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

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Metropolitan Borough of Woolwich.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR

WOOLWICH.

1906.

Woolwich :

H. PRYCE & SON, Printers (T.U. Federation), 33 & 35, Powis Street.

Public Health and Housing Committee :—

Henry Smith Syer (Chairman), 45, Plumstead Common Road.

William Parry Jackson (Vice-Chairman), 7, Woolwich Common.

Alderman Thomas Macnamara, 42, Wilmount Street, Woolwich.

Alderman Angus Macdonald Tynemouth, 25, Greenvale Road, Eltham.

William Jenkins Bull, 280, Plumstead Common Road, Plumstead.

William Heywood Dawson, 187, Eglinton Road, Plumstead.

Alfred Hall, 98, Vicarage Road, Plumstead.

Joseph Harper, 18, St. Margaret's Road, Plumstead.

James Henry Hodgin, 45, Thomas Street, Woolwich.

Jeremiah James Mahoney, 67, Beresford Street, Woolwich.

James Newman, 75, Heavitree Road, Plumstead.

William Raven, 72, Samuel Street, Woolwich.

William Hardie Ross, 6, Cantwell Road, Plumstead.

Richard Bailey Baxter Wakelen, 79, Greenvale Road, Eltham.

James Oates Widger, B.A., 113, Chesnut Road, Plumstead.

Chief Sanitary Inspector :—

Albert G. Duck (Cert. San. Inst.)

District Sanitary Inspectors :—

William Woolley (Cert. King's College), Herbert Ward.

John W. Rance (Cert. San. Inst.), Dockyard and St. Mary's Ward.

William Little (Cert. San. Inst.), St. Margaret's and Central Wards.

William Wood (Cert. San. Inst.), Parish of Eltham and St. George's Ward.

Alfred G. Potter (Cert. San. Inst.), River Ward.

William Tedham (Cert. San. Inst.), St. Nicholas Ward.

Thomas Powell (Cert. San. Inst.), Burrage and Glyndon Wards. Inspector of Cowsheds and Slaughter-houses (Woolwich and Plumstead), Workshops, Milkshops, Ice-Cream Vendors, and Restaurants.

Inspectors under Food and Drugs Act :—

William Woolley, Parishes of Woolwich and Plumstead.

William Wood, Parish of Eltham.

Lady Sanitary Inspectors :—

Alice M. Middlebrooke
(Cert. San. Inst. and San. Insp. Exam. Board).

Marion Fitz-Gerald
(Cert. San. Insp. Exam. Board and A.R. San. I.)

Public Health and Housing Committee Clerk :—

Charles Ellis.

General Clerks :—

Amyas Britter (A.R. San. I.) Geo. H. Triggs (A.R. San. I.)

Junior Clerk :—

H. M. Collyer.

Mortuary Keeper :—

Frank Leason.

Medical Officer of Health :—

SIDNEY DAVIES, M.A., M.D., Oxon, D.P.H., Camb.,
Fellow and Member of Council of the Incorporated Society of Medical Officers of Health, and Fellow of the Royal Sanitary Institute.

Summary of Statistics, 1906.

Area of Borough	8276·6 Acres
Population—Census, 1901	117,178
do Estimated to middle of 1906	127,345
Inhabited Houses—Census, 1901 ..	18,086
Total Houses to middle of 1906 ..	21,833
Persons to a House—Census	6·47
Marriages	1,045
Births	3,524
Birth Rate	27·7
Deaths	1666
Death Rate	13·1
Infantile Mortality	111 per 1000 births

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PREFACE.

To the Mayor, Aldermen and Councillors of the Metropolitan Borough of Woolwich.

MR. MAYOR AND GENTLEMEN,

I have much pleasure in presenting you with my Sixth Annual Report on the Health of the Borough and the means taken for promoting the same.

It is satisfactory to find that though industrially the Borough is suffering from acute depression, the Report indicates that this has had little effect on the general health, only one previous year having had a lower death-rate.

It is certain that very many persons have suffered in health and many have died as a result of poverty due to the loss of work, but it is possible that such want and distress as have occurred are less injurious to health than the excess which accompanied the prosperous times of a few years ago.

Special consideration has been given in this report to the following subjects:—(1) Measles, (nursing and school closure); (2) Phthisis, (results of sanatorium treatment); (3) Notification of Zymotic Enteritis; (4) Milk from Wiltshire; (5) Health of North Woolwich; (6) Opening of Infants' Milk Depôt; (7) Health-visiting *re* infant mortality (See Miss Fitz-Gerald's Report).

A reprint of the health rules,—"How to be Healthy"—is added in the appendix. These are distributed in house-to-house inspection.

In arranging for the fitting up of the Milk Depôt, Mr. Duck, Chief Sanitary Inspector, gave invaluable assistance; my thanks are due to him and all the Sanitary and Clerical Staff for their co-operation.

My thanks are also due to the newly appointed Health Committee for the disposition they have shewn to give due consideration to the recommendations regarding the public health which it is my duty to make from time to time.

I am, Mr. Mayor and Gentlemen,

Your obedient servant,

SIDNEY DAVIES.

July, 1907.

SIXTH ANNUAL REPORT

ON THE

HEALTH OF THE METROPOLITAN BOROUGH OF WOOLWICH.

Year ending 31st December, 1906.

PART I.

STATISTICS.

1. *Population.*—The population of the Borough to the middle of 1906 has been estimated on the supposition that the increase since 1901 has been proportional to that between the last two decennial censuses, thus giving 127,345. Dividing this number by the number of occupied houses, 21,833, we get 5·83 persons per house. The number of persons per house at the census was 6·47. It has been supposed that the number per house in each parish has diminished proportionally to that in the Borough. We thus get the following figures for the three parishes :—

Woolwich Parish	...	39993
Plumstead Parish	...	75267
Eltham Parish	...	12085
		127345

Estimated increase in the year ...	... 1460
Natural increase (excess of births over deaths)	... 1875

2. The following table shows the number of houses in June, 1906, and the yearly increase since the census :—

Houses in Borough at Census,		1901	...	18,086
New Houses to June 30th,		1901	...	257
do.	do.	1902	...	1,292
do.	do.	1903	...	743
do.	do.	1904	...	582
do.	do.	1905	...	483
do.	do.	1906	...	390
		Total	...	21,833

3. There has been no Census since 1901. In the absence of a quinquennial Census, it becomes increasingly difficult to estimate the population correctly. I have endeavoured to err, if at all, rather on the side of under-estimating than of over-estimating the population.

4. The following table gives for each Ward the population and number of inhabited houses at the Census, the number of persons to a house, the number of new houses certified for water certificates, and the present estimated population. The population of Dockyard, South River, and St. George's Wards, are taken as at the census ; reduction is made in St. Mary's Ward for 101 houses demolished. The population of the Plumstead Wards is obtained by multiplying the estimated number of persons to a house in the Parish by the No. of houses in the Ward. North River Ward is taken as in 1904. These populations, being calculated differently, do not agree with the estimated population for the Parishes.

Wards.	Dockyard.	St. Mary's.	River.		St. Georges.	Burrage.	Glyndon.	Herbert.	St. Margaret's	Central.	St. Nicholas.	Eltham.
			North.	South.								
Population	8,712	10,439	2,991	11,405	8,078	9,837	9,810	9,080	9,842	10,118	19,640	7,226
Number of Inhabited Houses	1,325	1,126	441	1,671	878	1,735	1,697	1,612	1,638	1,805	2,805	1,353
Persons to a House ...	6·57	9·27	6·78	6·83	9·20	5·67	5·78	5·63	6·00	5·61	7·00	5·34
New Houses—												
April to June, 1901	—	—	4	—	—	—	8	12	61	7	85	80
June, 1901, to June, 1902	—	—	71	—	—	—	8	79	265	7	455	407
June, 1902, to June, 1903	12	—	33	—	—	—	9	40	153	7	239	250
June, 1903, to June, 1904	4	—	89	14	—	8	—	30	94	7	185	151
June, 1904, to June, 1905	5	18	2	—	—	2	—	33	102	12	170	139
June, 1905, to June, 1906	11	14	—	9	—	—	—	36	69	2	150	99
Total Houses ...	1,357	1,158	640	1,694	878	1,745	1,722	1,842	2,382	1,847	4,089	2,479
Populations ...	8,712	*9,788	3,991	11,405	8,078	9,726	9,609	10,034	12,975	10,061	22,274	11,919

* Deduction made *re* 101 houses demolished in Artillery Place, &c.

BIRTHS

5. The number of births was 3524 (corrected for children born in the Infirmary and the Wood Street "Home for Mothers and Babies" whose parents reside outside the Borough), and the birth-rate 27·7 compared with 28·2 in the previous year, and with 29·7, the average for the ten years 1896-1905. The rate for the County of London was 26·6.

6. The following table gives the average birth-rate of each Parish and Ward during the years 1901-5, and the rate for 1906, and for purposes of comparison, the corresponding rates of the neighbouring Boroughs, London, and England, There has been a decrease in Plumstead and Eltham Parishes, and a slight increase in Woolwich. The decrease in the Borough has been practically the same as that in London.

BIRTH-RATE.

	Average 1901-5.	1906.
WOOLWICH PARISH ...	29·0 ...	29·2
Ward.		
Dockyard ...	33·2 ...	28·0
St. Mary's ...	19·8 ...	21·4
River { North ...	36·5 ...	33·8
River { South ...	24·4 ...	23·3
St. George's ...	36·9 ...	35·0
PLUMSTEAD PARISH ...	30·1 ...	27·8
Burrage ...	23·4 ...	23·4
Herbert ...	25·3 ...	24·0
St. Margaret's ...	33·6 ...	33·6
Central ...	27·5 ...	24·6
Glyndon ...	30·6 ...	28·3
St. Nicholas ...	32.5 ...	31·1
ELTHAM ...	24·0 ...	22·0
GREENWICH BOROUGH	27·6 ...	25·4
LEWISHAM ...	25·7 ...	23·3
WEST HAM ...	33·1 ...	30·5
EAST HAM ...	33·8 ...	28·1
ERITH ...	34·1 ...	30·0
LONDON ...	28·2 ...	26·6
ENGLAND AND WALES	28·2 ...	27·0
Woolwich Borough	**29·2** ...	**27·7**

Correction has been made this year for the first time for births in the Wood Street "Home for Mothers and Babies" and the births distributed to the Wards to which they properly belong. This mainly accounts for the apparent fall in the Dockyard birth-rate.

7. The following table gives the birth-rate for the Borough and each parish for the three past quinquennia. Except in Eltham the decrease has been progressive in each parish, but greater in Plumstead than in Woolwich. In Eltham, on the other hand, after a decrease in the second quinquenium, there was a marked increase in the third, due, no doubt, to the building of the Well Hall Estate and its occupation by a large proportion of young married people.

	Average of Years 1891—1895	Average of Years 1896—1900	Average of Years 1901—1905	1906
Woolwich Boro'	32·5	30·2	29·2	27·7
Woolwich Parish	31·1	30·1	29·0	29·2
Plumstead „	33·3	31·0	30·1	27·8
Eltham „	22·8	20·6	24·0	22·0

Of the 3,524 births, 1,632, or nearly half, were attended by midwives.

8. *Illegitimate Births* :—76 of the births registered were illegitimate, giving a rate of 22 per 1,000 total births, compared with 13, 17 and 17, in the three preceding years. The illegitimate birth-rate in London was 36 in 1905.

MARRIAGES.

9. There were 1,045 marriages. The marriage-rate was 16·4 compared with 16·9 in London in 1905; 443 marriages were performed in the Registry Office, and 602 in places of worship.

DEATHS.

10. Table 1 gives the gross and nett deaths and death-rates in 1906, and each of the past ten years, and shows how the nett deaths are arrived at.

The nett death-rates (which are the only ones referred to, unless otherwise specified), are obtained by distribution of deaths in public institutions, and deaths on which inquests were held, to their proper locality, according as they occur outside or inside the Borough. But in order to institute a fair comparison between one district and another, it is necssary to further correct the death-rate for sex and age distribution, for it is obvious that a population containing a large number of young persons between the ages of 5 and 30, when the death-rate is very low, should have a lower death-rate than one containing an excess of aged persons. The factor for the correction of the Woolwich death-rate is 1·0690.

11. The nett deaths were 1666, and the nett death-rate was 13·1. The death-rate in 1905 was 12·7, but with that exception, last year had the lowest death-rate recorded for the Borough.

12. By multiplying by 1·0690, the factor for the age distribution, we get the corrected death-rate, viz.:—14·0, which rate should be used in comparing Woolwich with other places. The following table shows the nett and corrected death-rates of Woolwich, compared with England and Wales and other large towns:—

	Nett.	Corrected.
England and Wales	15·4	15·4
76 Large Towns	16·0	—
London	15·1	15·9
Greenwich	13·5	13·6
Lewisham	12·0	12·5
West Ham	15·3	16·3
East Ham	11·5	12·2
Erith	9·2	—
Woolwich	13·1	14·0

13. The following table gives the average death-rate in each Parish and Ward of the Borough during the five years 1901-5, and the rates for 1906:—

	Average: 1901-5.	Rate for 1906.
Woolwich Parish	16·5	15·5
Wards		
River	North 17·8	15·5
	South 18·1	18·8
Dockyard	16·5	16·8
St. Mary's...	12·5	10·0
St. George's	16·8	12·8
Plumstead Parish	12·9	12·2
Wards		
St. Nicholas	12·8	12·7
Central	11·0	10·1
Glyndon	15·1	15·1
St. Margaret's	12·9	11·2
Herbert	10·9	10·6
Burrage	13·4	14·4
Eltham Parish	10·2	10·2

The Parish of Woolwich has never had so low a death-rate as last year. Plumstead had a lower rate in 1905, and Eltham in 1902, 1903, and 1905. St. Mary's, Central, and Eltham, again had the lowest death-rates. River South had the highest. The improvement in North River and St. George's Wards is noteworthy.

14. The table below gives the death-rate of the Borough and each parish during the past four quinquennial periods compared with London. It is seen that in Plumstead Parish there has been a progressive improvement, though the last five years show a more marked decline than the previous ones. In Woolwich and Eltham Parishes the five years 1896 to 1900 had a higher rate than the

previous five years, but the decline in death-rate in 1901-5 has been much more marked than in Plumstead.

	Average 1886-1890	Average 1891-1895	Average 1896-1900	Average 1901-1905	Average 1906
Woolwich Boro'	...	17·2	16·9	13·9	13·1
Woolwich Parish	*20·4	19·3	20·1	16·5	15·5
Plumstead „	16·4	16·0	15·1	12·9	12·2
Eltham „	...	13·0	14·6	10·2	10·2
London	20·0	19·8	18·5	16·1	15·1

* Three years—1888, 1889 and 1890.

15. The death-rate among males was 14·7 and among females 13·6. In 1905 the numbers were 14·0 and 13·4 respectively. These rates are estimated on the numbers of the two sexes found at the census of 1901, and can only be taken, therefore, as representing the relative death-rates of the two sexes—not the absolute.

16. Tables VII.A and VII.B, kindly supplied by the Registrar General, give a summary of the Vital Statistics of the County and Metropolitan Boroughs in the five years 1901-5 and in 1906. Six Boroughs had a lower death-rate than Woolwich, viz.—Westminster, Hampstead, Stoke Newington, Lewisham, Paddington, and Wandsworth. It will be noted that each of these is a residential borough, *i.e.* a district where those who can afford to choose their locality prefer to reside. Such people are, for the most part, of the well-to-do classes, who, being better able to provide against illness and bad health, have normally a lower death-rate. Correction can be applied for age distribution but not for class distribution.

17. Lives saved. In the two last years, I have estimated that 302 and 384 lives, respectively, were saved owing to the reduction of the death-rate. The average death-rate in the years 1896-1905, was 15·4. Such a rate in 1906 would have meant the death of 1956 persons instead of the 1697 who actually died. There was thus a saving of 259 lives in 1906. This is good in itself, for in spite of the depression in the Woolwich labour market, there is no over-population in the country at large, and experience has shown the erroneousness of Malthus's doctrine as to the limitation of the productiveness of the soil. But each of these 259 lives saved means ten others who have escaped a weakening illness, or have weathered illness with less damaging effects, for a lower death-rate means improved health of the surviving population.

Infant Mortality.

18. The deaths under one year were 391, and the infant mortality (or deaths under one year per thousand births) was 111. The rate has only twice been lower, viz., in 1905 and 1903.

The following table gives the infantile mortality in each Parish and Ward of the Borough during the past five years, compared with the neighbouring Boroughs, London, and England. Herbert, St. Margaret's and Central Wards had the lowest infantile mortality, and South River the highest. The reduction of infantile mortality in St. George's and North River Wards is very marked.

Owing to the correction, above referred to, for births in the Home for Mothers and Babies, Woolwich Parish and Dockyard Ward infantile mortalities are higher this year, and cannot be safely compared with the last two or three years when they were under-estimated.

	Average: 1901-5.	1906.
Woolwich Parish	134	139
Wards.		
River North	180	141
River South	139	186
Dockyard	116	152
St. Mary's	149	124
St. George's	126	88

	Average: 1901-5.	1906.
Plumstead Parish ...	113 ...	97
Wards.		
St. Nicholas ...	135 ...	107
Central	105 ...	81
Glyndon	107 ...	118
St. Margaret's ...	100 ...	78
Herbert	89 ...	71
Burrage	94 ...	134
Eltham	97 ...	94
Greenwich	137 ...	119
West Ham	158 ...	149
East Ham	131 ...	127
Erith	112 ...	85
London	138 ...	132
Seventy-Six Towns ...	— ...	146
England and Wales ...	135 ...	133
Borough of Woolwich	**119** ...	**111**

19 The County of London had a lower infantile mortality in 1903 and 1905. Table VIIa shows that three Metropolitan Boroughs only had a lower infantile mortality than Woolwich, viz., Stoke Newington, Hampstead, and the City of London.

20. The following table gives the infantile mortality during the four past quinquennia in each parish of the Borough :—

	1886-1890.	1891-1895.	1896-1900.	1901-1905.
Woolwich Parish	*151	157	170	134
Plumstead „	121	120	132	113
Eltham „	—	163	160	97
Woolwich Boro'	—	140	146	119

* 1888, 1889 and 1890.

Comparing the years 1886-90 with 1901-5, it is seen that there is a marked reduction in both Woolwich and Plumstead parishes, but the reduction in Woolwich is much greater than in Plumstead.

21. Table IVc. gives full details as to the ages at death, and cause of death, of all infants dying in 1905 under one year. It shows that over one-third of those who died were under one month, and about one-fourth under one week. 75 (65 in 1905) or about half the deaths under one month, were from premature birth, and of the remainder, 20 (23 in 1905) were attributed to Atrophy, Debility, and Marasmus—indefinite terms often applied to deaths from immaturity.

The death-rate from Premature Birth in Woolwich Borough was 0·71 and in London 0·49.

This appears to be an increasing cause of infantile mortality, and its increase is probably the chief reason why the death-rate of infants has not diminished concurrently with the general death-rate. There are reasons for thinking the increase to be mainly due to growth of alcoholism among women.

There were 21 deaths of illegitimate infants. The death rate of illegitimate infants under one was 276 per 1,000 births, and that of legitimate infants 107.

22. Compared with 1905, the past year had among infants many more deaths from diarrhœal diseases, and more from measles, whooping cough, convulsions, and premature births, but fewer from bronchitis, pneumonia, wasting, erysipelas, and overlaying. There was a loss of 32 lives by increase of diarrhœal diseases and a nett gain of 8 lives by diminution of other diseases.

22A. Two years ago, for the first time, weekly returns of all births occurring in the Borough were received from the local registrars. £28 7s. 7d., was paid to the local registrars for the returns received last year. The London County Council now sends weekly lists of births attended by midwives. In this way information of about half the births is obtained within two weeks.

On the receipt of the returns, after excluding those houses which do not seem to require a visit, a lady inspector calls at each house where a birth has occurred, leaves a card of instructions on infant feeding, and obtains particulars as to the feeding of the infant and other matters. She explains the instructions and gives suitable advice. Every effort is made to encourage breast-feeding, and mothers are advised to seek medical assistance before they decide to discontinue this. Poverty is frequently found to be a cause of improper feeding; usually because it involves insufficient nourishment for the mother; occasionally because it prevents the baby from having suitable cow's milk; such cases are referred to the C.O.S., or other charitable agency. When infants cannot be fed at the breast, mothers are referred to the Infants' Milk Depôt. (See also Miss Fitz-Gerald's report, par. 52. Administration.)

The Woolwich Board of Guardians have been asked to allow sufficient out-door relief to mothers with young infants for whom the Guardians were responsible, so that the mothers would not be obliged to go to work and leave the baby to be fed with a bottle by some other person.

Still-births.—74 still-born children were buried in the Woolwich and Plumstead Cemeteries.

23. *Deaths under 5 years and over 85.*—The total deaths under 5 years were 530, or 38·3 per thousand population under 5 at the Census. The rates in the three preceding years were 40·8, 47·2, and 36·5. 38 deaths occurred over 85 compared with 35, 26, and 36 in the three preceding years.

24. *Zymotic Death Rate.*—The number of deaths from the seven principal zymotic diseases was 190, giving a death-rate of 1·49 compared with 0·96, 2·2, and 1·0 in the three preceding years. The following table gives the zymotic death-rate in each Parish during the past six years:—

	Average, 1901 5	1906.
Woolwich	1·69	1·93
Plumstead	1·53	1·37
Eltham	0·88	0·83
The Borough	1·51	1·49

25. *Inquests* :—There were 121 inquests compared with 145, 145, 154, 154, 160, and 141, in the 6 preceding years.

The following table gives particulars as to the cause of death :—

1. Natural causes			63
2. Accidental causes :—			
Burns	5		
Drowning	6		
Falls	2		
Fractures	10		
Run over	3		
Suffocation, overlaying ...	4		
Other accidental causes ...	13		
	—		43
3. Homicidal causes :—			
Suicide	13		
Murder and Manslaughter ...	2		
	—		15
			121

The " Natural Causes " were 78 in 1905. The " Accidental and Homicidal Causes " were 85, 49, and 59 in the three preceding years, compared with 62 last year. The deaths from suffocation or overlaying have been 2, 5, 10, 8, 8, 8, respectively in the last six years ; and Homicides 22, 9, 20, 8, 11, and 11 in the same years.

26. *Deaths in Public Institutions.* Table 1 shows the actual number of deaths occurring in Public Institutions in the Borough, viz. : 293, compared with 278, 272, 261, and 313 in the four preceding years. Table Ia shows the Institutions inside and outside the Borough receiving sick and infirm persons belonging to the Borough, and Table IVa shows the number of deaths from each disease occurring in Public Institutions. The increased number of deaths in the Infirmary in the past two years is found

under the following causes of death :—old age, cancer, heart disease, bronchitis, pneumonia, and various other diseases ; and probably indicates greater poverty, rendering it impossible for many persons to maintain themselves outside the Workhouse and Infirmary.

SMALL-POX AND VACCINATION.

27. No cases of Small-pox were notified, compared with 7 in 1905. This is the first year in which no cases have been notified since 1899. 84 cases of Chicken-pox were notified by school teachers.

28. The Small-pox case-rate in England and Wales was 0·07 per 1000.

29. The following return, kindly furnished by the Vaccination Officers, Mrs. Taylor and Mr. Atkins, gives particulars as to the vaccination of children born in Woolwich, Plumstead, and Eltham Parishes in 1905 :—

Births	3547.
Vaccinated	3029.
Insusceptible	16.
Conscientious objections	109.
Died unvaccinated	259.
Medical postponements	11.
Removed, Vaccination Officer apprised ...	24.
Removed, not found, and unaccounted for	99.

30. The following have been the numbers excused on account of conscientious objections, since 1901, in Woolwich and Plumstead Parishes : 127, 78, 108, 96, 101, 109. The lowest number, 78, was in 1902, the year of the small-pox epidemic.

MEASLES.

31. There were 31 deaths from Measles, giving a rate of 0·24 compared with 0·18, 0·33, 0·20, 0·22, and 0·10 in the five preceding

years. The rate in London County was 0·40 compared with 0·36 in 1905. Only two Metropolitan Boroughs—Chelsea and Hampstead—had a lower Measles death-rate per 1,000 population, and if the rate is reckoned per 1,000 births (which gives more nearly the population liable to die from Measles) only Chelsea had a lower rate than Woolwich.

The death-rate in the seventy-six great towns was 0·40.

32. Of the 31 who died from Measles, 28 were under 5 years of age; 16 were males; 15 females; 7 were in Woolwich Parish, and 21 in Plumstead.

33. 825 notifications were received from School teachers, compared with 326, 646, 661, 1240, and 465 in the five preceding years. The mortality, per cent. of notifications was 3·8, compared with 3·8, 2·3, and 2·8 in the three preceding years.

34. The following table gives the number of deaths and death-rates from Measles for the past five years, and two preceding quinquennia, in each parish (as far as known), and the death rate in London :—

Year.	Woolwich		Plumstead.		Eltham.		London
	No.	Rate	No.	Rate	No.	Rate	Rate
1891-5 (average)	20	0·49	29	0·51	Not recorded		0·59
1896-1900 (average)	34	0·81	36	0·57	Not recorded		0·57
1901	11	0·26	9	0·13	1	0·14	0·43
1902	10	0·24	31	0·43	...	...	0·51
1903	8	0·19	14	0·20	3	0·28	0·40
1904	11	0·26	15	0·21	2	0·18	0·49
1905	4	0·10	8	0·11	1	0·09	0·36
1906	7	0·18	21	0·28	...	...	0·40

35. A special report on Measles and the results of Early School Closure will be found in an Appendix. There is given a table shewing the remarkable diminution in the measles death-rate in recent years, and the probable cause stated. If the death-rate prevailing in the Borough from 1896-1900 had continued during 1906, 81 children would have died from measles instead of 31—there was thus a saving of 50 lives.

35A. Measles cases are not received into the Hospitals of the Metropolitan Asylums Board. It has been proposed that hospital provision should be made for such cases as cannot be satisfactorily nursed in their own homes. Your Medical Officer of Health reported with respect to this suggestion that though theoretically desirable, it was not likely that much use would be made of any accommodation that was provided in the absence of any means of compelling isolation. What is much more practicable and feasible is that measles cases should be nursed in their own homes. This could easily be undertaken by the District Nursing Association if their staff was sufficient, but on being applied to, the Committee of the Association replied that with their present staff they were unable to attempt more work. Many lives would doubtless be saved if all cases of measles which were seriously ill could have skilled nursing, but the Borough Council has power neither to provide such nursing nor even to contribute to the Nursing Association and help them to provide it.

Formerly, when a case of measles occurred in a family, all children attending school from the house were excluded for two weeks. The London County Council has made a new regulation that children attending the senior boys' and girls' departments need not be excluded if they have already had measles. Only infants and older children who have not had measles will in future be excluded. This is a wise alteration which will obviate much useless interference with school attendance.

SCARLET FEVER.

36. There were 528 cases of Scarlet Fever notified, equivalent to a rate of 4·14 per thousand population. This is the highest rate since 1899, but it is lower than the rate in each of the years 1892-1899. (See table v).

37. The following table shows the case rates of Scarlet Fever in the Borough and each Parish during 1901-5 and the past year, compared with London.

	Average 1901-5	1906
Borough	3·15	4·15
Woolwich Parish	2·99	3·83
Plumstead Parish	3·24	4·22
Eltham Parish	3·21	4·71
London County	3·57	4·35

38. Table III. gives the age distribution, the number in each ward, and the number of those removed to hospital. The Dockyard and Glyndon Wards were most affected, but Central, St. Nicholas and Eltham had again a high percentage, as last year.

39. There were only 5 deaths, giving a death-rate of 0·04 per thousand population, compared with 0·04, 0·06, 0·03, 0·13 and 0·08, in the five preceding years, and 0·19 in the ten years, 1891-1900. The death-rate has only once been lower, viz. in 1903. The death-rate in London was 0·11. Stoke Newington alone, of the Metropolitan Boroughs, had a lower death-rate than Woolwich. The case mortality (proportion of deaths per cent. of notifications), 0·9, has only once been lower, viz. in 1903.

40. *Hospital Isolation.*—Of the 528 cases, 411, or 78 per cent. were removed to one of the Fever Hospitals, compared with 86, 84, and 81 per cent. in the three preceding years. Twelve cases, or 2 per cent. were reported, after observation at hospital, not to be Scarlet Fever.

The average duration of stay in hospital was in 1905, eight weeks, and of isolation of home isolated cases, five weeks and six days. 45 (24 in 1905) certificates of satisfactory isolation at home were given to enable Arsenal employees to continue work.

41. *Return Cases.*—There were 13 cases in which infection was attributed to a patient recently returned from hospital, compared with 19, 10, 18, and 14 in the four preceding years. The interval between return of the infecting case and commencement of illness in 7 cases was from three to fourteen days, and in 3 cases from 5 to 7 weeks. Of the ten infecting cases, 3 had some form of Rhinitis when seen after return, 2 Otorrhœa, and 2 cough.

A special report was presented in 1905 on "Return Cases and Fever Hospitals as a source of infection," and ordered to be printed by the Public Health Committee. A copy was sent to the Metropolitan Asylums Board and the Borough Councils. I also prepared a summary of, and a commentary on, the voluminous report of Dr. Cameron to the Metropolitan Asylums Board on this subject, which was printed in the Council's Minutes of the 1st November, 1905.

A further report has recently been made by Dr. Turner. His conclusions, which on the whole confirm those of Dr. Cameron, were summarized by me, and printed in the Council's Minutes, page 243.

The Board now adopts the simple plan of sending out instructions with returning patients warning parents as to the danger of infection, and pointing out the desirability of partial isolation. (*Re* action on this point in Woolwich, see Annual Report, 1904, page 32.)

