[Report of the Medical Officer of Health for Lambeth, Metropolitan Borough of].

REPORT

ON THE

VITAL AND SANITARY STATISTICS

OF THE

BOROUGH OF LAMBETH

DURING THE YEAR

1913.

[With an account of the work done by (a) the Tuberculosis Medical Officers under the Lambeth Tuberculosis Dispensaries Scheme, and (b) the Male and Female Sanitary Inspectors and the Health Visitor and also of the proceedings taken under the Sale of Food and Drugs, the Factory and Workshops, and the Housing and other Acts.]

BY

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PUBLIC HEALTH DEPARTMENT,
LAMBETH TOWN HALL,
BRIXTON HILL, S.W.
April, 1914.

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

MR. MAYOR AND GENTLEMEN,

In presenting the Annual Report for 1913, dealing with the Vital Statistics of the Borough of Lambeth, it is again my privilege to draw your attention to the favourable character of such Report, the lowness of the various death-rates (general, zymotic and infantile mortality) shewing the success of the preventive measures taken and the value of the sanitary work carried out for years past.

.Standing out for particular attention, during 1913, is the inauguration of the Lambeth Municipal Tuberculosis Dispensaries Scheme, with the opening to the Public of the two Dispensaries—the Central at 73 Effra Road, Brixton, S.W., and the Branch in connection with St. Thomas's Hospital (Out-Patients' Departments). The special Report dealing with the work of the Tuberculosis Medical Officers at these two Dispensaries speaks for itself, and will be found, fully set out, as an addendum to this Report (*vide* Appendix pp. 75 to 103).

Mention may also be made of an outbreak of milk-borne diphtheria (in Norwood and neighbouring districts), and the success of the preventive measures taken in connection therewith. A special Report on the outbreak will be found in the Appendix (*vide* pp. 35 to 74).

To the Chief Officers of the Council, and to the Public Health Staff, my thanks are again due, as also to the Members of the Council, for assisting me in carrying out my important duties as Medical Officer of Health, and Chief Executive Tuberculosis Officer, for the Borough of Lambeth.

I am, Mr. Mayor and Gentlemen,
Your obedient Servant,

Joseph Priestley

Medical Officer of Health and
Chief Executive Tuberculosis Officer.

I. VITAL STATISTICS.

The *Estimated* Populations of the Borough to the middle 1913 are calculated from the *Enumerated* populations of the two decennial censuses 1901 and 1911, as follow:—

ESTIMATED POPULATIONS.

(Estimated, Middle 1913.)

I. *Wards.*

Wards.	Males.	Females.	Total.
Marsh	11014	10083	21097
Bishop's	15410	15655	31065
Prince's	20512	21240	41752
Vauxhall	15239	15187	30426
Stockwell	14862	17027	31889
Brixton	20482	23725	44207
Herne Hill	15548	17608	33156
Tulse Hill	14381	16830	31211
Norwood	14469	17867	32336
Borough of Lambeth...	141917	155222	297139

II. *Registration Sub-Districts.*

Sub-Districts.	Males.	Females.	Total.
Lambeth Church ...	23481	22760	46241
Kennington	23454	24219	47673
Stockwell	30102	32213	62315
Brixton	36030	41333	77363
Norwood	28850	34697	63547
Borough of Lambeth...	141917	155222	297139

III. *Parliamentary Divisions (Old).*

Old Parliamentary Divisions.	Males.	Females.	Total.
North	26050	25450	51500
Kennington ...	35346	35994	71340
Brixton	35489	40609	76098
Norwood	43557	51457	95014
Parliamentary Area of Lambeth ...	140442	153510	293952

N.B.—The Parliamentary Divisions have not been altered by the London Government Act, 1899, nor by the proceedings that fixed the Boundaries of the Metropolitan Boroughs, so that the above figures do not agree with those for the borough as a whole, but are comparable with those of the old Parish of Lambeth given in previous Reports.

IV. *Parliamentary Divisions (Adjusted).*

**Adjusted* Parliamentary Divisions.	New Wards.	Total.
North	Marsh ... Bishop's ...	52162
Kennington ...	Prince's Vauxhall	72178
Brixton	Stockwell ... Brixton ...	76096
Norwood	Herne Hill ... Tulse Hill ... Norwood ...	96709
**Adjusted* Parliamentary Area of Lambeth	—	297139

*N.B.—By the adjustment of the old Parliamentary Divisions so as to be co-terminous with the Wards.

TABLE A.

Giving the number of Births and the Birth-Rates in each Registration Sub-District of the Borough of Lambeth during 1913 (arranged Quarterly).

Registration Sub-Districts.	No. of Births.				Total for the Year 1913.	Rate per 1000 Inhabitants.
	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.		
Lambeth Church*	606	572	578	610	2366	51·2
Kennington†	307	302	315	308	1232	25·8
Stockwell§	548	493	489	483	2013	32·3
Brixton	386	383	412	370	1551	20·1
Norwood	336	305	269	269	1179	18·6
Borough of Lambeth	**2183**	**2055**	**2063**	**2040**	**8341**	**28·1**

*Including Lying-in Hospital (695 cases, of which 188 belong to London)—corrected rate (*i.e.*, excluding all the Lying-in Hospital births) = 36.1.

†Including Workhouse (223 cases, of which 206 belong to Lambeth)—corrected rate (*i.e.*, excluding all the Workhouse births) = 21.2.

§Including Maternity Hospital (594 cases, of which 138 belong to Lambeth)—corrected rate (*i.e.*, excluding all the Maternity births) = 22.8.

Inner Districts, 37.02; Outer Districts, 21.6 per 1,000—uncorrected (whole Borough = 28.1).

Inner Districts, 27.3; Outer Districts, 19.9 per 1,000—corrected (*i.e.*, excluding all Institutional births, whole Borough = 22.9).

N.B.—The births in Stockwell new Sub-District are divided equally between the Inner and Outer Sub-Districts of the Borough for the purpose of calculating th e comparative rates of such Sub-Districts.

TABLE **B.**

Showing the Populations (Estimated), Uncorrected Births, Corrected Deaths and Uncorrected Deaths in Public Institutions, in the Borough of Lambeth during 1913, and during the previous decennium 1901-10, together with the averages for the two decennia 1891-1900 (Parish) and 1901-1910 (Borough).

Year.	Estimated Population.	Number of Births Registered.	Corected Numbers of Deaths.				Deaths in Public Institutions in Lambeth (uncorrected)
			Total Ages.	Under 1 Year.	Under 5 Years.	Deaths from 7 Chief Zymotic Diseases.	
1913 ...	297139	8341	4280	733	1094	369	2015
1901	30?533	9093	5197	1267	1840	627	1590
1902 ...	305102	9067	5387	1155	1722	561	1822
1903 ...	307711	9069	4664	1138	1625	498	1619
1904 ..	310359	9059	4880	1243	1778	603	1728
1905	313045	8835	4646	1014	1455	431	1807
1906 ..	315774	8972	4709	1088	1561	522	1925
1907 ...	318538	8650	4652	941	1458	379	1923
1908 ..	321344	8906	4341	829	1263	397	2011
1909 ...	324188	8445	4540	830	1250	402	1994
1910 ...	327074	8373	4080	691	1083	331	1749
Average 1901–10 ...	**314566·8**	**8846·9**	**4709·6**	**1020·1**	**1503·5**	**475·1**	**1816·8**
1891–1900	**294049·7**	**9295·4**	**5405·3**	**1358·5**	**2070·2**	**700·4**	**1568·5**

NOTE.—(a) Enumerated Population at Census 1901 was 301,895. (b) Enumerated Population at Census 1911 was 298,058. (c) Families or separate occupiers = 70887 (1901) and 70827 (1911).

N.B.—The estimated population for 1913 is calculated from the 1901 and 1911 Censuses, and those for the decennium 1901–10 from the 1891 and 1901 Censuses.

TABLE 6.

Shewing the Birth- and Death-Rates (corrected), and proportion of Deaths (uncorrected) in Public Institutions, in the Borough of Lambeth for the Year 1913, and for the 10 years 1909-1910, together the averages for the two decennia 1891-1900 (Parish) and 1901-10 (Borough).

The Year.	Birth-Rate per 1000 Population.	Corrected Death-Rate per 1000 Population.	Corrected Deaths of Children under 1 year per 1000 total Births.	Deaths of Children under 1 year per 1000 Deaths (corrected)	Deaths of Children under 5 years, per 1000 Deaths (corrected)	Corrected Zymotic Death-Rate, per 1000 Population.	Deaths in Public Institutions per 1000 total uncorrected Deaths.
1913	28·1	14·4	87·9	171·3	255·6	1·2	450.2
1901	30·1	17·2	139·3	243 8	354·1	2·7	395·4
1902	29·7	17·7	127·4	214·4	319·7	1·8	328·1
1903	29·5	15·2	125·8	243·9	348·4	1·6	333·6
1904	29·2	15·7	137·7	255·7	364·3	1·9	334·9
1905	28·2	14·8	114·8	218·3	313·2	1·4	369·1
1906	28·4	14·9	121·3	231·04	331·5	1·7	382·9
1907	27·2	14·6	108·8	202·3	313·4	1·2	309·4
1908	27·7	13·5	93·1	193·3	290·9	1·2	428·6
1909	26·4	14·0	98·3	182·8	275·3	1·2	408·9
1910	25·6	12·5	82·5	169·4	265·4	1·01	402·3
Average							
1901-10 . .	**28·1**	**14·9**	**115·3**	**216·7**	**319·4**	**1·5**	**386·01**
1891-1900 ...	**31·6**	**18·4**	**146·1**	**251·3**	**382·9**	**2·4**	**276·7**

N.B.—The rates for 1913 are calculated upon the population estimated from the 1901 and 1911 Censuses, and the decennia 1891-1900 and 1901-10 upon the populations estimated from the 1881, 1891 and 1901 Censuses

THE BIRTH RATE.

The total number of Births registered during the year 1913 is 8,341. Of the total 8,341 births, 4,184 are males, and 4,157 females, showing an excess of 27 males.

Of the total 8,341 births registered, 695 took place in the Lying-in Hospital (York Road), and of these 188 belong to the Borough; 223 took place in the Workhouse (Brook Street), and of these 206 belong to the Borough; whilst 594 took place in the Maternity Hospital (Jeffrey's Road), and of these 138 belong to the Borough. Thus, there are 980 births belonging to other districts. The Lying-In Hospital, the Workhouse and the Maternity Hospital tend to abnormally increase the birth-rates in Lambeth Church, Kennington and Stockwell Districts respectively, and the necessary corrections are, consequently, made in a footnote to Table A.

The birth-rate for Lambeth is 28.1 per 1,000 inhabitants (29.5 for males and 26.8 for females); whilst in the various Registration Sub-Districts the birth-rates work out as shown in Table A, from which it will be seen that the uncorrected birth-rate in the Inner Districts is 37.02, and that in the Outer Districts 21.6 per 1,000—the corrected birth-rates (*i.e.*, excluding (*a*) Non-Lambethian births and (*b*) all Institutional births) being respectively (*a*) 24.8 and (*b*) 22.9 for the whole Borough, (*a*) 30.9 and (*b*) 27.3 for the Inner, and (*a*) 20.3 and (*b*) 19.9 for the Outer, Districts.

Tables B and C show, for comparison, the number of births, and the birth-rates, for 10 years (1901-1910) in the Borough.

The birth-rate for Lambeth (Parish and Borough) has been recently slowly, but steadily, declining. As has been previously noted, this decline is not peculiar to Lambeth, nor

even to England, but is to be found in nearly all civilised countries.

Notification of Births Act.

The Notification of Births Act, 1907, was adopted throughout the Borough, and came into operation on March 9th, 1908.

Since the Act came into force, a total of 37,507 births have been notified up to the end of 1913, viz.: 3,473 in 1908 (10 months), 5,143 in 1909, 6,703 in 1910, 7,094 in 1911, 7,336 in 1912 and 7,158 in 1913.

The notified cases are visited, or such other measures taken in connection therewith, in the way of distributing pamphlets, etc., as are found necessary. Methods of feeding are carefully inquired into and instruction given as required.

Returns of all Births (with addresses of mothers), registered in Lambeth, have also been obtained from the District Registrars, and this information, in conjunction with that obtained from the Notification of Births Act, has again proved of great use statistically in connection with the Borough Council's endeavours to lessen the mortality amongst infants (under 1 year of age). The maximum time allowed for birth registration is 42 days, but this delay is detrimental to satisfactory administrative procedure, and has been altered by the Notification of Births Act, 1907, which limits the time of notification to 36 hours from the time of birth, though, on the other hand, all births are not yet notified by those responsible under the Notification of Births Acts so that the supplementary information, obtained from the District Registrar, is of use.

A list of all notified births is sent to the London County Council weekly in pursuance of sub-section 5, of section 2,

of the Act, and the Medical Officers of Health concerned are written to in connection with babies born in Lambeth Public Institutions, but belonging to Districts outside the Borough.

The Registrar-General provides particulars of transferable births registered, and for 1913 his figures for the Borough of Lambeth are as follow :—

	Inward Transfers.	*Outward Transfers.*
Legitimate Males	19	472
Legitimate Females	12	405
Illegitimate Males	18	166
Illegitimate Females	17	126
Totals ...	66	1169

The Registrar-General's corrected number of births for the year 1913 for the Borough is 7,233.

THE DEATH-RATE.

The total number of deaths registered during the year 1913 is 4,476 as compared with yearly averages of 5,669.5 and 4,971.5 respectively during the two decennia 1891-1900 and 1901-1910. Of the total 4,476 deaths registered during 1913, 2,307 are males and 2,169 females.

The uncorrected death-rate for Lambeth is, therefore, 15.1 per 1,000 inhabitants (16.3 males and 13.9 females). These rates, are, however, uncorrected, and, on analysing the 4,476 deaths registered in the Borough, it is found that 883 represent deaths occurring within the Borough amongst persons not belonging thereto. These deaths are to be deducted, but, on the other hand, there are 687 deaths registered outside the Borough of persons belonging thereto, and these must be added, giving a corrected number of deaths for Lambeth during 1913 of 4,280, and a corrected death-rate of 14.4 per 1,000 inhabitants.

The yearly averages of corrected deaths within the Parish and Borough of Lambeth during the two decennia, 1891-1900 (Parish), and 1901-1910 (Borough), are, respectively, 5405.3 and 4,709.6.

Deaths in Out-Lying Institutions.

The Outside Institutions, etc., where the 687 Lambethians died during 1913 may be grouped as follows:—

I. *General Hospitals.*

Charing Cross ...	28	St. Bartholomew's ...	9
Guy's	26	St. George's ...	13
King's College ...	5	University	3
London	9	Westminster ...	66
Middlesex	16		

II. *Special Hospitals.*

Bethlem Royal ...	1	French	2
Bolingbroke ...	3	German	1
Bow Institution ...	21	Gt. Ormond Street ...	11
Brompton	11	Grove	20
Brook Hospital ...	2	Heart, Soho ...	1
Cancer	8	Homœpathic ...	3
Catholic Nursing Institute	1	Home for Sick Children, Sydenham ...	3
Central London Throat and Ear	2	Hostel of God ...	9
Chelsea Hospital for Women ...	3	Infants', Vincent Sq.	33
Chest, Bethnal Green	1	Italian Hospital ...	1
City of London ...	1	Mount Vernon ...	2
Downs Sanatorium, Sutton	5	Metropolitan ...	1
East London ...	2	National	4
Evelina	22	New Hospital for Women	1
Freidenheim ...	2	Northern Fever Hospital	2
Queen Alexandra—Military ...	2	Park	14
		St. Mary's ...	5
		Seamen's Hospital ...	1

II. *Special Hospitals—continued*

Queen Mary's ...	4	South-Eastern ...	12
Royal Eye ...	1	Southern Hospital ...	1
Royal Free ...	3	Union Infants ...	1
Seaman's Hospital ...	1	University College ...	1
St. Joseph's, Hackney	4	Victoria	1
St. Peter's ...	3	Western	7
St. Luke's House, Kensington ...	8	West London ...	1

III. *Infirmaries and Workhouses.*

Belmont Workhouse	1	St. James' Infirmary (Battersea) ...	4
City of Westminster	1	St. Giles' Workhouse	1
Camberwell Infirmary	4	Southwark Infirmary	5
Hampstead Workhouse	1	Wandsworth Infirmary	2
Kensington Infirmary	1	Westminster Infirmary	2
Marylebone Infirmary	2		
St. George's Workhouse (Southwark)	1		

IV. *Asylums.*

Banstead ...	10	Fountain (temporary)	3
Camberwell House ...	1	Hanwell	6
Cane Hill	19	Horton	28
Caterham ...	23	Leavesden ...	2
Claybury	3	Long Grove, Epsom	26
Colney Hatch ...	5	Manor	6
Darenth	2	Peckham House ...	5
Dartford	8	Tooting Bec ...	41

V. *Unclassified Places.*

Adelphi Theatre ...	1	River Thames ...	11
Battersea Park Road Station ...	1	Streets	5
Coliseum Music Hall	1	Surrey Commercial Docks	1
Holloway Prison ...	2	Sewer, Kensington ...	1
Olympia, Addison Road	1	In Train, Victoria Station ...	1
Railway Arch, Wandsworth Road ...	1	H.M. Prison, Wandsworth	1
Private Houses ...	24		

SUMMARY.

