...	1	...	...	...	1	1
Turners-road ...	...	...	...	1	...	...	...	1	10
Tile-yard ...	1	...	...	...	...	...	...	1	1
Twine-court ...	1	...	1	...	1	...	...	3	13

TABLE VII. (*Continued*)

LOCALITY.	Diphtheria.	Membranous Croup.	Erysipelas.	Scarlatina.	Enteric Fever.	Puerperal Fever.	Continued Fever.	Total No. of Cases.	Total No. of Deaths from all Causes.
Upper Well-alley ...	...	...	...	..	...	...	...	...	2
Union-terrace ...	...	...	2	...	...	...	...	2	...
Upper East Smithfield ..	1	...	...	...	...	...	...	1	...
Walker-street ...	...	...	5	10	...	...	...	15	6
Walter-street ...	...	..	1	1	...	...	...	2	6
Wapping-wall ...	1	...	...	4	1	...	...	6	4
Wallwood-street ..	...	...	...	...	...	...	...	...	5
Waterloo-street ...	...	...	...	...	...	...	...	...	2
Warton-place ...	1	..	...	...	...	...	..	1	7
Wellclose-square ...	...	...	...	...	...	...	...	...	2
West India Dock- road ...	1	...	...	1	...	...	...	2	9
West Garden-bdgs.	...	...	...	...	...	...	..	...	3
White Horse-street	1	...	...	1	1	...	..	3	26
White's-rents ...	...	...	1	...	...	...	...	1	2
Willow-row ..	...	...	...	1	...	...	..	1	3
Williams-place ...	...	...	...	...	..	...	...	...	1
Wilson-place ...	...	...	...	...	...	...	...	...	1
Wright's-buildings	...	...	...	...	...	...	...	...	2
White Hall-place ...	...	...	...	1	...	...	...	1	...
York-buildings ...	...	..	...	1	...	...	...	1	6
York-place ...	...	...	...	...	...	...	...	...	2
York-road...	...	...	...	...	...	...	...	...	9
York-square ...	...	...	1	...	...	...	..	1	1
York-street ...	1	...	...	1	1	...	...	3	2

In addition, 5 persons who were found drowned in the district were unknown, and had to be included in our list of deaths. 33 persons died in Lunatic Asylums and other outlying institutions; no address given, except that they were formerly removed from the Stepney Union.

1898.

BAKEHOUSES.

LIMEHOUSE.

NAMES.	ADDRESSES.
Mr. J. Rickert,	22, Gill-street
„ C. Baldwin,	821, Commercial-road
Miss Bulgin (not used),	341, Burdett-road
Mr. J. Draude,	31, Repton-street
„ M. Donaldson,	3, Repton-street
„ Schwarz,	137, Eastfield-street
(empty)	21, Halley-street
„ W. Living,	12, Parnham-street
„ P. Fiehl,	45, Thomas-street
„ H. Zimmermann,	84, Locksley-street
„ J. Few,	132, Rhodeswell-road
„ W. Pearce,	131, Salmon-lane
„ H. Bretz,	145, Salmon-lane
„ J. Faber,	181, Salmon-lane
„ Miller,	209, Salmon-lane
„ C. Smeith,	71, Salmon-lane
„ W. Wagner,	7, Limehouse-causeway
„ H. Haust,	40, Limehouse-causeway
„ W. Stevens,	68, Limehouse-causeway
„ J. W. Domm,	146, White Horse-street
(not used)	51, Three Colt-street
„ W. H. Pearce,	77, Three Colt-street
„ T. Slawson,	87, Three Colt-street
„ J. A. Siebert,	93, Three Colt-street
„ H. Marks,	36, Three Colt-street
Mrs. Hannus,	29, West India Dock-road

RATCLIFF.

Mr. Prummer,	105, White Horse-street
„ A. S. Harding	42, White Horse-street
„ Bader,	147, White Horse-street
Mrs. Lee,	631, Commercial-road

BAKEHOUSES—*Continued.*

RATCLIFF.

NAMES.	ADDRESSES.
—	—
Mr. Weimer,	119, Broad-street
„ J. W. Newman,	27, Hardinge-street
„ C. Siebert,	415, Cable-street
(empty)	59, Brook-street
„ Schwenk,	91, Brook-street
„ Schneider,	85, Brook-street
(empty)	436, Commercial-road
„ W. Herbert,	508, Commercial-road
„ Cattung,	13, Devonport-street

SHADWELL.

Mr. W. Atkinson,	84, High-street
Miss Green,	161, High-street
Mr. Westrick,	47, High-street
„ Menzler,	5, King David-lane
„ Grender,	278, Cable-street

1898.

LICENSED COW HOUSES.

LIMEHOUSE.

Messrs. Abbott Bros.,	Batson-street
Mr. J. Harris,	15, Maroon-street
„ J. Knight,	162, Rhodeswell-road
„ David Thomas,	42 & 44, Ropemaker's-fields

LICENSED COW HOUSES—*Continued.*

RATCLIFF.

NAMES.	ADDRESSES.
Mr. Charles Warman,	Railway Arch, Drewton-street
„ Charles Toms,	63, Brook-street
„ James Allcock,	12, Hilton-street
Messrs. J. & W. Morris,	37, White Horse-street

SHADWELL.

Mr. Thomas Williams,	Sage-street
„ Charles Warman,	Lower Shadwell

SLAUGHTER HOUSES.

LIMEHOUSE.

Mr. W. Knightbridge,	26, Three Colt-street
„ W. H. Phillips,	160, White Horse-street