42. *Home Isolation.*—Hospital Isolation means much greater expense, longer isolation, and often the contraction of secondary infection (see Report just referred to.) It becomes, therefore, important to inquire whether satisfactory results are obtained by home isolation. Last year out of the 117 cases isolated at

home 12 were followed by 15 secondary cases in the same house; of these, however, 6 began within seven days of notification and were therefore almost certainly infected before isolation commenced, and would have occurred just the same if the first case had been removed to hospital. Of the remaining 9 secondary cases, one occurred four months after notification of the primary case, and three months after completion of isolation of this; it was doubtless independent of the primary case—a coincidence only.

One occurred eight days after cessation of isolation of the primary case; this must be looked on as a 'home return case' *i.e.*, infected by the primary case after the latter was supposed to be free from infection; the primary case had been isolated for six weeks and four days; a third case began in this house after the secondary case.

The remaining six secondary cases occurred from 10 to 20 days after commencement of isolation. It cannot be said with any assurance that these were all due to failure of isolation as it is well known that the incubation of scarlet fever is, occasionally, as long as three weeks and longer. Thirteen cases last year removed to Hospital were followed by secondary cases at intervals of 7 to 23 days after removal. It would, however, be reasonable to attribute the majority of these to insufficient precations being taken. It may then be said that home-isolation was followed by two return cases and four secondary cases, due to failure of isolation, or 5 per cent. of failure.

These results are not unfavourable when the general advantages of home isolation are considered. The 12 houses contained an average of $3\frac{1}{4}$ adults (over ten) and $3\frac{1}{4}$ children (under ten).

43. *Other Sources in Infection.*—In 41 cases, infection was attributed to other members of the family. Some of these were never notified and had no distinct symptoms of scarlet fever, but a history of sore throats made it probable that they had had a slight attack of this disease.

44. In ten cases, infection was attributed to friends and neighbours, and in 33 cases to school attendance, in 2 to lodgers and in 3 to travelling. But the number of cases in which it is possible to point to a probable source of infection is small, and will probably remain so until the germ of scarlet fever is discovered. It is probable that in this disease, as in Diphtheria, besides many mild and undetected cases, there are numbers of children and some adults who, without any symptoms, carry the infection of scarlet fever in their throats and noses. Under ordinary circumstances, such 'carriers' would infect others, seldom, if at all; but when they get colds and coughs, the germs are more liable to be conveyed from the throat and nose of the carrier to other persons, and they become, perhaps, as infectious as an ordinary case of the disease.

45. If this theory is correct, it follows that there can be no prospect of abolishing Scarlet Fever at present; the diminution of the fatality of the disease by hygienic open-air treatment and the separate isolation of the severer cases in cubicles, is the end to aim at. Table V. shows that in Woolwich there has been a considerable reduction in death-rate.

46. The Schools which were specially affected by scarlet fever were Greenhill, Vicarage Road, Gordon, and Purrett Road.

In December a mild epidemic of scarlet fever prevailed on the Well Hall Estate, Eltham, where Gordon School is situated. A number of children complained of nothing but sore throats. At my request, Dr. C. J. Thomas, of the London County Council, visited the school, and several children were excluded and two classes were closed for two weeks. Certain classes at Purrett Road school were also examined on my suggestion and several children with suspicious symptoms excluded.

47. The Annual Report for 1905 contained a special report on a statistical investigation into the school incidence of scarlet fever and diphtheria during the ten years 1896-1905.

48. It was shown that although there is a very great difference between schools as to the amount of infectious disease incidence, a high notification rate may be altogether independent of any special conditions of the school, and may be consistent with an average amount of infectious disease in the neighbourhood, and with a low mortality.

A school may have a high incidence because the children attending it have escaped exposure to infection to an exceptional degree *before* commencing their school education, and are consequently less protected by a previous attack than children at other schools. This factor probably accounts to a large extent for schools in good class neighbourhoods having a higher incidence than those in poor crowded districts. We find that although the school incidence rates are much higher in the better class districts, the district rates are more nearly equal.

It was further seen that the only conditions affecting the London County Council Schools, which are variable and likely to influence the prevalence of infection, are the amount of air space and the maintenance of ventilation, and ability and energy in detecting early cases of infectious disease, and excluding the same; and that there is reason to think that the importance of these measures is generally realised by teachers.

It was noted that there was a great reduction in school incidence during the past five years, as compared with the previous quinquennium, and that the reduction is especially marked at the schools which had the higheat incidence during the first five years. It was satisfactory to find, from the Registrar General's Annual Returns, that the scarlet fever and diphtheria death-rates in Woolwich were much less than in London during the five years. Of the ten South Eastern Boroughs, only one—Greenwich, had a lower scarlet fever mortality than Woolwich.

DIPHTHERIA.

49. 387 cases of Diphtheria were notified, compared with 216, 233, 186, 163, and 273 in the five preceding years. The case rate (number of cases per 1000 population) corrected for mistaken diagnosis, of which 31 were noted, was 2·80; this is the highest rate since 1900.

50. There were 22 deaths, compared with 13, 29, and 18 in the three preceding years. The death rate was 0·17; the rate was lower in 1901, 1903, and 1905, but higher in all the remaining years since 1891 (see Table V.) The London death-rate was lower still, viz.: 0·14. The death-rate in the 76 great towns was 0·19.

51. 137 cases were in Woolwich Parish, 169 in Plumstead, and 81 in Eltham. The following Table shows the average case-rate in each parish (not corrected for mistaken diagnosis) in the past five years compared with London and the Borough :—

	Average 1905.	1906.
The Borough	1.71 ...	·2·80.
Woolwich Parish ...	1·63 ...	3·43.
Plumstead	1·87 ...	2·26.
Eltham	1·62 ...	6·70.
London	1·90 ...	1·70.

It is seen that in London there was a decline in Diphtheria Notifications. In Woolwich there has been a large increase.

52. 260 cases, or 67 per cent. of notifications, were removed to hospital. Certificates of efficient home-isolation were given in 21 cases (8 in 1905). The case mortality was only 5·7 per cent. compared with 8·8, 9·9, 7·0, 17·8, and 6·6 in the five preceding years, and with 8·6 in London. This is the lowest case mortality recorded in the Borough. 16 of the 22 deaths occurred in the Fever Hospitals. The average duration of stay in hospital was 6·6 weeks.

53. The increase of cases is largely due to the increased use of bacteriology and consequent discovery of mild cases or "carriers" without any symptoms. The importance of this means of discovering the infection is shown by the following incident. A child in Stanley House had Diphtheria before the Christmas Holidays ; after the holidays another case occurred in the same block, and it was found that a sister of the first case, with nasal catarrh, was acting as a "carrier," and had, doubtless, infected the second case.

The Medical Officers of the Royal Arsenal examined employees from infected houses before allowing them to return to work, and discovered several bacteriological carrier cases. Altogether, 73 cases, found to be "carriers" of the Diphtheria bacillus, without having any symptoms, were notified. Three cases were reported as nasal.

In addition to the notified cases, a number of bacteriological cases were discovered by myself and were not notified, but isolation precautions were advised and carried out at home.

54. *Mistaken diagnosis.* 31 cases, or 8 per cent. of notifications, after removal to hospital, were stated not to be diphtheria. The percentage in the three preceding years was 12, 7, and 7

55. *Source of Infection.* In 160 cases a probable source of infection was noted, viz., in 87, other inmates of the same houses were considered the source; 51 were attributed to school infection: 8 to infection by neighbours and friends; 5 were "return cases," and 2 infected while travelling; 4 were infected at a general hospital, and 4 in barracks.

An undiscovered case of nasal diphtheria was the cause of infecting five other persons in Frith's Buildings and Lorne Terrace before the true nature of the disease was detected and the patient isolated. Another child died suddenly without medical

attendance; a doctor called in, too late, however, suspected diphtheria, informed me, and a swab was taken and a bacteriological examination showed the presence of diphtheria bacilli. Meanwhile, a coroner's jury had given a verdict of death from bronchitis. Four members of the family were found to be carriers of the diphtheria bacillus.

56. *School Infection.* The highest incidence was in Wood Street and Gordon Schools. Certain classes were specially affected. A large number of cases occurred about the same time, and there is no doubt that the school was a means of spreading the infection. As soon as there was any evidence of school infection, the Medical Officer (Education) of the London County Council was informed, affected classes examined bacteriologically, and those found to be "carriers" of the diphtheria bacilli were excluded. At Gordon School, cases continued to occur in spite of these steps (whereby six "carriers" were discovered), and after a further examination of the children, the school was temporarily closed, the whole school for two weeks and the Infant Department for four weeks. This had the desired effect. At Wood Street School, examination and exclusion of infected children were found sufficient to stop recurrence of cases.

57. *Re* incidence of Scarlet Fever, and Diphtheria, on the large schools during the years 1896-1905, see paragraphs 47 and 48.

58. *Bacteriological Diagnosis.*—898 Swabs were sent to the Lister Institute and the Royal Institute of Public Health, to be examined for the presence of diphtheria bacillus. In 260 the true Klebs Loffler bacillus was found (in 7 of these, Hoffman's Bacillus coexisted with the Klebs Loffler bacillus); in 149 Hoffman's Bacillus was found; and 489 were found free from either the Klebs Loffler bacillus or Hoffman's.

Of the 898 swabs examined, 240 were taken from school children by myself. Of these, 50 contained the true Klebs Loffler bacillus and 33 Hoffman's bacillus.

Most of these were contacts seen about 10 days after notification of the primary case, for the purpose of giving certificates to enable pupils to return to County Council Schools. (N.B.—No children were allowed to resume school from infected houses until they were certified free from infection after bacteriological examination). Others were examined with the object of finding possible sources of infection, e.g., where the first case notified in a house was a child not attending school.

Of the 240, 180 had no noteworthy abnormal symptoms, while 60 had symptoms, viz.—4 had tonsillitis, 2 congestion or exudation of fauces, 1 ulcer on uvula, 2 clinical diphtheria, 1 otorrhoea, 3 enlarged cervical glands, and 47 some form of rhinitis. Of the 60 cases which had symptoms 19 or 32 per cent. were positive, while of the 180 cases with no noteworthy symptoms, only 31 or 17 per cent. gave positive results.

Of 13 cases with purulent discharge, encrustation and soreness of the nostrils, 6 gave a positive result, 3 shewed Hoffman's bacillus, and 4 were negative.

Hoffman's bacillus was found in 9, or 15 per cent. of cases with symptoms, and in 24 or 14 per cent. of cases with no symptoms.

Enteric Fever.

59. There were 29 cases of Enteric Fever, not including 11 cases of mistaken diagnosis, notified as enteric. The case-rate was 0·23 compared with 0·34, 0·19 and 0·17 in three preceding years; for the third year in succession the rate recorded in the Borough was lower than any before 1904. For the ten years 1892-1901, the rate never fell below 0·41. The case-rate in London was 0·34. Out of 41 cases notified, 28 went to hospital.

60. There were eight deaths, giving a death-rate of 0·06, which is slightly higher than in the two preceding years, but much below the average of the past ten years. The death-rate in London was 0·05 and in the 76 great towns 0·09.

61. The following are the cases notified in each parish during the past six years. It is satisfactory to be able to report for the first time that Eltham was exceptionally free from Enteric.

	Average 1901-5.			1906.
Woolwich	... 12·6	...	...	16
Plumstead	... 21·2	...	...	21
Eltham	... 8·6	...	...	3

62. In one case the disease was attributed to oysters; in two to cockles from Leigh; two, mussels; one, lobster; one, prawns, six to fried fish; one to celery; four cases were contracted at Herne Bay, Broughty Ferry, Whitehaven, and Pegwell Bay, respectively, and seven were secondary cases, *i.e.* contracted from a previous case in the family. One patient was a fishmonger, but he was not known to have eaten any of his goods. Another fishmonger supplied two of the cases attributed to fried fish; he had recently had enteric fever; two cases outside the Borough who bought fried fish from him had enteric about the same time. This is suggestive as showing how fried fish may convey the infection of enteric, viz.: by the hands of the shopman, contaminated either by his own excreta or by infected shell-fish.

63. *Bacteriological Diagnosis.* Twenty samples of blood were sent to the Lister Institute to be examined for Widal's reaction. A positive result was obtained in eleven.

Diarrhœa or Zymotic Enteritis.

64. The deaths from diarrhœa, dysentery, and epidemic or zymotic enteritis were 103, or 0·81 per 1000 population, compared with 0·82, 0·48, 0·36, 1·19, and 0·52 in the five preceding years. The rate for the 76 great towns was 1·16, and for London 0·95.

There were, in addition, 18 deaths from enteritis and gastro-enteritis, making a total of 121 deaths (or 34 per 1000 births), due to diarrhœal diseases. 93 of the 121 were under one year of age.

65. The following table shows the death-rate from the above mentioned diarrhœal diseases per 1000 births in each Ward and Parish during the past five years.

Diarrhœal diseases per 1000 births.

	Average 1901–5.	1906.
Woolwich Parish ...	33·2 ...	44.
River Ward (North) ...	58·8 ...	81.
River Ward (South) ...	31·4 ...	61.
Dockyard Ward ...	27·4 ...	41.
St. Mary's Ward ...	34·6 ...	33.
St. George's Ward ...	18·0 ...	17.
Plumstead Parish ...	26·6 ...	31.
St. Nicholas Ward ...	36·8 ...	33.
Central Ward ...	16·0 ...	24.
Glyndon Ward ...	34·8 ...	59.
St. Margaret's Ward ...	19·8 ...	18.
Herbert Ward ...	19·8 ...	25.
Burrage Ward ...	12·6 ...	30.
Eltham	18·8 ...	19.
The Borough (1902–5) ...	26·7 ...	34.
London County (1904–5)	40·0 ...	48.

North Woolwich had again the highest death-rate, though compared with the two preceding years, this district shows much improvement (*re* unhealthiness of North Woolwich, see Administration, par. 30). South River and Glyndon Wards had the next highest rate, and St. George's, St. Margaret's, and Eltham the lowest.

66. Zymotic Enteritis may be defined as a communicable disease of which the prominent symptoms are Diarrhœa, vomiting, and general depression, and which occurs mainly in the latter part of the summer and early autumn. Every case of Zymotic Enteritis is no doubt a source of infection to others, but it is not

yet settled whether horse dung, the soil of the ground, and any collection of filth, is not also a possible source of infection. It is undecided what is the specific germ of the disease, and whether indeed it is not caused by several different germs. In a Report made to your Council on summer diarrhœa in 1904, I recommended that the same precautions should be taken with every case of Zymotic Enteritis as with Enteric Fever. For this purpose, it was necessary to know of the existence of cases, so that the houses might be visited, and the necessary directions given as to isolation, cleanliness, and disinfection. The Council accordingly decided in the spring of 1905 to pay for voluntary notifications of the first case of Zymotic Enteritis occurring in a family during the months of July, August and September; and in January, 1906, it was decided to continue the experiment for three years more, and the tables I. to VI. summarize the notifications received, and the results of the inquiries made in the 2nd year of Notification.

Altogether 366 cases were notified (compared with 212 in 1905) of whom 46 died, giving a case death-rate of 13 per cent., 81 deaths occurring during the quarter were certified to be from diarrhœa or Zymotic Eneritis, so that 35 children died of this disease who were not notified. It appears, therefore, that the majority of the cases for which medical attendance was called in were notified. Most cases were notified within three or four days of the commencement of illness.

Age Distribution.—Table I. shows that nearly half the cases notified were between 3 and 12 months of age. The largest number in any three months being between 9 and 12 months of age. 34 cases were notified over 5 years of age. From inquiries made, I have no doubt that the disease affects persons at all ages, but it is much more serious under the age of 2, and again in extreme old age. Six deaths were in persons over 60 years of age.

Local Distribution.—As notification is voluntary, it was to be expected that some doctors would be more inclined to notify

than others, and this will necessarily affect the local distribution as indicated by notification, and consequently too much reliance must not be placed on the figures given for the Wards.

The highest number of cases proportional to population were in St. Nicholas, Glyndon, Central and Eltham Wards, and the lowest in the St. Mary's, Herbert and Burrage Wards. The deaths, however, were most (proportionally), in River (North), Glyndon and St. Nicholas Wards.

Table III. shows the condition of the 366 houses affected as regards crowding and cleanliness. 49 houses were found to have more than two persons to a room, and 92 were found to have more than $1\frac{1}{2}$ persons to a room ; 71, or 19 per cent. were found more or less dirty.

Table IV. shows the manner of feeding of all cases under one year of age. Only 12, or 6 per cent., were fed on the breast alone, and 28, or 14 per cent., on breast and other food. The remaining 80 per cent. were nearly all fed on fresh cow's milk or Nestle's condensed milk. Thus, as in 1905, 20 per cent. were fed wholly or partially on the breast. An inquiry made in 1904, showed that of average children 82 per cent. were fed wholly or partially on the breast. It follows that an artificially fed child is 18 times more likely to be affected with diarrhœa than a child fed wholly or partially on the breast. In my Report on summer diarrhœa previously referred to, I estimated that an artificially fed child was 45 times more likely to die of diarrhœa than a breast fed child.

Table V. shows the cause of weaning of 185 cases which were weaned under the age of six months. It appears from this Table that only 5 children were weaned on account of the mother going to work. 142 children were weaned owing to the failure of the milk, from death or illness of the mother.

Action Taken.—All the cases notified were visited ; mostly by the Lady Inspectors, and a large number also by myself. A

leaflet of instructions was left and explained. On it instructions are given as to cleanliness, feeding of infants, disinfection, and other matters. Mothers were particularly directed to wash their hands before preparing baby's food. If any insanitary conditions were found at the house, the usual steps were taken for remedying them.

Source of Infection.—Some probable source of infection was discovered in 20 cases, viz., father in 1; mother, 2; sister, 3; brother, 5; lodger, 5; son, 1; neighbour, 3.

Deaths.—Table VIII. gives the death rates from diarrhœal diseases in the summer quarter during the past five years, and infantile death rates for the year in London and Woolwich during the past five years. With this is also given the maximum temperature of the 3 ft. ground thermometer, and the average temperature of the same thermometer for the 13 weeks of each summer quarter of the years 1901 to 1906.

It is well known that diarrhœa is much more prevalent during warm weather.

The past quarter had the highest average temperature (62·08) of any quarter in the past six years, the average temperature of the summer quarter, 1901 (62·06), most nearly approached the temperature of the past quarter. It was, therefore, to be expected that the diarrhœal mortality of this year would be higher than in any of the past five years. As a fact the deaths from Diarrhœa (including Epidemic or Zymotic Enteritis, Dysentery and Infantile Cholera) were 2·54 per 1000 living, which is below the rate of both 1901 and 1904 (see Table VIII.). The Diarrhœa death-rate in the County of London was 3·00, and is the highest rate for any of the past six years, except 1904. In order to test the advantage derived from notification of Zymotic Enteritis I have compared the Diarrhœa death-rate of the summer quarter of London and Woolwich in the two periods, 1901/4 and 1905/6.

In the earlier period Zymotic Enteritis was neither notifiable in Woolwich nor in any other part of London. In the past two years it has been notifiable in Woolwich, but not in any other part of the County. The figures obtained are as follows :—

Deaths from Diarrhœa— Summer quarter		1901/4.	1905/6.
Rate per 1,000 living—	London ...	2·27	2·64
	Woolwich ...	2·30	2·13

It thus appears that while in London the Diarrhœa death rate has been considerably more in the past two years and in the three preceding years, in Woolwich the rate has declined, so that as far as statistics can be relied upon this indicates a decided advantage derived from notification. If the rate in Woolwich had maintained during the years, 1905/6 the same proportion to the London rate as it had from 1901/4, there would have been 35 more deaths from Diarrhœa, which represents about 10 times as many children whose health and strength would have been seriously injured. The total cost of notification in the two years has been £66 17s. 6d.

Notified Cases of Zymotic Enteritis.

(July 1st to September 30th, 1906).

Table I.

Age and Sex.

Total.	Males.	Females.	Under 3 mths.	3 to 6 mths.	6 to 9 mths.	9 to 12 mths.	Total under 1 year.	1 to 2 years.	2 to 5 years.	Over 5 years.	
366	187	179	31	52	52	59	194	99	39	34	Notifications
46	29	17	8	6	9	10	33	9	1	3	Deaths to October 31st

Table II.

Distribution in Wards and Parishes.

		Notifications.	Deaths to October 31st.
Woolwich Parish		77 ...	12
River Ward (North) ...	10	...	1
River Ward (South) ...	20	...	4
Dockyard Ward ...	22	...	7
St. Mary's Ward ...	9	...	—
St. George's Ward ...	16	...	—
Plumstead Parish		242 ...	33
St. Nicholas Ward ...	88	...	14
Central Ward ...	38	...	3
Glyndon Ward ...	48	...	10
St. Margaret's Ward ...	44	...	3
Herbert Ward ...	14	...	1
Burrage Ward ...	10	...	2
Eltham Parish		47 ...	1
		366	46

Table III.

Houses affected.

Total.	Number under $1\frac{1}{2}$ to a room.	Number with over $1\frac{1}{2}$ & under 2 to a room.	Number with over 2 to a room.	Number clean.	Number dirty.	Not Stated.
366	225	92	49	289	71	6

Table IV.

Principal Diet of Cases under 1 year.

Total cases		194
Breast only	12	
Breast and other food	28	
Fresh Cow's milk	59	
Fresh Cow's milk with other farinaceous food...	39	
Nestlé's condensed milk	49	
Dried milk	2	
Sterilized milk	1	
Other food	1	
Not stated	3	
Tube bottles used	74	
Tubeless bottles used	85	
Both bottles used	6	

Table V.

Cause of weaning of cases under 6 months of age.

Total Cases Weaned under 8 months.	Death of Mother.	Illness of Mother.	Failure of Milk.	Mother at Work.	Other Causes.
185	3	37	102	5	38

Table VI.

Number of cases notified each week, with mean temperature of 3 ft. ground thermometer during week.

		July				
Week ending	7th	14th	21st	28th		
Cases	1	3	5	5		
Temperature	59·16	60·68	61·29	62·26		
		August				
Week ending	4th	11th	18th	25th		
Cases	13	38	65	56		
Temperature	63·25	64·00	63·80	62·80		
		September				
Week ending	1st	8th	15th	22nd	29th	
Cases	27	52	58	28	15	
Temperature	63·08	63·83	62·89	60·80	59·24	

Table VII.

Deaths from Diarrhœa and Zymotic Enteritis classified by Wards and Ages.

Ward.	Under 1 year.				1 to 5 years.	5 to 60 years.	Over 60 years.	Total Cases.
	1 to 3 months.	3 to 6 months.	6 to 9 months.	9 to 12 months.				
Woolwich—								
River { North	...	3	2	...	...	...	1	6
River { South	1	2	3	2	1	...	2	11
Dockyard ...	1	2	1	2	1	...	...	7
St. Mary's ...	...	...	2	1	1	...	...	4
St. George's ...	...	...	1	...	...	...	1	2
Plumstead—								
St. Nicholas ...	1	4	6	4	4	...	1	20
Central ...	1	...	1	1	...	...	...	3
Glyndon ...	3	2	4	1	1	...	...	11
St. Margaret's	1	2	2	1	1	...	1	8
Herbert ...	1	...	2	...	...	...	...	3
Burrage ...	...	...	1	1	...	1	...	3
Eltham	...	2	...	1	...	...	...	3
Totals ...	9	17	25	14	9	1	6	81

TABLE VIII.

Diarrhœa, Infantile Mortality, and Temperature of Summer Quarter in London and Woolwich.

	District	1901	1902	1903	1904	1905	1906
Deaths from Diarrhœa in Summer Quarter per 1,000 living	London...	2·77	1·42	1·49	3·39	2·28	3·00
	Woolwich	2·76	0·97	0·96	4·52	1·72	2·54
Infantile Death Rate for year (deaths under 1 year per 1,000 births)	London...	148	139	130	144	131	132
	Woolwich	129	125	108	135	103	111
Maximum Weekly Average Temperature of 3 ft. ground thermometer in 13 weeks of Summer Quarter ...	...	63·54	61·09	61·64	64·62	64·11	64·00
Average temperature of 3 ft. ground thermometer in Summer qtr.	...	62·06	59·68	60·18	61·45	61·62	62·08

ERYSIPELAS.

67. There were 97 cases of erysipelas notified, compared with 58, 74, and 83 in the three preceding years. There were three deaths. The case-rate was 0·76, and the death-rate 0·02.

PUERPERAL FEVER.

68. There were 8 cases of puerperal fever notified, compared with 11, 2, 5 and 12 in the four preceding years. There were 2 deaths. The case-rate was 0·06, and the death-rate 0·02, both rates being below the average of the past five years. One case was attended in confinement by a qualified medical man and seven by midwives. The London death-rate was 0·03.

69. In no case was there any ground to suppose that infection was conveyed by the professional attendant from a previous case.

Influenza, Bronchitis, Pneumonia.

70. Influenza caused 33 deaths compared with 62, 22, 60, 27, and 23 in the five preceding years. Bronchitis and Pneumonia caused 265 deaths, compared with 245, 299, 258, 278, and 255 in the five preceding years.

Tuberculosis.

71. There were 221 deaths from Tuberculous disease, giving a death-rate of 1·74, compared with 2·29, 1·86, 1·92, 2·06, and 1·83 in the five preceding years. This is the lowest rate recorded.

The London death-rate was 2·02.

72. The following table gives the number of deaths from each of the various forms of Tuberculosis in the past five years, and also the deaths from simple meningitis.

	Average 1901-5	1906.
Tuberculous Meningitis	20	22
Simple Meningitis	22	15
Tuberculosis of Intestines and peritoneum	13·0	14
„ other forms	20·8	21
Phthisis	192·0	164

73. The deaths from Phthisis were 164, giving a death-rate of 1·29, compared with 1·80, 1·49, 1·39, 1·64, and 1·47 in the five preceding years. This is the lowest death-rate recorded; the reduction in death-rate since 1901 represents a saving of 65 lives last year. The following table gives the death-rate from Phthisis in each parish during the five years 1901-5 and in 1906 compared with London. There was a reduction in all the parishes but most marked in Woolwich. The River Ward again had the highest phthisis death-rate, and Burrage came next.

	Average 1901-5			1906.	
	No.	Rate.		No.	Rate.
Woolwich Parish	89	2·15	...	67	1·68
Plumstead	97	1·34	...	90	1·20
Eltham	6	0·63	...	7	0·58
The Borough	192	1·56	...	164	1·29
London	...	1·57	...	6969	1·47

74. The following table shows the death-rate from Phthisis in Woolwich and Plumstead Parishes, in each of the three past quinquennia :—

		1891-5	1896-1900	1901-5
Woolwich	...	2·80	2·16	2·15
Plumstead	...	1·78	1·40	1·35

75. It appears that in each parish there has been a progressive reduction, but the diminution in the past quinquennium is much less than in the preceding one. This was attributed in my last report to the intemperance which accompanied the Transvaal war, and the poverty which succeeded it. It is satisfactory to note that the special efforts made to deal with the disease in recent years are now bearing fruit.

76. 97 of those who died were males and 67 females. In 1905 there were 110 males and 75 females.

77. Out of 19 who died, as to whom information on this point was obtained, 1 was stated to be a teetotaller, 9 temperate, and 9 intemperate.

78. The source of infection was attributed in 107 deaths, with more or less probability, as follows :—

Family or personal—Father	...	...	21
	Husband...	...	2
	Mother ...	...	14
	Wife ...	...	2
	Brother ...	...	5
	Sister ...	...	4
	Other relatives	...	9
	Lodgers and friends	...	7

Brought forward	...	64
Workplace	...	11
School	...	4
Hospital	...	1
Public House or licensed Restaurant	...	24
Milk	...	3
Total	...	107

Occupation.—5 who died were engaged in the liquor traffic. Loss of work was spoken of in several cases as contributing to illness and death.

79. *Notifications.*—Voluntary notification of Phthisis has now been in force in the Borough for five years. 176 cases were notified compared with 189, 167, and 145 in three preceding years. 29 of these were in the Poor-Law Infirmary, 19 others were notified by the District Medical Officers of the Poor-Law Unions, 34 by the Medical Officers of the Royal Arsenal, and the remainder by clergymen, philanthropic societies, applicants for admission to the Peppard Sanatorium, and by private medical practitioners. £11 6s. 6d., was paid during the year for the notification of Phthisis.

Duration.—Of the 176 cases notified during 1906, at least 45 have since died, and of 145 notified during 1905, at least 59 have since died (February 15th, 1907.)

80. The source of infection of the notified cases was probably as follows :—

Family or personal, 44 viz.—	Father 12, Mother 10, Brother 8, Sister 4, Husband 1, Wife 2, Other members of family, 1, Friends, lodgers, neighbours 6, (including two friends nursed.)
Workshop and Office	15
Public House	27
School	2
Navy and Army	7
Undetermined	81

81. Of the 43 adults as to whom information was obtained, 2 were stated to be teetotalers, 25 temperate, and 16 intemperate.

Of the houses of notified consumptives, 10 were to some extent dirty, 1 had damp walls, and 2 had dark rooms; one was badly ventilated and 5 were overcrowded.

Age Distribution—The following table gives the age of notified cases:—

0--1	1—5	5—15	15—25	25—45	45—65	Over 65.
0	0	6	34	101	31	4

Sex.—130 males, 46 females.

82. *Occupation.*—Of the 130 notified males, 50 were Arsenal employees. The Departments and Workshops affected are as follows:—

Royal Laboratory	13
Electrical Branch	2
Danger Buildings	8
Royal Carriage Department	6
Royal Gun Factory	6
Royal Shell Factory	1
Army Ordnance Department	2
Building Works Department	1
Torpedo Factory	5
Central Office	2
Naval Ordnance Department.	2
Royal Dockyard	2

4 cases were engaged in the liquor traffic.

83. *Bacteriological Diagnosis.*—Sputum from 130 cases of suspected phthisis was examined at the Lister Institute, and tubercle bacilli were found in 50 cases. The number of examinations for the four previous years were 36, 144, 116, and 130 respectively.

84. In my Annual Report for 1904, some figures were given as to the "Public House as a Source of Infection" and "Chronic Tuberculosis in Children." (See page 50 of that Report).