I.	General Hospitals	175
II.	Special Hospitals	249
III.	Infirmaries and Workhouses ...	24
IV.	Asylums	188
V.	Elsewhere (unclassifiable) ...	51
	Total	687

Whether the corrected or uncorrected death-rates for the Borough (as a whole) be taken, they are satisfactory for the year 1913 (the thirteenth year of the existence of the Borough). Sub-dividing the death-rates according to Registration Sub-Districts, it is again shewn that the Inner Districts (Lambeth Church, Kennington, and inner part of Stockwell) have, collectively and individually, suffered more than the Outer Districts, *e.g.*, outer part of Stockwell, Brixton and Norwood. So, too, if the death-rates be sub-divided amongst the Wards, it will be noted also that the Inner Wards, *e.g.*, Marsh, Bishop's, Prince's and Vauxhall, have, collectively and individually, suffered more than the Outer Wards, *e.g.*, Stockwell, Brixton, Herne Hill, Tulse Hill and Norwood. The reason for this difference is again to be noted in the fact that the Inner Districts are more congested than the Outer. The status of the inhabitants and the general conditions (sanitary and otherwise), under which they live, are also matters to bear in mind, when dealing with this subject.

Taking the Registration Sub-Districts (Table D (1)), and the Wards (Table D (2)), into which the Borough is sub-divided, the corrected death-rates for 1913 will be found to vary between the Inner and the Outer Districts as follows:

1913.	Registration Sub-Districts and Wards.	
	Inner.	Outer.
General Death-rate (corrected) ...	18·1	11·8
Zymotic Death-rate (corrected) ...	2·1	0·7

Of the Registration Sub-Districts, Lambeth Church has the highest general and zymotic death-rates, and Norwood the lowest general and zymotic death-rates; whilst, in the Wards, Prince's has the highest general, and Marsh and Bishop's the highest zymotic death-rates, and Tulse Hill the lowest general and zymotic death-rates.

Tables E, F, and G show the uncorrected returns (male and female), registered during 1913, arranged as to Registration Sub-Districts, age-periods, and quarters respectively, and are given for comparison with similar tables in former Lambeth Reports, though uncorrected returns are not of much value.

Age Periods of Corrected Deaths.

The 4280 corrected deaths during 1913 may be further analysed, and tabulated as follows:—

733, *i.e.*, 17.1 per cent. of the total corrected deaths took place under 1 year of age.
361, *i.e.*, 8.4 per cent. between 1 and 5 years.
1094, *i.e.*, 25.5 per cent. under 5 years.
184, *i.e.*, 4.3 per cent. between 5 and 20 years.
486, *i.e.*, 11.4 per cent. 20 to 40 years.
868, *i.e.*, 20.3 per cent. 60 and over.
1648, *i.e.*, 38.5 per cent. over 5 years.

TABLE D (1).

BOROUGH OF LAMBETH.

STATISTICS FOR 1913.

REGISTRATION SUB-DISTRICTS.

	Total number of Deaths (corrected).		Death-Rates (corrected) per 1000 population.		Total number of Deaths (uncorrected) Under 1 year.	Infantile Mortality (uncorrected) per 1000 births.
	General.	Zymotic.	General.	Zymotic.		
Lambeth Church	878	122	18·9	2·6	289	122·1
Kennington	865	81	18·1	1·7	130	105·5
Stockwell { Inner ...	503	54	14·1	1·2	123	61·1
Stockwell { Outer ...	377	22				
Brixton	953	52	12·3	0·7	213	137·3
Norwood	704	38	10 8	0·6	76	64·5
Borough of Lambeth ...	4280	369	14·4	1·2	831	99·6
Inner Districts	2246	257	18·1	2·1	481	104·4
Outer Districts	2034	112	11·8	0·7	350	93·8

N.B.—In calculating the infantile mortality rates, the uncorrected deaths and births registered in Stockwell Registration Sub-District are divided equally between the Inner Stockwell Sub-District (= Vauxhall Ward) and the Outer Stockwell Sub-District (= Stockwell Ward).

TABLE D (2).

BOROUGH OF LAMBETH.

STATISTICS FOR 1913.

WARDS.

	Total Number of Deaths (corrected).		Death-Rates (corrected) per 1000 population.		Total Notified Cases.	Zymotic Incidence per 1000 population.
	General.	Zymotic.	General.	Zymotic.		
Marsh	374	49	17·7	2·3	205	9·7
Bishop's	504	73	16·2	2·3	412	13·3
Prince's	865	81	20·7	1·9	602	14·4
Vauxhall	503	54	16·5	1·9	430	14·1
Stockwell...	377	22	11·8	0·7	355	11·1
Brixton	562	28	12·7	0·6	543	12·3
Herne Hill	391	24	11·8	0·7	432	13·03
Tulse Hill	335	17	10·7	0·5	222	7·1
Norwood	369	21	11·4	0·6	330	6·3
Borough of Lambeth ...	4280	369	14·4	1·2	3531	11·9
Inner Districts	2247	257	18·1	2·1	1642	13·3
Outer Districts	2034	112	11·8	0·7	1882	10·9

TABLE E.

Shewing the uncorrected Mortality (Male and Female) in the different Registration Sub-Districts of the Borough of Lambeth (arranged Quarterly) during the year 1913.

Sub-District.	1st Quarter.			2nd Quarter.			3rd Quarter.			4th Quarter.			Total 1912.
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	
Lambeth Church ...	173	135	308	160	110	270	195	125	320	214	159	373	1271
Kennington	193	176	369	160	143	303	118	122	240	158	171	329	1241
Stockwell	84	103	187	74	70	144	75	70	145	79	82	161	637
Brixton	104	111	215	101	80	181	76	87	163	110	124	234	793
Norwood	75	103	178	50	80	130	59	52	111	49	66	115	534
Totals	629	628	1257	545	483	1028	523	456	979	610	602	1212	4476

TABLE F.

Shewing the uncorrected Mortality (Male and Female) at various age-periods in the different Registration Sub-Districts of the Borough of Lambeth during the year 1913.

Sub-District.	Under 1 year.			1 to 5 years.			5 to 60 years.			60 years and upwards			Total. 1913.
	M.	F.	Total	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	
Lambeth Church ..	160	129	289	96	53	149	365	250	615	121	97	218	1271
Kennington	66	64	130	42	26	68	256	196	452	265	326	591	1241
Stockwell	66	57	123	52	48	100	104	103	207	90	117	207	637
Brixton	124	89	213	31	26	57	116	118	234	120	169	289	793
Norwood	41	35	76	15	11	26	80	80	160	97	175	272	534
Totals ...	457	374	831	236	164	400	923	746	1669	691	885	1576	4476

TABLE . G.

Shewing the uncorrected Deaths (Male and Female) at various age periods in the Borough of Lambeth (arranged quarterly) during the year 1913.

Age-periods.	1st Quarter.			2nd Quarter.			3rd Quarter.			4th Quarter.			Totals.
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	
Under 1 year ...	111	100	211	101	82	183	140	85	225	105	107	212	831
Between 1 and 5 yrs.	68	45	113	66	42	108	39	37	76	63	40	103	400
Between 5 and 60 yrs.	247	211	458	197	156	353	211	170	381	268	209	477	1669
60 yrs. and upwards	203	272	475	187	203	384	133	164	297	174	246	420	1576
TOTALS ...	628	629	1257	545	483	1028	523	456	979	610	602	1212	4476

Changes in Registration of Deaths.

The Registrar-General decided to publish from January 1st, 1911, in his annual reports, an analysis of deaths according to administrative areas instead of registration areas as hitherto, and this decision necessitates a complete distribution of the deaths of persons dying away from their homes to the administrative areas in which they had previously resided.

Reports were received quarterly during 1913 from the Registrar-General—a total of 93 deaths—on slips, giving particulars of outside deaths assigned to the Borough of Lambeth, in addition to those occurring in the Metropolis or in the Metropolitan Institutions (outside Lambeth), which are still reported as hitherto.

The tables at the end of the Report (Appendix), known as the Local Government Board Tables, have been revised and modified, in consequence, and will give accurate corrected statistics of deaths within the Borough of Lambeth (differing slightly from the statistics in the body of the Report), the figures required for the necessary corrections being those specially supplied by the Registrar-General. These Registrar-General's figures for 1913 are as follows :—

Age Periods.	Males.	Females.	Totals all ages.
0— 1	3	1	4
1— 2	...	1	1
2— 5	4	...	4
5—15	...	..	...
15—25	3	2	5
25—45	6	15	21
45—65	23	14	37
65 and upwards...	10	11	21
Total all ages...	49	44	93

TABLE H (1).

Shewing the estimated populations and the number of Deaths, with Death-rates in each of the Registration Sub-Districts of the Borough during 1913. The Deaths are from all causes, and from the chief zymotic diseases, and are corrected by adding Lambethians who die outside the Borough, by omitting strangers who die within the Borough, and by re-distributing persons (who die in Public Institutions) into the Districts from which they have been removed during illness.

A. Registration Sub-Districts.

REGISTRATION SUB-DISTRICTS.	Estimated Population (middle 1913).	Total Deaths (corrected).	General corrected Death-rate per 1000 of the Population.	Total Deaths (corrected) from Small Pox.	Measles.	Scarlet Fever.	Diphtheria and Membranous Croup.	Whooping Cough.	Typhus.	Typhoid or Enteric.	Continued Fever.	Cholera.	Diarrhœa.	Total Zymotic Deaths.	Zymotic Death-rate per 1000 of the Population (corrected).	Zymotic Death-rate per 1000 of the Total Deaths (corrected).	Diarrhœa Death-rate per 10000 of the Population.
Lambeth Church ...	46241	878	18·9	...	39	2	9	10	...	...	...	...	62	122	2·6	138·9	13·4
Kennington† ...	47672	865	18·1	...	24	2	7	11	...	...	...	...	37	81	1·7	93·6	7·8
Stockwell§	62316	880	14·1	...	22	4	12	10	...	2	...	...	26	76	1·2	86·4	4·2
Brixton	77363	953	12·3	...	9	5	1	11	...	4	..	...	22	52	0·7	54·4	2·8
Norwood	63547	704	10·8	...	4	1	8	5	...	1	...	...	19	38	0·6	53·9	2·9
Borough of Lambeth	297139	4280	14·4	...	98	14	37	47	...	7			166	369	1·2	86·2	5·6

Of the 880 deaths in Stockwell Registration Sub-District, 503 belong to the Inner and 377 to the Outer Stockwell Sub-District.
Inner Registration Sub-Districts—death rates (general 18·1, zymotic 2·1).
Outer Registration Sub-Districts—death rates (general 11·8, zymotic 0·7).
N.B.—Of the total deaths (corrected), 42 shew no addresses, and have been included in Kennington Sub-District—having occurred in the Workhouse (26), or in the Workhouse (16) respectively.

TABLE H (1).

TABLE **H** (2).

Shewing the estimated populations and the number of Borough during 1913. The Deaths are from all causes, and Lambethians who die outside the Borough, by omitting persons (who die in Public Institutions) into the Districts

B. Wards.

WARDS.	Estimated Population (middle 1913).	Total Deaths (corrected).	General corrected Death-rate per 1000 of the Population.	Total		
				Small Pox.	Measles.	Scarlet Fever.
Marsh	21079	374	17·7	..	19	...
Bishop's	31065	504	16·2	...	20	2
Prince's	41752	865	20·7	...	24	2
Vauxhall	30426	503	16·5	..	19	1
Stockwell	31889	377	11·8	...	3	3
Brixton	44207	562	12·7	...	8	1
Herne Hill	33156	391	11·8	..	1	4
Tulse Hill	31211	335	10·7	...	2	...
Norwood	32336	369	11·4	...	2	1
Borough of Lambeth	297139	4280	14·4	...	98	14

Inner Wards—death rates (general, 18·1; zymotic, 2·1).

N.B.—Of the total deaths (corrected), 42 show no addresses and occurred in the Workhouse Infirmary (26) or in the Workhouse

TABLE **H** (2).

Deaths, with Death-rates, in each of the Wards of the from the chief zymotic diseases, and are corrected by adding strangers who die within the Borough, and by re-distributing from which they have been removed during illness.

B. Wards.

Deaths (corrected) from							Total Zymotic Deaths.	Zymotic Death-rate per 1000 of the Population (corrected).	Zymotic Death-rate per 1000 of the Total Deaths (corrected).	Diarrhœa Death-rate per 10000 of the Population.
Diphtheria and Membranous Croup.	Whooping Cough.	Typhus.	Typhoid or Enteric.	Continued Fever.	Cholera.	Diarrhœa.				
3	4	...	...	...	...	23	49	2·3	131·0	10·9
6	6	...	...	...	...	39	73	2·3	144·8	12·6
7	11	...	...	...	...	37	81	1·9	93·6	8·8
7	8	...	2	...	...	19	54	1·9	107·4	6·2
5	2	...	...	...	...	7	22	0·7	58·4	2·2
1	5	...	3	...	...	10	28	0·6	49·8	2·3
...	6	...	1	...	...	12	24	0·7	61·4	3·6
2	2	...	...	...	...	10	17	0·5	50·7	3·2
6	3	...	1	...	...	9	21	0·6	56·9	2·8
37	47	...	7	...	...	166	369	1·2	86·2	5·6

Outer Wards—death rates (general, 11·8; zymotic, 0·7).

have been included in Bishop's and Prince's Wards, having (16) respectively.

CAUSES OF THE 93 OUTSIDE DEATHS.

Causes of Death.	Male.	Female.
Diphtheria	1	..
Influenza	...	2
Typhoid	1	...
Measles	...	1
Phthisis (Pulmonary Tuberculosis)	6	8
Other Tubercular diseases	1	...
Cancer, malignant disease	5	...
Heart disease	3	7
Bronchitis	3	1
Pneumonia	1	3
Broncho-Pneumonia ...	...	1
Other Lung diseases ...	1	2
Nephritis and Bright's disease	3	1
Violent deaths	4	3
Suicide	1	1
Appendicitis	1	...
Nervous diseases ...	5	6
Strangulated Hernia ...	...	1
Diabetes Mellitus ...	1	...
Diseases of Digestive System	...	1
Prepura hemorrhagica ...	...	1
Rheumatic Fever ...	1	2
Not classified above ...	11	3
	49	44

INFANTILE MORTALITY, 1913

Of the 4,280 corrected deaths, 733 are infants under one year of age. The total number of registered births is 8,341, and, of these, 507 occurred at the Lying-in Hospital, and belong to districts outside Lambeth Borough, 17 occurred

at the Workhouse, and belong to districts outside Lambeth Borough, and 456 occurred at the Maternity Hospital and belong to districts outside Lambeth Borough. In this way, the corrected number of births for the Borough is 7,361* The corrected infantile mortality (*i.e.*, rate of corrected deaths under one year per 1,000 corrected births) is therefore, 99.6. The annual average for the decennium 1901-10 (Borough), is 122.7. In calculating this corrected infantile mortality, it must be remembered that, whilst we subtract the births that belong to outside districts, we do not add the births of infants of Lambethian mothers who may happen to be residing outside the Borough at the times of such births. Taking the uncorrected births and the corrected deaths under 1 year, the infantile mortality rate is 87.9. The annual average for the decennium 1901-10 (Borough), is 114.8.