The Managers of licensed houses were all visited and supplied with one or more notices asking customers not to spit on the floor. Such notices are generally hung up when supplied, but soon displaced. It is a pity publicans do not realize that it is to their advantage, and that of their servants, to discourage spitting on the floor, and to keep the floor cleansed with disinfectants.

85. Disinfection was performed by the Public Health Department at 169 premises, compared with 108, 192, and 142 in the three preceding years. Of these 130 were disinfected after the death of the patient, and 39 after removal to hospital, sanatorium or on other opportunity.

86. *Sanatorium Treatment.*—In August, 1903, your Council commenced to maintain two beds at the Peppard Common Sanatorium, and in May, 1904, increased the number to three. To begin with, patients were kept in the Sanatorium for three months. For educational purposes, it is desirable that a large number of patients should spend a short time at the Sanatorium, and for a limited number who may be expected to make a complete recovery a longer stay is necessary. For this reason, in October, 1905, it was decided to use the three existing beds for two months' treatment, and to maintain three more beds for four months' further treatment for such patients as required it, and were likely to be permanently benefited. (See Annual Report, 1904, p. 51, and Council's Minutes for April 13th, 1905, paragraph 17).

Later on, it was considered that two months was unnecessarily long for purely educational treatment, and usually too short to be of permanent curative benefit. It was accordingly decided, in June, 1906, to use two beds only for one month's educational treatment, leaving four beds for five months' prolonged treatment

for suitable cases. In October a seventh bed was taken on, in order to allow of allotting two short-treatment beds to men, and one to women; of the four beds for prolonged treatment, three are for men and one for women.

87. All the Council's beds at the Sanatorium were kept occupied throughout the year, there being always more patients anxious to go than could be accommodated. The male applicants, however, greatly outnumbered the female, and, for some months, one of the female beds was exchanged for a bed on the male side. 29 patients were admitted, and 28 discharged. Of those discharged, 8 stayed for one month, 9 for two months, 4 for three months, 2 for five months, and 5 for six months. None died, and all returned home in improved general health, and shewing a decided increase in weight. Most shewed very great improvement or apparent cure, and all but one were able to resume their ordinary duties. Three, however, were reported to be severe or acute cases, which shewed no or little signs of improvement in the lungs. Several were kept on for a time at the Sanatorium, after ceasing to be chargeable to the Council. Some of these earned their keep by performing light duties, and others were supported by a charitable fund.

88. From August, 1903, up to June 30th, 1906, 42 patients had passed through the Council's beds at the Sanatorium, and the following table shews the condition of these up to February 1st, 1907. Three of these only, had six months' treatment at the Sanatorium, the others averaged about two months.

At work and well	21
At work, but relapsed	1
Out of work, relapsed	2
Ill and unfit for work	5
Moved and not heard of	2
Died	11
	42

All but two of the 21 at work have been seen or heard from within the last two months, and nearly all within the last two weeks; the two exceptions are now in Canada, and were well and at work ten months ago. Of the two "Out of work—relapsed," one A.B. kept well and at work until November, 1906, six months after leaving the Sanatorium, where he stayed six months, but has since lost his work, and his health is suffering in consequence; the other, H.C., was at the Sanatorium two months only, left in June, 1905, much improved, though still with distinct symptoms; not finding work in Woolwich, he went to Canada in March, 1906, and got work on a farm. He had excellent health while there, and having saved enough money to pay for his return passage, thought he would spend Christmas at home; unfortunately, he caught cold on the journey home. His disease has recurred, and he is now again seeking admission to the Sanatorium.

The two not heard of were at work and in good health, six months and one year respectively, after going to the Sanatorium.

Of the five who are ill and unfit for work, one was at work for two years after leaving the Sanatorium; one was an acute case sent direct from a consumption hospital, without being seen by the Medical Officer of Health; the other three improved at the Sanatorium and performed their duties for a few months but soon relapsed. Two did well as long as they were at work.

89. In my last report, it was remarked, "It is a question whether the curative results (of Sanatorium treatment) can be considered quite satisfactory." A year's further experience enables me to speak more positively and more appreciatively of this aspect of the phthisis sanatorium.

The fact that probably the lives of all the patients were prolonged, that 33 out of 42 were able to resume their ordinary duties, after going to the Sanatorium, at least for a time, and that half the patients appear to be permanently cured, justifies the

conclusion that the Woolwich Borough Council in providing the treatment has set an example which might with advantage be followed by other authorities.

90. At the same time, the necessary limitations of the Sanatorium treatment must be clearly recognised. There are a certain number of cases which appear to go progressively from bad to worse in spite of any treatment, and it seems to be impossible to recognise at the outset the fatal tendencies of such cases. In the first year the Council retained beds at Peppard, a series of five such cases occurred. In none of them did the physical signs or symptoms point to advanced disease, but they all died within a few months of admission to the Sanatorium. On the other hand, some cases in which the disease had made considerable progress have done remarkably well.

Again, the Sanatorium can in most cases re-establish the health of early cases within at least six months ; but it cannot generally make them resistant to all the injurious influences to which they are exposed on returning to work. The education in open-air treatment, and the practising of this on the return home certainly helps very much to the maintenance of health, and accounts for the continued progress of several who left the Sanatorium only partially restored. But there are many who are unfit for the strain of their daily work under the conditions existing in Woolwich, whereas, if they can get work in the open air, in the country, whether at home or in Canada, they do well.

91. *Educational Sanatorium Treatment.* Three consumptive patients are now receiving educational treatment every month, by passing at least one month at the Sanatorium. The fact that 36 consumptive patients are there trained, every year, how to preserve their own health and how to avoid infecting others, will undoubtedly do much to diminish the tuberculosis death-rate, and the figures of last year indicate that it has already done so.

The names of 65 applicants for admission to the Sanatorium were entered on the register during the year, compared with 50 in 1905. Of these, four are still awaiting admission, and 29 were admitted. A few who could not at once be admitted to Peppard, or were too far advanced to be accepted, were admitted to Convalescent Homes, Consumption Hospitals, other Sanatoriums, or to the Workhouse Infirmary; but all received instructions as to means to be taken to promote their own health and avoid infecting others. Indeed, the Sanatorium is found a very useful means of obtaining notifications of phthisis which would otherwise not be heard of until death occurred. In several, who with prompt sanatorium treatment might probably have been restored to health, the disease had advanced too far for admission when their turn came. Twice as many beds as the Council maintains could be easily kept occupied, and twice as many consumptives have their health restored at least for some years.

A convalescent home is a very poor substitute for a sanatorium; it might, perhaps, be used with advantage after a short stay in a sanatorium had educated the patient to take care of himself. As it is, many patients come back from the home in a worse state than when they go.

92. The Woolwich Guardians have recently given special consideration to the subject of the Infirmary provision for phthisis cases, with the object of giving a number of inmates the benefit of open-air treatment and isolating them from other cases. Four beds for men have been placed out of doors under a temporary shelter, well protected from wind, and facing the south, and mackintosh sheets provided for wet weather. A balcony for women has been constructed, well protected above and on three sides, but fully exposed to the south side. The results so far obtained have been very satisfactory.

93. The subject of compulsory notification has been considered by the London County Council and some of the Borough Councils during the year. Opinion in favour of this step is steadily growing, as it is seen that notification does not interfere with the patient's carrying on his occupation but on the other hand enables him to do so with greater safety. Hitherto the Authorities of Consumption Hospitals have disregarded requests for notifying the cases treated by them, but a system of notification is now being arranged at the Victoria Park Hospital, and it is hoped other Consumption Hospitals will follow the example. Besides making notification of Phthisis compulsory, it is desirable also to make compulsory the removal to hospital of patients who are without proper lodging accommodation. This could be done by application of S. 66 of the Public Health (London) Act. This would prevent consumptives being kept at home under conditions in which infection of the family is almost sure to ensue.

94. Twenty-two spitting-flasks were supplied at cost price, (5d.). compared with 23, 35 and 14 in the three previous years.

CANCER.

95. There were 115 cases of cancer (malignant tumours), giving a death-rate of 0·90, compared with 0·70, 0·83, 0·75, 0·74 and 0·70 in the five preceding years. Fifty-nine of the deaths were in males and 56 in females. 76 of the deaths were in persons over 55. The highest mortality was in Burrage Ward, probably because this ward contains a large proportion of elderly persons.

The London death-rate was 1·04.

96. The following table shows the sex and region affected of all the cases of malignant disease.

CARCINOMA.

Seat of primary disease.	Male.	Female.
Head and Face	1	2
Mouth and tongue	7	1
Pharynx, œsophagus, larynx, and neck	18	2
Pleura, lung, mediastinum ...	1	
Stomach and pylorus ...	9	7
Intestines (including rectum) ...	5	5
Rectum	3	5
Liver	7	6
Peritoneum and omentum ...		1
Kidney	1	
Female genital organs ...		11
Female breasts		11
Hand		1
Pancreas	3	
Undefined	1	2
	56	54

SARCOMA.

	Male.	Female.
Genitals	1	
Diffused	1	
Orbit		1
Undefined	1	1
	3	2

ALCOHOLISM.

97. There were three deaths from alcoholism and 17 from cirrhosis of the liver, making a total of 20 deaths definitely attributed to alcohol, compared with 52, 40, 42, 27, and 24 in the five preceding years. In addition to these, there were 347 deaths

from disease of the brain and nervous system (excluding meningitis), heart, bloodvessels, and kidneys, of which a large proportion were certainly caused directly or indirectly by alcohol. The deaths from these causes in the three preceding years were 313, 335, and 336 respectively. The increase in 1906 as compared with 1905 is wholly accounted for by increase of deaths from "Other diseases of brain and nervous system" (mainly convulsions) in infants under one year, attributable, largely, to the warm summer, and not due to alcoholism.

98. The following table shows the death-rates from alcoholism and cirrhosis of liver in the past five years and in 1906 in various divisions of the Borough compared with London.

	Public Houses per cent. of total houses.	Deaths from Alcoholism per 1000 population.	
		1901-5 Average.	1906.
The Borough	1·0	0·30	0·16
Woolwich Parish	2·0	0·46	0·25
River Ward, South	2·9	0·80	0·09
Plumstead Parish	0·5	0·24	0·13
St. Nicholas Ward	0·2	0·25	0·18
Eltham	0·6	0·04	nil.
London County	—	0·28	0·26

The marked reduction is very satisfactory. Three public houses in the South River Ward have been closed under the Licensing Act. The statement *re* "Physical Deterioration and Alcoholism" which was issued as a poster in 1905 is now appended to the other leaflets, and left at all houses in the course of house-to-house inspection. (See Annual Report 1905, page 59,)

The example of Woolwich in issuing the statement *re* "Physical Deterioration" has since been followed in 14 Metropolitan and 86 provincial Boroughs, and Urban or Rural Areas.

SYPHILIS.

99. There were 10 deaths from syphilis, compared with 8, 14, and 14 in the three preceding years. Four of these occurred in the Workhouse Infirmary, and one in outlying institutions. Nine were males and one a female; six were infants under five years. There were in addition 14 deaths (19 in 1905) from general paralysis and tabes dorsalis (loco-motor ataxy), diseases which are now considered to be usually due to syphilis.

These figures are far from representing the total mortality caused by this disease.

METEOROLOGY.

(See Table VIII.).

100. The first or winter quarter of the year was comparatively warm, and therefore favourable to health; it had eight weeks with an average temperature above the normal and five below. The spring quarter had four weeks above the normal temperature and nine below.

The summer quarter had seven weeks above the average and six below; its average temperature was higher than in any year since 1900 (see also under Zymotic Enteritis). The autumn quarter had nine weeks above the average and four below, the three last weeks of the year being exceptionally cold. These three weeks had the highest mortality of any three weeks in the year. The lowest temperature, 22·3, occurred in the last week of the year, and the highest, 94·3, occurred in the week ending the 1st September. The rainfall, 22·41, was below the average, the deficiency being specially in the summer quarter. Altogether, the year was an average one as regards the effect of the weather on health, the warm summer being particularly prejudicial, but the winter on the whole being favourable. The largest number of deaths, 59, took place in the week ending December 22nd, and the smallest number, 16, in the week ending July 7th.

PART II.

ADMINISTRATION.

WATER SUPPLY.

In March last, I reported on the result of examinations of the water of the Plumstead Well, made by the director of water examinations for the Metropolitan Water Board. The report showed that the water of the Plumstead Well had been in a comparatively impure condition. This was attributed to excessive pumping, causing the Thames water to be drawn through the chalk more quickly than was desirable. On pumping less quickly, the quality of the water improved. The Council requested the Board to have monthly examinations made of the water of the Plumstead Well, and to furnish the Borough Council with copies forthwith, on the report being presented to the Water Board.

Although the Council's request has not been specifically complied with, it appears from a report printed in July, that all the Kent Wells, including the Plumstead Well, have been receiving considerable attention. Fifteen samples of the Plumstead Well Water were analysed, and examined bacteriologically between December 4th, 1905 and July 12th, 1906.

The report says :—

> "All the Kent Wells have been examined once a "month bacteriologically, and once a quarter chemically, "but the results obtained have been grouped together as "averages—a procedure open to some objection, scientific- "ally. The time has now come when it is desirable to take "stock of these observations. This is the more important "since but little is known of the bacteriological (as com- "pared with the chemical) qualities of deep well waters."

The report proceeds :—

"The Plumstead Well is affected by its propinquity "to the River Thames and the river marshes."

"The Plumstead Well, doubtless, owing to its pro- "pinquity to the River Thames and river marshes, contains "a slight excess of chlorine."

Comparing the Plumstead Well with others, it was found to have the highest quantity of oxidized nitrogen; the highest capacity for abstracting oxygen from permanganate, and the highest proportion of chlorine and of total hardness.

The Plumstead Well, as regards presence of bacteria, was one of the least satisfactory; containing, in one sample, coli-like microbes in 10 c.c., but not in 1 c.c., and no flaginac B. coli in either 10 or 100 c.c.

Four samples of the Plumstead water contained coli-like microbes in 100 c.c., and not in 10 c.c., and in one of these, the microbes were flaginac B. coli, *i.e.*, microbes satisfying all the tests which distinguish B. coli. Fifteen samples of Plumstead water were taken.

The report concludes as follows :—

"It may be said that so far as may be judged from "the results of the examination of 116 samples (81 bac- "teriological and 35 chemical) of water derived from the "foregoing twelve wells, the Kent deep well water is "exceptionally pure, both chemically and bacteriologically."

I also received, by request, from the Clerk to the Metropolitan Water Board, a copy of the last chemical analysis made of the Plumstead well water, which is as follows :—

"Parts per 100,000.

"Taken on October 30th, 1906.

"Contained no ammoniacal nitrogen, 0·0024 parts "albuminoid nitrogen, ·77 oxidised nitrogen, 0·0102 oxygen "abstracted from permanganate, 5·64 chlorine, 35·7 total "hardness."

This examination shows some improvement in the amount of chlorine and total hardness compared with previous examinations. Altogether, it may be said that the Plumstead well water, though improved, is still far from being satisfactory. It is one of the least pure of the Kent waters, and but little purer than the Thames derived waters. It is desirable that it should be still carefully watched.

The Metropolitan Water Board were again asked to continue the frequent examinations of the Plumstead water, and furnish the Council with a copy of the report made with respect to same. This, I regret to say, they have refused to do.

The supply is constant throughout the Borough with the exception of houses on Shooters Hill (including Eglinton Road above Genesta Road, Brent Road, Dallin Road, Plum Lane above Dallin Road; and all houses above Red Lion Lane) which have an intermittent supply only.

2. Seven tenement houses were found to have an insufficient water supply for each of the families occupying them (see Annual Report, 1904, page 59, and Appendix II). An additional tap and sink was supplied on at least one upper floor at each of these houses. Altogether, fifteen tenement houses have now been fitted with an additional supply.

3. Defective and foul storage cisterns were found and remedied at 51 houses, compared with 70, 90, and 106 in the three preceding years. At 58 houses, the supply was found insufficient or temporarily cut off.

Food and Drugs Act.

4. 506 samples were submitted to the Public Analyst, and 47 or 9·3 per cent. were found to be adulterated, compared with 5·5, 4·1, 5·7, 8·4, and 7·4 in the five preceding years.

5. Proceedings were taken in 25 cases; 5 were dismissed, 2 on proof of warranty; 1 because the bottle containing a reserve sample burst; and 1 on evidence being produced that the cow had since given equally poor milk. A conviction was obtained in 20. (These figures refer to proceedings actually taken during the year, and consequently do not correspond with the figures in the preceding paragraph.)

6. A total of £76 was imposed in fines, and £15 9s. in costs.

7. 420 of the samples were milk, and 3 separated milk; 37 of these, or 8·7 per cent. were adulterated, compared with 4·8, 6·1, 9·3, and 6·5 in the four preceding years.

63 samples were bought as butter, and nine were found to be adulterated.

Table XVIII. shews the other 10 articles analysed, all but one of which were found genuine; the one adulterated was camphorated oil.

8. Of the 23 adulterated milk samples for which proceedings were undertaken, 12 were for abstraction of fat, 11 for addition of water, (one being for both).

One sample was adulterated with 17 per cent. of water, and one had 30 per cent, fat abstracted; these were the most serious adulterations, and the fine inflicted was £10 in the former, and 10s. in the latter case. £10 was the heaviest fine inflicted.

9. Of the 420 milk samples, 126 were taken on Sunday and 8 or 6·3 per cent. were found adulterated. In 1905, 11 per cent. of samples taken on Sunday were found adulterated.

FOOD INSPECTION.

10. Mr. Rance continued to act as special food and meat inspector on Friday and Saturday. He has also systematically visited the slaughterhouses in the Borough at the time of slaugh-

tering. All the male inspectors continually observe butchers' and other shops were food is sold.

There were no seizures, but 81 surrenders. There were no prosecutions, all the owners having acted in good faith. Of the surrenders, 12 were for tuberculosis, 36 unsound, and 30 with livers or other organs affected with parasitic disease.

The meat affected with tuberculosis was pork in 11 cases, and the liver of an ox in one case.

The food surrendered as being unsound consisted of meat, fish and fruit, and tinned or preserved food. A full list is given in Table XIX.

A special report on the existing provisions against the sale of unsound and diseased meat was presented and printed in your Council's minutes of 25th January, 1906.

In consequence of the revelations as to the preparation of preserved meat in the United States, the shops selling this class of goods were specially inspected. A few tins were seized as showing signs of decomposition, and ten were bought and submitted for bacteriological examination. No pathogenic (disease-producing) organisms were found, and no bacilli indicating fæcal contamination; one tin showed faint signs of decomposition, Very few tins, however, were found on sale which came from the implicated firms.

Twelve samples of untinned preserved food, viz.—sausages, brawn and pressed beef, were bacteriologically examined; nine were found to contain preservatives, and ten, bacteria of various kinds. The preservatives were not in sufficient amount to justify proceedings being taken. The bacteria indicated want of cleanliness in preparation. All the shops where sausages are made were inspected; notices were served to remedy various defects, and complied with. There are, however, no special legal provisions requiring cleanliness in places where food is prepared; such places can only be dealt with so far as a nuisance can be proved. The London County Council General Powers Bill now before Parliament, will, if passed, confer the powers required.

Dairies, Cowsheds and Milkshops.

11. On January 1st, there were 186 milkshops on the register; 21 were added and 57 removed during the year, leaving 149 on the register at the close of 1905. There were 300 inspections made. An occupier of a milkshop was prosecuted in 1905 under Section 13 of the Dairies and Cowsheds Order, 1885. It was a small general shop in which the occupier insisted on selling milk in spite of warning, and contained the usual amount of dust and dirt. A fine of 20s. and 25s. costs was imposed for this offence and failure to register. This conviction has strengthened the hands of the Health Department in requiring persons not to sell milk in unsuitable general shops; hence the reduction of the number of shops on the register.

Nineteen samples of milk from farms outside the county were examined for tubercle bacilli with a negative result.

12. The number of cowsheds remained as before—18. These were all inspected four times, and eight notices were served for dirty conditions, etc. There were no prosecutions.

The general condition of cows and cowsheds in the Borough is fairly good; much better than exists in the provincial districts, from which the great bulk of the milk sold in the Borough is derived. Some attempts at grooming the cows is now made, and the hands of the milkers are said to be washed; in these respects, however, there is much ground for improvement, but until the Sanitary Authority has power to do something more than advise, there is not likely to be much advance.

It was found that the bulk of the milk sold in the Borough came from Wiltshire, and you instructed me to visit this County and inspect, as far as possible, the cowsheds and depôts of the large companies, in consultation with the local Medical Officer of Health. This was done and a special Report printed, which elicited much local and general notice, and has probably been instrumental in assisting towards a purer supply.

SLAUGHTERHOUSES.

13. There are 11 slaughterhouses on the register; 105 inspections were made and six notices served and complied with.

NUISANCES.

(See Table XVA.).

14. 498 complaints of sanitary defects were received and investigated, compared with 493, 457 and 380 in the three preceding years.

Forty-three complaints of non-removal of dust were made and attended to, compared with 70, 42 and 40 in the three preceding years. Nine of the dust complaints came from Woolwich Parish, 28 from Plumstead, and 6 from Eltham.

The dust in Woolwich is collected by your Council's employés, but that in Plumstead and Eltham by two different contractors.

15. Although the complaints of non-removal of dust are very few, it is unfortunately true that there are many instances where the whole of the house-refuse is not regularly removed owing to the carelessness of the householders, and the neglect of the dustmen to remove anything not placed in the proper receptacles. The littered and dirty condition of back-yards and gardens is a matter which requires and receives the constant attention of the sanitary inspectors.

16. *Drains and Water-Closets.*—Twenty-five defective combined drains were investigated, and reported on, by the Chief Sanitary Inspector, compared with 22 and 26 in the two preceding years.

These drains affected 192 houses.

557 private drains, found choked and defective, were examined, cleared, and re-laid, compared with 722, 573 and 590 in the three preceding years. The majority were found in the River Ward.

931 water-closets and w.c. cisterns were repaired, compaired with 1,532, 1,498 and 1,278 in the three preceding years. 160 foul w.c. pans were cleansed by tenants, compared with 179, 231 and 247 in the three preceding years.

New Outfall Sewers.—The two new main outfalls, long since talked of, are now making steady progress, the part from Plumstead Station to Crossness being completed. These sewers should prevent the occasional flooding that has occurred in the lower parts of the town.

18. *Public-house Urinals.*—The urinals attached to public-houses and accessible to the public have been regularly inspected during the year, 617 inspections being made. Regular cleansing has been required.

19. *House Inspection.*—4709 houses were inspected, house-to-house, compared with 6223, 6604, and 6160, in the three preceding years; 10291 were inspected *re* infectious diseases and complaints, compared with 7791, 7673, and 9604.

In addition to these the 300 registered houses were each inspected several times.

20. Table XVI shows the streets inspected and number of houses found defective in each.

At 2066 houses, interiors were cleansed or defective roofs repaired, compared with 2,711, 2,917, and 2,693. in the three preceding years. 287 houses with damp walls were remedied, compared with 580, 885, and 442 in the three previous years.

Improved ventilation was provided in 129 houses. 498 new dust-pails were supplied compared with 708, 679, and 444 in the three preceding years.

21. *Medical Officer's Inspections.*—These amounted to a total of 596. Special inspections were made of Reed's Buildings, Charlton Vale, Henry Street, and North Woolwich houses, also of

the cowsheds, milk-shops, bakehouses, and many of the houses registered under the bye-laws. The other inspections were chiefly on account of Tuberculosis, Diphtheria and Zymotic Enteritis. 16 visits were paid for purposes of diagnosis at request of medical men.

22. *Overcrowding.*—86 cases of overcrowding were found and remedied, compared with 126, 178, and 154 in the three preceding years, or 1·8 per cent. of house-to-house inspections. Most of the cases of overcrowding are fonnd in house-to-house inspection.

Many complaints of overcrowding are received, but investigation usually proves them to be unfounded.

23. *Smoke Nuisance.* 79 observations on smoke nuisances were made and 12 nuisances from black smoke observed.

These were all abated on service of notice.

Observations were also made on smoke nuisances occurring at the Woolwich Dust Destructor. Though the smoke from this is not black, it creates decided nuisance when the wind blows in certain directions. The Works Department were requested to abate the nuisance.

There has been a decided diminution in the smoke issuing from the Arsenal chimneys. A central power-station is being erected and this should further reduce smoke-nuisance.

24. The Chairman of the Public Health Committee and the Medical Officer of Health attended, as your representatives, a Conference on Public Health Acts and Crown Property, arranged by the Islington Borough Council. A resolution was passed and sent to the Prime Minister, asking for legislation to bring Government Buildings under these Acts.

25. *Defective Light.* At 97 houses, new windows were supplied or existing ones enlarged or other work done to improve the lighting by daylight. Most of these were in Woolwich Parish.

26. *Verminous Rooms.* 156 verminous rooms were cleansed under the London County Council General Powers Act of 1904, or were dealt with as dirty rooms under the Nuisance Section.

Dust Removal.

27. In Woolwich Parish, 6808 loads of house and trade refuse were removed by direct labour and destroyed at the Woolwich Destructor. The cost of removal was £1719 15s. 7d., and of destruction £1162 13s. 5d., from which should be deducted £267 1s. 4d. received for sale of clinkers, etc. In the three preceding years, 9291, 7352, and 6959 loads respectively were removed.

In Plumstead 13013 loads, weighing 11622 tons were removed by the Contractors, Messrs. Tuff & Hoar, and destroyed by the Plumstead Destructor. £2837 4s. 3d. was paid for collection.

In Eltham the sum of £742 9s. 8d. was paid to the Contractor, Mr. Tucker, for removal of Eltham dust, which was deposited on fields in the parish.

Trade Refuse.

28. During the past year there have been 7967 (9021 in 1905) receptacles of offensive refuse removed for which a sum of £91 4s. 3d. has been paid. There are now 63 (64 in 1905) tradesmen on the books from whom offensive trade refuse is collected. There were no complaints of nuisance arising from collection. Chloride of lime is used as a deodorant. The cost of removal was £437 14s. 2d.

For the removal and destruction of inoffensive refuse in Woolwich Parish, the sum of £37 17s. 10d. was paid by tradesmen. The amount removed is included in the figures of the Woolwich dust collection.

The charge made for inoffensive refuse is 1s. 6d. a load and 2d. a bushel, and for offensive refuse at the rate of 3d. a receptacle,

charged per quarter in advance on the amount collected in the previous quarter.

Housing of the Working Classes.

29. The following 14 houses were represented as unfit for human habitation under Section 32 of the Housing of the Working Classes Act:—

1, Godfrey Street
7 do.
1, 2, 3, 4, Pottery Cottages, Eltham
1, 2, 3, 4, 5, Reed's Buildings
62A, Beresford Street
8, Harden's Manorway
16, Armstrong Street

Notices (Form A), were served in nine cases; the houses were vacated, and the work required done in three cases. Six houses (Reed's Buildings and 8 Harden's Manorway) were demolished at the instance of the owner. At the remaining five houses the owner did the work required without the service of a notice.

North Woolwich—(Special Inquiry).

30. In previous reports, the comparative unhealthiness of the part of the Borough known as North Woolwich has been repeatedly remarked on. For the five years 1901-1906, the death-rate of the North River Ward was 17·8 (compared with 13·9 for the Borough) being exceeded by no Ward except the South River. The infantile death-rate for the same period was 180 (compared with 119 for the Borough) and was far higher than in any other ward. Two-thirds of the difference between the infantile death-rates of the Borough and the North River Ward is accounted for by the excess of deaths from diarrhœal diseases in this ward. The death-rate from this disease in the five years 1901-5 was 59 per 1,000 births in North River Ward, and 27 in the Borough.

The other infectious diseases,—measles, whooping-cough, scarlet fever, and diphtheria, also shew a high incidence and death-rate in this ward, though the excess is much less than in the case of diarrhœa. In the past five years the death-rate from tuberculosis was 2·25 in the North River Ward, compared with 1·46 in the Borough. The age distribution and the class of population do not account for these high death-rates. The inhabitants are of a poor working-class, but not poorer than is found in several wards.

After considering all possible conditions which are unfavourable to health, the only one that seemed likely to explain the unhealthiness of North Woolwich is the character of the soil and condition of the ground-water, which may be compared with that of a mud-bank. Such conditions are notoriously inimical to health, and known to be associated with a high diarrhœa death-rate.

A special inspection was made of 171 houses to discover defects of drainage and dampness of walls and sites, the drains being tested with the smoke-test. The drains of 29 houses were defective and have been, or are being, relaid. 21 houses were found to be damp and measures taken for securing dryness; at 15 ventilation was provided under the floors.

Out of 28 houses where cases of diarrhœa occurred 17 were said to have been built within the last 10 years, 9 had sites without concrete, and 4 were damp; none shewed any signs of house-refuse under the floors.

I have to thank the Borough Engineer for the following information obtained from the District Engineer for the North Woolwich London County Council sewers as to the level of the ground water:—"Observations were taken at a sump-hole excavated at the pumping-station, during a period of 24 hours. The greatest variation was 0·67 feet, or about 8 inches, which occurred from two to four hours after high water, and the lowest

level was at eight to twelve hours after high tide or just preceding high water, shewing that the ground water took about two hours to reach its maximum height."

A section of the ground in the sump-hole shews five feet of made-up ground above, succeeded below by 13 feet of Thames mud, 3 feet of peat, and 6 feet of sand.

In cuttings made for new sewers it is frequently found that the street has been made up with house-refuse, and there can be little doubt that the surface soil of North Woolwich largely consists of made-up ground. Though the actual sites of houses were not usually of such ground, the impurity of the surrounding soil must have a considerable effect in making the air impure. The ebb and flow of the tide in the ground would drive impure air out of this soil, and where sites of houses are not concreted, such air would be specially drawn into them. The impurity of the ground was further increased by the defective drainage previously existing, but which has now been for the most part remedied. The organic constituents of the impure soil will slowly be oxidised and an ultimate greater purity of the soil be attained; but this will take many years.

Meanwhile, no other practical steps can be suggested beyond a diligent prosecution of the house-inspection, and health-visiting which are now being carried out.

It is satisfactory to find that though the death-rate of that part of the Borough known as North Woolwich is high, it is yet lower than that of the adjoining parts of East and West Ham. This is shown in Dr. Sowden's Annual Report on the health of East Ham, in which he points out that in each of the three Boroughs the wards which are situated on low-lying, damp, alluvial soil, have much greater death-rates than the remainder of each Borough.

Prospect Cottages.

These are six two-roomed cottages, with no backs, situated in

an alley off Prospect Row. On my representation of their insanitary condition, the Committee resolved to take proceedings to close them. But meanwhile, the owner undertook to do all and more than all that was required, and he satisfactorily carried out his undertaking. The height of the lower rooms was increased to 7 ft. 4 in. by lowering the floors. The floors were ventilated. Taps and sinks were put in the kitchens of four houses; the kitchen of one of the middle houses was turned into a wash-house for the other five, and a scullery for the adjoining house, and the upstairs room added to the adjoining house. Additional windows up and down stairs were made at the back, increasing the light and giving through ventilation.

Charlton Vale.

The low-lying houses situated in Charlton Vale which were repeatedly flooded from heading back of sewage, have all been closed and demolished at the instance of the freeholder.

30A. *Unoccupied Houses and New Houses.*—Owing to reduction of work in the Royal Arsenal and Trade depression, there have been in recent years a large number of empty houses or unoccupied rooms, as compared with previous years. For the year ending 30th September, 1906, the proportion of rates unpaid *re* empties was 2·3 per cent. of total houses, and the estimated number of uninhabited houses was 750 or 3·8 per cent.

On the other hand, 560 new houses were passed for water certificates in 1905 and 418 in 1904, and observation shows that new houses are usually occupied as soon as they are completed. This apparent anomaly is partly explained by the fact that the great majority of the new houses are four or five-roomed dwellings, or consist of two flats of separately contained three or four-roomed tenements, whereas four-fifths of the empties in 1904 were rented over 10s. a week, a rent beyond the means of the majority of the population. The general demand is for a small separate house.

31. *Council's North Woolwich Houses.*—On the 1st of April last, all of the Council's 25 houses were occupied ; 7 were vacant or vacated during part of the year ending 31st March, 1907, and 7 re-let ; all were occupied on the latter date. The number of persons at present housed is 74 adults and 48 children — total 122, or about 5 to a house. For particulars as to rent and cubic space of these houses, see Annual Report, 1904, page 70.

32. *Houses registered under the Bye-laws.*At the commencement of the year, 265 houses were on the register ; 48 were newly registered and 6 were taken off the register, leaving 307 on the register at the close of the year, compared with 123, 235, and 265 in each of the three preceding years. 189 of the houses are in Woolwich Parish, and 76 in Plumstead.

33. These houses were inspected, some quarterly, and others half-yearly. 520 inspections were made in all, and 50 notices were served for overcrowding, and 274 for other conditions. Proceedings were taken for overcrowding at three houses ; three tenants were charged 2/- costs, and a landlord fined 20/-.

34. The registered houses were under the care of Miss Middlebrooke, and further particulars will be found in the report of her work given in paragraph 52.

35. *New Bye-laws.*—The New Bye-laws are where they have been for the past six years—under consideration.

When writing my last Annual Report, they were under the consideration of the Local Government Board. Now they are under the consideration of your Council, to whom they have again been referred by the Local Government Board. There are consequently still different Bye-laws in each parish, and the rent-limit fixed in Eltham makes it impossible to register any houses in that parish.

COMMON LODGING-HOUSES.

36. There are 24 common lodging-houses in the Borough—19 for men, 4 for women, and 1 for couples. Total accommodation for 597 persons is available. The following is the list :—

Common Lodging House.	Accommodation.			Total.
	Men.	Women.	Couples.	
60 Beresford Street	58	...	...	58
5 High Street	40	...	...	40
52 „	22	...	...	22
56 „	15	...	...	15
56A „	18	...	...	18
76 „	...	16	...	16
77 „	...	13	...	13
81 „	...	5	...	5
82 „	...	14	...	14
93 „	30	...	...	30
102 „	28	...	...	28
1 Rope Yard Rails	14	...	...	14
2 „	17	...	...	17
4 „	17	...	...	17
7 „	...	...	11*	22
9 „	32	...	...	32
10 „	51	...	...	51
10A „	32	...	...	32
11 „	30	...	...	30
21 „	21	...	...	21
21A „	21	...	...	21
4 Warren Lane	31	...	...	31
11 & 12 „	39	...	...	39
13 „	11	...	...	11
Totals	527	48	11*	597

* *i.e.*, 22 persons.

UNDERGROUND ROOMS.

37. Two underground rooms, separately occupied, were found not in accordance with the Act, viz. : 13, Beresford Street and 39, Mulgrave Place. The occupation of each of these was discontinued on service of notice.

FACTORIES, WORKSHOPS, AND WORKPLACES.

38. There were, at the close of the year, 215 workshops and workplaces on the register; 295 inspections were made, and 30 notices served and complied with; 22 factories were inspected regarding the sanitary accommodation and two notices served and complied with; 630 inspections of homeworkers' premises were made and 15 notices sent and attended to.

In consequence of the appointment of a second female inspector, Miss Middlebrooke was able to devote a large amount of time to the inspection of workshops, and factories, and 60 additional workshops were put on the register and 17 more notices served than in 1905. Workshops where no females are employed are inspected by Mr. Powell.

HOMEWORKERS.

The following special report was presented to your Council on October 31st :—

A return, ordered by the House of Commons to be printed on the 25th June, 1906, on the administration of the Factory and Workshops Act provisions with respect to Homework, has been forwarded with a circular letter, signed by Mr. Henry Cunynghame, and dated Home Office, 4th October, 1906. Mr. Cunynghame desires to bring specially before the Council the question of the enforcement of the provisions of the Factory Act which deal with the subject of Homework. Tables are obtained every year from every Medical Officer of Health, and those for 1904 have been tabulated and presented to Parliament in the return referred to. The letter states "not only were the tables often omitted or very imperfectly filled up, but the inference cannot be avoided that in a considerable number of districts little use has been made by the local authorities of their important powers under the Homework provisions."

The letter goes on to remark that Outworkers form the weakest section of the labouring classes, a class in respect of which the

State is least able to control the conditions of work, and this can only be effectually done by the Local Authorities. The duties of the Sanitary Authority under the Factory & Workshops Act which deal with Homeworkers are then specified, and the Secretary of State expresses his trust that if in the past any of these duties have been imperfectly fulfilled, steps will be taken to remedy the omission in future. The provisions of the Truck Act are next referred to as far as regards assistance which may be rendered, by the Local Authority, to Factory Inspectors, in enforcing these Acts. It is stated that these provisions constitute the chief statutory protection against sweating, and the Local Authority and its officers are invited to call the attention of Factory Inspectors to any apparent breach of these Acts.

The following are briefly the provisions of the Factory Act *re* Homework :—

1. List of homeworkers must be kept and sent in by employers.
2. Addresses of homeworkers residing in other districts should be sent to the Councils of these districts.
3. After a month's notice an employer is prohibited from giving out work to be performed in unwholesome premises.
4. The District Council may make an order prohibiting work from being done in any house where notifiable infectious disease exists.

These provisions apply only to a limited class of homeworkers, viz., those employed on wearing apparel ; lace and net making ; cabinet-making and upholstering work ; making of electro-plate, files, and fur-pulling. In this Borough, the only one of these industries carried on, is the making of wearing apparel, so that a large proportion of the homework carried on in this Borough does not come under the protection of the Act. The duties devolving on the Public Health Department under the Act have been dili-

gently carried out in this Borough. During 1905, 76 lists of outworkers were received from employers, containing 308 names of outworkers. The homes of all these were inspected, and 14 notices were served for defects found. The principal nuisances discovered were dirty walls and ceilings, and dirty condition of rooms.

Considerable difficulty is experienced in obtaining lists of outworkers. There is no specified time during which these lists must be sent in. The Act states that they must be sent in *on or before* the 1st day of February and the 1st day of August, so that practically anybody sending in a list every six months on any day would comply with the Act. If, therefore, it was intended to obtain a conviction for not sending in a list, it would probably be necessary to wait until no list had been sent in for 12 months. The rule of the Department is, in February and August, to write and remind employers who have not sent in their lists, and in this way lists are obtained in nearly all cases, but with considerable clerical labour. As pointed out in the Home Office return, the lists are frequently incorrect, and many visits are made to addresses where no homework is being done. It is suggested in the return that employers who do not send correct lists do not comply with the Act and are liable to prosecution. I cannot see that it would be reasonable to prosecute any employer for including in his list somebody who had done work for him a month or two before and might possibly do so again, though he was not actually at the time doing such work.

No use has been made of provisions 3 and 4. The ordinary procedure under the Public Health Act usually enables unwholesome premises to be made sanitary in less than a month, and no difficulty is found in obtaining the removal to hospital, or effectual isolation, of cases of infectious disease. The difficulty is to insure the detection and early notification of such diseases.

Miss Middlebrooke, who has visited the Homeworkers during the past two years, reports that the homes of those workers are

on the whole decidedly better than the average working-class home as regards sanitation and comfort. She did not make any particular enquiry into the matter, but no instances of sweating or any breach of the Truck Acts came to her notice. The question arises whether it would be proper for her to systematically make enquiries on this subject. Certainly this would be going outside her strict statutory duties, but unless systematic enquiries are made it does not seem likely that any assistance could be given in detecting sweating or breaches of the Truck Acts. My own experience in this district is that homework is generally taken in by the more thrifty members of families who seek in this way to increase the family income, and on account of their thriftiness keep their homes in a more wholesome condition than the average of their class. House-to-house inspection probably has been carried out more thoroughly in this Borough than in most other districts, and this may possibly account for the few nuisances which are met with; but, in view of the figures given above, it certainly seems a question whether the time of the Inspector is well occupied in visiting the homes of outworkers, for all the nuisances discovered would be discovered in the ordinary course of house-to-house inspection.

Altogether I am of opinion that sanitation of homeworkers is best and most economically obtained by frequent house-to-house inspection, and that the prevention of sweating and breaches of the Truck Acts must be prevented by some means other than those at present provided by the Factory and Workshop Act, 1901.

BAKEHOUSES.

39. The number of bakehouses on the register is now 56. They were all inspected twice. In my personal inspections, I found all but seven satisfactory; in these the defects were chiefly, dirty floors, walls, and mixing-boards. These were remedied on service of notice. Three above floor, and one underground were closed, and one underground, previously certified, was re-opened.

Ice-Cream Shops.

40. Sixty-eight Ice-cream shops were on the register at the close of the year, compared with 64, 83, and 87 in the three previous years. There were 224 inspections made, and eight notices served. Regulations embodying the provisions for ice-cream shops contained in the London County Council General Powers Act are distributed at every shop on the register.

Disinfection.

41. The mode of disinfection, cost of appliances, staff, etc. were fully described in my Annual Report, 1903, pages 73-76.

Rooms at 987 houses were disinfected, compared with 744, 842, and 910 in the three preceding years. The disinfecting apparatus was used 831 times for articles from 812 houses. 149 books from the Free Libraries were disinfected.

The sum of £2 10s. 9d. was received for disinfection of rooms in special cases on request of the occupier.

Health Shelter.

42. The Health Shelter was twice used, once during disinfection and once for four children, who had been exposed to the infection of scarlet fever, before their admission to the workhouse. On the report of the Health Committee, the Establishment Committee considered the advisability of letting one of the two flats, but no action was decided on. The Shelter had not been used previously for more than three years.

The Mortuaries.

43. The Sun Street mortuary was used for 162 bodies compared with 183, 164, and 190 in the three preceding years. 135 were deposited for inquest, and 27 for custody. Ninety post-mortem examinations were made. One body was deposited in the infectious mortuary, compared with one in 1905. The Eltham Mortuary was used for 4 bodies brought for custody only.

CEMETERIES.

44. The two Borough Cemeteries were well-maintained as usual. 669 bodies were buried in the Woolwich Cemetery compared with 663, 690, and 611 in the three previous years.

There were 745 interments in the Plumstead Cemetery compared with 817, 694, 789, in the three previous years. 60 Burials took place in Plumstead Churchyard, compared with 164, 144, 125, 115, 123 and 62 in the six preceding years.

This marked reduction is satisfactory, and indicates that the regulation as to burying only near relatives of those already interred in the Churchyard is now being carried out.

CLEANSING OF PERSONS ACT.

45. A small station, containing one bath was erected during the year under the Cleansing of Persons Act. It is situated adjoining the disinfecting station, under the roadway leading to the Dust Destructor tips. It consists of two chambers, an outer one into which the external door opens, and an inner, which contains the bath. The outer room measures 8 ft. by 6 ft. 8 in. by 10 feet high; and the inner 8 ft. by 6 ft. by 10 ft. high. The outer room has a pigeon-hole communicating with the disinfecting chamber, and the bath-room has another hole opening to the exterior The bath is made of glazed porcelain, and is supplied with cold water and with steam from the Destructor; the entry of these is controlled by a Doulton's mixing-valve.

The bather, having undressed in the outer chamber, passes his garments through the pigeon-hole to the disinfector, and enters the bath. After emerging, he received the clothes again, disinfected, through the outer pigeon-hole. A dressing-gown of cotton towelling is provided to be worn while waiting for the clothes. The bath was opened in November, and 19 persons made use of it before the close of the year. The cost of the erection and fitting of the station was £180 2s. 4d. Notices directing

attention to the existence and situation of the station were printed and distributed to keepers of Common Lodging-houses, and to the Poor Law Officers, and tickets of introduction have been issued to these, and to the masters and mistresses of the primary schools. The persons using the bath are chiefly tramps from Common Lodging-houses and school children.

Tents, Vans and Sheds.

46. During the year, 22 tents, vans, and sheds were inspected, and no notices served.

Infants' Milk Depot.

47. In 1905, Woolwich promoted a Bill, which, among other things, authorised the Borough Council to establish, maintain, manage and carry on a depôt for the sale of sterilised and humanized milk for infants under 2 years of age; the depôt to be subject to the medical supervision of the Medical Officer of Health, and carried on in accordance with regulations to be approved by the Local Government Board. The Council have lost little time in using the powers thus conferred upon them, and, as soon as the offices used by the Council in Maxey Road were vacated on the opening of the new Town Hall, a part of them was set apart for a Milk Depôt.

This was re-constructed at a cost of £443 7s. 3d., and opened on the 5th of November. The fittings, apparatus, bottles, delivery cart, etc,, cost £179 1s. 8d.

The object of the Infants' Milk Depôt is not to supplant natural feeding, but to provide the only satisfactory substitute for this to children who cannot be fed by their own mothers. Every effort is made to encourage breast-feeding and prevent the Depôt milk being used for children who can be naturally fed.

The motto of the first Depôt, at Fècamp, is "Faute de Mieux;" that of the Woolwich Depôt is "Second Best" to mother's milk.

Further, the object of the Depôt is not to compete with the milk trade. The Act under which the Depôt is established prevents the sale of milk for use by any but children under 2 years of age, and the milk is chiefly intended for children under 12 months of age, though, no doubt, many children from 1 to 2 may use it with advantage. The working-classes, of whom the great bulk of the population consists, are entirely unable to pay the trade charges for modified milk. At present, about half the infants in the Borough, who do not have the breast, are fed on condensed milk. It is thus seen there will be practically no competition with the trade in fresh milk. The Depôt seeks to supply pure modified milk free from germs, at the same price as ordinary milk; no trader can do this.

It follows that the Depôt will not and cannot be a paying concern, but as the number of its customers is necessarily limited, it cannot, on the other hand, appreciably increase the Borough Rates, and the small additional charge on these will be amply compensated by the gain in human life.

The Depôt consists of a small shop with counter where the customers are supplied with the milk; a large room in which are carried out the processes of Pasteurization, cooling and bottle washing; and a dairy where the milk is tested and modified, and the bottles filled. The boiler is situated in a small separate room, and another room is used for weighing babies, in order to see if they are making satisfactory progress, and if the milk supplied is suitable for them. All these rooms are on the ground floor and communicate with each other. The walls and floor of the shop, working-room and dairy consist throughout either of cement, concrete, or tiles, and are thus capable of being thoroughly washed at any time with water. The walls of the dairy are tiled throughout, but in the other rooms the tiles only reach to a height of about 6 feet, the upper part of the walls being of cement, painted over. Any water falling on the floor passes swiftly, by channels, to the outside, where it discharges over a properly disconnected gully.

The rooms are well lighted and ventilated, but at the same time are carefully protected from the entrance of dust.

The Dairy has marble benches. An "Alfa-Laval" separator is used for separating the additional cream required. Milk on arrival is carefully strained through a "Ulax" strainer. Milk, on receipt, is tested by a "Gerber," tester.

The Milk is brought from a farm in a special form of churn which protects it from contamination during transit. The milk is obtained from a farm in the Borough, situated on high ground, near Chislehurst, which is frequently inspected by the Council's Inspectors and Medical Officer of Health.

The cows are out in the fields most of the year; the cowsheds are supplied with Kent water, well ventilated and lighted, well paved and carefully cleansed; the men's hands are washed before milking, and the cows' hind quarters and tails kept clipped.

The farm has been recently re-drained under the supervision of the Public Health Department.

The cows are inspected twice yearly by a Veterinary Inspector employed by the London County Council. In this and other ways, precautions will be taken to insure the milk being as pure as possible.

The milk is not sterilized unless during hot weather. It is Pasteurized, *i.e.*, raised to a temperature of 170 degrees for 15 minutes. Such a temperature kills harmful microbes, and yet the physical changes in the milk are practically nil, and the temperature remains far below boiling point.

Arrangements have been made for delivering the milk, which constitutes a new departure in municipal milk-depôts. The Public Health Committee considered that the large extent of the Borough, stretching as it does 7 miles in one direction and $3\frac{1}{2}$ in another, made it necessary either to have several distributing stations or to deliver the milk from house to house, For various

reasons distributing-stations are unsatisfactory, so it was decided to provide a horse and cart to take the milk round to all who are willing to pay a small extra charge.

Most of the babies are brought fortnightly to be weighed, their progress tested, and the suitability of the milk confirmed or otherwise.

A full account of the Depôt, its objects, the modifications used, conditions of milk-contract, and directions for the use of the milk, was ordered by the Health Committee to be printed, and can be obtained on application.

Numerically, the Depôt has been a great success. 125 children are being fed daily at the present time, July, and the numbers are steadily increasing.

The great majority have the milk delivered. The customers are, with very few exceptions, the weekly-wage earning classes, and represent the poorest wage earners as much as the better paid. It is too soon to speak of results, except to say generally that these are very satisfactory.

Staff.—The staff of the Depôt consists of a Manageress (Miss Petty), two female assistants, and a man who delivers the milk and assists with the boiler, etc.

Public Ambulance.

48. The public ambulance for accidents, and non-infectious illness was used 104 times compared with 90, 97, and 110 times in the three preceding years. The following were the journeys made:—

To Guy's Hospital	... 25	To London Hospital	... 14
,, Cottage ,,	... 12	,, Charing Cross	... 9
,, Seamen's & Miller	... 6	,, Union Infirmary	... 1
,, King's Hospital	... 10	,, Other Hospitals	... 10
,, St. Thomas's	... 7	,, Private Houses	... 10

Particulars as to this Ambulance were given in my Annual Report 1903, page 78. The Ambulance is kept in good repair.

Notices and Prosecutions

Under the Public Health (London) Act, 1901.

50. 2902 written intimation notices and 472 statutory notices were served. 82 of the latter, not having been complied with in the time specified, were referred to the Town Clerk, who, before taking proceedings, wrote a warning letter in each case. Finally, 10 defaulters were summoned at the Police Court, and convictions obtained in every case. Fines amounting to £13 were inflicted, and £3 13s. 6d. costs.

Bacteriological Examinations.

51. 909 Bacteriological Examinations were made for the Public Health Department by the Lister Institute, and 128 by the Royal Institute of Public Health, viz.: 889 for diphtheria, 128 for phthisis, and 20 for enteric fever. The total cost was £153 1s. 8d.

Female Sanitary Inspectors' Work.

52. The following is a summary of Miss Middlebrooke's work for the 12 months.

Houses Let in Lodgings.

Total number on register	307.
Number of Inspections	520.
,, of Re-Inspections (estimated) ...	1495.
,, found satisfactory	105.
,, of Intimation Notices served	316.
,, of Statutory Notices served	131.
,, of defects remedied	825.
,, of newly-registered houses measured	40.
,, of cases of overcrowding remedied by redistribution without notice ...	14.
,, of cases referred to District Inspectors	6.

Notices.	Served.	Remedied.
On landlords for cleansing	210	210
„ tenants for cleansing	60	60
„ landlords for overcrowding	7	7
„ tenants for overcrowding	39	39
„ landlords and tenants for other defects	460	460
„ landlords to provide dustbins ...	35	35

Women's Lavatories at Railway Stations, &c.

Number of Inspections	32.
„ found defective or dirty	7.
„ of notices served	5.
„ of houses revisited *re* phthisis ...	135.
„ „ visited *re* infant feeding ...	935.
„ „ revisited „ „ ...	510.
„ „ visited *re* zymotic enteritis ...	80.
„ „ revisited „ „ ...	35.
„ „ visited for other causes ...	70.

Factories and Workshops.

Number of Inspections of Factories	10.
„ „ „ Workshops	95.
„ Intimation Notices served	22.
„ Statutory „ „	6.
„ cases referred to District Inspectors	2.
„ new work-rooms measured	20.

Homeworkers' Premises.

Number of Inspections, October, November and December	164.
„ of cases referred to District Inspectors	11.

Restaurants and Eating Houses.

Number of Inspections	26.
„ found defective or dirty	14.
„ of Notices served	7.

The following is Miss Fitz-Gerald's report from August 13th to to December 31st :

Visits to houses after notification of births ...	667.
Revisits	200.
Visits to houses *re* zymotic enteritis ...	274.
Revisits	78.
Visits after infant deaths	31.
Visits to houses *re* phthisis	28.
,, ,, ,, measles	32.
,, ,, ,, Depôt-fed infants ...	6.
Special visits	22.
Defects referred to District Inspectors ...	30.

Miss Fitz-Gerald adds the following observations :—

"In visiting the homes after the notification of births, all the information obtained relative to the condition, feeding, clothing, surroundings, parentage, etc., of the infants, is carefully recorded by means of the card-index. The facts thus recorded should, in the course of some few years, yield valuable statistical information relating to the infant-life of the Borough. The card-index having only been in use during the part of the year under review, there are no detailed statistics available. It is, however, possible to give a summary of the observations made in the course of health-visiting amongst infants and to indicate some of the chief factors influencing the infant mortality-rate which are met with day by day in the course of practical work.

"The causes of infant-mortality (with which are included the causes prejudicing the health and vigour of the survivors) so far as they come within the range of the practical preventive work of the health-visitor may be broadly summarised as ignorance, apathy, poverty, alcoholism, and wilful neglect. It is difficult to distinguish between apathy and ignorance. What appears to be apathy on the mother's part is often at bottom a profound ignorance of the meaning of symptoms, which tell their tale plainly

enough to the experienced observer. Imminent danger of death, and illness acute enough to require the doctor, they understand ; all conditions short of this they would class as healthy, or to use a favourite term, "wiry." Many hundreds of pallid, rickety, children have been pointed out to me by proudly complacent mothers as "wiry." One of the first things to be aimed at in practical work is the implanting in the mother's mind of some standard of what constitutes a healthy vigorous state.

"Extreme poverty has obviously an adverse influence on infant-life. Its effect on nursing-mothers is not easily estimated, but it seems probable that the mental anxiety consequent upon extreme poverty, as much as the actual underfeeding of the mother inhibits the supply of breast-milk.

"Wilful neglect is rare, and apart from alcoholism, probably non-existent.

"Coming to details of practical preventive work, the points upon which one concentrates attention are the feeding, clothing, and surroundings of the child. With regard to the last point (the surroundings), a visit with respect to the baby is always, where necessary, made the occasion for giving some instruction in the hygiene of the home generally.

"With regard to feeding, every effort is made to encourage breast-feeding, but this means more than merely pointing out the advantages of breast-milk over artificial food ; it means being on the alert for, and preventing in time, those errors in the management of the breast-fed infant which if persisted in, lead to weaning in the belief that the milk "does not suit," or supplementing an abundant supply of breast-milk with artificial food in the belief that the milk "does not satisfy." The commonest error in breast-feeding is over-feeding : the breast-fed child is far more frequently over-fed than the hand-fed child ; the trouble incident to preparing the food for the latter acting as a deterrent. The commonest answer to "How often do you feed your baby?" is

"Whenever he cries." All crying on the baby's part is interpreted as due to hunger. The fact that the baby may cry through inability to digest his last meal is not recognised; he is accordingly put to the breast again, with the result that he cries still more. After a time, in addition to an excess of breast-feeding, the mother resorts to biscuits or breadsop "to pacify him." It is quite usual to find the mother of a three or four weeks old baby, giving, in addition to a plentiful supply of breast-milk, bread, biscuits, or some other pernicious substance. These cases give one considerable trouble. I always find that the best way to deal with them is to make the mother demonstrate her error to herself. Having assured her that the baby cannot starve, I ask her to try the experiment of absolutely regular breast-feeding, and no artificial food, whatever, for a few days. On re-visiting on the appointed day, I almost invariably find that the experiment has been honestly tried, that the baby is satisfied, and contented, and that the mother is now persuaded that breast-milk alone is sufficient.

"I have no doubt whatever, that not only are a large number of breast-fed babies given unnecessary artificial food, but many are entirely weaned under the mistaken impression that the mother's milk does not suit them, when all that was needed was proper regularity in feeding, or possibly some attention to the mother's health, to have enabled suckling to have been carried on successfully for the normal period.

"With regard to the hand-fed child, the chief errors one finds made are giving food wrong in kind (*i.e.*, such substances as are unfit for infants), and food *right in kind*, but improperly stored, prepared, or administered; an example of this last is cow's milk, which one not infrequently finds stored in uncleanly jugs, exposed to flies and dust, mixed in the wrong proportions and administered through a foul tube bottle. Apart from such an extreme instance of the mis-management of cow's milk, there is no doubt whatever that women of the poorer classes have great difficulty, not only in

purchasing milk of sufficient purity for their infants, but also in storing it properly at home, although they may be exceedingly careful in mixing it in proper proportions and in administering it through tubeless bottles. Every woman unable to suckle her infant is, when visited, strongly urged to avail herself of the properly modified milk from the Borough Council's Depôt.

"Turning to the subject of clothing, it is the rarest thing to find young infants hygienically clad, and properly protected against cold. The clothing is distributed in a manner truly ridiculous. While from the arm-pits downwards they are encased in a species of bag acting as a vapour-bath, the upper part of the chest and back, and the whole of the arms are merely covered in a thin cotton substance. This practice obtains amongst the more well-to-do who are able to buy woollen clothing for their babies. Amongst the poorer classes, the babies' clothing is generally deficient owing to lack of means to purchase more, and flannellette is substituted for flannel; but even here, the distribution of clothing follows the same ridiculous order; what there is being arranged about the lower part of the baby's body, while the rest goes unprotected. There can be little doubt that errors in clothing have a considerable influence upon the high mortality amongst infants from respiratory diseases. Exposure too, plays its part here; babies are taken from hot kitchens where they have been kept in a semi-smothered state in cots or cradles and are carried in their mother's arms to the street-door and kept there without additional clothing on the coldest days in winter, their unprotected bald heads exposed to the winds, while the mother indulges in a gossip with the neighbour next door or bargains with a hawker. It is exceedingly difficult to impress upon the women the dangers of this practice, and to instil into their minds the fact that a baby requires to be kept at an equable temperature.

"In addition to the foregoing, the administration of drugs, soothing syrups, and teething-powders, danger of sleeping in the

same bed with parents, use of comforters, are matters calling for warning and advice; and the need for cleanliness of the baby's clothing and person has often to be insisted upon.

"I should like to lay stress upon the need for re-visiting.

"A printed card of directions for infant-feeding is, as a matter of routine, left on the occasion of every visit; but there is needed, as well, the verbal advice calculated to meet the individual need. It is not always, on the first visit, easy to ascertain how much the mother knows, and how much she needs to be told. One has first of all to make her acquaintance, then ask a considerable number of questions the answers to which are needed for statistical purposes, and then to feel one's way towards the best method of imparting information. First visits often fail in their due effect just because of the difficulty in getting exactly the right kind of sympathetic contact.

"My visits are almost invariably well received; the exceptions are so few as to be really a negligible quantity. Amongst the younger women there is a very genuine desire for information, together with an intelligent appreciation of the fact that they have a good deal to learn. As soon as visiting after the notification of the birth of a child becomes the rule in any district, it seems to be taken as a matter of course and to be looked for. It is not, perhaps, too much to hope that from this beginning—this acquiescence in being instructed—may develop the general conviction, that child-rearing is a difficult art, requiring special knowledge and definite preparation."

DISINFECTANTS.

Disinfectants are supplied by the Department for disinfecting infected soiled linen, infected stools, sputa in phthisis, for personal use in infectious disease. They are dispensed at the Maxey Road

Offices; the Sun Street Mortuary; 18, Barge House Road, North Woolwich; and the Eltham Office, 112, High Street. The cost of the disinfectants used by the Department in 1906 was £25 15s.

The disinfectants used were Jeyes' Soap, Corrosive Sublimate, Formalin Tablets (for fumigation); Formaldehyde (for spraying and disinfecting books); Cyllin (for sputa in phthisis); Permanganate of Potash; coarse Carbolic (for dust-pails), and Chloride of Lime (for offal-tins, etc).

Public Conferences.

You appointed me your representative at the Congress of the Royal Sanitary Institute at Bristol; the Conference on Infantile Mortality, in London (with Councillor Hall), and the Conference on Milk Warranties (with the Town Clerk and Chief Inspector). Full reports on these were presented at the time.

New Office for Eltham.