Taking the uncorrected number of births (8,341) and the uncorrected number of deaths under 1 year of age (831), the uncorrected infantile mortality is 99.6. The annual average for the decennium 1901-10 (Borough) is 123.8, and that for the decennium 1891-1900 (Parish) is 150.5. The chief causes of the deaths were debility, atrophy, and inanition, congenital malformations, measles, whooping-cough, bronchitis, and other diseases of the respiratory organs, diarrhœa, and premature births.

In the Registration Sub-Districts, the uncorrected infantile mortality varied from 137.3 per 1,000 births in Brixton to 61.1 in Stockwell (the low rates of 122.1 in Lambeth Church, 105.5 in Kennington, and 61.1 in Stockwell, being due to the fact that these Sub-Districts contain the General Lying-in Hospital, the Workhouse and the Clapham Road Maternity Hospital respectively), thus—

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* The Registrar-General returns the corrected number of births for the Borough during 1913 as 7233.

	Total No. of Births (uncorrected). 1913.	Total Deaths under 1 year (uncorrected). 1913.	Infantile Mortality per 1,000 births (uncorrected). 1913.
Lambeth Church*	2366	289	122·1
Kennington†	1232	130	105·5
Stockwell‡	2013	123	61·1
Brixton	1551	213	137·3
Norwood	1179	76	64·5
Lambeth	8341	831	99·6

Inner Districts—104·4, Outer Districts—93·8

*Excluding all the Lying-In Hospital births, the rate is 172·9.

†Excluding all the Workhouse births, the rate is 128·8.

‡Excluding all the Maternity births, the rate is 86.7.

N.B.—The births and deaths in Stockwell Registration Sub-Districts are divided equally between the Inner and Outer Districts for the purpose of calculating infantile mortality rates for such Districts in this Table.

The Infantile Mortality is regarded as a sensitive index of the sanitary state of a District, and, judged by this index, Lambeth Borough again takes a good position amongst Sanitary Districts, a satisfactory fact to be able to state and one that is due to the precautionary measures that are taken.

Systematic visiting and giving advice as to the feeding and management of infants and children, together with the free distribution of official pamphlets dealing with the same and kindred subjects, account in part for the decline in the infantile mortality-rate throughout the Borough, whilst the influence of the Milk Depot must not be forgotten. The Notification of Births Act 1907, is valuable in connection with precautionary measures taken to prevent infantile mortality. Meteorological conditions were favourable during 1913 to a low infantile mortality-rate (*vide* Diarrhœa). A leaflet was distributed freely throughout the crowded Inner Districts of the Borough during 1913, dealing with preventive measures to be taken against Summer Diarrhœa.

CLASS I.—ZYMOTIC DISEASES.

Principal Zymotic Diseases.

The principal zymotic diseases are seven in number, viz., smallpox, measles, scarlet fever, diphtheria (including membranous croup), whooping cough, "fever" (including typhus, typhoid or enteric, and simple, or relapsing, or continued), and diarrhœa; and the zymotic death-rate is made up from the total deaths from these diseases.

In the Borough, during 1913, there were registered 400 deaths from the seven zymotic diseases, and of these 110 are strangers belonging to other districts, and 290 parishioners who died within the Borough. 79 parishioners, however, died from the seven principal zymotic diseases outside the Borough. Subtracting the strangers, and adding on the parishioners who died without the Borough, there is a *corrected* total of 369, giving a zymotic corrected death-rate of 1.2 per 1,000 inhabitants. The yearly averages of the numbers of deaths (corrected) from the 7 principal zymotic diseases for the two decennia 1891-1900 (Parish), and 1901-1910 (Borough), are respectively 679.6 and 475.1.

As a test of the sanitary condition of a community, the zymotic death-rate is of approximate value, and in this respect Lambeth Borough stands well.

The zymotic death-rates (corrected) for the different Registration Sub-Districts vary as shown in Tables D (1) and H (1) which, in addition, give the general death-rates. Lambeth Church shows the highest, and Norwood the lowest zymotic death-rates respectively. The corrected zymotic death-rate for the Inner Districts is 2.1, and for the Outer 0.7—a difference explainable, as before, by the crowding and absence of proper means of home isolation and nursing in the former, as compared with the latter districts. Crowded districts naturally suffer more in this respect than those more sparsely populated.

Similar conclusions are obtainable by comparing the zymotic death-rates (corrected) for the different new Wards, as shewn in Tables D(2) and H(2), from which it is seen that, of the 9 Wards into which the Borough is divided, Marsh and Bishop's show the highest and Tulse Hill and Norwood the lowest, zymotic death-rates.

During the year 1913, under the Notification Clauses of the Public Health (London) Act, 1891, 3,531 cases of Infectious Diseases were reported, including the newly-notifiable cerebro-spinal meningitis 7, polio-myelitis acuta 6, ophthalmia neonatorum 57 and whooping cough 1,428. The yearly averages of notification certifiates received during the two decennia 1891-1900 (Parish) and 1901-1910 (Borough) are respectively 2,658.4 and 1,912.5. Of the total 3,531 cases notified during 1913, 1753, *i.e.*, 49.6 per cent., were removed to the Hospitals of the Asylums Board or to other Hospitals, and 1,778, *i.e.*, 50.4 per cent., remained under treatment at their homes.

If the newly-notifiable diseases, cerebro-spinal meningitis, polio-myelitis acuta, ophthalmia neonatorum and whooping cough be excluded, the percentage of cases removed to Hospital for isolation and treatment durng 1913 was 81.6 —a good average when compared with the following last 4 quinquennial averages (also exclusive of the special diseases mentioned above), *i.e.*, since the compulsory notification of infectious diseases came into force under the Public Health (London) Act, 1891:—1891-5, 31.5; 1896-1900, 54.7; 1901-1905, 67.9; and 1906-10, 82.8.

Taking the total number of notified cases (3,531) of infectious diseases, the zymotic incidence* throughout the Borough for 1913 is 9.7 per 1,000 population (13.3 Inner and

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* Whooping Cough, Ophthalmia Neonatorum, Polio-myelitis Acuta, Cerebro-spinal Meningitis are included in the 1913 figures. Excluding them, the incidence rate for 1913, is 6·8 for the Borough.

10.9 Outer Districts) as compared with two decennial averages 1901-1910 (Borough) and 1891-1900 (Parish) of 6.1 and 9.04 respectively. During 1913, the highest incidence rate is 14.4 (Prince's), and the lowest 6.3 (Norwood).

Further, excluding the ophthalmia neonatorum and whooping cough cases, in connection with which no systematic sanitary examination was made, the number of infected houses, in which the remaining 2,046 notified cases occurred, was 1,879, and in each of these houses a systematic sanitary examination was made of the drains and the traps, fittings and appliances with the following results :—

(*a*) 110 (*i.e.*, 5.9 per cent.) were found to have defective drains, *i.e.*, gave results with the tests employed.

(*b*) 857 (*i.e.*, 45.6 per cent.) were found to have defective traps, fittings and appliances.

(*c*) 912 (*i.e.*, 48.5 per cent.) showed no defects.

These figures are comparable with the quinquennial averages for the Parish during 1891-95 and 1896-1900, and for the Borough during 1901-5 and 1906-1910, given in Table 1.

Sub-divided according to the different notifiable diseases the results for 1913 show as follow :—

Disease.	No. of Infected Houses.	Number shewing Defects as to			Percentage shewing Total Defects.	Percentage shewing no Defects.
		Drains.	Traps, Fittings and Appliances.	Total.		
Smallpox ...	—	—	—	—	—	—
Cholera	—	—	—	—	—	—
Diphtheria ...	365	25	183	208	56·9	43·1
Membranous Croup ...	7	—	4	4	57·1	42·9
Erysipelas ...	206	8	95	103	50·0	50·0
Scarlet Fever ...	1227	73	554	627	51·1	48·9
Typhus ...	—	—	—	—	—	—
Typhoid ...	34	1	11	12	35·3	64·7
Continued ...	2	—	2	2	100·0	0·0
Puerperal ...	25	1	4	5	20·0	80·0
Cerebro-spinal Meningitis ...	7	—	3	3	42·9	57·1
Anterior Polio-myelitis ...	6	2	1	3	50·0	50·0
TOTALS ...	1879	110	857	967	51·5	48·5

N.B.—56 ophthalmia neonatorum and 1037 whooping cough infected houses are omitted, no systematic sanitary examinations being made in those cases.

TABLE I.

Giving number of Infected Houses, with percentages of (1) General Defects, and (2) Defective Drains, during 1913, together with the averages during the quinquennia 1891-1895 (Parish), 1896–1900 (Parish), 1901-1905 (Borough) and 1906-1910 (Borough).

	1891–1895 (Average).	1896–1900 (Average).	1901–1905 (Average).	1906–1910 (Average).	1913 (Totals).
Number of Infected Houses ...	2229·8	2262·4	1682·6	1719·2	1879
Number of Houses with defects found	1220·0	1096·0	911·2	1033·6	967
Number of Houses with defective drains found ...	510·0	366·6	214·6	166·6	110
Number of Houses with no defects found	1009·8	1166·4	771·4	685·6	912

N.B.—56 infected houses (wherein 57 cases of Ophthalmia Neonatorum occurred and 1037 infected houses, wherein 1428 cases of whooping cough occurred) are omitted from the 1913 figures, so that the results may be strictly comparable with those of previous years, *i.e.*, before Ophthalmia Neonatorum and Whooping Cough were made notifiable diseases.

TABLE J.

Shewing the number of Certificates for the notlfication clauses of the Public Health (London) 1913, and during the decennium 1901–1910, together (Parish) and 1901 – 1910 (Borough).

Disease.	Borough			
	1901	1902	1903	1904
Cholera	1	1	—	—
Smallpox	54	350	72	23
Scarlet Fever	1041	1330	744	660
Diphtheria	511	459	329	317
Membranous Croup	13	15	9	11
Typhus	—	—	—	—
Typhoid or Enteric	147	213	133	101
Continued or Relapsing	6	10	7	4
Erysipelas	236	317	236	257
Puerperal	16	17	17	15
*Plague	—	—	—	—
*Cerebro-Spinal Meningitis.. ...	—	—	—	—
*Poliomyelitis acuta	—	—	—	—
*Ophthalmia Neonatorum	—	—	—	—
*Whooping Cough	—	—	—	—
Totals...	2025	2712	1547	1382
Average per 1000 of population ...	6·7	8·9	5·03	4·5

The Health Department has also heard of, and dealt with, Chicken-pox, 679; Measles, 1085; Cancer, 71; other diseases tuberculosis (1571 pulmonary and 456 non-pulmonary), notified with during 1913.

*Plague was made compulsorily notifiable on September 19th, 12th, 1907; Poliomyelitis acuta on September 1st, 1911; on January 1st, 1913.

N.B.—In addition to the above, Chicken-pox was compulsorily (Jan. 1st to 6th), 1904 (April 8th to Nov. 8th), and 1911 (March tively 1560, 40, 556 and 238.

TABLE J.

compulsorily Notifiable Zymotic Diseases under the Act, 1891, received in the Borough of Lambeth during with the averages of the two decennia 1891 – 1900

of Lambeth.						Annual Average, 1901–1910. (Borough.)	Annual Average 1891–1900 (Parish).	Total, 1913.
1905	1906	1907	1908	1909	1910			
—	—	—	—	—	—	0·2	11·5	—
—	—	—	—	—	—	49·9	22·0	—
1025	1268	1481	1428	1164	910	1105·1	1331·3	1370
439	415	317	320	373	318	379·8	715·1	385
11	11	13	12	3	6	10·4	26·2	7
—	—	1	—	—	—	0·1	1·1	—
77	89	56	63	49	77	100·5	189·6	38
2	1	6	3	1	1	4·1	25·7	2
287	263	231	206	189	192	241·4	347·0	206
12	27	22	10	16	18	17 0	18·9	25
—	—	—	—	—	—	—	—	—
—	—	13	14	14	5	11·5	—	7
—	—	—	—	—	—	—	—	6
—	—	—	—	—	—	—	—	57
—	—	—	—	—	—	—	—	1428
1853	2074	2140	2056	1809	1527	1912 5	2658·4	3531
5·9	6·6	6·6	6·4	5·6	4·7	6·1	9·04	9·7

the following non-notifiable infectious diseases during 1913:— (e.g., Mumps, Influenza, Scabies, etc. . 76, 2027 primary notifications of under the Tuberculosis Regulations, have also been received and dealt

1900; Cerebro-Spinal Meningitis ("Spotted Fever") on March Ophthalmia Neonatorum on March 13th, 1911 and Whooping Cough

notifiable as follows:—1902 (Feb. 7th to Dec. 31st), 1903 22nd to June 22nd), the numbers of cases notified being respec-

TABLE K.

Shewing corrected zymotic seasonal (quarterly) variations in the number of deaths from the 7 principal zymotic diseases in the Borough of Lambeth in the different Registration Sub-Districts during 1913.

Registration Sub-District.	1st Quarter	2nd Quarter.	3rd Quarter.	4th Quarter.	Year 1913.	Zymotic Death-rate per 1000 inhabitants.
Lambeth Church	27	35	38	22	122	2·6
Kennington	19	17	26	19	81	1·7
Stockwell	16	19	29	12	76	1·2
Brixton	14	9	14	15	52	0 7
Norwood	10	9	8	11	38	0·6
Borough of Lambeth	86	89	115	79	369	1·2

Inner Districts 2.1 ; Outer Districts 0.7 per 1000 inhabitants.

TABLE L (1).

Shewing the total cases notified compulsorily under the Compulsory Notification Clauses of the Public Health (London) Act, 1891, in the Borough of Lambeth, during 1913 (arranged Quarterly).

	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Total for 1913.
Cholera	—	—	—	—	—
Smallpox	—	—	—	—	—
Scarlet Fever	204	287	287	592	1370
Diphtheria	83	71	72	159	385
Membranous Croup	1	2	—	4	7
Typhus	—	—	—	—	—
Typhoid or Enteric ...	12	4	11	11	38
Continued or Relapsing Fever	1	—	—	1	2
Erysipelas	39	52	39	76	206
Puerperal	9	5	6	5	25
*Plague	—	—	—	—	—
*Cerebro-Spinal Meningitis ...	—	4	2	1	7
*Poliomyelitis acuta	—	2	1	3	6
*Ophthalmia Neonatorum ...	12	17	18	10	57
*Whooping Cough	417	555	318	138	1428
TOTALS	778	999	754	1000	3531

*Plague was made compulsorily notifiable on Sept. 19th, 1900 Cerebro-Spinal Meningitis on March 12th, 1907, Poliomyelitis acuta on September 1st, 1911, Ophthalmia Neonatorum on March 13th, 1911 and Whooping Cough on 1st January, 1913. Chicken-pox was compulsorily notifiable as follows: 1902 (Feb. 7th to Dec. 31st), 1903 (Jan. 1st to 6th), 1904 (April 8th to Nov. 8th), and 1911 (March 22nd to June 22nd), the numbers of cases notified being respectively 1560, 40, 556 and 238

TABLE L (2).

Shewing the total cases notified voluntarily in the Borough of Lambeth during 1913 (arranged quarterly), together with the yearly averages for the decennium 1901-10 (Borough).