The Eltham Sanitary Inspector's Office, at Eltham Green, was very out of the way for the Inspector, and for callers. The new Town Hall, too, is much nearer to Eltham than the Maxey Road Offices. Accordingly, it was arranged that the Eltham Inspector should use the same office as the other Inspectors, but for complaints, and issue of disinfectants, arrangements were made with the occupier of 112, High Street, Eltham, to take messages, give out disinfectants, and provide a room for the Inspector to call at daily and see visitors by appointment.

Public Health Staff.

Mr. T. Dee having resigned on obtaining a more highly paid appointment at Stepney, it was decided not to replace him by a District Inspector, but to re-arrange the districts (see page 3) and

appoint an additional female Inspector to devote her time largely to health-visiting, especially with respect to infant-rearing. Miss Fitz-Gerald, who had done good work at Derby, was appointed from among 34 applicants, and began her duties on the 13th of August, 1906.

Mr. Deans having resigned, Mr. G. H. Triggs (of Birkenhead) was appointed out of 156 applicants, as 3rd Class Clerk, to succeed him, and also to take over the duties of Rent Collector in connection with the Council's North Woolwich houses, previously performed by Mr. Eccles, of the Town Clerk's Department. He commenced his duties on the 18th of April, 1906. H. M. Collyer was appointed as Boy Clerk out of 33 applicants, and commenced work on March 15th, 1906.

I am, Gentlemen,

Your obedient Servant,

SIDNEY DAVIES.

TABLE I.

Borough of Woolwich.

Vital Statistics of whole District during 1906 and previous Years.

Year.	Population estimated to middle of each year.	Births.		Total Deaths Registered in the District.				Total Deaths in Public Institutions in the District.	Deaths of Non-Residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	Nett Deaths at all ages belonging to the District.	
				Under 1 Year of Age.		At all Ages.						
		Number.	Rate.*	Number.	Rate per 1,000 Births Registd.	Number.	Rate.*				Number.	Rate.*
1	2	3	4	5	6	7	8	9	10	11	12	13
1896	106840	3363	31·5	508	151	...	...	...	...	...	1878	17·5
1897	108611	3406	31·3	455	133	...	...	...	...	...	1642	15·1
1898	110273	3269	29·6	472	144	...	...	...	...	...	1935	17·5
1899	113148	3367	29·8	534	158	...	...	...	...	...	1889	16·6
1900	115498	3303	28·6	469	142	...	...	...	...	...	2057	17·8
1901	117740	3535	30·0	455	128	1600	13·6	433	42	164	1722	14·6
1902	122505	3730	29·9	462	124	1678	13·7	278	43	208	1843	14·7
1903	123172	3691	30·0	390	106	1511	12·3	272	41	175	1637	13·3
1904	125791	3531	28·1	466	132	1636	13·0	261	40	169	1765	14·0
1905	125885	3549	28·2	364	103	1463	...	313	50	192	1605	12·7
Average for years 1896 to 1905	116946	3474	29·7	457	132	...	...	...	...	...	1797	15·4
1906	127345	3524	27·7	391	111	1530	...	293	48	183	1666	13·1

* Rates in Columns 4, 8 and 13 calculated per 1,000 of estimated population.

Note.—The deaths included in Column 7 of this Table are the whole of those registered during the year as having actually occurred within the district or division. The deaths to be included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term "Non-residents" is meant persons brought into the district on account of sickness or infirmity and dying in public institutions there; and by the term "Residents" is meant persons who have been taken out of the district on account of sickness or infirmity and have died in public institutions elsewhere.

The "Public Institutions" taken into account for the purposes of these Tables are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses and lunatic asylums.

Area of District in acres (exclusive of area covered by water)	8239·7	Total Population at all ages ...	117,178 (At Census of 1901.)
		Number of inhabited houses ...	18,086 (At Census of 1901.)
		Average number of persons per house	6·47 (At Census of 1901.)

TABLE 1A.

I. Institutions within the District receiving Sick and Infirm Persons from outside the District.	II. Institutions outside the District receiving Sick and Infirm Persons from the District.
Woolwich Union Infirmary	Lewisham Infirmary
Royal Arsenal Hospital	Herbert Hospital
Auxiliary Hospital	Blackheath Cottage Hospital
Woolwich and Plumstead Cottage Hospital	Seamen's Hospital
Eltham Cottage Hospital	Brook do
Home for Mothers and Babies	Park do
	Gore Farm do
	Guy's do
	King's College Hospital
	London do
	St. Bartholomew's Hospital
	Charing Cross Hospital
	Westminster do
	St. Thomas's do
	East London do
	Poplar do
	St. Peter's do
	St. John's, Lewisham, Hospital
	Children's do
	West London do
	Fulham Road Consumption do
	Ear and Nose Hospital
	Brompton do
	Bethnal Green do
	Cane Hill Asylum
	Dartford Heath Asylum
	Colney Hatch do
	Claybury do
	Tooting Bec do
	Darenth do
	Caterham do
	Stone do
	Banstead do
	Horton do
	Hostel of God do

TABLE II.

Vital Statistics of Separate Localities, 1901-2-3-4-5-6.

Increase of Population since 1901 Census, estimated by number of new houses occupied, and number of persons to a house in the Parish.

Wards.	1901.				1902.				1903.				1904.				1905.				1906.			
	Population estimated to middle of year.	Births Registered.	Deaths at all ages.	Deaths under 1 Year.	Population estimated to middle of year.	Births Registered.	Deaths at all ages.	Deaths under 1 Year.	Population estimated to middle of year.	Births Registered.	Deaths at all ages.	Deaths under 1 Year.	Population estimated to middle of year.	Births Registered.	Deaths at all ages.	Deaths under 1 Year.	Population estimated to middle of year.	Births Registered.	Deaths at all ages.	Deaths under 1 Year.	Population estimated to middle of year.	Births Registered.	Deaths at all ages.	Deaths under 1 year.
Dockyard ...	8712	282	137	40	8712	286	146	28	8712	275	141	28	8712	286	159	39	8712	326	140	33	8712	244	146	37
St. Mary's ...	10439	203	122	25	10439	226	149	30	10439	222	147	39	9788	184	121	35	9788	174	104	21	9788	209	98	26
River { N.	14504	416	292	66	N. 3450	135	66	26	3450	140	50	16	3991	155	71	30	3991	141	72	31	3991	135	62	19
River { S.					S.11444	293	219	32	11444	277	205	43	11405	237	193	37	11405	247	190	33	11405	296	214	55
St. George's ...	8078	298	151	35	8078	284	135	36	8078	303	136	39	8078	321	143	48	8078	297	116	31	8078	283	103	25
Burrage ...	9837	253	133	24	9837	228	154	28	9837	235	133	17	9726	219	123	23	9726	217	119	17	9726	201	140	27
Herbert ...	9195	240	104	22	9679	261	129	28	9679	261	94	21	9893	220	98	20	9893	245	100	19	10034	241	106	17
St. Margaret's	10193	325	120	42	11826	448	163	50	11826	399	166	38	12337	388	161	35	12337	423	151	31	12975	436	145	34
Central ...	10220	299	142	36	10263	341	138	46	10263	276	99	26	10228	267	87	24	10228	233	99	20	10061	248	102	20
Glyndon ...	9829	319	140	30	9882	287	146	34	9882	313	144	33	9609	291	165	42	9609	290	145	21	9609	272	145	32
St. Nicholas ...	20239	737	265	106	22985	698	312	106	22985	731	235	71	21031	685	319	114	21031	667	257	80	22274	693	282	74
Eltham ...	7787	177	108	26	10002	243	85	23	10669	258	87	19	11153	278	123	28	11617	291	112	23	11919	266	123	25

TABLE III.

Cases of Infectious Diseases Notified during the Year 1906.

Notifiable Diseases.	Cases Notified in Whole District.							Total Cases Notified in each Locality.												No. of Cases of Mistaken Diagnosis. (included in preceding figures).	Cases Removed to Hospital.
	All Ages.	Age—Periods.						River.		Dockyard.	St. Mary's.	St. George's.	Burrage.	St. Margaret's	Herbert.	Glyndon.	Central.	St. Nicholas.	Eltham.		
		Under 1	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.	North.	South.												
Small Pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria ...	387	3	78	173	61	71	1	7	30	43	19	38	25	28	21	29	12	54	81	31	260
Membraneous Croup ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas ...	97	5	8	6	6	62	10	...	6	4	3	3	5	13	2	12	9	31	9	...	...
Scarlet Fever	528	5	149	308	42	24	...	18	33	52	19	31	29	39	32	59	52	107	57	12	411
Typhus ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...
Enteric ...	40	...	2	6	13	19	...	4	3	6	2	1	2	3	1	...	4	11	3	11	28
Relapsing ...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal ...	8	...	...	...	5	3	...	1	1	1	...	1	...	1	1	...	...	2	...	...	...
Plague ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
																				...	...
Totals ...	1060	13	237	493	127	179	11	30	73	106	43	74	61	84	57	100	77	205	150	54	699

TABLE IV.—Causes of, and Ages at Death during the Year 1906.

Disease.	Deaths in or belonging to whole District at subjoined ages.															
	All Ages.	Males.	Females.	Under 1.	1 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 25.	25 to 35.	35 to 45.	45 to 55.	55 to 65.	65 to 75.	75 to 85.	Over 85.
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	31	16	15	7	21	3	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	5	4	1	...	3	2	...	...	...	...	...	...	...	...	...	...
Typhus Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Epidemic Influenza	33	16	17	1	...	1	...	1	1	1	2	6	4	9	5	2
Whooping Cough	21	8	13	10	9	2	...	...	...	...	...	...	...	...	...	...
Diphtheria and Membranous Croup	22	8	14	...	9	13	...	...	...	...	...	...	...	...	...	...
Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	8	4	4	...	1	...	...	1	2	1	1	2	...	...	...	...
Asiatic Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa and Dysentry	33	16	17	21	3	...	...	...	...	1	2	...	...	3	2	1
Epidemic or Zymotic Enteritis	70	41	29	61	8	...	...	...	...	...	...	...	1	...	...	...
Enteritis	18	10	8	11	...	1	...	1	...	...	...	...	3	1	...	1
Other Continued Fevers	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	3	2	1	...	...	...	...	...	...	1	1	...	...	1	...	...
Puerperal Fever	2	...	2	...	..	...	...	...	...	1	1	...	...	...	...	...
Other Septic Diseases	15	9	6	6	1	1	...	...	...	4	...	...	1	1	1	...
Syphilis	10	9	1	6	...	1	...	...	...	...	2	...	1	...	...	...
Rheumatism	15	8	7	...	...	1	3	1	1	2	2	3	2	...	...	...
Gout	3	3	...	...	...	...	...	...	...	...	...	...	1	2	...	...
Intermittent Fever and Malarial Cachexia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculosis of Meninges	22	13	9	5	13	1	1	1	...	...	1	...	...	...	...	...
Tuberculosis of Lungs (Phthisis)	164	97	67	3	2	1	4	7	17	42	27	41	9	11	...	...
Tuberculosis of Intestines and Peritoneum	14	6	8	5	3	2	1	1	1	...	1	...	...	...	...	...
Other forms of Tuberculosis	21	13	8	1	7	4	2	1	1	2	...	2	...	1	...	...
Alcoholism	3	2	1	...	...	...	...	...	...	...	...	2	1	...	...	...
Cancer	115	59	56	...	...	1	1	...	1	6	13	17	31	36	7	2
Diabetes	11	4	7	...	...	...	...	1	...	2	2	4	...	...	2	...
Premature Birth	91	48	43	91	...	...	...	...	...	...	...	...	...	...	...	...
Developmental Diseases	68	41	27	63	4	...	...	...	...	1	...	...	...	...	...	...
Old Age	72	32	40	...	...	...	...	...	...	...	...	...	2	14	35	21
Meningitis	15	8	7	5	5	...	1	2	...	2	...	...	...	...	...	...
Inflammation and Softening of Brain	4	1	3	...	1	...	...	...	...	...	...	1	...	2	...	...
Epilepsy	5	3	2	...	...	...	...	...	...	1	2	1	...	1	...	...
General Paralysis	12	9	3	...	...	...	...	...	1	2	7	...	2	...	...	...
Tabes Dorsalis and Locomotor-Ataxia	2	1	1	...	...	...	...	...	...	...	...	...	2	...	...	...
Peripheral Neuritis	1	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Other Diseases of Brain and Nervous System	55	31	24	23	2	2	1	1	...	2	2	2	3	11	6	...
Organic Diseases of the Heart	134	71	63	1	...	2	4	3	4	4	22	23	33	22	15	1
Cerebral Hæmorrhage, Embolism and Thrombosis	41	20	21	...	...	...	1	...	1	...	1	7	16	10	4	1
Apoplexy and Hemiplegia	13	6	7	...	...	...	...	...	...	...	..	...	2	4	7	...
Other Diseases of Blood Vessels and Heart	28	16	12	1	...	2	...	...	...	2	4	2	5	9	3	...
Acute Bronchitis	78	40	38	33	11	1	...	...	...	1	1	1	4	6	16	4
Chronic Bronchitis	64	22	42	...	...	...	...	...	...	1	1	5	15	24	15	3
Lobar (Croupous) Pneumonia	12	6	6	...	1	...	...	...	...	1	2	2	3	3	...	...
Lobular (Broncho) Pneumonia	42	22	20	8	20	2	...	1	...	1	1	2	2	5	...	...
Pneumonia	69	44	25	10	4	3	...	2	2	6	11	9	10	11	1	...
Other Diseases of Respiratory System	12	9	3	...	4	...	...	...	...	3	1	3	1	...	...	...
Diseases of Stomach	15	9	6	4	1	...	1	...	...	3	3	1	...	...	1	1
Obstruction of Intestines	7	5	2	1	...	...	...	...	...	1	1	2	...	2	...	...
Cirrhosis of Liver	17	8	9	...	...	...	...	...	...	...	2	6	7	2	...	...
Other Diseases of the Digestive System	18	13	5	2	1	1	1	...	...	4	3	3	2	...	1	...
Nephritis and Bright's Disease	52	28	24	1	...	...	2	3	1	3	6	11	13	10	2	...
Tumours and other Affections of Female Genital Organs	3	...	3	...	...	...	...	...	...	...	...	1	2	...	...	...
Accidents and Diseases of Parturition	7	...	7	...	...	...	...	1	...	2	4	...	...	...	...	...
Deaths by Accidents or Negligence	37	28	29	7	3	1	...	1	4	4	3	8	2	1	3	...
Deaths by Suicide or Homicide	15	13	2	2	...	...	...	...	...	1	4	3	4	1	...	...
Deaths from ill-defined causes	13	4	9	3	2	...	...	...	1	...	1	...	3	1	1	1
All other Diseases	25	18	7	4	...	2	2	2	...	2	2	3	4	1	3	...
Totals	1666	905	761	396	139	50	25	31	38	110	139	174	191	205	130	38

TABLE IVA.

Disease.	Deaths in or belonging to Localities, at all ages in Wards.												Deaths in Public Institutions in the District.	Deaths in Outlying Institutions.
	River.		Dockyard.	St. Mary's.	St. George's.	St. Nicholas.	Central.	Glyndon.	St. Margaret's	Herbert.	Burrage.	Eltham.		
	North.	South.												
Small Pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	...	...	1	...	...	1	1	1	...	...	...	1	...	3
Measles	2	2	3	...	...	13	2	5	1	2	1	...	4	1
Typhus Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Epipemic Influenza	...	1	8	1	1	4	3	3	3	4	2	3	3	...
Whooping Cough	1	2	3	2	1	4	...	2	2	1	3	...	...	...
Diphtheria and Membranous Croup	2	5	3	1	1	2	2	1	...	...	...	5	1	16
Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	2	...	1	1	1	3	...	...	...	...	...	...	2	5
Asiastic Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa and Dysentery	2	9	...	2	3	4	2	3	3	2	2	1	1	4
Epidemic or Zymotic Enteritis	7	6	9	4	1	18	3	11	5	1	2	3	...	1
Enteritis	2	3	1	1	1	1	1	2	...	3	2	1	2	1
Other continued Fevers	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	...	1	...	...	...	1	...	1	...	...	...	...	...	...
Puerperal Fever	...	...	...	...	1	...	...	...	...	1	...	...	...	...
Spyhilis	...	6	1	2	...	...	...	...	1	...	...	...	4	1
Rheumatism	...	3	...	2	3	4	1	1	...	...	1	...	3	4
Gout	...	...	...	...	...	...	...	1	...	1	1	...	...	...
Other Septic Diseases	1	4	1	...	2	1	...	1	1	...	...	4	3	5
Intermittent Fever and Malaria Cachexia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculosis of Meninges	...	4	1	3	2	4	2	1	2	2	...	1	1	5
Tuberculosis of Lungs (Phthisis)	3	29	10	14	11	27	10	11	15	11	16	7	40	9
Tuberculosis of Intestines and Peritoneum	1	...	...	1	...	3	1	1	2	1	...	4	1	4
Other forms of Tuberculosis	2	4	1	3	...	3	1	2	2	...	2	1	2	4
Alchoholism	...	...	...	1	...	...	...	1	...	...	1	...	1	...
Cancer	4	13	9	2	8	15	11	11	9	11	15	7	22	15
Diabetes	...	...	1	...	1	4	...	...	2	1	1	1	3	...
Premature Births	5	14	10	5	8	16	6	3	9	2	7	6	4	...
Developmental Diseases	...	9	5	4	6	15	3	5	6	7	6	2	4	1
Old Age	1	7	9	2	3	7	6	6	9	4	11	7	22	8
Meningitis	1	...	1	1	2	6	...	1	...	1	2	...	2	2
Inflammation and Softening of Brain	1	...	...	...	...	1	...	...	1	...	...	1	3	1
Epilepsy	...	2	...	...	...	1	...	...	1	...	1	...	1	2
General Paralysis	1	1	2	...	...	1	...	1	2	2	2	...	...	9
Tabes Dorsalis (Locomotor Ataxia)	...	...	...	...	...	...	...	...	1	...	1	...	...	...
Peripheral Neuritis	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Other Diseases of Brain & Nervous System	1	7	5	5	4	4	4	5	6	2	5	7	6	8
Organic Diseases of the Heart	3	14	20	6	5	15	12	13	14	9	17	6	26	7
Cerebral Hæmorrhage, Embolism and Thrombosis	1	4	2	2	1	7	2	6	4	7	3	2	8	2
Apoplexy and Hemiplegia	...	1	1	2	1	1	1	...	2	1	2	1	2	...
Other Diseases of Blood Vessels and Heart	1	5	2	3	...	2	1	4	...	2	4	4	1	5
Acute Bronchitis	3	8	4	8	2	18	2	5	11	4	10	3	3	2
Chronic Bronchitis	1	7	3	4	2	12	7	8	5	6	5	4	21	1
Lobar (Croupous) Pneumonia	...	4	...	...	...	2	1	...	...	...	...	5	...	5
Lobular (Broncho) Pneumonia	3	5	5	2	4	5	...	5	2	2	4	5	...	5
Pneumonia	2	10	5	7	8	11	4	4	5	3	3	7	12	7
Other Diseases of Respiratory System	...	3	...	...	2	3	...	...	3	...	...	1	1	4
Diseases of Stomach	...	2	1	1	3	2	...	...	1	...	4	1	2	3
Obstruction of Intestines	...	1	...	...	...	2	1	...	...	...	...	3	2	2
Cirrhosis of Liver	3	1	2	1	2	4	...	1	2	1	...	...	4	3
Other Diseases of Digestive System	...	...	...	1	1	4	3	...	2	3	...	4	3	5
Nephritis and Bright's Disease	2	5	8	...	2	12	3	8	4	3	1	4	7	7
Tumours and other Affections of Female Genital Organs	...	1	1	...	...	...	...	...	...	...	1	...	...	...
Accidents and Diseases of Parturition	1	...	...	1	1	2	...	1	...	...	...	1	3	...
Deaths by Accidents or Negligence	2	3	4	...	5	6	1	4	6	1	2	3	9	6
Deaths by Suicide or Homicide	...	2	...	...	1	1	5	3	1	1	...	1	2	2
Deaths from Ill-Defined Causes	...	...	1	2	1	6	...	1	...	...	...	2	...	2
All other Diseases	1	5	2	1	2	4	...	2	...	4	...	4	3	7
Totals	62	214	146	98	103	282	102	145	145	106	140	123	244	184

TABLE IVB.

Infantile Mortality during the Year 1906.

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

Cause of Death.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under 1 Year.
All Causes—																	
Certified	87	23	26	10	146	31	25	21	26	20	26	18	21	22	12	21	389
Uncertified	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Common Infectious Diseases—																	
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	1	...	...	...	...	...	...	1	1	...	4	7
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria : Croup ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough ...	...	...	...	...	...	...	2	1	1	2	...	...	2	...	1	1	10
Diarrhœal Diseases—																	
Diarrhœa, all forms ...	...	...	1	2	3	3	7	6	4	8	9	10	10	9	4	8	81
Enteritis, Muco-enteritis, Gastro-enterits	...	...	1	1	2	1	...	2	1	...	1	1	1	1	1	...	11
Gastritis, Gastro-intestinal Catarrh	...	...	...	...	...	1	...	...	2	...	...	...	...	...	...	...	3
Wasting Diseases—																	
Premature Birth... ...	54	12	7	2	75	10	2	1	1	1	...	...	...	...	...	...	90
Congenital Defects ...	9	4	1	...	14	1	1	...	2	1	...	...	...	...	...	...	19
Injury at Birth	5	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	5
Want of Breast-milk, Starvation	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	2
Atrophy, Debility, Marasmus	8	4	6	2	20	4	4	2	4	1	1	...	1	1	...	...	38
Tuberculous Diseases—																	
Tubuculous Meningitis ...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	2	1	5
Tuberculous Peritonitis : Tabes Mesenterica	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	1	3
Other Tuberculous Diseases	...	...	...	...	...	...	2	...	...	...	...	...	...	2	1	1	6
Other Causes—																	
Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Syphilis	2	...	1	1	4	1	...	...	...	...	1	...	...	...	...	...	6
Rickets	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis (not Tuberculous)	...	...	...	...	...	...	...	2	1	...	...	1	1	...	...	...	5
Convulsions	5	...	1	...	6	1	...	1	3	2	7	1	...	2	...	...	23
Bronchitis	...	...	3	...	3	1	4	4	4	2	6	1	...	2	2	3	32
Layringitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia	...	...	1	1	2	1	2	2	1	2	...	2	4	2	...	...	18
Suffocation (overlaying) ...	1	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	2
Other Causes	3	3	4	1	11	4	1	...	...	1	1	1	...	1	1	2	23
	87	23	26	10	146	31	25	21	26	20	26	18	21	22	12	21	389

Population (estimated to middle of 1906) :—127,345. Births in the year :—Legitimate, 3,448 ; Illegitimate, 76.
Deaths in the year of :—Legitimate Infants, 368 ; Illegitimate Infants, 21.
Deaths from all Causes at all Ages, 1,666 nett.

TABLE V.

Rates per 1,000 Persons on the Population, estimated to the middle of the Year.

Year.	Small-pox.		Cholera.		Erysipelas.		Diphtheria and Membranous Croup.		Scarlet Fever.		Typhus Fever.		Enteric and Continued Fevers.		Relapsing Fever.		Puerperal Fever.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths
1891	0·01	..	..	..	0·58	0·05	0·51	0·08	1·52	0·04	0·01	..	0·37	0·06	..	..	0·15	0·03
1892	0·04	..	..	..	1·00	0·07	1.3	0·41	9·4	0·33	..	..	0·41	0·13	..	..	0·09	0·02
1893	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1894	0·35	0·03	..	..	0·96	0·04	1·7	0·56	7·8	0·42	..	..	0·47	0·11	..	.	0·04	0·03
1895	0·19	0·01	..	..	0·93	0·02	2·0	0·47	5·5	0·20	..	..	2·5	0·38	..	..	0·08	0·03
1896	0·03	..	..	..	1·03	0·04	2·8	0·87	5·0	0·24	..	..	0·62	0·07	..	..	0·03	0·01
1897	0·01	..	0·03	..	0·83	0·04	2·6	0·58	6·0	0·12	..	..	0·45	0·05	..	..	0 04	0·02
1898	..	..	0·02	..	0·86	0·02	2·2	0·31	5·7	0·16	..	..	0·52	0·11	..	..	0·09	0·08
1899	..	..	..	..	0·83	0·06	3·0	0·36	6·8	0·09	..	..	0·52	0·09	..	.	0·09	0·07
1900	0·01	..	..	..	0·91	0·05	3·1	0·27	3·9	0·09	..	..	0·59	0·10	..	..	0·06	0·01
1901	0·18	..	..	..	0·61	..	1·8	0·16	2·6	0·04	..	..	0·58	0·11	..	..	0·06	0·02
1902	1·82	0·30	..	..	0·78	0·01	1·87	0·18	2·14	0·06	..	..	0·40	0·10	..	..	0·09	0·05
1903	0·05	..	..	..	0·47	..	1·51	0·11	3·16	0·03	..	..	0·34	0·05	..	..	0·02	0·01
1904	0·05	..	..	..	0·59	0·03	1·30	0·23	3·75	0·13	..	..	0·19	0·05	..	..	0·04	0·02
1905	0·04	..	..	..	0·66	0·04	2·08	0·14	4·08	0·08	..	..	0·17	0·06	..	..	0·10	0·05
1906	..	..	..	..	0·76	0·02	2·80	0·17	4·14	0·04	..	..	0·22	0·06	..	..	0·06	0·02

NOTE.—Data for 1893 could not be obtained.

TABLE VI.

LONDON AND THE METROPOLITAN BOROUGHS—BIRTH RATES and DEATH RATES of persons belonging to London and the Metropolitan Boroughs during the 52 weeks of 1906.*

BOROUGHS AND CITIES.	PER 1,000 PERSONS LIVING.													Deaths under 1 year to 1,000 Births.
	Births.	Deaths from—												
		All Causes.*	Principal Epidemic Diseases.	Small Pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Typhus.	Enteric Fever.	† *Pyrexia* (origin uncertain).	Diarrhœa.	Phthisis.	
COUNTY OF LONDON	26·5	15·1	1·93	—	0·41	0·11	0·15	0·26	—	0·06	0·00	0·94	1·44	131
WEST DISTRICT.														
Paddington... ...	22·7	12·5	1·30	—	0·11	0·12	0·10	0·08	—	0·05	—	0·84	1·12	105
Kensington... ...	19·2	13·8	1·56	—	0·45	0·06	0·11	0·11	—	0·03	—	0·80	1·27	132
Hammersmith ...	25·9	14·8	2·13	—	0·47	0·12	0·22	0·16	—	0·07	—	1·09	1·25	138
Fulham	30·0	13·7	2·40	—	0·33	0·11	0·20	0·19	—	0·08	—	1·49	1·13	134
Chelsea	21·4	15·7	2·03	—	0·78	0·12	0·20	0·23	—	—	—	0·70	1·57	132
City of Westminster	17·2	12·9	0·84	—	0·10	0·08	0·09	0·13	—	0·03	0·01	0·40	1·39	110
NORTH DISTRICTS.														
St. Marylebone ...	21·2	14·9	1·28	—	0·37	0·11	0·09	0·09	—	0·02	—	0·60	1·56	117
Hampstead... ...	16·5	9·4	0·57	—	0·11	0·06	0·09	0·02	—	0·03	—	0·26	0·67	77
St. Pancras... ...	26·0	15·9	1·65	—	0·41	0·14	0·10	0·30	—	0·06	0·00	0·64	1·81	123
Islington	25·5	14·7	1·62	—	0·56	0·11	0·09	0·22	—	0·06	—	0·58	1·23	124
Stoke Newington ...	20·8	11·5	1·10	—	0·21	0·02	0·08	0·32	—	—	—	0·47	1·04	102
Hackney	24·7	13·3	1·58	—	0·28	0·10	0·09	0·17	—	0·06	—	0·88	1·30	119
CENTRAL DISTRICTS.														
Holborn	22·3	18·0	1·44	—	0·45	0·05	0·11	0·18	—	0·02	—	0·63	2·37	120
Finsbury	30·2	20·7	3·59	—	1·27	0·15	0·24	0·56	—	0·14	—	1·23	2·18	160
City of London ...	16·7	17·3	1·08	—	0·14	0·33	0·09	0·19	—	0·05	—	0·28	1·74	101
EAST DISTRICTS.														
Shoreditch	34·2	19·6	3·13	—	0·65	0·16	0·13	0·53	—	0·04	—	1·62	2·01	163
Bethnal Green ...	34·5	18·9	2·55	—	0·46	0·17	0·15	0·48	—	0·11	—	1·18	2·25	155
Stepney	35·3	17·7	2·74	—	0·57	0·12	0·20	0·34	—	0·08	—	1·43	1·72	134
Poplar	31·6	17·6	2·95	—	0·63	0·08	0·16	0·31	—	0·06	—	1·71	1·55	152
SOUTH DISTRICTS.														
Southwark	29·8	18·1	2·23	—	0·46	0·22	0·15	0·26	—	0·06	—	1·08	2·06	144
Bermondsey ...	31·8	19·7	2·94	—	0·73	0·23	0·26	0·40	—	0·03	—	1·29	2·01	153
Lambeth	26·3	15·0	1·69	—	0·24	0·09	0·16	0·23	—	0·07	0·00	0·90	1·37	131
Battersea	26·2	13·4	1·82	—	0·23	0·13	0·10	0·44	—	0·04	—	0·88	1·28	126
Wandsworth ...	26·4	12·8	1·60	—	0·24	0·07	0·18	0·22	—	0·06	—	0·83	1·01	121
Camberwell ...	25·7	14·6	1·88	—	0·41	0·09	0·15	0·28	—	0·05	—	0·90	1·26	130
Deptford	28·6	16·1	2·69	—	0·60	0·13	0·17	0·54	—	0·05	—	1·20	1·28	143
Greenwich	25·4	13·5	1·87	—	0·29	0·16	0·28	0·40	—	0·05	—	0·69	1·19	119
Lewisham	23·4	12.0	1·45	—	0·14	0·09	0·14	0·18	—	0·01	0·01	0·88	0·82	113
WOOLWICH	**27·9**	**13·1**	**1·52**	**—**	**0·24**	**0·04**	**0·17**	**0·17**	**—**	**0·07**	**—**	**0·83**	**1·33**	**109**

In this Table 0·00 indicates that the deaths were too few to give a rate of 0·005; where no death occurred is inserted.