—	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total, 1913.	Yearly average 10 years (1901–1910).
Measles	651	310	61	63	1085	1376·4
Whooping Cough	132	303	131	46	612	429·6
Chicken-pox*	306	231	62	80	679	599·5
Consumption†	619	477	632	589	2317	668·6
Cancer	14	22	18	17	71	26·5
Total	1722	1343	904	795	4764	3100·6

* Chicken-pox compulsorily notifiable as follows:—1902 (Feb. 7th to Dec. 31st), 1903 (Jan. 1st to 6th), 1904 (April 8th to Nov. 8th), and 1911 (March 22nd to June 22nd), the numbers of cases notified being respectively 1560, 40, 556 and 238.

† Consumption *voluntarily* notifiable throughout the Borough since June 1st, 1902, and *compulsorily* (Poor Law cases) under the Public Health (Tuberculosis) Regulations, 1908, since January 1st, 1909, and *compulsorily* (Hospitals) under the Public Health (Tuberculosis in Hospitals) Regulations, 1911, since May 1st, 1911.

N.B.—76 other diseases (not classified) *i.e.*, Scabies, Influenza, Ringworm, etc., and Vermin infections (649 Houses and 477 persons' clothing) were also dealt with during 1913.

TABLE M.

Showing corrected Zymotic seasonal (monthly) variations in the number of deaths from the principal Zymotic diseases, and from Erysipelas, Puerperal Fever, Cerebro-spinal Meningitis Poliomyelitis acuta, and Ophthalmia Neonatorum in the Borough of Lambeth, during 1913.

For the 4 weeks ending	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total 1913.
Smallpox	—	—	—	—	—	—	—	—	—	—	—	—	—
Scarlet Fever	—	4	1	3	—	—	2	1	—	1	—	2	14
Diphtheria	3	3	5	3	5	3	1	1	1	4	4	4	37
Membranous Croup	—	—	—	—	—	—	—	—	—	—	—	—	—
Typhus	—	—	—	—	—	—	—	—	—	—	—	—	—
Typhoid or Enteric	2	—	—	2		—	—	2	1	—	—	—	7
Continued or Relapsing Fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Diarrhœa (including Cholera) ...	6	3	7	6	6	6	12	20	53	23	15	9	166
Measles	7	11	28	22	10	6	7	4	2	—	—	1	98
Whooping Cough	3	5	5	3	11	4	5	4	1	2	—	4	47
Total of Seven Chief Zymotic Diseases	**21**	**26**	**46**	**39**	**32**	**19**	**27**	**32**	**58**	**30**	**19**	**20**	**369**
Erysipelas	1	—	—	2	1	—	—	—	—	—	1	3	8
Puerperal Fever	—	2	1	—	1	1	—	1	2	—	1	—	9
Cerebro-spinal Meningitis ...	—	—	—	—	1	—	1	1	—	—	1	—	4
Poliomyelitis acuta	—	—	—	—	—	—	—	—	—	—	—	—	—
Opthalmia Neonatorum	—	—	—	—	—	1	—	—	—	—	—	—	1

TABLE N.

Shewing the number of Deaths (corrected) from the 7 prin and during the decennium 1901—1910, together with the yearly 1910 (Borough).

Disease.	1901	1902	1903	1904	1905
Smallpox	4	60	4	—	—
Scarlet Fever	39	48	23	16	31
Diphtheria	47	49	28	33	37
Membranous Croup ...	3	4	1	1	—
Fever — Typhus	—	—	—	—	—
Fever — Typhoid or Enteric ...	23	38	24	11	10
Fever — Continued or Relapsing	3	1	1	—	—
Diarrhœa	272	159	160	265	176
Cholera	2	—	1	4	2
Measles	119	84	130	164	96
Whooping Cough	115	118	126	109	79
Borough of Lambeth...	627	561	498	603	431

TABLE N.

cipal zymotic diseases in the Borough of Lambeth during 1913 averages for the two decennia 1891—1900 (Parish) and 1901—

1906	1907	1908	1909	1910	Annual average of ten years 1901—1910 (Borough).	Annual Average of ten years 1891—1900 (Parish).	Total (corrected) Deaths in 1913.
—	--	—	—	—	6·8	1·1	—
28	38	42	27	22	31·4	48·8	14
49	47	44	57	25	41·6	124·5	36
2	—	2	1	1	1·5	6·8	1
—	—	—	—	—	0·0	0·3	—
22	5	8	9	17	16·7	34·7	7
1	—	—	1	—	0·7	1·7	—
268	71	150	118	90	172·9	196·5	166
4	—	—	--	—	1·3	8·8	—
77	107	101	104	122	110·4	145·6	98
71	111	50	85	54	91·8	143·7	47
522	379	397	402	331	475·1	706·1	369

The quarterly seasonal mortality (corrected) from the whole of the different important zymotic diseases (*i.e.*, principal and others) during 1913 is as follows:—

1913.	Smallpox.	Scarlet Fever.	Diphtheria.	Membranous Croup.	FEVER.			Diarrhœa.	Cholera.	Measles.	Whooping Cough.	Erysipelas.	Puerperal Fever.	Influenza.	Total.
					Typhus.	Typhoid or Enteric.	Continued or Relapsing.								
1st Qr.	—	5	8	—	—	2	—	13	—	45	13	1	4	32	123
2nd Qr.	—	3	13	—	—	2	—	15	—	39	17	3	2	18	112
3rd Qr.	—	3	4	—	—	3	—	81	—	12	12	—	2	4	121
4th Qr.	—	3	11	1	—	—	—	57	—	2	5	4	2	13	98
Totals	—	14	36	1	—	7	—	166	—	98	47	8	10	67	454

Taking the zymotic diseases collectively, it is noticed that the 1st quarter showed the highest mortality, and the 4th the lowest. Scarlet fever, measles, puerperal fever and influenza, reached their maxima in the 1st quarter; diphtheria and whooping cough in the 2nd; diarrhœa and typhoid (or enteric) in the 3rd; and erysipelas and membranous croup in the 4th.

Table K shews the zymotic seasonal variations in the different Registration Sub-Districts, while Table M gives the monthly mortalities from the zymotic diseases.

Table N gives the deaths registered in the Borough of Lambeth from the seven principal zymotic diseases during 1911, and for the two decennia 1891-1900 (Parish) and 1901-1910 (Borough).

SMALLPOX.

During 1913, no single case of genuine small-pox was notified, nor was a single death from smallpox registered, within the Borough. Two doubtful cases (1 adult male and I boy) were reported at houses in Brailsford and Kennington Roads, respectively, but both proved not to be smallpox.

The annual averages for smallpox for the decennium 1901-1910 are (1) notified cases 49.9, and (2) deaths 6.8, though no genuine case has been notified nor death registered within the Borough during the past 8 years.

6 "contacts"* were watched for 16 days each within the Borough during 1913, in connection with (*a*) persons arriving by vessels from abroad, such vessels coming from smallpox-infected places, or being themselves (?) smallpox-infected by cases on board, *e.g.*, S.S. "Victoria" (1) and S.S. "Manova" (5).

Vaccination.

The Vaccination Returns of the Local Government Board for the Borough are to be found in Tables O and P, dealing with the whole year 1912, and the first half of 1913 respectively.† These Returns are obtained from the Vaccination Officers.

The total number of conscientious objectors who obtained certificates during 1913, irrespective of the dates of births of the children to which they relate, is 1,802, whilst the total number of certificates of successful primary vaccinations at all ages received during 1912 and 1913 are 5,677 and 4,440 respectively.

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* 1 of the "contacts" could not be traced, a wrong address having been given to the Port Sanitary Authorities.

† The yearly returns are not made up by the Local Government Board until August of the following year, so that only the Returns for the first half of the year 1913 can be given in this Report.

TABLE

VACCINATION RETURNS (LAMBETH BOROUGH) FOR THE FIRST HALF-YEAR, 1913.

Registration Sub-Districts.	No. of Births (corrected).	Successfully Vaccinated.	Insusceptible to Vaccination.	Dead Unvaccinated.	Conscientious Objectors.	Removed to other Parishes (known or unknown).	Postponed by Doctors.
Lambeth Church	1161	562	...	70	137	348	5
Kennington	624	316	...	37	99	125	23
Stockwell	1027	496	...	56	229	214	23
Brixton	764	329	...	49	196	128	52
Norwood	622	291	2	39	221	46	11
Lambeth...	**4198**	**1994**	**2**	**251**	**882**	**861**	**114**

The Yearly Returns are not made up for the Local Government Board until the August in the following year.

TABLE O.

VACCINATION RETURNS (LAMBETH BOROUGH), 1912.

Registration Sub-Districts.	No. of Births. (uncorrected).	Successfully Vaccinated.	Insusceptible to Vaccination.	Dead Unvaccinated.	Conscientious Objectors.	Removed to other Parishes (known or unknown).	Postponed by Doctors.
Waterloo	1418	625	...	89	134	569	1
Lambeth Church	1041	560	...	64	113	283	13
Kennington	1318	701	1	107	183	285	18
Stockwell	1936	991	5	104	394	438	3
Brixton	1486	740	7	81	347	257	50
Norwood	1060	555	4	49	364	64	19
Lambeth	**8259**	**4172**	**17**	**494**	**1535**	**1896**	**104**

CEREBRO-SPINAL FEVER (EPIDEMIC CEREBRO-SPINAL MENINGITIS) OR "SPOTTED FEVER."*

During 1913, 7 cases of cerebro-spinal fever were notified in the Borough, 2 in Lambeth Church, 3 in Kennington and 2 in Brixton Registration Sub-Districts, and, of the 7 cases notified, 4 died (=57.1 per cent.). The necessary precautionary measures were taken in each case, 2 of the patients being removed to Hospital (1 from Lambeth Church and 1 from Kennington Sub-Districts). Particulars are set out in L.G.B New Table V (*vide* Appendix).

ACUTE POLIO-MYELITIS (ACUTE POLIO-ENCEPHALITIS).*

During 1913, 6 cases of acute polio-myelitis were notified in the Borough, 1 in Lambeth Church, 1 in Kennington, 1 in Stockwell (Inner), 1 in Brixton and 2 in Norwood Registration Sub-Districts, and, of the 6 cases notified, none died. The necessary precautionary measures were taken in each case, 3 of the patients being removed to Hospital (1 from Lambeth Church, 1 from Brixton, and 1 from Norwood Sub-Districts). Particulars are set out in L.G.B. New Table V. (*vide* Appendix).

CHICKEN-POX.

Chickenpox was not compulsorily notifiable during 1913 in the Borough, but through the head teachers of schools and voluntarily from other sources, 679 cases were reported to the Council and, in connection with these, disinfection and other necessary precautionary measures were taken.

SCARLET FEVER.

During 1913, in the Borough, 1,370 cases of scarlet fever were notified, and 14 deaths registered, giving a case mortality of 1.02 per cent. The annual averages for

*Made notifiable by Orders of the London County Council from and including March, 13th, 1912, throughout the administrative County of London, such Orders having been duly approved by the Local Government Board.

the two decennia 1891-1900 (Parish) and 1901-1910 (Borough) are respectively (1) notified cases 1,331.3 and 1,105.1, and (2) deaths 48.8 and 31.4.

Of the 1,370 persons notified in the Borough during 1913, 1,212* (*i.e.*, 88.5 per cent.), were removed to Hospital, and of these 14 died (*i.e.*, 1.2 per cent.) whereas 158 (*i.e.*, 11.5 per cent.) were treated at home, and of these none died.

The age and sex incidence and mortality for the 1,370 scarlet fever cases notified in Lambeth Borough during 1913 are as follow :—

Age.	Number of Cases notified.			Deaths.			Death Rate per 100 Notified.
	M.	F.	Total	M.	F.	Total	Total.
Under 1 year ...	3	4	7	—	—	—	0·0
1 to 2	20	19	39	2	—	2	5·1
2 to 3	36	24	60	1	1	2	3·3
3 to 4	47	56	103	2	2	4	3·9
4 to 5	34	67	101	1	1	2	1·9
5 to 6	76	64	140	2	—	2	1·4
6 to 7	61	84	145	1	—	1	0·7
7 to 8	67	60	127	—	—	—	0·0
8 to 9	48	56	104	—	—	—	0·0
9 to 10	36	59	95	—	—	—	0·0
Over 10 years ...	184	265	449	1	—	1	0·2
Total ...	612	758	1370	10	4	14	1·02

It will be noted that, of the total 1,370 persons reported as suffering from scarlet fever during 1913, within the

*Of the 1212 cases of Scarlet Fever removed to Hospital, 82 proved at Hospital not to be suffering from that disease.

Borough of Lambeth, 310 (*i.e.*, 22.6 per cent.) were under five years of age, and 921 (*i.e.*, 67.2 per cent.) under 10 years of age: whilst the case mortality was greatest amongst those between 1 and 2 years of age. Of the 449 persons over 10 years of age, 1 died (*i.e.*, 0.2 per cent.).

During 1913, outbreaks of scarlet fever were investigated in connection with 17 schools (infants' departments) and 42 absentees were visited and enquiries made in regard to the illnesses for which the scholars were being kept away from school. Doubtful cases of "sore-throat" (14 in number) and suspicious "peeling" cases (24 in number) were excluded, and the children not allowed to return until furnished with medical certificates. Several class-rooms and a whole school (infants' department) were closed in connection with three schools, owing to outbreaks of scarlet fever (and other infectious diseases*) amongst the scholars.

The distribution of the cases of, and the mortality from, scarlet fever amongst the different Registration Sub-Districts of the Borough during 1913, is as follow:—

Registration Sub-Districts.	Total No. of Cases Notified.	Cases treated at Home.	Cases removed to Hospital.	No. of Deaths.			Case Mortality per 100.
				At Home.	In Hospital.	Total.	
Lambeth Church ...	200	3	197	—	2	2	1·0
Kennington	217	11	206	—	2	2	0.9
Stockwell	320	36	284	—	4	4	1·25
Brixton	456	86	370	—	5	5	1 1
Norwood	177	22	155	—	1	1	0·6
Borough of Lambeth ...	**1370**	**158**	**1212**	**—**	**14**	**14**	**1·02**

* Measles, Diphtheria, Mumps and Chicken-pox.

14 schools were disinfected during 1913 in connection with scarlet fever cases notified amongst the scholars.

MEASLES AND WHOOPING COUGH.

In the Borough, during 1913, 98 and 47 corrected deaths were registered from measles and whooping cough, giving corrected death-rates per 10,000 of the populations of 3.3 and 1.6 respectively.

The Inner Districts suffered (deaths per 10,000 of the population) more than the Outer Districts, thus:—

	Inner.	*Outer.*
Whooping Cough ...	2.33	1.04
Measles	6.6	0.9

Of the Lambeth Registration Sub-Districts, Lambeth Church suffered most, and Norwood least, from measles, and Kennington most, and Norwood least, from whooping cough.

The annual average numbers of deaths from measles and whooping cough respectively during the two decennia 1891-1900 (Parish) and 1901-1910 (Borough), are 145.6 and 110.4 (measles) and 143.7 and 91.8 (whooping cough).

Measles.

Of the 98 deaths from measles in the Borough during 1913, 94 (*i.e.*, 95.9 per cent.) occurred amongst children under 5 years of age, showing that measles is a disease of young children, and especially fatal to such. 23 of the deaths (*i.e.*, 23.5 per cent.) occurred amongst infants under 1 year of age.

With regard to measles, extra precautions are taken in connection with disinfection of measles-infected houses, exclusion of children (both infected children and also children from infected houses) from schools, the closing of classes or

whole schools on account of outbreak of measles, the distributing of leaflets and posters, and the educating of parents to regard measles as a serious and dangerous infectious disease, and not as a trivial complaint of childhood.

Measles is not compulsorily notifiable, but 1,085 cases (during 1913) were reported voluntarily (chiefly through schools) to the Borough Council. Measles being chiefly a "School Disease," this voluntary system of notification is valuable.

Of the 1,085 notified cases, 222 (*i.e.*, 20.5 per cent.) were removed to hospital from the Borough, non-pauper as well as pauper cases being now received for treatment and isolation in hospital, under the new Metropolitan Asylums (Measles) Order (August 9th).*

Measles is spread chiefly through Schools, especially Infants' Departments, and during 1913 precautions were taken in respect thereto in the way of exclusion of all known cases of measles, and all "unprotected" children, *i.e.*, those who have not previously had an attack of the disease, thereby securing the *minimum* interference with school attendance.

124 schools (Infants' Departments) were dealt with, representing 150 different class-rooms or grades, and a total of 1,743 children, excluded for periods varying from a few days to a few weeks on account of outbreaks of measles in connection therewith (a total of 354 cases of measles); whilst, in addition, three class-rooms in connection with 2 schools (infants' departments), were closed entirely. 7 schools were disinfected in connection with outbreaks of measles.

Whooping Cough.†

Whooping cough became compulsorily notifiable on January 1st, 1913, and, during 1913, 1,428 cases were

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*Of the 222 cases of Measles removed to Hospital, 4 proved at Hospital not to be suffering from that disease.

†The Council, by Order on Oct. 3rd, 1912, made Whooping Cough compulsorily notifiable by medical men and parent or relatives from trial period of 5 years, commencing June 1st, 1913. The Order was approved by the Local Government Board on Oct. 31st, 1912.

notified and, of these, 90 were removed to Hospital. 47 of the total 1,428 cases notified died (*i.e.*, 3.3 per cent.).

Whooping cough is a serious disease, especially to young children. Of the 47 deaths registered in the Borough during 1913 from this disease, 45 (*i.e.*, 95.7 per cent.) occurred in children under 5 years of age, and 21 of the deaths (*i.e.*, 44.7 per cent.) occurred amongst infants under 1 year of age. It is, therefore, a disease of childhood, and its prevention is being systematically attempted, chiefly in the way of compulsory notification of the cases, disinfection of whooping cough-infected houses, exclusion from school of children (both infected and from infected houses), and the educating of parents up to the dangerous nature of the disease and the importance of careful nursing of the patients when suffering from this complaint. Unfortunately, whooping cough, like measles, is, at present, regarded as a harmless complaint of childhood, and the ignorance displayed and the apathy shown, is well known to all who visit amongst the poorer classes. It is hoped that, by making the disease compulsorily notifiable, attention will be drawn to its serious nature, and the need that exists for taking precautionary measures in regard thereto.

Of the 1,428 cases of whooping cough notified during 1913, 90 (*i.e.*, 6.3 per cent.) were removed to hospital, non-pauper as well as pauper cases being received for treatment and isolation in hospital, under the new Metropolitan Asylums (Whooping Cough) Order, 1912 (August 9th*). 612 cases of the disease, in addition, were voluntarily notified through schools.

Leaflets (dealing with the dangers and treatment of the disease) were left at all notified whooping cough-infected houses.

During 1913, 7 schools (15 class-rooms) were dealt with on account of outbreaks of whooping cough—a total of 33 cases with 436 exclusions of "unprotected" scholars (*i.e.*,

*Of the 90 cases of Whooping Cough removed to hospital, 4 proved at hospital not to be suffering from that disease.

children who had not previously had attacks of the disease) for varying periods. In no instance were the classrooms closed.

No school nor classroom was required to be disinfected during 1913 in connection with an outbreak of whooping cough.

Details of the incidences of measles and whooping cough in the different Registration Sub-Districts of Lambeth Borough during 1913 are as follow:—

Registration Sub-Districts.	Number of Deaths from Whooping Cough.	No. of Deaths from Measles.	Whooping Cough Deaths per 10000 Inhabitants.	Measles Deaths per 10000 Inhabitants.
Lambeth Church ..	10	39	2·2	8·4
Kennington	11	24	2·3	5·03
Stockwell	10	22	1 6	3·5
Brixton...	11	9	1·4	1·2
Norwood	5	4	0·8	0 6
Borough of Lambeth	**47**	**98**	**1·6**	**3·3**

CHOLERA AND PLAGUE.

In the Borough, during 1913, no case of plague, suspected or otherwise, was notified, and no death from plague was registered.

No case of cholera was notified, and no death from cholera was registered during 1913. A suspected cholera case in Stockwell District was investigated, but the bacteriological examinaton proved negative, no cholera vibrio being isolated.

During the decennium 1901-10, no case of plague was notified and no death from plague was registered, within

the Borough, but, during the same period, 2 cases of cholera were notified and 14 deaths from cholera registered—all cases probably of epidemic diarrhœa and cholera nostras or English cholera.

1 plague "contact" arrived from abroad (from Sydney) per S.S. "Mongolia" and was watched on arrival, but, in connection therewith, no case of plague developed.

DIPHTHERIA.

During 1913, 36 deaths were registered in the Borough from diphtheria, and a total of 385 cases were notified, giving a case-mortality of 9.3 per cent. The annual averages for two decennia 1891-1900 (Parish), and 1901-10 (Borough) are respectively (1) notified cases, 685.2 and 379.8, (2) deaths 124.7 and 41.6. Of the 385 cases notified during 1913, 334* (*i.e.*, 86.8 per cent.) were removed to hospital, and 32 died, giving a case-mortality of 9.6 per cent. amongst the cases treated in hospital; whilst 51 (*i.e.*, 13.2 per cent.) were treated at home, and 4 died (*i.e.*, 7.8 per cent.) The case-mortality rate for the whole of the Borough during 1913 is again low, pointing to (1) the mildness of the majority of the cases notified, and (2) the value of antitoxin in the treatment of diphtheria, especially in the very early stages of the disease.†

The slight increase in the numbers of notified cases of diphtheria is due to the outbreak of milk-borne diphtheria in Upper Norwood at the end of the year (*see* Appendix pp. 35 to 74). Allowing for this slight increase, the 385 notifications received during 1913 in the Borough shew that the decrease of the past ten years has been maintained, the figures for the 4 quinquennia 1891-1895, 1896-1900, 1901-1905, and 1906-1910, being 551.6, 818.6, 513.7 and 348.6 respectively.

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* Of the 334 cases of Diphtheria removed to Hospital, 44 proved at Hospital not to be suffering from that disease.

† 50 Bottles of Antitoxin were distributed during 1913 under the new Antitoxin Order.

The decrease in the number of diphtheria deaths throughout the Borough during recent years is again noteworthy, viz.: during the four quinquennia 1891-1895, 1896-1900, 1901-1905, and 1906-1910, yearly averages of 123.2, 125.8, 38.8 and 44.4 respectively.

Even allowing for the slight fallacy that may arise from comparing statistics of the old Parish with those of the new Borough, this decrease in the mortality from diphtheria is again noteworthy, and, when taken in conjunction with the decrease in the number of notifications of the same disease received, allowing for the slight increase due to the outbreak in Upper Norwood, during 1913, points to a marked general decline in the prevalence of diphtheria during the past years, thus:—

	Quinquennial Period.	Population (estimated).	Number of Deaths.	Death-rate per million living.
Old Parish of Lambeth.	1863—1867	902119	148	164
	1868—1872	1021165	96	94
	1873—1877	1132106	184	163
	1878—1882	1245913	255	205
	1883—1887	1313211	365	278
	1888—1892	1367734	537	393
	1893—1897	1443857	683	483
	1898—1900	924333	362	392
Borough				
	1901—1905	1538750	194	126
	1906—1910	1606918	222	138
	1911	297957	43	144
	1912	297550	29	97
	1913	297139	36	121

The statistics for London, as a whole, are no less noteworthy.

During 1913, no school was closed on account of diphtheria, but exclusion of "sore throats" was resorted to in the case of 4 schools (4 classrooms), wherein 4 cases of diphtheria occurred, a total of 12 children who were not allowed to resume attendance until certificates (based on bacteriological examination) had been furnished stating that they were free from infection.

One school was disinfected during 1913 in connection with an outbreak of diphtheria.

The age and sex incidence and mortality from diphtheria cases notified in the Borough of Lambeth during 1913 are as follow:—

DIPHTHERIA.

Ages.	No. of Cases Notified.			Deaths.			Death Rate per 100.
	M.	F.	Total.	M.	F.	Total.	
Under 1 year	13	5	18	3	1	4	22·2
1 to 5 ...	74	49	123	15	7	22	17·9
5 to 10 ...	63	72	135	5	4	9	6·7
10 to 20 ...	26	44	70	—	—	—	0·0
20 to 40 ...	8	23	31	—	—	—	0·0
40 to 60 ...	2	4	6	—	—	—	0·0
60 and over ...	—	2	2	—	1	1	50.0
Total ...	186	199	385	23	13	36	9 4

The distribution of the disease in the different Registration Sub-Districts of the Borough of Lambeth, together with the numbers of deaths amongst both hospital- and home-treated patients, etc., during 1913, are as follows:—

Registration Sub-Districts.	Total No. of Cases Notified.	Cases treated at Home.	Cases removed to Hospital.	No. of Deaths.			Case Mortality per 100.
				At Home.	In Hospital.	Total.	
Lambeth Church ...	64	—	64	—	9	9	14·1
Kennington	55	2	53	—	7	7	12·7
Stockwell	94	16	78	3	8	11	11·7
Brixton	71	7	64	—	1	1	1·4
Norwood	101	26	75	1	7	8	7·9
Borough of Lambeth ...	385	51	334	4	32	36	9·4

997 swabs from suspected diphtheria throats or noses were examined at the Bacteriological Laboratory during 1913, and, of these, 130 (*i.e.*, 13.04 per cent.) showed the presence of the true Klebs-Lœffler (diphtheria) bacilli. In this connection, the point cannot be too well emphasised that a positive bacteriological result proves much, but that a negative result proves practically nothing. Several negative results must be obtained in succession before any trustworthy conclusions are to be drawn from the absence of the bacillus.

MEMBRANOUS CROUP.

During 1913, in the Borough, 7 cases of membranous croup* were notified, and 1 death was registered from the disease, giving a case mortality of 14.3 per cent. 4 cases were removed to hospital.

The annual averages for the decennium 1901-10 are (1) notified cases 10.4, and (2) deaths 1.5.†

*Membranous Croup Notification Certificates received since the formation of the new Borough :—1901, 13 ; 1902, 15 ; 1903, 9 ; 1904, 11 ; 1905, 11 ; 1906, 11 ; 1907, 13 ; 1908, 12 ; 1909, 3 ; 1910, 6 ; 1911, 4 ; 1912, 5 ; and 1913, 7.

†In London Statistics Diphtheria and Membranous Croup are now grouped together by the Registrar-General.

TYPHOID FEVER.

During 1913, 7 deaths were registered in the Borough from typhoid (enteric) fever, and a total of 38 cases notified, giving a case-mortality of 18.4 per cent. The annual averages for the two decennia 1891-1900 (Parish) and 1901-1910 (Borough) are respectively, (1) notified cases 189.7 and 100.5, and (2) deaths 34.7 and 16.7. Of the 38 cases notified in the Borough during 1913, 33* (*i.e.*, 86.8 per cent.) were removed to hospital, and 5 died, giving a case-mortality of 15.2 per cent. amongst the patients treated in hospital; whilst 5 (*i.e.*, 13.2 per cent.) were treated at home, and 2 died, giving a case-mortality of 40 per cent. amongst the patients treated at home.

The age and sex incidence and mortality for typhoid cases notified in Lambeth Borough during 1913 are as follow:—

Ages.	Number of Cases Notified.			Deaths.			Death-rate per 100.
	M.	F.	Total.	M.	F.	Total.	
Under 1 year	—	—	—	—	—	—	—
1 to 5 ...	—	—	—	—	—	—	—
5 to 10 ...	3	—	3	—	—	—	0·0
10 to 20 ..	1	9	10	—	2	2	20·0
20 to 40 ..	12	8	20	1	2	3	15·0
40 to 60 ..	1	4	5	1	1	2	40·0
60 and over ...	—	—	—	—	—	—	—
Total ...	17	21	38	2	5	7	18·4

It will be noted that there was no case notified, and no death registered, amongst children under 5 years of age.

* Of the 33 cases of Typhoid Fever removed to hospital, 7 proved at hospital not to be suffering from that disease.

whilst the greatest number of both cases and deaths occurred amongst persons between 20 and 40 years of age.

Details as to incidence of the disease during 1913 upon the Registration of Sub-Districts of the Borough are as follow :—

Registration Sub-Districts.	Total No. of Cases Notified.	Cases treated at Home.	Cases removed to Hospital.	No. of Deaths.			Case Mortality per 100.
				At Home.	In Hospital.	Total.	
Lambeth Church	9	1	8	—	—	—	0·0
Kennington	5	—	5	—	—	—	0·0
Stockwell	8	1	7	—	2	2	25.0
Brixton	6	—	6	1	3	4	66·7
Norwood	10	3	7	1	—	1	10·0
Borough of Lambeth ...	38	5	33	2	5	7	18·4

14 out of the 38 cases notified were traced to sources outside the Borough, 7 were found not to be suffering from the disease and 8 were secondary cases, *i.e.*, derived from previous cases (notified or unrecognised) as far as could be discovered. No case could be traced definitely and conclusively to infected ice-creams, water, milk, fried or shell fish or watercress, though in 3 cases there was a history of shell fish (mussels) having been consumed by patients 2 to 3 weeks prior to their attacks.

Of the 34 typhoid-infected houses, 12 (*i.e.*, 35.3 per cent.) showed, on inspection, defective drains, traps, fittings, or appliances, whilst in 1 (*i.e.*, 2.9 per cent.), the drains themselves were found to be defective (*i.e.*, gave a result with the test).

47 samples of blood were examined at the Bacteriological Laboratory during 1913 for the Widal reaction of typhoid, and, of these, 12 (*i.e.*, 25.1 per cent.) gave the reaction (slightly marked in 7 cases).

In so far as typhoid fever is regarded as a sanitary index of a district, the statistics for the Borough during 1913 are of a satisfactory character.

SIMPLE, CONTINUED, RELAPSING AND TYPHUS FEVERS.

During 1913, 2 cases of continued fever were notified, but no death from this disease was registered, in the Borough. One case was removed to hospital. The annual averages for continued fever for the decennia 1901-10 are (1) notified cases 4.3, and (2) deaths 0.7.

No case of typhus was notified, and no death from the disease was registered, during 1913, in the Borough. One case of typhus was notified in the Borough during the decennium 1901-10, *i.e.*, annual average of 0.1.

PUERPERAL FEVER.

During 1913, in the Borough, 10 deaths were registered from puerperal fever (a disease of child-bed), and 25 cases notified, giving a case-mortality of 40 per cent. 15 of the cases were removed to hospital, non-pauper as well as pauper patients being received for treatment and isolation at the Metropolitan Asylums Board Hospitals under the new Metropolitan Asylums (Puerperal Fever) Order, 1912 (August 20th).

The annual averages for the two decennia 1891-1900

(Parish) and 1901-1910 (Borough) are respectively (1) notified cases, 18.9 and 17.0, and (2) deaths 11.5 and 7.8.

Puerperal fever is a preventable disease, and is caused through want of care on the part of the nurse, or the medical practitioner, attending upon a lying-in woman. 8,173 births were registered in the Borough during 1913, and in only 25 cases was puerperal fever notified—a satisfactory fact to be able to report. In each case enquiries were made, and the Midwives (when in attendance) were visited at their homes, their rooms (or houses) and clothes disinfected, and their other patients (being attended at the time) followed up and watched as required.

ERYSIPELAS.

During 1913, in the Borough of Lambeth, 206 cases of erysipelas were notified and 8 deaths registered, giving a case-mortality of 3.9 per cent. Of the 206 cases notified, 59 (*i.e.*, 28.6 per cent.) were removed to hospital. The annual averages for the two decennia 1891-1900 (Parish) and 1901-1910 (Borough) are respectively (1) notified cases 347.0 and 140.8, and (2) deaths 17.7 and 12.3.

The advantages from the notification of erysipelas are few, as the majority of cases notified as "erysipelas" are not such as were contemplated by the framers of the Notification Act.

DIARRHŒA.

During the year 1913 there were registered in the Borough, 166 deaths from diarrhœa, as compared with yearly averages of 196.7 and 173.0 respectively for the two decennia 1891-1900 (Parish) and 1901-10 (Borough).