* The rates for the County of London do not in all cases agree with those in some of the other Tables.
See note (*) *on preceding page.*

† Called "Simple Continued Fever" previous to 1901.

TABLE VII.

LONDON and the METROPOLITAN BOROUGHS.—DEATH RATES per 1000 persons living, and INFANTILE MORTALITY, after Distribution of Births in the Chief Lying-in Institutions and of Deaths in Public Institutions, &c., in the Five Years 1901-5, and in 1906.*

BOROUGHS.	All Causes.		Small-Pox.		Measles.		Scarlet Fever.		Diph-theria.		Whooping Cough.		Typhus.		Enteric Fever.		Pyrexia.		Diarrhœa.		Phthisis.		Deaths under One Year to 1000 Births.	
	1901-1905.	1906.	1901-1905.	1906.	1901-1905.	1906.	1901-1905.	1906.	1901-1905.	1906.	1901-1905.	1906.	1901-1905.	1906.	1901-1905.	1906.	1901-1905.	1906.	1901-1905.	1906.	1901-1906.	1906.	1901-1905.	1906.
COUNTY OF LONDON ...	16·1	15·1	0·07	—	0·45	0·41	0·11	0·11	0·20	0·15	0·35	0·26	0·00	—	0·08	0·06	0·00	0·00	0·75	0·94	1·57	1·44	139	131
Paddington	13·8	12·5	0·03	—	0·32	0·11	0·07	0·12	0·16	0·10	0·27	0·08	—	—	0·07	0·05	—	—	0·64	0·84	1·07	1·12	123	105
Kensington	14·5	13·8	0·02	—	0·37	0·45	0·09	0·06	0·12	0·11	0·28	0·11	0·00	—	0·06	0·03	0·00	—	0·60	0·80	1·30	1·27	145	132
Hammersmith	15·4	14·8	0·05	—	0·49	0·47	0·08	0·12	0·21	0·22	0·40	0·16	—	—	0·08	0·07	0·00	—	0·82	1·09	1·37	1·25	145	138
Fulham	15·5	13·7	0·02	—	0·56	0·33	0·10	0·11	0·23	0·20	0·45	0·19	—	—	0·08	0·08	0·00	—	1·23	1·49	1·36	1·13	143	134
Chelsea	16·2	15·7	0·02	—	0·32	0·78	0·08	0·12	0·10	0·20	0·32	0·23	—	—	0·06	—	—	—	0·50	0·70	1·61	1·57	135	133
City of Westminster ...	14·5	12·9	0·06	—	0·23	0·10	0·07	0·08	0·09	0·09	0·18	0·13	—	—	0·08	0·03	0·00	0·01	0·35	0·40	1·68	1·39	118	110
St. Marylebone... ...	16·6	14·9	0·05	—	0·35	0·37	0·11	0·11	0·16	0·09	0·24	0·09	—	—	0·07	0·02	0·01	—	0·60	0·60	1·76	1·56	134	117
Hampstead	10·2	9·4	0·01	—	0·11	0·11	0·05	0·06	0·11	0·09	0·18	0·02	—	—	0·06	0·03	—	—	0·19	0·26	0·83	0·67	95	77
St. Pancras	17·3	15·9	0·10	—	0·49	0·41	0·13	0·14	0·27	0·10	0·39	0·30	—	—	0·09	0·06	—	0·00	0·58	0·64	1·79	1·81	137	123
Islington	15·3	14·7	0·04	—	0·41	0·56	0·10	0·11	0·20	0·09	0·35	0·22	—	—	0·09	0·06	0·00	—	0·50	0·58	1·44	1·23	127	124
Stoke Newington ...	13·1	11·5	0·04	—	0·22	0·21	0·06	0·02	0·15	0·08	0·24	0·32	—	—	0·07	—	0·00	—	0·46	0·47	1·38	1·04	115	102
Hackney	14·7	13·3	0·07	—	0·40	0·28	0·09	0·10	0·25	0·09	0·29	0·17	—	—	0·13	0·06	—	—	0·77	0·88	1·35	1·30	132	119
Holborn	19·2	18·0	0·26	—	0·43	0·45	0·07	0·05	0·14	0·11	0·28	0·18	—	—	0·11	0·02	—	—	0·53	0·63	2·93	2·37	138	120
Finsbury	21·0	20·7	0·09	—	0·60	1·27	0·16	0·15	0·22	0·24	0·45	0·56	—	—	0·10	0·14	—	—	0·98	1·23	2·23	2·18	160	160
City of London... ...	17·8	17·3	0·07	—	0·12	0·14	0·06	0·33	0·19	0·09	0·16	0·19	—	—	0·06	0·05	—	—	0·24	0·28	1·70	1·74	134	101
Shoreditch	20·4	19·6	0·14	—	0·69	0·65	0·13	0·16	0·19	0·13	0·56	0·53	—	—	0·09	0·04	—	—	1·31	1·62	2·10	2·01	173	163
Bethnal Green	19·4	18·9	0·11	—	0·57	0·46	0·18	0·17	0·31	0·15	0·42	0·48	—	—	0·09	0·11	0·01	—	0·89	1·18	2·09	2·25	150	155
Stepney	19·3	17·7	0·19	—	0·56	0·57	0·12	0·12	0·24	0·20	0·44	0·34	0·00	—	0·10	0·08	0·00	—	1·07	1·43	1·99	1·72	150	134
Poplar	18·7	17·6	0·13	—	0·58	0·63	0·12	0·08	0·38	0·16	0·49	0·31	—	—	0·11	0·06	—	—	1·15	1·71	1·70	1·55	154	152
Southwark	19·9	18·1	0·09	—	0·72	0·46	0·15	0·22	0·20	0·15	0·46	0·26	—	—	0·09	0·06	0·00	—	1·01	1·08	2·40	2·06	158	144
Bermondsey	19·8	19·7	0·07	—	0·74	0·73	0·19	0·23	0·18	0·26	0·42	0·40	0·00	—	0·11	0·03	0·00	—	1·03	1·29	1·86	2·01	159	153
Lambeth	16·1	15·0	0·04	—	0·39	0·24	0·10	0·09	0·13	0·16	0·36	0·23	—	—	0·07	0·07	0·00	0·00	0·78	0·90	1·52	1·37	138	131
Battersea	14·9	13·4	0·03	—	0·61	0·23	0·09	0·13	0·11	0·10	0·39	0·44	—	—	0·08	0·04	—	—	0·84	0·88	1·36	1·28	138	126
Wandsworth	13·1	12·8	0·02	—	0·37	0·24	0·08	0·07	0·18	0·18	0·27	0·22	—	—	0·07	0·06	0·00	—	0·60	0·83	1·03	1·01	120	121
Camberwell	15·0	14·6	0·05	—	0·41	0·41	0·11	0·09	0·20	0·15	0·32	0·28	—	—	0·07	0·05	—	—	0·67	0·90	1·36	1·26	133	130
Deptford	15·7	16·1	0·06	—	0·50	0·60	0·13	0·13	0·23	0·17	0·36	0·54	0·00	—	0·06	0·05	0·00	—	0·80	1·20	1·26	1·28	136	143
Greenwich	14·3	13·5	0·05	—	0·36	0·29	0·06	0·16	0·18	0·28	0·33	0·40	—	—	0·07	0·05	—	—	0·75	0·69	1·21	1·19	131	119
Lewisham	12·3	12·0	0·02	—	0·23	0·14	0·08	0·09	0·16	0·14	0·24	0·18	—	—	0·06	0·01	—	0·01	0·56	0·88	0·91	0·82	112	113
Woolwich	**14·1**	**13·1**	**0·06**	—	**0·21**	**0·24**	**0·07**	**0·04**	**0·17**	**0·17**	**0·28**	**0·17**	—	—	**0·07**	**0·07**	—	—	**0·73**	**0·83**	**1·58**	**1·33**	**120**	**109**

* The rates for the County of London do not in all cases agree with those in some of the other Tables. (*See* Note * to Table 21.)

TABLE VIII.

Meteorology and Registered Deaths from all causes, and from certain prevalent diseases in each week of the year, 1906.

Week. Date of ending.	Temperature of the Air. Highest during week.	Lowest during week.	Mean Temperature.	Temperature three feet below ground.	Mean Humidity complete Saturation = 100	No. of days' rainfall.	Rainfall in inches.	Deaths Corrected for Public Institutions. All Causes.	Diarrhœa.	Six other Zymotic Diseases.	Bronchitis and Pneumonia.	Tubercle.
January 6 ..	52·6	27·6	41·3 +	43·26	81	5	0·95	50	..	..	19	4
,, 13 ..	53·2	32·5	43·1 +	43·81	82	5	1·20	46	..	4	15	4
,, 20 ..	49·6	29·1	42·0 +	43·59	77	5	1·06	33	..	2	12	3
,, 27 ..	52·3	25·8	40·4 +	42·38	83	2	0·49	28	1	..	4	6
February 3 ..	51·2	31·5	42·8 +	42·98	80	4	0·10	25	..	4	4	3
,, 10 ..	49·7	30·4	37·0 —	42·12	80	4	0·38	40	..	3	8	3
,, 17 ..	50·7	27·1	38·2 —	40·77	85	5	0·92	24	..	1	4	2
,, 24 ..	46·2	26·1	37·4 —	40·20	81	3	0·27	33	..	2	6	7
March 3 ..	50·1	27·4	41·7 +	40·95	79	5	0·17	27	..	2	2	4
,, 10 ..	65·0	34·5	47·2 +	42·40	75	3	0·35	41	..	3	10	1
,, 17 ..	63·9	29·1	43·5 +	42·73	73	6	0·29	29	..	1	8	9
,, 24 ..	48·4	28·4	37·5 —	43·14	79	6	0·32	33	..	3	10	2
,, 31 ..	52·1	29·1	38·2 —	41·40	73	2	0·14	43	..	4	6	6
1st Quarter	63·9	25·8	{ 8 + / 5 — }	42·28	79	55	6·64	452	1	29	108	54
April 7 ..	61·6	30·3	45·6 —	42·34	63	0	0·00	28	..	2	8	1
,, 14 ..	73·2	35·6	51·5 +	44·37	62	1	0·03	32	..	4	12	1
,, 21 ..	66·0	28·1	45·7 —	46·15	66	2	0·05	36	..	3	6	8
,, 28 ..	56·7	29·2	42·0 —	45·89	68	4	0·43	37	1	3	8	6
May 5 ..	62·3	30·8	46·6 —	45·78	73	5	0·26	28	..	..	10	5
,, 12 ..	76·2	42·0	54·2 +	48·29	79	1	0·05	28	1	2	2	3
,, 19 ..	75 0	31·6	50·7 —	50·36	68	1	0·17	32	..	2	6	4
,, 26 ..	71·0	42·3	51·8 —	50·33	75	5	1·08	26	..	2	3	4
June 2 ..	74·8	44·2	57·2 +	52·65	76	4	0·19	32	..	..	6	7
,, 9 ..	72·1	37·6	55·6 —	53·97	65	0	0·00	22	..	2	2	7
,, 16 ..	72·0	45·3	53·9 —	55·71	80	2	0·30	17	..	1	2	4
,, 23 ..	82·0	43·1	64·1 +	56·39	68	1	0·01	21	..	1	3	2
,, 30 ..	78·3	41·2	60·0 —	59 07	76	2	2·46	21	..	..	1	7
2nd Quarter	82·0	28·1	{ 4 + / 9 — }	50·10	71	28	5·03	360	2	22	69	59
July 7 ..	79·1	45·1	61·9 +	59·16	65	0	0·00	16	..	..	0	2
,, 14 ..	77·4	47·5	61·5 —	60·68	70	1	0·01	24	..	1	4	5
,, 21 ..	86·2	46·8	62·7 —	61·29	70	2	0·19	26	..	1	4	9
,, 28 ..	84·7	50·4	66·3 +	62·26	68	2	0·15	28	2	..	1	4
August 4 ..	85·0	50·4	67·3 +	62·25	64	3	0·86	23	1	..	1	2
,, 11 ..	86·7	54·3	66·1 +	64·00	68	1	0·01	32	6	..	2	4
,, 18 ..	81·1	51·2	61·5 —	63·81	77	4	0·33	35	11	1	2	6
,, 25 ..	88·4	49·7	64·9 +	62·80	72	2	0·26	44	7	2	4	2
September 1 ..	94·3	44·1	66·5 +	63·08	62	0	0·00	25	12	2	..	2
,, 8 ..	93·5	52·2	68·0 +	63·83	64	2	0·85	44	16	..	1	4
,, 15 ..	72·0	39·1	57·6 —	62·89	70	3	0·74	36	13	2	1	4
,, 22 ..	65·7	45·1	55·8 —	60·80	80	6	0·38	32	9	..	6	4
,, 29 ..	65·1	37·1	52·0 —	59·24	77	0	0·00	25	4	1	1	5
3rd Quarter	94·3	37·1	{ 7 + / 6 — }	62·08	70	26	3·78	410	81	10	27	53
October 6 ..	71·8	42·9	58·4 +	58·09	83	2	0·69	37	5	2	2	3
,, 13 ..	70·9	42·0	57·6 +	58·66	82	4	0·63	26	2	..	1	2
,, 20 ..	62·9	35·2	51·2 +	57·12	81	5	0·21	30	2	2	5	2
,, 27 ..	69·1	32·1	53·0 +	56·32	82	3	0·07	30	3	1	..	4
November 3 ..	56·0	37·2	46·8 —	54·21	88	6	1·59	40	..	1	3	5
,, 10 ..	52·3	42·3	47·5 +	52·22	89	6	2·62	40	2	1	7	4
,, 17 ..	53·5	29·2	43·0 +	50·83	85	3	0·90	27	2	3	7	1
,, 24 ..	60·3	28·5	46·2 +	49·44	89	5	0·38	26	1	1	4	3
December 1 ..	55·0	33·8	47·3 +	50·13	84	2	0·09	35	..	5	2	5
,, 8 ..	54·3	28·1	43·8 +	49·39	80	4	0·29	24	..	2	4	4
,, 15 ..	46·8	26·9	36·5 —	46·60	79	5	0·40	44	1	6	5	7
,, 22 ..	49·4	27·6	39·2 —	45·02	91	3	0·50	59	..	5	12	10
,, 29 ..	42·4	22·3	31·4 —	43·44	77	5	0·68	45	..	8	9	5
4th Quarter	71·8	22·3	{ 9 + / 4 — }	51·65	84	53	6·96	463	18	37	61	55
Averages & Totals for Whole Year	94·3	22·3	{ 28 + / 24 — }	51·53	76	162	22·41	1685	102	98	265	221

Average weekly maximum, 3rd quarter, 81·47; minimum, 47·16. 64·32 highest temp. of 3 ft. therm.

Note. + means higher and — means lower than the average of 50 years.

Table IX.

Weekly Averages.

	Temperature of the air.			Temperature 3 feet below ground.	Mean Humidity Complete Saturation = 100	No. of days Rainfall.	Rainfall in inches.	Deaths corrected for Public Institutions.				
	Average of weekly maxima.	Average of weekly minima.	Average of weekly means.					All causes.	Diarrhœa.	Six other Zymotic Diseases.	Bronchitis and Pneumonia.	Tubercle.
1st Quarter ..	52·7	29·1	40·8	42·29	79	4	0·51	35	·08	2	8	4
2nd Quarter ..	70·9	37·0	52·2	50·10	71	2	0·39	28	·02	2	5	5
3rd Quarter ..	81·5	47·2	62·5	62·08	70	2	0·29	32	6·2	1	2	4
4th Quarter ..	57·3	32·9	46·3	51·65	84	4	0·54	36	1·4	3	5	4

TABLE X.

Summary of Statistics for the 1st Quarter (13 weeks) ending 31st March, 1906, corrected for Public Institutions.

A. Birth and Death Statistics for the Borough of Woolwich. Rates calculated per 1,000 Population.

Population estimated to middle of Year.	Births.		Deaths under one year of age.		Deaths at all ages—Gross.	Deaths in Public Institutions.	Deaths of Non-Residents in District.	Deaths of Residents Registered beyond District.	Deaths at all ages corrected for Public Institutions.	
	Number.	Rate.	Number.	Rate per 1,000 Births Registered.	Number.				Number.	Rate.
127,345	948	29·8	97	102	416	79	11	47	452	14·2

B. Birth and Death Rates for each Parish.

Woolwich.				Plumstead.				Eltham.			
Population estimated to middle of year.	Birth Rate.	Death Rate at all ages.	Deaths under 1 year, per 1000 Births.	Population estimated to middle of year.	Birth Rate.	Death Rate at all ages.	Deaths under 1 year, per 1000 Births.	Population estimated to middle of year.	Birth Rate.	Death Rate at all ages.	Deaths under 1 year, per 1000 Births.
A	B	C	D	A	B	C	D	A	B	C	D
40,063	36·2	16·3	83	75,205	28·1	13·7	113	12,077	18·9	10·3	123

C. Notifications of Infectious Disease.

Disease.	Woolwich.	Plumstead.	Eltham.	Total.
Small-pox	—	—	—	—
Scarlet Fever	36	89	4	129
Diphtheria	40	53	52	145
Enteric Fever	4	6	1	11
Erysipelas	5	22	2	29
Puerperal Fever	1	—	1	2
Phthisis	6	28	3	37
Measles (Notified by School Teachers) ..	9	21	1	31

TABLE XI.

Summary of Statistics for the 2nd Quarter (13 weeks) ending 30th June, 1906, corrected for Public Institutions.

A. Birth and Death Statistics for the Borough of Woolwich. Rates calculated per 1,000 Population.

Population estimated to middle of Year.	Births.		Deaths under one year of age.		Deaths at all ages—Gross.	Deaths in Public Institutions.	Deaths of Non-Residents in District.	Deaths of Residents Registered beyond District.	Deaths at all ages corrected for Public Institutions.	
	Number.	Rate.	Number.	Rate per 1,000 Births Registered.	Number.				Number.	Rate.
127,345	843	26·5	77	86·8	328	70	10	42	360	11·3

B. Birth and Death Rates for each Parish.

Woolwich.				Plumstead.				Eltham.			
Population estimated to middle of year	Birth Rate.	Death Rate at all ages.	Deaths under 1 year per 1000 Births.	Population estimated to middle of year.	Birth Rate.	Death Rate at all ages.	Deaths under 1 year per 1000 Births.	Population estimated to middle of year.	Birth Rate.	Death Rate at all ages.	Deaths under 1 year per 1000 Births.
A	B	C	D	A	B	C	D	A	B	C	D
40,063	29·0	13·4	115	75,179	26·2	10·4	75	12,103	20·2	10·2	55

C. Notifications of Infectious Disease.

Disease.	Woolwich.	Plumstead.	Eltham.	Total.
Small-pox	—	—	—	—
Scarlet Fever	41	63	6	110
Diphtheria	24	35	4	63
Enteric Fever	1	2	—	3
Erysipelas	6	16	2	24
Puerperal Fever	—	—	—	—
Phthisis	4	33	1	38
Measles (Notified by School Teachers) ..	8	41	2	51

TABLE XII.

Summary of Statistics for the 3rd Quarter (13 weeks) ending 29th September, 1906, corrected for Public Institutions.

A. Birth and Death Statistics for the Borough of Woolwich. Rates calculated per 1,000 Population.

Population estimated to middle of Year.	Births.		Deaths under one year of age.		Deaths at all ages—Gross.	Deaths in Public Institutions.	Deaths of Non-Residents in District.	Deaths of Residents Registered beyond District.	Deaths at all ages corrected for Public Institutions.	
	Number.	Rate.	Number.	Rate per 1000 Births Registered.	Number.				Number.	Rate.
127,345	873	27·4	115	132	356	60	12	46	390	12·2

B. Birth and Death Rates for each Parish.

Woolwich.				Plumstead.				Eltham.			
Population estimated to middle of year.	Birth Rate.	Death Rate at all ages.	Deaths under 1 year per 1000 Births.	Population estimated to middle of year.	Birth Rate.	Death Rate at all ages.	Deaths under 1 year per 1000 Births.	Population estimated to middle of year.	Birth Rate.	Death Rate at all ages.	Deaths under 1 year per 1000 Births.
A	B	C	D	A	B	C	D	A	B	C	D
40,063	30·4	14·5	158	75,179	26·2	11·4	118	12,103	25·1	9·9	118

C. Notifications of Infectious Diseases.

Disease.	Woolwich.	Plumstead.	Eltham.	Total.	Average for 3rd quarters in previous 5 years.
Small-pox	—	—	—	—	1·2
Scarlet Fever	30	65	13	108	94·4
Diphtheria	26	18	13	57	44·8
Enteric Fever	2	6	—	8	14·6
Erysipelas	1	8	2	11	17·4
Puerperal Fever	1	3	—	4	2·6
Phthisis	10	27	4	41	42·4
Measles (Notified by School Teachers) ..	1	24	—	25	58·2
Zymotic Enteritis	77	242	47	366	220

TABLE XIII.

Summary of Statistics for the 4th Quarter (13 weeks) ending 30th December, 1906, corrected for Public Institutions.

A. Birth and Death Statistics for the Borough of Woolwich. Rates calculated per 1,000 Population.

Population estimated to middle of Year.	Births.		Deaths under one year of age.		Deaths at all ages—Gross.	Deaths in Public Institutions.	Deaths of Non-Residents in District.	Deaths of Resipents Registered beyond District.	Deaths at all ages corrected for Public Institutions.	
	Number.	Rate.	Number.	Rate per 1000 Births Registered.	Number.				Number.	Rate.
127,345	876	27·5	97	111	430	84	15	48	463	14·5

B. Birth and Death Rates for each Parish.

Woolwich.				Plumstead.				Eltham.			
Population estimated to middle of year.	Birth Rate.	Death Rate at all ages.	Deaths under 1 year per 1000 Births.	Population estimated to middle of year.	Birth Rate.	Death Rate at all ages.	Deaths under 1 year per 1000 Births.	Population estimated to middle of year.	Birth Rate.	Death Rate at all ages.	Deaths under 1 year per 1000 Births.
A	B	C	D	A	B	C	D	A	B	C	D
40,063	29·25	17·8	143	75,179	27·2	13·6	102	12,103	23·8	9·58	42

C. Notifications of Infectious Diseases.

Disease.	Woolwich.	Plumstead.	Eltham.	Total.	Average for 4th quarters in previous 3 years.
Small-pox	—	—	—	—	1·6
Scarlet Fever	50	98	33	181	132·6
Diphtheria	51	63	8	122	62·6
Enteric Fever	11	8	1	20	8·0
Erysipelas	5	22	2	29	23·3
Puerperal Fever	2	1	—	3	1·3
Phthisis	22	37	2	61	40·0
Measles (Notified by School Teachers) ..	35	680	1	716	120·6

TABLE XIV.

Deaths from Various Causes for Whole Borough, 1906, corrected for Public Institutions—Nett.

Week ending.	Small Pox.	Measles.	Scarlet Fever.	Epidemic Influenza.	Whooping Cough.	Diphtheria and Membranous Croup.	Enteric Fever.	Diarrhœa and Dysentery.	Erysipelas.	Puerperal Fever	Rheumatism.	Tubercle.	Alcoholism.	Cancer.	Bronchitis.	Pneumonia.	Accidents.	Homicide and Suicide.
January 6	...	...	...	...	...	...	...	...	...	...	...	4	...	4	11	8	1	1
„ 13	...	...	...	2	2	...	...	...	...	...	...	4	...	2	7	8	2	...
„ 20	...	...	1	...	...	1	...	...	...	...	...	3	...	...	10	2	1	...
„ 27	...	...	...	...	...	...	...	1	...	...	...	6	...	2	2	2	...	1
February 3	...	...	1	...	1	...	2	...	...	...	...	3	2	2	1	3	1	...
„ 10	...	...	...	...	...	2	1	...	...	...	...	3	...	3	5	3	1	...
„ 17	...	...	...	...	...	...	1	...	...	...	...	2	...	2	2	2	...	...
„ 24	...	...	...	...	1	1	...	...	...	...	...	7	...	...	1	5	...	...
March 3	...	...	...	...	1	...	1	...	...	...	...	4	...	3	...	2	...	...
„ 10	...	...	...	...	1	1	...	1	...	1	...	1	1	2	3	7	5	...
„ 17	...	...	...	...	1	...	...	...	...	...	...	9	1	2	2	6	...	...
„ 24	...	...	...	...	...	2	1	...	...	...	...	2	...	3	7	3	...	...
„ 31	...	...	...	...	2	1	...	1	...	...	...	6	...	5	2	4	2	...
1st Quarter	...	...	2	...	9	9	7	2	1	1	...	...	54	4	30	53	55	13	2
April 7	...	...	...	...	1	1	...	...	...	...	...	...	1	...	2	6	2	...	...
„ 14	...	...	4	...	...	...	...	...	...	...	...	...	1	...	1	6	6	...	...
„ 21	...	...	1	...	2	...	...	...	...	...	...	1	8	1	3	3	3	2	...
„ 28	...	...	...	...	...	3	...	...	1	...	...	1	6	...	...	1	7	1	...
May 5	...	...	...	...	...	...	...	...	...	...	...	...	5	...	2	5	5	...	1
„ 12	...	...	...	...	...	1	1	...	1	1	...	...	3	...	1	1	1	...	...
„ 19	...	...	...	1	...	1	...	...	...	...	...	1	4	1	4	2	4	...	...
„ 26	...	...	...	...	1	...	2	...	...	...	...	...	4	...	3	2	1	1	...
June 2	...	...	...	...	1	...	...	...	...	...	...	2	7	...	4	4	2	...	...
„ 9	...	...	...	...	...	2	...	...	...	...	...	...	7	...	1	2	...	...	1
„ 16	...	...	1	...	...	...	...	...	...	...	...	...	4	...	2	2	...	...	...
„ 23	...	...	...	1	1	...	...	...	...	...	...	...	2	...	2	1	2	1	...
„ 30	...	...	...	...	...	...	...	...	...	...	...	...	7	...	1	...	1	1	2
2nd Quarter	...	...	6	2	6	8	3	...	2	1	...	5	59	2	26	35	34	6	4
July 7	...	...	...	...	...	...	...	...	...	...	...	...	2	...	1	...	...	1	...
„ 14	...	...	...	1	...	...	...	...	...	...	...	...	5	...	3	1	3	1	...
„ 21	...	...	...	...	2	1	...	...	...	...	...	...	9	...	1	2	2	...	1
„ 28	...	...	...	...	...	...	...	...	2	...	...	1	4	...	3	1	...	2	...
August 4	...	...	...	...	...	...	...	...	1	...	...	1	2	...	1	1	...	1	1
„ 11	...	...	...	...	...	...	...	...	6	...	...	...	4	1	1	...	2	...	...
„ 18	...	...	...	...	...	...	...	1	11	1	...	1	6	1	1	1	1	1	...
„ 25	...	...	1	...	...	...	1	...	7	...	...	...	2	2	5	2	2	1	...
September 1	...	...	...	1	...	...	1	...	12	...	...	...	2	...	1	...	...	...	...
„ 8	...	...	...	...	1	...	...	...	16	...	1	...	4	3	3	...	1	...	...
„ 15	...	...	...	...	...	2	...	...	13	...	...	1	4	...	2	1	...	...	...
„ 22	...	...	...	...	...	...	...	...	9	...	...	...	4	...	2	6	...	1	1
„ 29	...	...	...	...	...	...	1	...	4	...	..	...	5	...	3	1	...	1	1
3rd Quarter	...	...	1	2	3	3	3	1	81	1	1	4	53	7	27	16	11	9	4
October 6	...	...	...	...	1	...	...	2	5	...	1	...	3	...	1	...	2	...	...
„ 13	...	...	...	...	...	...	...	...	2	...	...	...	2	1	4	1	...	3	1
„ 20	...	...	...	...	...	1	1	...	2	...	...	...	2	...	...	2	3	1	1
„ 27	...	...	...	...	...	...	1	...	3	...	...	...	4	...	3	...	...	...	1
November 3	...	...	1	...	...	...	...	...	...	...	...	1	5	1	6	3	...	1	...
„ 10	...	...	1	...	1	...	...	...	2	...	...	1	4	...	5	5	2	...	1
„ 17	...	...	...	...	1	...	3	...	2	...	...	...	1	...	1	4	3	...	...
„ 24	...	...	1	...	...	...	...	...	1	...	...	...	3	1	3	2	2	...	...
December 1	...	...	4	...	3	...	1	...	...	...	...	3	5	1	1	1	1	3	...
„ 8	...	...	1	...	1	...	...	1	...	...	...	...	4	1	3	3	1	...	...
„ 15	...	...	2	...	1	...	3	1	1	...	...	...	7	1	2	4	1	1	1
„ 22	...	...	5	...	3	...	...	...	...	...	...	1	10	1	2	9	3	1	...
„ 29	...	...	7	1	2	...	...	...	...	...	...	...	5	1	1	5	4	1	1
4th Quarter	...	...	22	1	13	1	9	4	18	...	1	6	55	8	32	39	22	11	6
Total for Year	...	...	31	5	31	21	22	7	102	3	2	15	221	21	115	143	122	39	16

TABLE XVa.

Summary of Nuisances Abated, Notices Served and General Work of Public Health Department, 1906.