Taking the statistics of the Parish and the Borough for the 4 quinquennia 1891-1895, 1896-1900, 1901-1905, and 1906-1910 respectively, when the yearly averages for diarrhœa (and cholera) were 191.6, 219.4, 208.6 and 140.2, a comparison may be made of the variations in the incidence of these diseases.

Of the 166 deaths registered, during 1913, in the Borough, 162 (*i.e.*, 97.6 per cent.) were in children under 5 years, and 131 (*i.e.*, 78.9 per cent.) in infants under 1 year of age. July, August, September and October were the most fatal months, and, during this period of 4 months, the incidence of diarrhœa (deaths per 10,000 of the population) upon the Inner Districts was proportionately greater than that upon the Outer Districts. In this connection, it is interesting to note that the 4ft. earth thermometer first registered 56 deg. F. on June 18th, rising to a maximum 60.3 deg. F. on September 4th, and sinking to 56 deg. F. again on October 19th. 56 deg. F. is the so-called "critical" earth temperature for diarrhœa, *ie.*, the temperature at which the germs of this disease begin to multiply, and prove themselves dangerous.* Hence its importance, statistically, in connection with diarrhœa, a disease which, though it kills chiefly young children, attacks at times persons of all ages—a fact not generally recognised.

Age mortalities (corrected deaths) from diarrhœa were as follows :—

	M.	F.	Total.	Percentage of total deaths.
Under 1 year	77	54	131	78·9
1 to 5	15	16	31	18·7
5 to 20	...	...	.	0·0
20 to 40	...	1	1	0·6
40 to 60	...	...	...	0·0
Over 60	...	3	3	18·1
Total	92	74	166	100·0

*The 4-ft. earth temperatures were taken in Regent's Park, and thanks are due to the Secretary of the Royal Botanic Society for the information in connection therewith.

The details as to the diarrhœa incidence (mortality) during 1913, upon the different Registration Sub-Districts and the Wards of Lambeth Borough are as follow :—

Borough of Lambeth. Registration Sub-Districts.	Number of Deaths	Diarrhœa Death-rate per 10000 Population.
Lambeth Church	62	13·4
Kennington	37	7·8
Stockwell	26	4·2
Brixton	22	2·8
Norwood	19	2.9
Borough of Lambeth ..	166	5·6

Borough of Lambeth. Wards.	Number of Deaths.	Diarrhœa Death Rate per 10,000 Population.
Marsh	23	10·9
Bishop's	39	12 6
Prince's	37	8 8
Vauxhall	19	6·2
Stockwell	7	2·2
Brixton	10	2 3
Herne Hill	12	3 6
Tulse Hill...	10	3·2
Norwood	9	2·8
Borough of Lambeth	**166**	**5.6**

Taking the whole of the cases registered, during 1913, the diarrhœa death-rate per 10,000 population in the Inner Registration Sub-Districts and Inner Wards is 9.5, as compared with 2.8 for the Outer Registration Sub-Districts and Outer Wards—a difference which is generally found to obtain, and which is understood when the crowded state of the Inner Registration Sub-Districts and Inner Wards is remembered.

24 deaths (10 in infants under 1 year of age) were registered during 1913 from "enteritis." During recent years there has been a marked improvement in the diagnosis of deaths from diarrhœal diseases, so that, to obtain comparable figures, attention should be paid not only to diarrhœa deaths certified, but also to all deaths arising from diseases of an enteritic nature, *i.e.*, those in which the intestines are affected.

Practical measures were again taken to prevent epidemic diarrhœa and other infectious diseases in infants and to promote hygienic conditions in the feeding of infants, systematic visiting of houses wherein births were notified under the Notification of Births Act, 1907, and wherein deaths were registered as having occurred from epidemic diarrhœa, the teaching of proper feeding and care of infants by the Council's female staff, the work of the Milk Depot and the Infants' consultations in connection therewith, etc., may be tabulated as some of the measures taken during 1913 with success. In addition, a special leaflet was again issued during the year, dealing with precautions against summer diarrhœa in connection with irregular and improper feeding of infants and the value of the milk depot in relation thereto, the danger of contamination of food by flies, the importance of removing at once all accumulations

of refuse and other offensive matters, uncleanliness generally as a cause of diarrhœa, etc.

GLANDERS, ANTHRAX, ETC.

During 1913, 9 notifications of animal glanders in the Borough were received under the London (Notification of Glanders) Order, 1907,* but no case of human glanders, anthrax or hydrophobia was notified.

EPIDEMIC INFLUENZA.

During 1913, 67 deaths were registered from influenza in the Borough. Of the 67 deaths, 32 were registered during the first, 18 during the second, 4 during the third, and 13 during the fourth quarter of the year. The annual averages for the two decennia 1891-1900 (Parish) and 1901-10 (Borough) are respectively 107.5 and 53.2.

OPHTHALMIA NEONATORUM (CONTAGIOUS OPHTHALMIA OF NEWLY-BORN INFANTS).

Ophthalmia neonatorum was made compulsorily notifiable in the Administrative County of London as from, and including, March 13th, 1911, by Order made by the London County Council and duly approved by the Local Government Board.

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*The Order includes also Anthrax and Hydrophobia occurring in human beings.

During 1913, within the Borough, 57 infants were notified as suffering from the disease. Each case was visited officially and the necessary precautionary measures were taken. No case was removed to hospital.* All the infants recovered except one, whose left eye was destroyed.

The London County Council Medical Inspectors under the Midwives Act report all cases of inflammation of the eyes of newly-born babies to the Medical Officers of Health of the various Metropolitan Districts, *i.e.*, in addition to notifying cases of diagnosed ophthalmia neonatorum as required by the Order.

TUBERCULOSIS.

Full details of the Lambeth Municipal Tuberculosis Dispensaries Scheme are to be found in the Appendix pp. 75 to 103.

During 1913, 370 deaths (corrected) were registered in the Borough as due to phthisis (tuberculosis of the lungs), 11 as due to tabes mesenterica, 49 as due to tubercular meningitis and hydrocephalus, and 55 as due to other forms of tuberculosis, making a total of 485 deaths from tuberculosis (all forms)—*i.e.*, 11.3 per cent. of the total deaths (corrected) registered from all causes. During the four quinquennia, 1891-5 (Parish), 1896-1900 (Parish), 1901-5 (Borough) and 1906-10 (Borough), the yearly averages of deaths from tuberculosis (all forms), were respectively 675.0, 690.0, 647.4 and 567.4, whilst, during the same quinquennia, the yearly averages of deaths from phthisis, or pulmonary tuberculosis, alone were respectively 478.8, 496.8, 462.8 and 421.6. Sub-dividing the total tuberculosis (all forms) deaths during 1913 amongst the different Registration Sub-Districts it is found that the numbers of deaths vary as follow:—

*No special hospital accommodation for cases of ophthalmia neonatorum has been provided in London, the general and special hospitals dealing with the cases in their out-patient and in-patient departments as required.

Registration Sub-Districts.	Deaths from			Total Deaths. Tuberculosis (all forms).
	Phthisis.	Tabes. Mes. and Tub. Men.	Other forms Tuber-culosis.	
Lambeth Church	91	19	11	121
Kennington	68	14	15	97
Stockwell	74	10	11	95
Brixton	84	12	12	108
Norwood	48	5	6	59
No Address	5	—	—	5
Borough of Lambeth	370	60	55	485

1,484 samples of sputum were examined at the Council's Bacteriological Laboratory during 1913, and of these, 614 (*i.e.*, 41.4 per cent.) showed the presence of the tubercle bacillus.

The distribution of tuberculosis, as a disease, can be gauged from the official notifications that have been received, viz. : under (*a*) the voluntary Lambeth Notification (Consumption) Scheme, 1902,* which came into force on June 1st, 1902, (*b*) the compulsory Poor Law, Hospitals and Private Pulmonary Tuberculosis Schemes, known as the following Regulations, viz. : the Public Health (Tuberculosis) 1908, the Public Health (Tuberculosis in Hospitals) 1911, and the Public Health (Tuberculosis), 1911, and (*c*) the new Regulations dealing with all forms of Tuberculosis, and

*No notifications were received during 1913 under the Lambeth Notification (Consumption) Scheme 1902.

known as the Public Health (Tuberculosis) Regulations, 1912, which came into force on February 1st, 1913, all previous Regulations being then revoked.

All the sources of notifications received during 1913 are set out in Tables Q (I.), Q (II.), Q (III), and Q (IV.), dealing with (*a*) Wards, and (*b*) Registration Sub-Districts, those notifications received under the old Regulations, 1908 and 1911, during January, 1913, being set out as in previous Annual Reports (for comparison), and those received under the new Regulation, 1912, during the remaining 11 months of 1913, being set out in the new forms required by the Local Government Board.

In each case notified, from whatever source, a visit is paid, unless the notifying medical man is of opinion that such an official visit is unnecessary, leaflets are distributed and disinfection is carried out as required, but with due regard to privacy, instructions being given to the officers to avoid doing anything likely to cause pain or annoyance to patients or their friends. The usual precautionary measures are taken (distribution of pamphlets, disinfection, isolation, etc.).

Taking all the primary notifications of pulmonary tuberculosis (consumption) received during 1913—a total of 1,571 the disease appears to have had a greater incidence upon the Inner than the Outer Districts (Registration Sub-Districts and Wards), viz. : 827 to 744, *i.e.*, 6.7 to 4.3 per 1,000 population due to (*a*) the more crowded conditions, persons in houses, and houses over area, and (*b*) the different (poorer) status of the inhabitants, in the former as compared with the latter.

Taking the primary notifications of tuberculosis (all forms) received under (*a*) the Regulations 1908 and 1911 (Pulmonary), and (*b*) the Regulations 1912 (Pulmonary and Non-Pulmonary), the incidence rates of the disease per 1,000 of the populations in the Registration Sub-Districts and Wards during 1913, are as follow :—

(*a*) *Tuberculosis* (*Pulmonary*).

1. *Wards*—

Inner—6.7, viz.: Marsh, 6.1; Bishop's, 8.9; Prince's, 6.8; Vauxhall, 4.5.

Outer—4.3, viz.: Stockwell, 3.6; Brixton, 5.2; Herne Hill, 4.7; Tulse Hill, 3.8; Norwood, 3.8.

2. *Registration Sub-Districts*—

Inner—6.7, viz.: Lambeth Church, 7.7; Kennington, 7.0; Inner Stockwell, 4.5.

Outer—4.3, viz.: Outer Stockwell, 3.6; Brixton, 5.0; Norwood, 3.8.

Borough of Lambeth = 5.3.

(*b*) *Tuberculosis* (*all forms*).

1. *Wards*—

Inner—8.6, viz.: Marsh, 8.2; Bishop's, 11.7; Prince's, 8.8; Vauxhall, 6.2.

Outer—5.7, viz.: Stockwell, 4.9; Brixton, 6.7; Herne Hill, 6.5; Tulse Hill, 4.9; Norwood, 5.4.

2. *Registration Sub-Districts*—

Inner—8.6, viz.: Lambeth Church, 10.1; Kennington, 8.8; Inner Stockwell, 6.2.

Outer—5.7, viz.: Outer Stockwell, 4.9; Brixton, 6.5; Norwood, 5.2.

Borough of Lambeth = 6.9.

The corresponding death-rates from (*a*) tuberculosis (pulmonary), and (*b*) tuberculosis (all forms) per 1,000 of the population living are for the Registration Sub-Districts as follow:—

(*a*) *Tuberculosis (Pulmonary)*—

Inner—1.6*, viz.: Lambeth Church, 1.9; Kennington, 1.4; Inner Stockwell, 1.2.

Outer—0.9,* viz.: Outer Stockwell, 1.2; Brixton, 1.1; Norwood, 0.8.

Borough of Lambeth = 1.2.

(*b*) *Tuberculosis (all forms)*—

Inner—2.2*, viz.: Lambeth Church, 2.6; Kennington, 2.1; Inner Stockwell, 1.6.

Outer—1.3*, viz.: Outer Stockwell, 1.5; Brixton, 1.4; Norwood, 0.9.

Borough of Lambeth = 1.6.

*In calculating these death-rates for the Registration Sub-Districts (Inner and Outer), the deaths registered in Stockwell Sub-District are divided equally between Inner and Outer Stockwell.

TABLE Q (I.)—

Notification Certificates received during January, 1913, under the new Public Health (Tuberculosis) Regulations, 1908 (Forms A, B, C and D) (2) the Public Health (Tuberculosis in Hospitals) Regulations, 1911 (Forms A and B), and during February to December (inclusive), 1913, under (1) the Public Health (Tuberculosis) Regulations, 1912, (Forms A, B, C, D).

I.

Wards. 1913.	PUBLIC HEALTH								
	TUBERCULOSIS (PULMONARY.)								
	Poor Law (1908).					Hospitals 1911.	Private 1911.		
Forms.	A.	B.	C.	D.	Total.	Total.	A.	B.	Total.
Marsh	2	—	—	—	2	11	2	—	2
Bishop's	15	1	2	—	18	3	19	1	20
Prince's	7	6	1	—	14	12	14	—	14
Vauxhall	2	7	2	—	11	6	7	1	8
Total Inner Wards	**26**	**14**	**5**	—	**45**	**32**	**42**	**2**	**44**
Stockwell	3	—	—	—	3	5	5	—	5
Brixton	4	2	1	—	7	13	12	1	13
Herne Hill	2	2	—	—	4	9	5	—	5
Tulse Hill	3	—	2	—	5	4	8	1	9
Norwood	1	—	—	—	1	5	7	2	9
Total Outer Wards	**13**	**4**	**3**	—	**20**	**36**	**37**	**4**	**41**
Borough of Lambeth	39	18	8	—	65	68	79	6	85

TUBERCULOSIS NOTIFICATIONS.

WARDS.

TUBERCULOSIS REGULATIONS.

TUBERCULOSIS (ALL FORMS.) NEW, 1912.															
Pulmonary.								Non-Pulmonary.							
A.		B.		C.		D.		A.		B.		C.		D.	
Primary.	Total.	Primary.	Total.	Poor Law.	Sanatorium.	Poor Law.	Sanatorium.	Primary.	Total.	Primary.	Total.	Poor Law.	Sanatorium.	Poor Law.	Sanatorium.
114	122	1	1	20	21	23	13	38	42	1	2	—	6	1	1
224	250	14	15	39	29	27	29	55	63	7	8	—	3	2	4
233	255	12	13	40	21	20	19	72	77	6	9	—	8	2	7
107	118	6	7	23	14	13	18	41	47	9	9	1	7	—	5
678	**745**	**33**	**36**	**122**	**85**	**83**	**79**	**206**	**229**	**23**	**28**	**1**	**24**	**5**	**17**
101	115	2	4	12	12	3	11	32	33	4	4	—	—	—	—
192	224	6	7	15	19	13	13	52	61	5	4	—	3	—	3
137	160	2	3	14	21	16	13	47	53	6	7	—	—	—	1
101	110	1	2	7	9	4	7	28	32	5	6	—	—	—	1
106	115	2	4	7	20	7	20	44	49	4	6	—	4	—	2
637	**742**	**13**	**20**	**55**	**81**	**43**	**64**	**203**	**228**	**24**	**27**	—	**7**	—	**7**
1315	1469	46	56	177	166	126	143	409	457	47	55	1	31	5	24

TABLE Q (II.)

Notification Certificates received during January, 1913, 1908 (Forms A, B, C, and D), (2) the Public Health Public Health (Tuberculosis) Regulations, 1911 (Forms A under the new Public Health (Tuberculosis) Regulations,

2. REGISTRATION

Registration Sub-Districts. 1913.	PUBLIC HEALTH — TUBERCULOSIS (PULMONARY). Poor Law (1908).					Hospitals 1911.	Private 1911.		
Forms.	A.	B.	C.	D.	Totals.	Total.	A.	B.	Total.
Waterloo	2	—	—	—	2	11	2	—	2
Lambeth Church ...	15	1	2	—	18	3	17	1	18
Kennington	7	6	1	—	14	12	16	—	16
Stockwell (Inner) ...	2	7	2	—	11	6	7	1	8
Total Inner Districts	**26**	**14**	**5**	—	**45**	**32**	**42**	**2**	**44**
Stockwell (Outer) ...	3	—	—	—	3	5	5	—	5
Brixton	6	4	1	—	11	22	17	1	18
Norwood	4	—	2	—	6	9	15	3	18
Total Outer Districts	**13**	**4**	**3**	—	**20**	**36**	**37**	**4**	**41**
Borough of Lambeth	39	18	8	—	65	68	79	6	85

TUBERCULOSIS NOTIFICATIONS.

under (1) the Public Health (Tuberculosis) Regulations, (Tuberculosis in Hospitals) Regulations, 1911, and (3) the and B), and during February to December (inclusive), 1913, 1912 (Forms A, B, C, and D).

SUB-DISTRICTS.

(TUBERCULOSIS) REGULATIONS.

	TUBERCULOSIS, (ALL FORMS). Pulmonary. New 1912.								Non-Pulmonary.					
	A.		B.		C.		D.		A.		B.		C.	D.
	Primary.	Total.	Primary.	Total.	Poor Law.	Sanatorium.	Poor Law.	Sanatorium.	Primary.	Total.	Primary.	Total.	Poor Law.	Sanatorium.	Poor Law.	Sanatorium.
	114	122	1	1	20	21	23	13	38	42	1	2	—	6	1	1
	176	202	11	12	34	24	23	25	51	59	6	7	—	3	1	3
	281	303	15	16	45	26	24	23	76	81	7	10	—	8	3	8
	107	118	6	7	23	14	13	18	41	47	9	9	1	7	—	5
	678	**745**	**33**	**36**	**122**	**85**	**83**	**79**	**206**	**229**	**23**	**28**	**1**	**24**	**5**	**17**
	101	115	2	4	12	12	3	11	32	33	4	4	—	—	—	—
	329	384	8	10	29	40	29	26	99	114	11	11	—	3	—	4
	207	225	3	6	14	29	11	27	72	81	9	12	—	4	—	3
	637	**724**	**13**	**20**	**55**	**81**	**43**	**64**	**203**	**228**	**24**	**27**	—	**7**	—	**7**
	1315	1469	46	56	177	166	126	143	409	457	47	55	1	31	5	24

METROPOLITAN BOROUGH OF LAMBETH.

TABLE

PUBLIC HEALTH (TUBERCULOSIS)

Summary of Notifications received during the period from

(Tuberculosis) Regulations, 1912, com

Age-Periods.	Number of Notifications on Forms A and B (1908) and Form A (1911).												
	Primary Notifications. (Medical).												*Total Notifications (*i.e.*, including cases previously notified by other doctors). (Medical)
	0 to 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 and upwards.	Total.	
Pulmonary—													
Males ...	—	3	2	1	6	6	29	40	23	7	1	118	118
Females ...	—	—	5	7	5	14	24	12	8	10	1	86	86
Non-Pulmonary—													
Males ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Females ...	—	—	—	—	—	—	—	—	—	—	—	—	—

*No Re-notifications under Form A.

N.B.—Pulmonary—75 private, 68 hospitals, 4 dispensaries, A and B).

Q (III.).

REGULATIONS), 1908 AND 1911.

1st to 31st January, 1913 (inclusive), the new Public Health ing into force on February 1st, 1913.

Number of Notifications on Form B (1911).					Number of Notifications on Form C (1908).	Number of Notifications on Form D (1908).
Primary Notifications. (Medical.)				†Total Notifications (*i.e.*, including cases previouslynotified by other Doctors). (Medical.)	Poor Law Institutions. (Non-Medical).	Poor Law Institutions. (Non-Medical.)
Under 5.	5 to 10.	10 to 15.	Total.			
—	1	2	3	3	7	—
—	—	3	3	3	1	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—

†No Re-notifications under Form B.

57 Poor Law and 6 schools=210 total primary notifications (Forms

METROPOLITAN BOROUGH OF LAMBETH.

TABLE Q (IV.).

PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1912.

Summary of Notifications received during the period from 1st February, 1913, when the Public Health (Tuberculosis) Regulations, 1912, came into force, to the end of the week ending on the 3rd January, 1914.

Age-Periods.	Number of Notifications on Form A.												
	Primary Notifications. (Medical.)												*Total Notifications (*i.e.*, including cases previously notified by other Doctors). (Medical.)
	0 to 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 and upwards.	Total.	
Pulmonary—													
Males ...	1	7	19	42	36	88	176	179	108	46	13	715	812
Females ...	—	8	18	28	54	87	172	140	55	28	10	600	657
Non-Pulmonary—													
Males ...	2	38	55	39	18	9	14	7	10	2	4	198	226
Females ...	3	43	41	31	27	19	22	10	8	1	6	211	231

Number of Notifications on Form B.					Number of Notifications on Form C.		Number of Notifications on Form D.	
Primary Notifications (Medical.)				†Total Notifications (*i.e.*, including cases previously notified by other Doctors). (Medical.)	Cases admitted to		Cases discharged from	
Under 5.	5 to 10.	10 to 15.	Total.		Poor Law Institutions. (Medical.)	Sanatoria. (Medical.)	Poor Law Institutions. (Medical.)	Sanatoria. (Medical.)
—	11	12	23	25	126	88	86	81
—	12	11	23	31	51	78	40	62
—	14	17	31	36	—	17	2	12
—	6	10	16	19	1	14	3	12

*Re-notifications (Form A) = 154 (males 97, females 57), pulmonary and 48 (males 28, females 20), non-pulmonary.

†Re-notifications (Form B) = 10 (males 2, females 8), pulmonary and 8 (males 5, females 3), non-pulmonary.

N.B.—Pulmonary—672 private, 291 hospitals, 255 dispensaries, 97 Poor Law Officers and 46 schools = 1361 total primary notifications (Forms A and B).

Non-Pulmonary—86 private, 308 hospitals, 10 dispensaries, 5 Poor Law Officers and 47 schools = 456 total primary notifications (Forms A and B).

The 24 deaths from venereal affections (syphilis, etc.), are the only other point calling for note in the class of zymotic diseases. A Royal Commission has been appointed during 1913 to investigate the question of venereal diseases and the means to be taken to prevent their ravages.

Classes II. and III.—Parasitic and Dietetic Diseases.

23 deaths were registered from chronic Alcoholism, and 1 was registered from Delirium Tremens.

Class IV.—Constitutional Diseases.

Of the total 936 deaths under this class, 369 were due to Cancer, 370 to Phthisis, and 115 to Tubercular Meningitis and other forms of Tuberculosis.

Class V.—Developmental Diseases.

The total number of deaths in this class was 350, consisting of 130 from Premature Birth, 174 from Old Age, and 12 from Atalectasis and 34 from Congenital Malformations.

Class VI.—Local Diseases.

1. Diseases of the Nervous System caused 333 deaths, including 25 from Convulsions, 184 from Apoplexy, and 20 from Epilepsy.

2. 555 deaths were due to diseases of the Circulatory System.

3. The diseases of the Respiratory Organs caused 806 deaths (373 from Bronchitis and 125 from Pneumonia, 165 from Broncho-Pneumonia, and 76 from Pleuro-Pneumonia).

4. Diseases of the Digestive Organs caused 240 deaths, of which 24 were due to Enteritis, 6 to Peritonitis, 65 to diseases of the Liver, 14 to Dentition, and 24 to Appendicitis.

5. Diseases of the Urinary System caused 191 deaths.

6. Diseases of the Reproductive System, Integumentary System, Locomotive System, Lymphatics, Organs of Special Senses, and Gland-like Organs of uncertain use, caused together 70 deaths.

Class VII.—Deaths from Violence.

181 deaths in all, including 142 from Accidents or Negligence, 15 from Burns and Scalds, 16 from Drowning, 11 from Suffocation in Bed (10 being infants under 1 year of age), 37 from Suicide and 2 from Homicide 1 manslaughter and 1 murder).

Class VIII.—Other Causes.

99 deaths were registered in this class, consisting of deaths from Dropsy, Tumours, Hæmorrhages, Debility, Atrophy and Inanition, or other ill-defined or non-specified causes.

Different rates of mortality from different diseases and groups of diseases are given in terms of the total deaths (corrected or uncorrected) in Tables R and S; whilst Table R gives also the deaths from the chief Infantile Diseases, expressed in terms of the Infantile population (or Number of Births). Allowing for the slight differences between the corrected and uncorrected death returns, it will be noted that in regard to both infantile and other diseases Lambeth again compares favourably with London.

TABLE **R.**

Shewing Classification of Causes of Deaths (corrected) in the Borough of Lambeth during 1912 and 1913.

A.—Total Deaths from all causes and at all ages with percentages of such deaths to total deaths (corrected).

Class of Disease.	Borough 1912.		Borough. 1913.	
	No. of Deaths (corrected).	Percentage of Total Deaths (corrected).	No. of Deaths (corrected).	Percentage of Total Deaths (corrected).
I.—Zymotic Diseases	384	9·8	494	11·5
Seven Principal	287	7·3	369	8.6
Influenza	40	1·02	67	1·6
II.—Parasitic	1	0·02	...	...
III.—Dietetic	32	0·8	25	0·6
IV.—Constitutional	930	23·7	936	21·9
Cancer	371	9·4	369	8·6
Phthisis	381	9·7	370	8.6
Tubercular Diseases, excluding Phthisis ...	99	2·5	115	2·7
Rheumatism (Acute and Chronic) and Gout ..	19	0·5	22	0·5
V.—Developmental	346	8·8	350	8·2
Old Age	176	4·5	174	4·1
VI.—Local Diseases	1994	50·8	2195	51·3
Circulatory System ...	453	11·5	555	12·9
Bronchitis	361	9·2	373	8·7
Pneumonia and Broncho-Pneumonia	261	6·6	290	6·8
Pleurisy and Pleuro-Pneumonia	84	2·1	89	2·1
Respiratory System, excluding Phthisis... ...	763	19·4	806	18·8
VII.—Violence	151	3·8	181	4·2
Suicide	34	0·9	37	0·9
VIII.—Other Causes	87	2·2	99	2·3

TABLE R—*continued.*

B.—Deaths (corrected) of Infants under One Year of age from the chief infantile diseases, and from all causes, expressed in terms of 1000 births (corrected).

	Borough 1912.		Borough 1913.	
	Total Deaths under One Year (Corrected).	Proportion to 1000 Births (Corrected).*	Total Deaths under One Year (Corrected).	Proportion to 1000 Births (Corrected).*
From all causes	598	86·02	733	101·3
Diarrhœa	64	9·2	131	18·1
Convulsions	11	1·6	20	2·8
Respiratory Diseases...	111	15·9	149	20·6
Premature Births	124	17·8	130	17·9
Tubercular Diseases (including Phthisis) ...	24	3·4	22	3·04
Measles	19	2·7	23	3·2
Whooping Cough	24	3·4	21	2·9
Suffocation in Bed	9	1·3	10	1·4
Enteritis	8	1 1	10	1·4
Dentition	8	1·1	10	1·4

*N.B.—The Registrar-General gives the corrected Lambeth births for 1912 and 1913 as 6952 and 7233 respectively.

TABLE S.

[*Local Government Board Old Table A*]

TABLE of **DEATHS** during the year 1913 in the Borough of Lambeth

NAMES OF LOCALITIES adopted for the purpose of these Statistics, public institutions being shewn as separate localities.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.										1	2
	At all ages	Under 1 year.	1 and under 2	2 and under 5.	5 and under 15	15 and under 25	25 and under 45	45 and under 65.	65 and upwards		Scarlatina.	Diphtheria.
(*a*)	(*b*)	(*c*)	(*d*)	(*e*)	(*f*)	(*g*)	(*h*)	(*i*)	*j*	*k*		
Royal Infirmary (Women and Children) ...	139	65	23	19	11	2	12	6	1	Under 5	...	1
										5 upwds.	...	...
General Lying-in-Hospital, York Road ...	27	20	...	...	...	...	7	...	...	Under 5	...	...
										5 upwds.	...	...
St. Thomas's Hospital...	687	87	23	34	73	61	154	198	57	Under 5	...	4
										5 upwds.	...	...
Remainder of Lambeth Church	418	117	33	17	8	12	57	79	95	Under 5	...	...
										5 upwds.	...	...
Lambeth Workhouse ...	38	9	...	...	...	...	3	4	22	Under 5	...	...
										5 upwds.	...	...
Lambeth Infirmary ...	779	39	14	5	1	14	157	236	313	Under 5	...	...
										5 upwds.	...	...
St. Peter's House ...	35	...	...	...	...	..	1	2	32	Under 5	...	...
										5 upwds.	...	...
Remainder of Kennington	389	82	25	24	12	8	27	98	113	Under 5	...	...
										5 upwds.	...	...
South-Western Hospital	117	10	22	37	20	4	18	5	1	Under 5	12	24
										5 upwds.	2	11
Clapham Maternity ...	11	10	...	...	...	1	...	...	...	Under 5	...	...
										5 upwds.	...	...
Remainder of Stockwell	509	103	25	16	16	16	60	102	171	Under 5	...	2
										5 upwds.	...	...

TABLE S.

classified according to DISEASES, AGES, and LOCALITIES.

MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.																
3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Membranous Croup.	FEVERS.			Erysipelas.	Measles.	Whooping Cough.	Diarrhœa and Dysentery.	Rheumatic Fever.	Phthisis.	Bronchitis, Pneumonia and Pleurisy.	Heart Disease.	Influenza.	Injuries.	Cerebro-spinal Fever.	Appendicitis.	All other Diseases.	TOTAL.
	Puerperal.	Enteric or Typhoid.	Typhus.														
...	..	...	...	...	1	...	26	...	...	30	..	...	...	2	...	47	107
...	1	...	...	...	...	...	...	...	2	1	5	...	...	...	1	22	32
...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	20	20
...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	7	7
...	...	...	...	1	2	...	17	...	2	27	1	...	12	2	1	75	144
...	5	1	...	2	...	...	...	2	16	19	44	...	38	1	36	379	543
...	...	...	...	...	22	6	24	...	..	47	...	...	5	...	...	63	167
...	...	...	...	...	2	...	...	1	34	57	35	4	35	...	..	83	251
...	..	..	...	...	...	...	1	...	...	...	...	...	...	...	...	8	9
...	...	...	...	...	...	...	...	...	...	12	12	...	1	...	...	4	29
...	...	...	...	...	...	1	25	...	...	7	...	...	1	...	..	24	58
...	2	2	...	5	...	...	...	5	115	107	145	1	20	...	3	316	721
...	...	...	...	..	...	...	...	..	...	...	...	...	...	...	..	...	...
...	...	..	...	...	...	...	...	...	...	13	4	...	1	...	..	17	35
...	...	...	...	...	18	9	16	...	1	31	...	...	3	...	...	53	131
...	...	...	...	..	1	1	...	...	33	58	47	1	13	...	...	104	258
...	...	...	...	...	24	...	...	...	..	2	...	...	2	1	..	4	69
...	5	15	...	...	3	...	...	..	1	2	...	...	2	...	...	7	48
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10	10
...	1	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	1
1	..	...	...	...	14	7	8	...	1	33	2	1	10	...	...	65	144
...	1	...	.	...	...	...	1	3	36	76	50	14	13	...	...	171	365

TABLE S.—*continued.*

[*Local Government Board Old Table A—continued.*]

TABLE of **DEATHS** during the year 1913 in the Borough of Lambeth

Names of Localities adopted for the purpose of these Statistics, Public institutions being shewn as separate localities.	Mortality from all causes at subjoined Ages.										1	2
	At all ages.	Under 1 year.	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25	25 and under 45.	45 and under 65.	65 and upwards.		Scarlatina.	Diphtheria.
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	j	k		
King's College Hospital,	55	6	3	1	7	3	5	7	3	Under 5	...	...
										5 upwds.	...	...
Belgrave Hospital ...	140	104	14	14	8	...	...	...	...	Under 5	...	1
										5 upwds.	...	1
Remainder of Brixton ...	618	103	13	12	11	19	68	139	253	Under 5	...	...
										5 upwds.	...	...
Lambeth Workhouse Schools	1	...	...	...	...	1	...	...	...	Under 5	...	...
										5 upwds.	...	...
British Home of Incurables	6	...	...	...	...	...	...	2	4	Under 5	...	...
										5 upwds.	...	...
Remainder of Norwood	527	76	15	11	8	20	43	120	234	Under 5	...	...
										5 upwds.	...	1
Totals ...	4476	831	210	190	175	161	612	998	1299	Under 5	12	32
										5 upwds.	2	13

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

Deaths occurring outside the district among persons belonging thereto	687	107	39	28	29	28	146	174	136	Under 5	2	7
										5 upwds.	3	2
Deaths occurring within the district among persons not belonging thereto ...	883	205	44	62	83	54	166	182	87	Under 5	4	13
										5 upwds.	1	5

TABLE S.—*continued.*

classified according to Diseases, Ages, and Localities.