	Sanitary Inspectors' Districts.								
	St. Mary's and Dockyard.	River.	Herbert.	Central and St. Margaret's	St. Nicholas.	Burrage and Glyndon.	Eltham.	St. Georges.	Total.
PREMISES INSPECTED.									
No. of Houses inspected, house to house ...	562	529	562	901	693	570	406	486	4709
„ Re-inspections after service of notice estimated	1575	2173	1960	2116	1995	2160	775	935	13689
„ Houses and premises specially inspected, including infectious diseases and complaints.	2363	1434	836	1474	1571	1693	620	300	10291
„ Houses where drains have been tested by smoke test	43	48	25	27	24	27	18	9	221
„ Houses where drains have been tested by water test	46	31	20	24	7	20	65	12	225
„ New houses inspected for Water Certificates.	10	10	18	83	104	...	67	...	292
NUISANCES ABATED—DRAINS.									
Waste pipes from baths, lavatories, and wash-house sinks, repaired or disconnected ...	29	46	11	30	19	11	3	20	169
Choked and defective drains	75	138	28	87	42	83	49	55	557
Defective traps.	23	23	16	2	24	10	22	6	126
Defective and unventilated soil pipes	2	7	4	13	4	1	7	8	46
W.C.'s									
W.C.'s repaired, new traps or pans provided, fittings repaired	99	132	5	14	23	68	17	47	405
Water supply apparatus repaired	82	82	54	110	81	67	21	29	526
Foul pans cleansed	6	28	14	37	38	27	2	8	160
Additional w.c.'s provided to Factories and Workshops, etc.	...	...	...	...	...	1	...	...	1
Do. do. dwelling houses ...	...	...	...	...	...	...	5	...	5
PREMISES.									
Underground rooms not in accordance with Act ...	...	2	...	...	...	...	...	...	2
Interiors cleansed and defective roofs repaired ...	360	401	125	222	281	296	132	249	2066
Damp walls remedied	38	46	18	82	18	19	36	30	287
Paving in yards and wash-houses repaired ...	82	67	36	70	47	37	68	37	444
Improved ventilation provided	38	28	7	38	9	4	...	5	129
Wash-houses without sinks and outlets for waste water	6	3	1	...	...	3	...	...	13
Defective guttering and rain-water pipes ...	73	60	77	45	61	27	14	10	367
Dustbins supplied....	68	91	33	82	68	55	56	45	498
Dung pits provided.	1	7	...	1	...	3	...	...	12
Cases of overcrowding remedied	11	13	6	15	16	12	6	7	86
Deficient light—windows supplied, or enlarged, or other works	30	21	2	11	...	19	1	13	97
Dampness in premises from defective water pipes...	6	14	2	9	32	19	2	11	95
ANIMALS.									
Animals (including pigs) kept in such a state as to be a nuisance	1	5	3	4	5	2	2	1	23
Accumulations of manure removed	5	31	6	2	4	12	6	1	67
WATER.									
Defective and foul cisterns used for dietary purposes	2	9	1	25	12	...	...	2	51
Defective and foul rain-water tanks remedied ...	2	1	...	2	...	...	3	...	8
Insufficient supply, and water cut off by Water Company	14	24	4	1	...	7	2	6	58
MISCELLANEOUS.									
No. of observations made of chimneys in connection with smoke nuisances	...	15	60	2	...	2	...	...	79
No. of smoke nuisances observed	...	2	9	1	...	...	...	...	12
Tents, Vans, etc., inspected	...	...	...	3	4	...	15	...	22
Notices served with respect to tents and vans ...	...	...	...	...	...	...	...	...	...
Inspection of Urinals accessible to the public ...	65	145	70	156	64	70	35	12	617
Verminous rooms cleansed	6	19	...	5	92	19	11	4	156
Intimation notices served	463	456	267	425	438	470	260	123	2902
Statutory „ „	73	61	42	88	130	29	27	22	472

TABLE XVB.

SUMMARY OF WORK OF CHIEF INSPECTOR.

Premises Inspected	1392
New Buildings Inspected	76
Defective Combined Drains Investigated and Reported on ..	25
Number of Houses referred to in such Combined Drains ..	192
Cow-houses and Slaughter-houses Inspections	43
Complaints Investigated	135
Attendances at Police Court	19

MISCELLANEOUS, INCLUDING WORK OF CHIEF INSPECTOR, DISTRICT INSPECTORS, AND CLERKS.

Number of Cases of Inattention to Notices reported to Town Clerk for Proceedings..	83
Summonses at Police Court	11
Bake-houses Inspected and Cleansed twice during the year ..	63
Number of Houses Disinfected after Infectious Disease ..	987
Letters received	6535
,, written	3944
Notifications received..	4236
Certificates issued after Disinfection	2848
,, of Infectious Disease forwarded to Schools ..	1268
Complaints of Sanitary Defects	498
,, of Non-removal of Dust, viz. :—	
Woolwich	9
Plumstead	28
Eltham	6
Written Intimation Notices	2902
Statutory Notices	472

TABLE XVc.

Factories, Workshops, Laundries, Workplaces, and Homeworkers' Premises.

1.—*Inspection.*

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Number of	
	Inspections.	Written Notices.
Factories .. .. (Including Factory Laundries)	22	2
Workshops .. .. (Including Workshop Laundries)	295	30
Workplaces	—	—
Homeworkers' Premises	630	15
Total ..	947	47

2.—*Defects found.*

Description.	Number of Defects.	
	Found.	Remedied.
Nuisances under the Public Health Acts:—		
Want of Cleanliness	30	30
Want of Ventilation	13	13
Overcrowding	5	5
Want of drainage of floors	2	2
Other nuisances	12	12
Sanitary accommodation — insufficient, unsuitable, or defective	7	7
Sanitary accommodation — not separate for sexes	0	0
Total ..	69	69

TABLE XVc.—*Continued.*

3.—*Other Matters.*

Class.		Number.
Matters notified to H.M. Inspector of Factories :—		
Failure to affix Abstract of the Factory and Workshop Act (S. 133)		3
Action taken in matters remediable under the Public Health Acts, but not under the Factory Act (S. 5)	Notified by H.M. Inspectors ..	2
	Reports (of action taken) sent to H.M. Inspectors	1
Underground Bakehouses (S. 101) :—		
In use during 1903		24
Certificates granted in 1903		24
Certificates granted in 1904		0
Certificates granted in 1905		0
Certificates granted in 1906		1
In use at the end of 1906		25
Worshops on the Register (S. 131) at the end of 1906 :—		
Workshop Laundries		28
,, Bakehouses		59
Other Workshops		128
Total Number of Workshops on Register ..		215

TABLE XVc.—*Continued.*

4.—*Home Work.*

Nature of Work.	Outworkers' Lists, Section 107.								Number of Inspections of Outworkers' premises.	Outwork in Unwholesome Premises, Section 108.			Outwork in Infected Premises, Sections 109, 110.		
	Lists received from Employers.				Numbers of Addresses of Outworkers received from other Councils.	Numbers of Addresses of Outworkers forwarded to other Councils.	Prosecutions.								
	Twice in the year.		Once in the year.							Instances.	Notices served.	Prosecutions.	Instances.	Orders made (Sec. 109).	Prosecutions (Secs, 109, 110).
	Lists,	Outworkers.	Lists.	Outworkers.			Failing to keep or permit inspection of lists.	Failing to send lists.							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Wearing Apparel—Making, &c. ..	40	136	8	103	93	9	Nil	Nil	630	Nil	Nil	Nil	Nil	Nil	Nil

TABLE XVd.

Proceedings during 1906.

Premises.	Number of Places.				Number of Inspections, 1906.	Number of Notices, 1906.	Number of Prosecutions, 1906.
	On Register at end of 1905.	Added in 1906.	Removed in 1906.	On Register at end of 1906.			
Milk Premises ..	186	21	57	150	300	0	0
Cowsheds	18	—	1	17	95	8	0
Slaughter-houses ..	11	—	—	11	105	6	0
Ice Cream Premises	87	19	38	68	224	8	0
Registered Houses let in Lodgings	265	48	6	307	520	* 46 †270	*4 †4

* For overcrowding. † For other conditions.

Overcrowding, 1906—

Number of Dwelling Rooms overcrowded 86
Number remedied 86

Underground Rooms —

Illegal occupation dealt with during year 2
Number of rooms closed 2

Insanitary Houses—

Number closed under the Housing of the Working Classes Act 6

Number of Prosecutions under By-laws under Public Health Act, 1891—

With respect to water closets, earth closets, etc. .. 2
With respect to sufficiency of water supply to water closets 2
With respect to drainage, etc. (Metropolis Management Act, section 202) 0

Mortuaries—

Total number of Bodies removed 162
Total number of Infectious Bodies removed 1

Inspections of premises where food is prepared for sale 142
Number of Public Sanitary Conveniences removed or altered .. 0
Number of fixed ashpits removed 0

TABLE XVI.

Details of House to House Inspection.

Name of Street.	Number of Houses Inspected.	Number where Defects were found.
St. NICHOLAS WARD.		
Benares Road	23	5
Reidhaven Road	129	67
Kashgar Road	48	23
Gunning Street	29	18
Glenside Road	26	18
Manton Road	5	5
Hartville Road	41	22
Riverdale Road	115	60
Brookdene Road	41	32
Mabyn Road	29	19
Gavin Street	13	7
Heverham Road	29	11
Bateson Street	13	7
Abery Street	24	10
White Hart Lane	20	17
Barth Road	86	51
Abbey Grove	22	13
	693	385
St. MARY'S AND DOCKYARD WARDS.		
Mary Place	10	8
Elgin Terrace	9	4
Godfrey Street	14	13
Henry Street	63	41
Reed's Buildings	3	3
Chapel Street	38	18
Romford Cottages	3	1
Harrington Cottages ...	3	1
Railway Cottages	2	1
Samuel Street	134	55
Martyrs' Passage	5	4
Ogilby Street	50	31
Waverley Cottages ...	6	2
Robert Street	20	15
Dairy Place	7	7
Mary Ann Cottages ...	3	0
Back Lane	4	4
St. James' Place	14	11
Orchard Street	28	27

TABLE XVI—continued.

Details of House to House Inspection.

Name of Street.	Number of Houses Inspected.	Number where Defects were found.
St. MARY'S AND DOCKYARD WARDS—cont.		
Orchard Place	35	30
Bowling Green Row ...	10	6
Warwick Street	64	42
Bowater Road	4	3
Trinity Street	33	19
	562	346
BURRAGE AND GLYNDON WARDS.		
Sandy Hill Road	108	63
Scott's Passage	4	3
Spray Street	48	24
Conduit Road	36	17
Plumstead Road	64	29
Walmer Road	69	39
Railway Terrace	17	10
Robert Street	148	80
Down Street	14	11
Down's Place	7	6
Thomas Street	21	14
Charlotte Street	34	10
	570	306
RIVER WARD.		
Albert Road, North Woolwich	140	103
Anglesea Avenue	12	9
Albert, Fore, Sidney & Stanley Houses, High Street ...	40	34
Charles Street	60	35
Clara Place	14	10
Dock Street (part of) ...	3	3
Elizabeth Place	6	5
Globe Lane	15	12
Howard's Yard	5	2
Kingsman Street	21	13
Mulgrave Place	20	14
Monk Street	17	8

TABLE XVI—continued.

Details of House to House Inspection.

Name of Street.	Number of Houses Inspected.	Number where Defects were found.
RIVER WARD—cont.		
New Street	8	6
Nelson Street	16	16
Parson's Hill	6	4
Rodney Street	11	10
Rope Yard Rails	36	16
Red Lion Street	26	16
St. Mary's Street	10	6
Taylor's Buildings... ...	6	4
Thomas Street	39	15
Upper Market Street ...	18	10
	529	351
CENTRAL AND St. MARGARET'S WARDS.		
Macoma Road	60	37
Plum Lane (E. side) ...	42	18
Hinstock Road	27	9
Upton Road	6	0
Olven Road	20	8
Admaston Road	39	19
Saunders Road	44	29
High Street (part)	95	70
Hudson Road (part) ...	90	43
Miriam Road	53	25
Orissa Road	24	19
Coupland Terrace	38	26
Vicarage Road (part) ...	24	13
Vicarage Park	43	24
Manthorp Road	33	16
Swingate Lane (W. side) ...	55	5
Lake View Terrace ...	6	1
Gallosson Road	26	8
Bebbington Road	13	5
Tormount Road	51	17
Inverary Place	10	7
Old Mill Road	31	16
Piedmont Road	61	19
	901	431

TABLE XVI—continued.

Details of House to House Inspection.

Name of Street.	Number of Houses Inspected.	Number where Defects were found.
ELTHAM WARD.		
Dumbreck Road	32	8
Craigton Road	13	4
Grangehill	93	23
High Street	121	30
Pope Street	37	23
Reventlow Road	28	13
Lannoy Road	26	11
Gaitskill Road	23	6
Blanmerle Road	27	15
Hainault Street	6	4
	406	137
St. GEORGE'S WARD.		
Jackson Street	27	19
James Street	47	17
Ordnance Road	57	26
Engineer Road	25	14
Dicey Street	39	21
Delvan Road	15	7
Brookhill Road	48	20
Sandy Hill Road	11	7
Nightingale Vale	29	16
Fenwick Street	49	29
Eglinton Road	9	5
Keemore Street	29	12
Ritter Street	32	17
Hanover Terrace	7	3
Gildersome Street	62	21
	489	234

TABLE XVII.

PROSECUTIONS under the PUBLIC HEALTH and HOUSING OF THE WORKING CLASSES ACT.

No.	Date of Final Hearing.	Offence.	Situation.	Result.
	1906.			
1	July 4	Occupation of house without Water Certificate	1, Camrose Street ...	Fined £3 and 2s. costs.
2	„ 12	Dilapidated floor and defective roof	31, Ogilby Street ...	Fined £2 and 2s. costs.
3	„ 12	Failing to cleanse walls ...	do.	Fined £3 and 5s. per day for 12 days, and £3 and 3s.
4	Sept. 13	Overcrowdiug of Registered House	1, High Street, Woolwich...	2s. costs.
5	„ 13	do.	138 do. do. ...	2s. costs.
6	„ 13	do.	1 do. do. ...	Fined £1 and 2s. costs.
7	Oct. 23	Insufficient supply of water to w.c.	7, Rodney Street ...	2s. costs.
8	„ 23	Sanitary defects and verminous condition	5, Bowater Road ...	Order to abate in 28 days; fined £5 and 23s. costs.
9	Nov. 8	Overcrowding	18, Bastion Road ...	Adjourned for 1 week subject to 2s. costs being paid.
10	„ 16	Defective flushing apparatus to upper w.c.	18, Vicarage Road ...	Fined £2 and 10s. 6d. costs.
11	„ 16	Leaky roof over upper w.c. ...	do.	23s. costs.

TABLE XVIII.

Summary of Articles Analysed under the Sale of Food and Drugs Act, during the year ending 31st December, 1906.

Article.	Number Analysed.	Number Adulterated.
Milk	420	37
Butter	63	9
Tea	2	—
Cheese	5	—
Separated Milk	5	—
Vinegar	4	—
Coffee	1	—
Camphorated Oil	3	1
Iron Pills	1	—
Spirits of Nitre	1	—
Compound Liquorice Powder ...	1	—
Powdered Gentian Root	1	—
Glycerine	1	—
Total	506	47

TABLE XVIIIA.

Proceedings under the Food and Drugs Act for the Year 1906.

No.	Article.	Nature of Adulteration.	Name and Address of Vendor.	Result of Proceedings.
1	Milk ...	15 % added water ...	John Holdway, 6, Bostall Hill	Fine £4 and 12/6 costs
2	Milk ...	10 % fat abstracted ...	James Cornwell, 14, Francis Street	Fine £3 and 12/6 costs
3	Butter ...	2·1 % excess of water ...	Susan Osmond, 61, Kingsman Street	Fine £1 and 12/6 costs
4	Butter ...	12·1 % excess of water..	Benjamin Nightingale, 7, Borgard Road	Fine £3 and 12/6 costs
5	Milk ...	14 % added water ...	David Jones, 65, Maxey Road	Fine £4 and 12/6 costs
6	Milk ...	6 % fat abstracted ...	Harriett Smith, 30, High Street, Eltham	Fine £1 and 12/6 costs
7	Milk ...	16 % fat abstracted ...	Harry Furber, Southend Hall Farm, Footscray Road	Fine £6 and 23/6 costs
8	Milk ...	10 % fat abstracted ...	W. F. Corp, 3, Wellington Street, Woolwich	Case dismissed—sample bottle burst
9	Butter ...	2·1 % excess of water ...	Annie Hampton, 228, High Street, Plumstead	Fine £1 and 12/6 costs
10	Milk ...	10 % fat abstracted ...	J. C. Terrington, 16, Pellipar Road	Case dismissed.
11	Milk ...	6 % added water ...	Sidney V. Hiscock, 14, Blenheim Terrace, Wickham Lane	Fine £2 and 12/6 costs
12	Milk ...	20 % fat abstracted ...	Dennis Wells, Sporle, Swaffham, Norfolk	Fine 10/- and 12/6 costs
13	Milk ...	30 % fat abstracted ...	Dennis Wells, Sporle, Swaffham, Norfolk	Fine 10/- and 33/- costs

TABLE XVIIIA.—*continued.*

No.	Article.	Nature of Adulteration.	Name and Address of Vendor.	Result of Proceedings.
14	Milk ...	10 % fat abstracted ...	William Killick, 78, Plumstead Common Road	Dismissed—Milk proved to be direct from cows
15	Milk ...	13 % added water ...	Henry Grant Beadel, 52, Raglan Road, Plumstead	Fine £1 and 12/6 costs
16	Milk ...	6 % fat abstracted ...	William Henry West, 31, Benares Road	Fine £10 and 12/6 costs
17	Milk ...	13 % fat abstracted ...	David Jones, 65, Maxey Road	Case dismissed—Warranty proved
18	Milk ...	6 % added water ...	Ed. J. Clements, 2, Cross Street	Fine £2 and 12/6 costs
19	Milk ...	6 % added water ...	James Rose, 64, Hargor Road	Fine £4 and 12/6 costs
20	Milk ...	21 % added water ...	George H. Algar, 177, Ann Street, Plumstead	Fine £4 and 12/6 costs
21	Milk ...	16 % fat abstracted ...	Express Dairy Co., 26, Tavistock Place, W.C.	Case dismissed—Warranty proved
22	Milk ...	7½ % fat abstracted and 2½ % added water	Harry Willis, 2, Ritter Street	Fine £5 and 12/6 costs
23	Milk ...	17·6 % added water ...	William Ridewood, Chapel Farm, Eltham	Fine £10 and 23/- costs
24	Milk ...	10 % added water ...	G. A. Algar, 177, Ann Street, Plumstead	Fine £10 and 21/- costs
25	Milk ...	6 % added water ...	Thomas Dorgan, 823, Woolwich Road	Fine £4 and 21/- costs

TABLE XIX.

Food surrendered by Owners as unfit for consumption.

Articles.	Quantity.	Date.	Remarks.	Reason.
Pig's Kidneys ...	11 lbs. ...	6th Jan.	Surrendered	Unsound
Meat	210 „ ...	18th „	„ ...	„
Coal-fish ...	1 barrel ...	3rd Feb.	„ ...	„
Haddocks ...	1 case ...	9th „	„ ...	„
Pig's Head ...	7½ lbs. ...	13th „	„ ...	Tuberculous
Pork	Carcase ...	2nd Mar.	„ ...	„
Liver of Ox ...	*12 lbs. ...	14th „	„ ...	Distoma
Pork	31 „ ...	16th „	„ ...	Tuberculous
Pork	Carcase ... (83 lbs.)	17th „	„ ...	Fever
Liver of Ox ...	13 lbs. ...	17th „	„ ...	Tuberculous
Pigs' Plucks ...	16 „ ...	17th „	„ ...	„
Roes of Cods ...	1 trunk ...	17th „	„ ...	Unsound
Skate	2 cwt. ...	19th Ap.	„ ...	„
Pigs' Kidneys ...	16 lbs. ...	21st „	„ ...	„
Tomatoes ...	15 tins ...	12th May	„ ...	Blown and Unsound
Pineapples ...	1 tin ...	12th „	„ ...	„
Apricots ...	1 „ ...	12th „	„ ...	„
Tomatoes ...	1 „ ...	8th June	„ ...	„
Condensed Milk	1 „ ...	8th „	„ ...	„
Corned Beef ...	6 lb. tin ...	25th „	„ ...	„
Melrose Pate ...	1 lb. tin ...	25th „	„ ...	„
Brisket of Beef...	1 2-lb. tin	25th „	„ ...	„
Corned Beef ...	1 „	25th „	„ ...	„
Pineapples ...	2 tins ...	25th „	„ ...	„
Condensed Milk	14 1-lb. tins	25th „	„ ...	„
Salmon... ...	6 „	25th „	„ ...	„
Lobster ...	1 ½-lb. tin	25th „	„ ...	„
Hake	1 box ...	15th Aug.	„ ...	Unsound
Sheep's Liver ...	* ...	20th Mar.	„ ...	Cystic
Pig's Liver ...	* ...	22nd „	„ ...	„
Sheep's Omentum	* ...	28th „	„ ...	„
Ox Liver ...	* ...	4th Ap.	„ ...	„
Sheep's Liver ...	* ...	11th „	„ ...	„
„ Omentum	* ...	11th „	„ ...	„
„ Liver ...	* ...	9th May	„ ...	Distoma
„ Omentum	* ...	16th „	„ ...	Cystic
„ Liver,&c.	* ...	29th „	„ ...	„
„ Omentum	* ...	6th June	„ ...	„
Mesentery ...	* ...	6th „	„ ...	
Ox Liver ...	* ...	6th „	„ ...	Distoma
„ ...	* ...	13th „	„ ...	„
„ ...	* ...	20th „	„ ...	Abscess

TABLE XIX—continued.

Food surrendered by Owners as unfit for consumption.

Articles.	Quantity.	Date.	Remarks.	Reason.
Pig's Plucks ...		23rd „	Surrendered	Tuberculous
Pig's Pluck ...	* ...	26th „	„ ...	Cystic
Ox Liver ...	* ...	27th „	„ ...	„
Sheep's Liver & Omentum	* ...	4th July	„ ...	„
Hake	box ...	6th „	„ ...	Unsound
Sheep's Liver,&c.	* ...	11th „	„ ...	Cystic
Ox Liver ...	* ...	1st Aug.	„ ...	Distoma
Haddocks ...	box ...	2nd „	„ ...	Unsound
Pig's Plucks ...		3rd „	„ ...	Tuberculous
Ox Liver ...	* ...	8th „	„ ...	Distoma
Calf's Liver ...	* ...	9th „	„ ...	Abscess
Pig's Plucks ...		11th „	„ ...	Tuberculous
Ox Liver ...	* ...	15th „	„ ...	Distoma
Hake	box ...	16th „	„ ...	Unsound
Ox Liver & Lungs	* ...	22nd „	„ ...	Cystic
Hake		15th „	„ ...	Unsound
Shrimps ...	2 gallons	29th „	„ ...	„
Pork	70 lbs. ...	7th Sept.	„ ...	Tuberculous
Skate	box ...	7th „	„ ...	Unsound
Ox Liver ...	* ...	12th „	„ ...	Cystic
Sheep's Omentum	* ...	12th „	„ ...	„
Ox Liver ...	* ...	12th „	„ ...	Distoma
Herrings ...	box ...	3rd Oct.	„ ...	Unsound
Ox Liver ...	* ...	3rd „	„ ...	Distoma
Ostend Rabbits...	2 cwt. 27 lbs.	6th „	„ ...	Unsound
„ ...	40 lbs. ...	6th „	„ ...	„
Haddocks ...	1 trunk ...	9th „	„ ...	„
„ ...	2 barrels	8th „	„ ...	„
Ox Liver ...	* ...	17th „	„ ...	Distoma
Haddocks ...	2 trunks...	28th Nov.	„ ...	Unsound
Ox Liver ...		28th „	„ ...	Distoma
Haddocks ...	1 trunk ...	15th Oct.	„ ...	Unsound
Pork	26 lbs. ...	4th Dec.	„ ...	Tuberculous
„	30 „ ...	30th Nov.	„ ...	„
Potatoes ...	1 ton ...	14th Dec.	„ ...	Unsound
Ox Liver ...	*1 ...	12th „	„ ...	Distoma
Sheep's Liver & Omentum	* ...	12th „	„ ...	Cystic
Pork	105 lbs. ...	29th „	„ ...	Tuberculous
Ox Liver (frozen)	12 „ ...		„ ...	Angeoma

Those marked with a star * were found in a slaughter-house.

TABLE XX.

List of Level Bakehouses.

Name.	Address.
Mrs. S. Fuller ...	48, Princes Road, Plumstead
Chadwell Bros. ...	60, Plumstead Common Road
C. Pullen ...	105 do
— Werner ...	126, High Street, Plumstead
J. E. Porter ...	1, Riverdale Road do
F. Bohmer ...	307, High Street do
A. E. Paine ...	14, Gunning Street do
A. Jewiss ...	68, Glyndon Road do
— Dalton ...	102, Ann Street do
C. Letchford ...	109, Plumstead Road do
J. Clark	152 do. do
W. C. Hill ...	82, Bannockburn Road, Plumstead
R. Famely ...	2, Stratton Terrace, Bostall Lane, Plumstead
W. Jeffery ...	123, Burrage Road, Plumstead
P. H. Mack ...	111, High Street, Woolwich
A. Bradshaw ...	3, Green's End do
F. W. Jackson ...	184, Elizabeth Street, North Woolwich
C. Haas ...	122, Albert Road do
H. Myers ...	33, Samuel Street, Woolwich
Mrs. Dennis ...	90, Brookhill Road do
E. Ewell ...	36, Chapel Street do
A. Adams ...	10, Kingsman Street do
C. H. Wyatt ...	94, High Street, Eltham
H. Westbrook ...	114 do do
F. Cook	142 do do
C. Worboys ...	5, The Parade, New Eltham
F. A. Finch ..	13 do do
E. Hobbs ...	6, Well Hall Parade, Eltham
R. Moakes ...	53, Cordite Street, Plumstead
J. H. Cocks ...	53, Lakedale Road do
G. H. Porter ...	29, Charles Street, Woolwich

TABLE XXa.

List of Certified Underground Bakehouses.

Name.	Address.
S. Betchley	33, Eglinton Road, Plumstead
Merritt & Co.	50, Herbert Road, do.
H. Gilder	14, Westdale Road, do.
H. Percival	223, High Street, do.
J. Werner	1, Park Road, do.
S. Collin	58, Pattison Road, do.
F. Cox	46, Hudson Road, do.
O. Degen	14, Conway Road, do.
F. Farrier	30, Burrage Road, do.
W. T. Akers	16, Armstrong Place, do.
Dalton & Sons	13, Eton Road, do.
W. Arnold	57, Plumstead Road, do.
R. C. Davis	2, Crescent Road, do.
A. E. Sims	24, St. James's Place, do.
J. Colver	165, Sandy Hill Road, do.
E. Fairbrother	16, Woolwich Common, Woolwich
B. Flood — ...	31, Beresford Street, do.
L. Wilkenning	72, Henry Street, do.
F. Ginger	8 Hill Street, do.
W. C. Clothier	51, Albion Road, do.
Simmons	23, George Street, do.
Mrs. Kessler	21, Albion Road, do.
A. Hills	32, Church Street, do.
Mrs. Attenborough ...	60, Sand Street, do.
E. Tucker	81-82, Brookhill Road, do.

TABLE XXB.

List of Factory Bakehouses.

Name.	Address.
J. Fletcher	57, Burrage Road, Plumstead
J. Fletcher	92, Plumstead Road, Plumstead
T. Newman	94, Wellington Street, Woolwich
Royal Arsenal Co-operative Society	127 to 153, Powis Street, Woolwich
J. Alderton	16, Swingate Lane, Plumstead
G. Mackintosh	Warwick Terrace, Plumstead Common
J. Werner	1, Park Road, Plumstead
A. Chapman	2, High Street, Plumstead

TABLE XXI.

List of Slaughterhouses.

No.	Name of Owner.	Situation.
1	Eliza Biggs...	168, High Street, Eltham
2	Joseph John Leech	78, Frederick Place, Plumstead
3	Henry Reed & Gains William Funnell	25, Parry Place, Plumstead
4	Do.	6, High Street, Plumstead
5	Hedley Vicars	41, Church Street, Woolwich
6	Walter Monk	14, Church Street, Woolwich
7	Frederick Bucknell... ...	Love Lane (near Wellington Street), Woolwich
8	James & George Mitchell ...	25, Hare Street, Woolwich
9	Hedley Vicars	30, Hare Street, Woolwich
10	Henry Reed & Gains William Funnell	38, Plumstead Common Road, Plumstead
11	Henry Fretter	33, Herbert Road, Plumstead

TABLE XXII.

List of Cowhouses.

No.	Name and Address of Owner.	Situation.
1	William J. Miller	Keightley House Farm, Southwood Road, Eltham
2	Richard and James Higgs ...	Coldharbour Farm, Chislehurst
3	John and Alfred Low, Avery Hill Farm, Eltham	Park Farm, Eltham
4	W. F. Corp	Lyme Farm, Eltham
5	E. Fisher & Sons, Crescent Farm, Sidcup	Belmont Park Farm, Eltham
6	John Grace	Pippinghall Farm, Eltham
7	William Ridewood ...	Chapel Farm, Eltham
8	George Keen	Clay Farm, New Eltham
9	Maurice Bayley	Middle Park Farm, Eltham
10	Harry Furber	Victoria Road Farm, Southend, Eltham
11	William Killick	52, St. James's Place, Plumstead
12	W. F. Corp, Lyme Farm, Eltham	13, Princes Road, Plumstead
13	Henry Woolsey	50, Francis Street, Plumstead
14	William Ridewood, Chapel Farm, Eltham	3, Ripon Road, Plumstead
15	F. G. Cock	13, Raglan Road, Plumstead
16	Charles George Lambeth Frank Seymour Lambeth Frederick Lambeth George Pannell Lambeth	1, Griffin Road, Plumstead
17	John Charles Terrington, 16, Pellipar Road	Rear of 14, 15 and 16, Pellipar Road, Woolwich

TABLE XXIII.

List of Milk Sellers.

No.	Name.	Address.
1	Morley, Ernest ...	12, Villas Road
2	Perrett, H. N.... ...	2, The Parade, New Eltham
3	James, J. R. W. ...	26, Parry Place
4	Webb, F. W.	58, Brewery Road
5	Balster, H.	97, Plumstead Common Road
6	Carr, E.	46, Kingsman Street
7	Finnimore, J. A. ...	83, Park Road
8	Palmer, M. A.... ...	127, Plumstead Road
9	Day, Walter	147, „
10	Digby, W. J.	82, „
11	Squirrell, J.	57, Church Street
12	Jeal, W. H.	139, Plumstead Road
13	Handsley. A.	68½, Bloomfield Road
14	Cock, F. G.	13, Raglan Road
15	Skeggs, E.	54, High Street, Woolwich
16	Espline, Geo.	48, „ „
17	Royal Arsenal Co-op. Soc.	Lakedale Road
18	„ „ ...	15, Brewery Road
19	„ „ ...	143, Powis Street
20	„ „ ...	Herbert Road
21	„ „ ...	147 & 151, Powis Street
22	Fletcher, J.	92, Plumstead Road
23	Brooks, H.	2, Richmond Place
24	Dalton & Son... ...	13, Eton Road
25	Smith, Harriet ...	30, High Street, Eltham
26	Miller, —	Southwood Road, Eltham
27	Woolsey, Henry ...	50, Francis Street
28	Howe, Jno. Robert ...	82, High Street
29	Brett, Theodoret ...	1, Ordnance Road
30	Russell, Nellie ...	96, Macoma Road
31	Pearce, Robt. A. ...	Lydwin Dairy, The Slade
32	Crouch, Fred. J. ...	31, Riverdale Road
33	Dorgan, Thos. J. ...	59, Woolwich Road
34	Hawkins, Ellen M. ...	2, St. Nicholas Road
35	Furter, Harry ...	Southend, Eltham
36	Betchley, Sidney ...	33, Eglinton Road
37	Large, Daniel J. ...	6, Herbert Road
38	Hiscock, Chas. T. & E. ...	14, Blenheim Terrace
39	Conceprio, Angelina ...	282A, High Street, Plumstead
40	Dalton, Richd. G. ...	55, Eglinton Road
41	Buckley, Mary ...	28, Conway Road
42	Jones, Chas. Alfred ...	14, Bostall Hill

TABLE XXIII—continued.

No.	Name.	Address.
43	Vaughan, J. C. ...	36, Armstrong Street
44	Green, Robert ...	13, Saunders' Road
45	Butter & Sons ...	49, Woolwich Common
46	„ ...	10, Jackson Street
47	Budery, Isaac ...	106, Bloomfield Road
48	Reed, Ruth C. ...	120A, Plumstead Road
49	McGee, J. M.... ...	42, Mulgrave Place
50	Ward, Samuel ...	1, Nightingale Vale
51	Mack, Philip H. ...	111, High Street, Woolwich
52	Surman, Mary A. ...	68, Beresford Street
53	Webb, Younger ...	10, Beresford Square
54	Morgan, E.	17, Lakedale Road
55	Dennis, Ellen... ...	90, Brookhill Road
56	Prowett, John ...	25, Plum Lane
57	Nicholls, Daniel ...	25A, Garland Street
58	Newman, Fredk. ...	1, Orchard Terrace, Timbercroft Rd.
59	Bayley, Maurice ...	Middle Park Farm, Eltham
60	Higgs, R. & Sons ...	Cold Harbour Farm, Eltham
61	Coppen, Wm. Henry ...	St. James' Place, Woolwich
62	Bassett, Thos. ...	61, Bannockburn Road
63	Yelland, Wm.... ...	2, Westdale Road
64	Keen, George... ...	Clay Farm, New Eltham
65	Godden, Alf. P. ...	229, High Street, Plumstead
66	Palmer, David ...	46, Church Street
67	Wilton, Maud M. ...	77, Powis Street
58	Corp, Wm. F.... ...	Lyme Farm, Eltham
69	„ ...	3, Wellington Street
70	Pearce, Robert A. ...	175, Plumstead Common Road
71	Christmas, Hannah ...	18, Well Hall Parade, Eltham
72	Dodson, Walter ...	138, Plumstead Common Road
73	Dowsett, James ...	105, Crescent Road
74	Wyatt, John	141, Albert Road
75	Miller, W. J.	Pope Street Dairy, Eltham
76	Taylor, E.	67, Llanover Road
77	Baxter, Harriet ...	47, Artillery Place
78	Nelson, J.	9, Parson's Hill
79	Dolphin, Thos. G. ...	89, Maxey Road
80	Rumsey, Edward ...	186, Powis Street
81	Tyler, C. W.	142, High Street, Woolwich
82	Ludlow, E. D. ...	2A, Brewery Road
83	Woolsey, W.	118, Swingate Lane
84	Harrington, H. ...	187, Powis Street
85	Wilde, Ernest ..	13, New Road
86	Jenkins, John... ...	28, High Street, Woolwich

TABLE XXIII—continued.

No.	Name.	Address.
87	Clements, E. J. ...	2, Cross Street
88	Bohmer, H.	307, High Street, Plumstead
89	Green, H. G.	17, Kashgar Road
90	Couzens, Jesse ...	10, Chapel Street
91	Oliver, Clara	101, Sand Street
92	Bollen, Wm.	1, Warwick Terrace
93	Stevens, F.	100, Roydene Road
94	Ridewood, Wm. ...	116, High Street, Eltham
95	Rose, James	64, Hargor Road
96	Cameron, Rose, E. ...	22, Sand Street
97	Paine, Alf. E.	14, Gunning Street
98	Corp, W. F.	90A, High Street, Eltham
99	" ...	13, Princes Road
100	Hawkes, George ...	143, Kingsman Street
101	Parsons, W.	29, Wilmount Street
102	Trodd, W. J.	113A, High Street, Woolwich
103	Green, Sidney O. ...	6, Samuel Street
104	Kimber, Margaret ...	3, Rope Yard Rails
105	Stevens, H.	27, Church Street
106	Nelson, W. J.	9. Parson's Hill
107	Hassan, Fred	182, Elizabeth Street
108	Biddle, H. G.	52, Raglan Road
109	Hobbs, Edward J. ...	6, The Parade, Well Hall
110	Howard, Esther ...	80, Benares Road
111	Moss, Albert J. ...	13, Hinstock Road
112	Needham, Elizabeth ...	94, High Street, Woolwich
113	Hill, Mary C.	82, Bannockburn Road
114	Flood, Fred & Arthur ...	31, Beresford Street
115	Webb, F. W. & Co. ...	16, Lakedale Road
116	Finch, George A. ...	13, The Parade, New Eltham
117	Millar, John M. ...	"Tembu," New Eltham
118	Young, Lily	11, Armstrong Street
119	Wilson, J. J.	1, Ordnance Road
120	Davis, D. H.	170, Albert Road
121	Willis, H.	2, Ritter Street
122	West, W. H. J. ...	Rear of 49, Lakedale Road
123	Phipps, Henry ...	15A, Sand Street
124	Reynolds	24B, & 26B, Glyndon Road
125	Hutchings, Thos. H. ...	"Hammerwood," Shooters Hill
126	Campion, James ...	54, High Street, Eltham
127	Smith, Elizabeth ...	12, The Broadway, Eltham
128	Bennett, Rose ...	22, Glyndon Road
129	Weston, Elizabeth ...	83, Station Road, Plumstead
130	Harrington, James ...	26, Prospect Row

TABLE XXIII--continued.

No.	Name.	Address.
131	Boasden, Lucy ...	1, Walmer Road
132	Williams, Ellen ...	12, Thomas Street
133	Reynolds, Chas. W. ...	10, Basildon Terrace
134	Edwards, John Chas. ...	16, Albion Road
135	Holdway, John A. ...	12, Bostall Hill
136	Griffith, Elizabeth ...	153. High Street, Plumstead
137	Boyce, G.	127, Burrage Road
138	Bartrum, Abner ...	167, Kingsman Street
139	Briggs, Arthur C. ...	6, Bloomfield Road
140	Groves, Alfred ...	40, Orchard Road
141	Jewett, Thomas ...	3, Bellwater Gate
142	Holmes, Blanche ...	107, Pattison Road
143	Jones, David	65, Maxey Road
144	Wainwright, Wm. Thos. ...	60, Henry Street
145	Harley, James ...	30, High Street, Plumstead
146	Mackintosh, G. H. ...	16, Warwick Terrace
147	Killick, Wm.	52, St. James's Place, Plumstead
148	Daveney, Thos. ...	24, Maxey Road
149	Jaques, Herbert ...	56, Anglesea Road

Appendix I.

Measles.

Results of Early Closure of School Classes.

Measles is an infectious disease very fatal to children, and consequently special efforts have been made to prevent the spread of the infection and lessen the mortality.

Difficulty in dealing with Measles.—Owing to the fact that the disease usually begins like a common cold, that the rash does not appear till the fourth day, and that Measles is very infectious in the early stage before the rash comes out, the usual methods of isolation generally fail to arrest the spread of infection, being adopted too late to be of benefit.

Object of Closure.—Like other infectious diseases the spread of Measles is greatly assisted by the aggregation of children in elementary schools, and it has generally been held by Medical Officers of Health that if on the appearance of Measles in a school steps were taken not only to exclude the patients, but all contacts with the patient who might be incubating the disease, its further progress would be arrested. For this purpose notifications have been obtained, from school teachers, of children absent on account of Measles, and when several cases were notified, indicating a decided outbreak, steps have been taken to close the whole school, or the affected classes. It was soon found, however, that if closure was not effected until several cases had occurred it was practically valueless, because all the susceptible children were infected before the class was closed. The only way to make closure successful appeared to be to close a class directly the first case was notified and so exclude the children, who had already been affected by the first case, from attending school when they were beginning to sicken.

System of Closure adopted.—It was consequently arranged between Dr. Kerr, the Medical Officer of the London School Board (now M.O. for schools under L.C.C.) and myself, with the approval of the London School Board and your Council, to divide this Borough into two nearly equal districts, and in one of these to close any class in the infant department of an elementary school immediately a case of Measles was notified, and in the other only to adopt the ordinary measures of excluding children from infected homes.

The investigation began in January, 1903, and it was decided to close in the following wards in the East District of the Borough: Glyndon, Central, St. Margaret's, St. Nicholas and Eltham, and not to close in the remaining wards in the western half.

On receiving a notification that a child was absent from school on account of Measles, the Sanitary Inspector straightway visits the house and enquires as to the grounds for thinking it is a case of Measles, and obtains particulars. If the information as to the diagnosis is not conclusive, and no medical man is in attendance, I have myself called to see the patient. When satisfied that the case is one of Measles, a letter is written to the school Medical Officer asking him to close the class for a certain period varying from six to fifteen working days (ten to 21 days interval) according to circumstances. The average total period of closure in 1904 was under 13

days (including only about 9 working days). When it was known that a large proportion of the children in a class had had Measles, only those children have been excluded who were stated not to have already suffered from the disease.

Results of investigation.—The appended tables summarise the results of the investigation. They compare notifications and deaths in the West or non-closure district with those in the East or closure district, both for the period January 1903, to December 1906 inclusive, and for the two preceding years 1901 and 1902, when early closure was not enforced at all.

Table I. shows the age incidence of notifications in the whole Borough, and Table II. the age incidence of deaths in each district and during each period. Table III. shows the schools in each district, with the numbers on the roll and the cases notified during 1903-6, Table IV. shows the same items for 1901-2. The notifications in Table III. include only children attending school. The notifications in Table I. include, in addition, children not attending school who have been notified by school teachers, owing to brothers or sisters being excluded on their account, and also a few cases notified by parents or others. Table V. shows the notifications and death-rates for each district in each period of time, *i.e.*, before and after closure was commenced.

The following facts appear from the investigation :—

1. The largest number of cases notified was between the ages of five and six years, and the next largest number between four and five.
2. Over three-fourths of the cases notified were between three and seven years of age.
3. Closure had a little effect on age incidence. It diminished the incidence at ages under three.
4. Nearly one-fourth of the deaths were in children under one year of age, and only one in ten were in children over five.
5. During the two years (1901 and 1902) preceding closure, the notification rate was much higher in the east or closure district than in the west or non-closure district, viz., as 21·3 to 15·4.
6. There was a great increase of notifications during the second period, 1903-6. In the west, or non-closure district, the notification rate increased from 15·4 to 26·0, and in the east, or closure district, from 21·3 to 30·8.
7. During 1903-6 there was a higher rate of notifications in the closure district than in the non-closure (30·8 compared with 26·0).
8. Comparing the two periods of time before and after closure commenced, in the latter period there was an increase of the rate of notifications of 69 per cent. in the non-closure district, but the increase in the closure district was only 45 per cent. Thus while an increase of notifications was general throughout the Borough, closure had the effect of diminishing the increase in the east district. This may partly be ascribed to the fact of teachers not hearing of cases of Measles occurring among excluded children, though I have no doubt most of these cases were reported on re-assembly of the class.

The death rates in the two districts during 1901-2 were nearly equal. There has been a marked reduction in the death rate during 1903-5, but this reduction has been somewhat less in the closure district than in the non-closure. The number of deaths, however, in each district is too small to draw from them reliable comparisons.

There has been a striking reduction in the death rate from Measles in the Borough during the last six years, both as compared with the preceding years and with London during the same period. This is shown by the following table:—

	Death rates from Measles per 1000 population.	
	Woolwich Borough.	London.
1891-5 ...	0·51 ...	0·59
1896-1900 ...	0·67 ...	0·57
1901 ...	0·18 ...	0·43
1902 ...	0·33 ...	0·51
1903 ...	0·20 ...	0·40
1904 ...	0·22 ...	0·49
1905 ...	0·10 ...	0·36
1906 ...	0·24 ...	0·40

The figures previous to 1901 are exclusive of the part of the Borough known as Eltham, but the Eltham figures could not appreciably diminish the rate, though they might possibly increase it, as the Eltham population was then less than one-fifteenth that of Woolwich and Plumstead.

This remarkable reduction of deaths certainly has little relation to school closure, having commenced before early closure was begun. The death rate was naturally low in 1901, which succeeded a year of high death rate. In January, 1902, was commenced the practice of taking a card of instructions as to the hygienic treatment of Measles to every house when a case was notified. The usual biennial rise in the Measles death rate in 1902 was slight, and the subsequent years have shown a continued low mortality. It seems reasonable to conclude that the reduced mortality is a result of more hygienic treatment of children suffering from Measles, resulting from the instructions given by card distribution.

Why Closure has not been more successful.—Although closure of classes appears to have had the effect of greatly limiting the increase of Measles in the eastern district compared with the western, it must be admitted that the total result of closure has been much less than might have been hoped for. The reasons for this are not far to seek. There is no satisfactory system by which a teacher becomes aware of the cause of the absence of a pupil. If no note is received from a parent, she is not allowed to send a child to the house, but is usually dependent on a hearsay report from any child who lives near. The result is that, even when the cause of illness in a child is known at home, it is frequently not known at the school till the expiration of the ten days incubation period, during which closure should take effect to be of value. The obtaining of early information depends to a large extent on the interest and diligence of the head teacher in excluding cases of infectious diseases; whereas some teachers, even without closure, have been most successful in checking the spread of infection, from others information is seldom obtained until several cases have commenced.

In addition to this, parents do not call in medical attendance in about half of the cases of Measles that occur, and consequently are often ignorant of the existence of the infection, and probably in many cases are willingly ignorant.

It is no wonder then that early and satisfactory information of the occurrence of cases is often not received. In many instances the first case in a class is not heard of at all, and more often still it is not notified until too late to be of service, viz., until the first crop of cases has begun to sicken, and have attended school in an infectious state.

What is required to make closure more successful is improved means of gaining early information of the occurrence of cases of infection. The school teachers have not the time to do this satisfactorily. Probably it could best be done by making notification of all infectious diseases compulsory on parents, and throwing upon them the onus of becoming aware that the disease was infectious. This would no doubt involve the provision of medical attendance free of charge for diagnosis purposes. But a useful, if less complete, means of gaining the necessary information would be the provision of trained nurses to visit immediately any children absent from school, and to report any suspicious cases which could then be visited by the School or Borough Medical Officer. Such a staff would be beneficial in many ways as health-visitors.

Difference of incidence on the east and west districts.—It has been seen that in the two years preceding the enforcement of early closing, Measles was much more prevalent in the east district than in the west, viz., as 21·3 to 15·4. Whether this was the normal condition of things before closure began in the east district I have no means of knowing, as there are no records of the notificatian of Measles in Woolwich and Eltham parishes prior to 1901. Certainly it does appear as though there was a less tendency for Measles to spread when it occurs in some of the schools in Woolwich parish (which is included in the west district) than in Plumstead parish (which comprises the chief part of the east district).

Conclusion.—As the great majority of children excluded are under six years, the interference with school attendance has not been of a serious nature. It would probably diminish the mortality from Measles, without prejudicing education, if children were not allowed to attend school at all until they were at least five years of age. There is no doubt that in a large proportion of cases the infection of measles is contracted at school and brought by children attending school to the younger members of the family not attending, among whom Measles is so fatal. Now, obviously, if the age of school attendance were raised by one or two years, the number of families of young children, none of whom attended school, would be increased in proportion, and a large number of young children who are now exposed to the risk of infection would be comparatively safe. But it is clear that until some measures such as are suggested above be taken, very little result can be hoped from early school closure after Measles has appeared in diminishing the spread of Measles and the mortality of the disease.

TABLE I.

Ages of Cases Notified, 1901-6.

Ages	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10 & over
	58	136	159	484	943	1118	546	209	71	30	70

TABLE II.

Deaths—1901-6.

Non-Closure District.

Ages.	1901	1902	Total	1903	1904	1905	1906	Total
0-1	2	3	5	1	5	..	..	6
1-5	11	11	22	8	8	7	9	32
over 5	1	1	2	1	1	..	1	3
	14	15	29	10	14	7	10	41

Closure District.

Ages.	1901	1902	Total	1903	1904	1905	1906	Total
0-1	1	10	11	2	4	4	7	17
1-5	5	14	19	12	5	3	12	32
over 5	1	1	2	2	4	1	2	9
	7	25	32	16	13	8	21	58

TABLE III.

Schools, Numbers on Roll, and Cases Notified in each District, 1903-6.

Non-Closure Schools.	Av. No. on Roll, 1903-6.	Cases Notified, 1903-6.	Closure Schools.	Av. No. on Roll, 1903-6.	Cases Notified, 1903-6.
Union Street ..	607	81	Slade ..	942	164
St. Mary's ..	703	26	Earl Street ..	997	161
Bloomfield Road	1627	276	Vicarage Road ..	1007	154
Elizabeth Street	817	102	Church Manorway	549	19
Plum Lane ..	790	176	Bostall Lane ..	928	85
Eglinton Road ..	1183	57	Conway Road ..	1337	145
Burrage Grove ..	932	134	Ancona Road ..	1181	141
All Saints' ..	418	30	Piedmont Road .. (Mentally defective)	47	..
Mulgrave Place ..	861	69	Timbercroft Road	451	139
Wood Street ..	1044	54	Central ..	549	63
St. Michael's ..	596	82	Purrett Road ..	1036	97
St. Peter's ..	629	2	High Street ..	1253	119
Fox Hill ..	224	2	Wickham Lane ..	522	35
Powis Street .. (Blind)	30	..	Plumstead Road	810	86
Powis Street .. (Mentally defective)	36	..	Deansfield Road	211	31
			Gordon ..	644	106
			Pope Street ..	618	60
			Roper Street ..	361	88
			Christchurch ..	108	..
			St. Patrick's ..	179	1
	10497	1091		13730	1694

TABLE IV.

SCHOOLS, NUMBER ON ROLL, AND CASES NOTIFIED IN EACH DISTRICT, 1901 AND 1902.

Schools.	On Roll.	Cases.		Total.	Schools.	On Roll.	Cases.		Total.
		1901.	1902.				1901.	1902.	
Union Street	557	7	1	8	Slade	1182	43	26	69
St. Mary's	752	1	20	21	Earl Street	1045	3	59	62
Bloomfield Road	1805	29	28	57	Vicarage Road	1036	23	41	64
Elizabeth Street	763	3	33	36	Conway Road	1428	2	16	18
Burrage Grove	1005	13	16	29	Ancona Road	1221	1	69	70
All Saints'	452	1	..	1	Timbercroft Road ..	433	..	..	..
Plum Lane	396	1	36	37	Central	585	2	33	35
Eglinton Road	1290	10	3	13	Purrett Road	1380	9	79	88
Mulgrave Place	796	..	37	37	High Street	1269	45	8	53
Wood Street	1152	25	10	35	Wickham Lane	485	..	11	11
St. Michael's	638	43	..	43	Plumstead Road	937	8	45	53
St. Peter's	638	1	..	1	Gordon	389	..	2	2
Fox Hill	89	..	..	..	Pope Street	595	..	10	10
Powis Street	322	13	..	13	Christchurch	110	...	7	7
Union Street (Ment. Defect.)	28	..	..	..	Roper Street	400	..	..	..
					St. Patrick's	182	..	..	..
					Ancona Road (Ment. Defect.)	33	..	..	..
	10683	147	184	331		12710	136	406	542

TABLE V.

Summary of Report.

Schools in West District (Non-Closure).

Cases Notified 1901/2	.. .. ..	331 ..	Rate 15·4
,, ,, 1903/4/5/6	.. ..	1091 ..	,, 26·0

Schools in East District (Closure).

Cases Notified 1901/2	.. .. ..	542 ..	Rate 21 3
,, ,, 1903/4/5/6	.. ..	1694 ..	,, 30·8

Notification Rates are calculated per 1,000 on Roll per year.

West District.

Deaths 1901/2	.. .. ..	29 ..	Rate 8·5
,, 1903/4/5/6	.. .. ..	41 ..	,, 6·07

East District.

Deaths 1901/2	.. .. ..	32 ..	,, 8·3
,, 1903/4/5/6	.. .. ..	58 ..	,, 7·8

Death rates calculated per 1,000 average annual Births.

Appendix II.

How to be Healthy.

"Prevention is Better than Cure."

1. General Rules of Health.
2. Physical Deterioration and Alcoholism.
3. The Prevention of Consumption.

It is our duty both to maintain our own health and to avoid injuring the health of other persons; the following rules contain advice which will much assist you to do this. They are sent by order of the Health Committee of the Borough with the request that after having read them you will hang them up in a convenient place for further reference.

In addition, Cards of Instruction on "How to Feed Baby" and "Precautions against Measles" can be obtained at any time during office hours by applying to the Public Health Department, Town Hall.

The three requisites of health are cleanliness, fresh air and pure water. There should be no lack of any of these in your house.

SIDNEY DAVIES, *Medical Officer of Health.*

Town Hall, Woolwich,
February, 1906.

General Rules of Health.

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1. Use absolute cleanliness in your person and clothing.

2. In order to keep the teeth from decaying they should be thoroughly cleansed at least every night. This is even more important for children than adults, as they will not grow big and strong unless they have sound teeth. Decayed teeth should be stopped (before they begin to ache) or extracted. The first permanent teeth come at the back at six years of age.

3. Never spit on the floor or into your handkerchief. The law forbids spitting on the floor or side of any public carriage, hall, waiting-room or place of entertainment. Penalty 40s.

4. Wash your hands frequently, and especially—

(*a*) Before eating.

(*b*) Before preparing food for any one.

(*c*) After attending to any sick persons.

5. Keep your house perfectly clean.

6. Do not allow any rubbish to remain in the yard, but keep the back premises as neat and clean as the front.

7. If there is any defect in the roof, walls, floors, windows or doors of your house which you cannot repair yourself, complain to the landlord; if he does not attend to it, complain at the Health Office, Town Hall.

8. Light is of great importance to health. A dark room should not be used for living or sleeping. The light entering the windows should not be obstructed in any way by curtains or blinds; if, however, this is necessary for privacy, a very light muslin blind should be used in the lower part of the window only.

9. Fresh air is equally important. The window of a room should always be kept open when anyone is in the room, day and night. In summer it should be wide open, and in cold weather it can always be opened a few inches at the top, or a "Hinckes-Bird" ventilator can be provided by any joiner at a cost of a few pence.

10. Beds should be stripped and aired, slops emptied, blinds and curtains drawn, and windows opened wide, as soon as possible after rising in the morning.

11. Waterclosets should be flushed each time they are used. In addition to this, every morning, about ten o'clock, after all the slops have been emptied, you should flush the closet with two or three pails of water.

12. If the drain is stopped, or the house refuse is not regularly collected, immediate complaint should be made at the Health Office.

13. Places where food is kept should be dry, well ventilated, and kept scrupulously clean.

14. The fresh water cistern should be cleansed every six months.

15. The following articles of food should either be altogether avoided or used with caution, especially for children :—

Shell fish, which is often grown on sewage.
Pork sausages, pork pies.
Tinned meats and fish.
Alcohol in all its forms.

Tinned meats should not be kept long after being opened.

Physical Deterioration and Alcoholism.

The Report of the Committee, presented to Parliament by command of His Majesty, states that :—

The abuse of Alcoholic stimulants is a most potent and deadly agent of physical deterioration.

Alcoholic persons are specially liable to Syphilis, Tuberculosis, and all inflammatory disorders.

Evidence was placed before the Committee showing that in abstinence is to be sought the source of muscular vigour and activity.

The lunacy figures show a large and increasing number of admissions of both sexes which are due to drink.

The following facts recognised by the medical profession, and placarded all over France by order of the Government, are published in order to carry out the recommendation of the Committee, and to bring home to men and women the fatal effects of alcohol on physical efficiency.

(1). Alcoholism is a chronic poisoning, resulting from the habitual use of Alcohol (whether as spirits, wine or beer), which may never go as far as drunkenness.

(2). It is a mistake to say that those doing hard work require stimulants. As a fact, no one requires alcohol as either food or tonic.

(3). Alcohol is really a narcotic, dulling the nerves like laudanum or opium ; but is more dangerous than either, in that often its first effect is to weaken a man's self-control whilst his passions are excited ; hence the number of crimes which occur under its influence.

(4). Spirits, as usually taken, rapidly produce alcoholism, but milder alcoholic drinks, as beer, and even cider, drunk repeatedly every day, produce after a time alcoholic poisoning with equal certainty.

(5). The habit of drinking leads to the ruin of families, the neglect of social duties, disgust for work, misery, theft and crime. It leads also to the hospital, for alcohol produces the most various and the most fatal diseases, including Paralysis, Insanity, diseases of the stomach and liver, and

Dropsy. It also paves the way to consumption, and frequenters of public houses furnish a large proportion of the victims of this disease. It complicates and aggravates all acute diseases; Typhoid Fever, Pneumonia and Erysipelas are rapidiy fatal in the subject of alcoholism.

(6). The sins of alcoholic parents are visited on the children ; if these survive infancy they are threatened with Idiocy or Epilepsy, and many are carried away by Tuberculous Meningitis or Phthisis (Consumption).

(7). In short alcoholism is the most terrible enemy to personal health, family happiness, and to national prosperity.

How to avoid Consumption.

1. Consumption is an infectious, curable disease.

2. The infection, however, seldom attacks people unless their system is seriously weakened. Young people are usually infected in the home by relatives ; older persons in the public house, the workshop, etc.

3. Many of those who get Consumption have inherited a special weakness of the lungs from their parents, but in other cases the system is weakened by intemperance, want of nourishment, disease, and insanitary conditions, especially confinement in close, unventilated, and dark rooms.

4. The infection is conveyed in two ways : -

(1) By breathing or swallowing infectious particles from the sputa of consumptive persons. If the sputa become dry, the infection may be inhaled as dust with the air breathed.

(2) By swallowing the milk or meat of tuberculous animals.

5. Consumptive persons should never spit on the floor or into handkerchiefs, but into a cup containing some disinfectant, or, failing that some water. The cup should be frequently emptied down the w.c., and washed out with boiling water. Disinfectants may be obtained free at the Borough Offices, Maxey Road ; at the Health Shelter, Sun Street ; and at 18, Barge House Road.

6. If no kind of vessel containing liquid is at hand, small pieces of paper may be used. These should be burnt as quickly as possible, or thrown down a water closet.

7. For those who have to leave home, pocket spittoons may be bought at the Public Health Offices, price 6d. These should be washed daily with hot water.

8. Consumptives should avoid swallowing their own expectoration, or they may re-infect themselves.

9. Consumptives should avoid kissing altogether.

10. They should always put the hand or handkerchief before the mouth when coughing, and should avoid coughing or loud speaking close to any other person.

11. Paper handkerchiefs should be used. A box containing 120 of these can be obtained for 1s.

12. All danger of infection from milk and meat of tuberculous animals may be avoided by boiling the milk and thoroughly cooking the meat, preferably by boiling. Members of Consumptive families should especially attend to this rule.

13. Close and crowded rooms, concert halls, theatres, and public houses should be avoided. Public houses, in which persons are allowed to spit on the floor, are a very likely source of infection, and should be specially shunned.

14. The rooms occupied by a Consumptive person should contain no unnecessary furniture; and especially curtains, bed hangings, and clothes hanging about should be avoided as far as possible. The rooms should be frequently cleaned out when the Consumptive is not in them, as follows:—

There must be no dry sweeping or dusting. The floor should be swept weekly after sprinkling with water or tea leaves, or an American sweeper used. The walls should be rubbed down every three months with dough, which must then be burnt. Dusting of furniture should always be done with a wet duster.

On the Consumptive ceasing to occupy any room, it should be thoroughly disinfected. This will be done, on application, by a Borough official, free of charge.

15. Consumptives should pass as much time out of doors as possible (sitting or walking slowly if allowed by the doctor), and when indoors the air must be freely admitted.

When sufficient clothing is worn, the windows may safely be kept open wide day and night, but draughts must be avoided. As much sunlight as possible should be admitted; blinds should be drawn up and curtains removed.

16. No one else should occupy the same bed with a Consumptive person, and where possible a separate bedroom should be used.

17. When the above precautions are taken, there is but slight danger of a Consumptive person infecting anybody else.

By order of the Borough Council,

SIDNEY DAVIES, M.A., M.D. Oxon., D.P.H. Camb.,

Medical Officer of Health