Mortality from subjoined causes, distinguishing Deaths of Children under Five Years of Age.																	
3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Membranous Croup.	Fevers. Puerperal.	Fevers. Enteric or Typhoid.	Fevers. Typhus.	Erysipelas.	Measles.	Whooping Cough.	Diarrhœa and Dysentery.	Rheumatic Fever.	Phthisis.	Bronchitis, Pneumonia and Pleurisy.	Heart Disease.	Influenza.	Injuries.	Cerebro-spinal Fever.	Appendicitis.	All other Diseases.	Totals.
...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	7	10
...	...	...	...	...	...	...	...	...	...	4	3	...	6	...	2	10	25
...	...	...	...	...	...	1	42	...	...	17	1	...	4	...	1	65	132
...	...	...	...	1	...	...	...	...	...	...	2	...	1	...	...	3	8
...	...	...	...	...	8	7	10	...	...	34	...	1	3	...	...	65	128
...	1	1	...	2	...	...	1	1	57	105	89	16	10	1	...	206	490
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	5	6
...	...	...	...	...	3	5	13	...	...	19	1	1	3	...	...	57	102
...	1	1	...	...	...	...	1	...	34	52	72	22	13	...	2	226	425
1	17	...	...	1	92	36	182	...	4	250	5	3	43	5	2	563	1231
...	...	20	...	10	6	1	3	12	329	506	508	59	153	2	44	1560	3245

...	...	...	...	...	20	11	30	...	1	26	...	...	...	...	...	77	174
...	3	1	...	...	1	1	1	1	61	45	90	6	37	...	6	255	513
...	...	...	...	1	18	2	50	...	1	49	1	..	10	3	2	157	311
...	10	14	...	2	3	...	...	2	24	26	47	1	42	1	26	368	572

TABLE T.

Table of Population, Births and of New Cases of Infectious of Health (by notification), during the year according to Diseases

[*Local Government Board Old Table B.*]

Registration Sub-Districts.	Population at all Ages.		Registered Births 1913.	New Cases of Sickness in each the knowledge of the Medical during						
				1	2	3	4	5	6	7
							Fevers.			
	Census 1911.	Estimated to middle of 1913.		Scarlatina.	Diphtheria.	Membranous Croup.	Typhoid or Enteric.	Continued.	Puerperal.	Cholera.
(*a*)	(*b*)	(*c*)	(*d*)							
Waterloo	47910	46241	2366	74	31	2	6	...	2	...
Lambeth Church ...				126	33	...	3	...	2	...
Kennington	48609	47673	1232	217	55	3	5	1	5	...
Stockwell	62608	62315	2013	320	94	1	8	...	5	...
Brixton	76650	77363	1551	456	71	1	6	1	6	...
Norwood	62281	63547	1179	177	101	...	10	...	5	...
Totals	298058	297139	8341	1370	385	7	38	2	25	...

TABLE T.

Sickness, coming to the knowledge of the Medical Officer 1913, in the Borough of Lambeth, classified and Localities.

Locality, coming to Officer of Health 1913.					Number of such Cases removed from their Homes in the several Localities for Treatment in Isolation Hospital during 1913.											
8	9	10	11	12	1	2	3	4	5	6	7	3	9	10	11	12
								Fevers.								
Erysipelas.	Cerebro-spinal Meningitis.	Poliomyelitis Acuta.	Ophthalmia.	Whooping Cough.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhoid or Enteric.	Continued.	Puerperal.	Cholera.	Erysipelas.	Cerebro-spinal Meningitis.	Poliomyelitis Acuta.	Ophthalmia.	Whooping Cough.
15	1	1	2	71	73	31	2	5	...	2	...	6	...	1	...	...
23	1	...	7	178	124	33	...	3	...	2	...	9	1	...	...	6
46	3	1	14	291	206	53	...	5	...	4	...	14	1	...	...	29
39	...	1	16	301	284	78	1	7	...	...	...	8	...	...	...	27
64	2	1	16	351	370	64	1	6	1	4	...	17	...	1	...	16
19	...	2	2	236	155	75	...	7	...	3	...	5	...	1	...	12
206	7	6	57	1428	1212	334	4	33	1	15	...	59	2	3	...	90

TABLE U.

Shewing Classification of Certain Causes of Deaths (uncorrected) in the Borough of Lambeth, during 1912 and 1913, given in percentages of the total uncorrecteed deaths.

A.—*Deaths at all Ages.*

	Lambeth.	
	Percentage of total Deaths (uncorrected)	
	1912.	1913.
I. Principal Zymotics	8·2	8·6
Influenza	0·9	1·3
Measles	2·1	2·1
Whooping Cough	1·1	0·8
Diarrhœa and Dysentery (including Cholera)	2·03	3·9
II. Rheumatic Fever and Heart Rheumatism	0·3	0·3
III. Diseases of Circulatory System ...	10·4	10·9
IV. Bronchitis, Pneumonia and Pleurisy	16·9	16·2
Phthisis	8 6	7·1
V. Injuries	4·2	4·2
B—*Deaths under 1 Year of Age (per 1000 Births uncorrected).*		
All Causes	87·5	99·6

BOROUGH OF LAMBETH.

SUMMARY OF VITAL AND MORTAL STATISTICS, etc., FOR 1913.

Area of Borough—4,080.4 statute acres (inclusive of land and inland water, but exclusive of tidal water 82.1 and foreshore 31.1 statute acres respectively), divided into 5 Registration Sub-Districts, 4 Parliamentary Divisions, and 9 Wards. The Parliamentary Divisions and Wards are not co-extensive but the Registration Sub-Districts and the Wards are.

Population—estimated middle of 1913—297,139 (males 141,917, females 155,222).

*Density—72.8 persons per statute acre (including land and inland water, but exclusive of tidal water and foreshore).

Rateable Value—£1,878,118 for the year ending March 31st, 1913 (as settled at Quinquennial Valuation, and including Government property and alterations made by Provisional Valuation Lists).

Births—8,341, being 28.1 per 1,000.

Deaths (corrected)—4,280 being 14.4 per 1,000.

Infantile Mortality—733 deaths (corrected) under 1 year, being 87.9 per 1,000 total (uncorrected) births.

Zymotic—Death-rate, 1.2 per 1,000 (total corrected zymotic deaths, 369).

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*The densities vary in the different Registration Sub-Districts as follows—Lambeth Church (354·3 acres) 130·5, Kennington (398·3 acres) 119·7, Stockwell (583 acres) 106·9, Brixton (1026·6 acres) 75·3, and Norwood (1718·2 acres) 36·9 per statute acre respectively.

II.—SANITARY WORK.

(Dealing with the sanitary circumstances and administration of the Borough of Lambeth.)

Return shewing the Number of Notices served in the Borough of Lambeth, from the 1st January to the 31st December, 1913.

Number of Notices served ... 14,397.

A. COMPULSORILY NOTIFIABLE INFECTIOUS DISEASES.

(Pubic Health (London) Act.)

No. of Notices served	3531
No. of Infected Houses	2972
Smallpox	—
Scarlet Fever	1227
Typhoid	34
Typhus	—
Continued Fever	2
Diphtheria	365
Membranous Croup	7
Puerperal Fever	25
Erysipelas	206
English Cholera	—
Cerebro-Spinal Meningitis	7
Acute Polio-Myelitis	6
Ophthalmia Neonatorum	56
Whooping Cough	1037

B. GENERAL NUISANCES AND DRAINAGE EFFECTS.

(Public Health (London) Act, and Metropolis Local Management Act.)

No. of Notices served	10866
WORKS, STRUCTURAL—	
Drainage Defective	987
Intercepting Traps with Fresh Inlets required ...	102
Ventilating Pipes required	206
Indoor Sinks connected with Drain	197
Rain Water Stacks connected with the Drain ...	531
Bath Waste connected with the Drain	73
Traps defective, or of Obsolete Pattern	601
Closet Pan and Connections Defective	807
Water Supply to Closet Defective	909
Closet Dilapidated	651
Draw-off Main for Drinking Purposes required ...	195
Dust Bins Defective	798
Premises Dilapidated	804
Ventilation under Floors required	302
Roofs Dilapidated	501
Soil Pipes Defective	51
Paving Defective	1103
Damp and Unwholesome Houses	296
Dung Receptacles required	9
Defective Water Pipes	37
No W.C. Accommodation	7
	9167

WORKS, NOT STRUCTURAL :—

Cisterns Dirty	305
Manure Accumulations	31
Underground Rooms occupied	16
Animals Improperly Kept	27
Stopped Drains	179
Overcrowding	19
Foul Urinals	21
Refuse Accumulations	116
No Water Supply or Defective Water Supply ...	369
Dirty Premises	4071
	5154

PARTICULARS OF SANITARY WORK

CARRIED OUT IN LAMBETH BOROUGH DURING 1913, TOGETHER WITH YEARLY AVERAGES FOR (*a*) THE DECENNIUM 1903-1912 (BOROUGH) AND (*b*) THE 24 YEARS 1877-1900 (PARISH).

Year.	Total Number of Notices (excluding those served under the Housing of the Working Classes Act).	Sanitary Works, Structural and Permanent.	Sanitary Works, not Structural.
1913	**14397**	**9167**	**5154**
1912	12506	8679	4044
1911	12440	8008	3103
1910	12110	7341	3042
1909	12764	8219	3323
1908	14258	9561	3645
1907	14883	9902	3252
1906	14768	9650	2941
1905	13053	9447	2838
1904	11778	8433	2975
1903	13043	10448	3043
Yearly Average for 10 Years 1903-1912 (Borough)	**13160·3**	**8968·8**	**3220·6**
Yearly Average for 24 Years 1877-1900 (Parish)	**5944·6**	**4756·9**	**2135·9**

SUMMARY OF WORK DONE BY THE MALE SANITARY INSPECTORS DURING 1913.

Inspections	8309
Re-inspections	65316
Complaints attended to	5081
Cases of Infectious Disease notified	3531
Cases of Non-Notifiable Diseases Dealt with ...	4741
Rooms disinfected	8098
Bedding, etc., disinfected	5975
Bedding, etc., destroyed	80
Drains tested (with chemical, water or both) ...	8461
Sanitary Works completed	5397
Plans of drainage reconstructions received and approved	302
Premises the Drains of which have been totally or partly reconstructed	384
Samples of Food and Drugs submitted to Analyst ...	1855
Notices—	
Sanitary Work (Preliminary or Intimation and Statutory 3705)	7121 10826
Infectious Diseases (Public Health Act, 1891)...	3531
Metropolis Local Management Acts	40
Sanitary Nuisances abated—	
(a) Structural	9167
(b) Non-Structural	5154
Summonses issued—	
Public Health Act	6
Food and Drugs Acts	54
Convictions obtained—	
Public Health Act	3
Food and Drugs Acts	43

Vide also Section of Report dealing with the Housing, Town Planning &c., Act, 1909.

MALE SANITARY INSPECTORS.*

During 1913, there has been no change in the *personnel* of the Male Sanitary Staff.

Work of Male Sanitary Inspectors.

During 1913, the following routine work was carried out:—

(1) 8309 inspections and 65316 re-inspections;

(2) 384 houses re-drained throughout or in part (the drains being in every case water-tested);

(3) 8461 tests (hydraulic, smoke or chemical) made;

(4) 91 Water Certificates (representing 96 houses, separate or in block, and 102 tenements), issued, in accordance with section 48 of the Public Health (London) Act, 1891;

(5) 5081 complaints attended to;

(6) 14397 notices served—14357 under the Public Health (London) Act, 1891 (7121 Preliminary, 3705 Statutory and 3531 Infectious Diseases) and 40 under the Metropolis Local Management Acts, dealing with 9167 structural and 5154 non-structural defects.

The Male Public Conveniences situated within the Borough are under the supervision of the Male Inspectors.

Drainage Cases.

Several cautionary letters were sent to builders, who had carried out drainage work (*a*) without giving previous notice, or (*b*) contrary to the requirements of the L.C.C. By-laws. In the latter case, the work was altered so as to comply with the requirements.

Unsound Food.

During 1913, several consignments of unsound food, discovered within the Borough were inspected, condemned and destroyed, under the supervision of the Sanitary Inspectors and the details reported to the Council at the time.

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* There are 12 District Inspectors, viz., F. E. Baxter, J. M. Jones, J. S. Smith, J. Barfoot, G. J. Gavin, T. H. Hooper, T. H. Jackson, W. Wallis, W. W. Howes, J. M. Scorrer, J. S. Clements and A. Farran, and one special Inspector for Food and Drugs (W. J. Perrin).

Inspection of Market Thoroughfares.

During 1913, the market thoroughfares were under bi-weekly special inspections by the Sanitary Inspectors, 2 Inspectors being on duty at a time—Saturday nights (9 to 12) and Sunday mornings (9 to 12). The market thoroughfares are Atlantic Road, Wandsworth Road, New Cut, Lower Marsh and Lambeth Walk. These systematic inspections are of value in securing wholesome food being exposed, on stalls and in shops for sale. No official seizures were necessary.

Outside Urinals of Public Houses.

During 1913, the outside urinals connected with public houses were under inspection, and notices were served as required.

House-to-House Inspections.

House-to-house inspections, during 1913, are dealt with under the Housing, Town Planning, etc., Act, 1909.

Other Inspections.

The work in connection with disinfection, smoke abatement, inspection of factories and workshops, bake-houses, restaurants, and dining (coffee rooms), births, the milk depot, tuberculosis cases, etc., and the carrying out of Food and Drugs and Housing Acts, is dealt with under separate headings in this report.

Legal Proceedings.

It is again satisfactory to note that, during 1913, in but very few cases was it found necessary to resort to legal proceedings before the Court in connection with Sanitary work carried out under the Public Health and Metropolis Management Acts—6 summonses, which resulted in £1 19s. 0d. costs, as follow: convictions, 3; withdrawn (payment of costs), 1; and adjourned *sine die*, 2. These legal proceedings had reference to (*a*) defective drains, (*b*) dirty premises, (*c*) dilapidated premises, (*d*) defective soil and vent. pipes, (*e*) animals improperly kept, so as to be a nuisance.

FEMALE SANITARY INSPECTORS.

During 1913, there has been no change in the *personnel* of the Female Sanitary Staff.

Work of Female Inspectors.

The two Female Sanitary Inspectors carried out, during 1913, duties in connection with the inspection of (*a*) Factories, Workshops (Work-places), Shops, Out-Workers' Homes, Laundries, Restaurants, etc., wherein women and girls are employed; (*b*) the Underground Conveniences (belonging to the Council), and other Ladies' Sanitary Conveniences (Railway Stations, Hospitals, etc.); (*c*) Houses wherein births occurred or deaths amongst infants under 1 year of age, or deaths from infantile diarrhœa; (*d*) Schools wherein there were infectious disease outbreaks; (*e*) Houses wherein cases of tuberculosis or ophthalmia neonatorum were notified, etc.

The year's work, 1913, may be tabulated as follows:—

Work carried out by the Two Female Sanitary Inspectors during the Year, 1913.

*Workshops visited and inspected—	
(a) Dressmakers	30
(b) Milliners	6
(c) Laundries	10
(d) Tailors	12
(e) Upholsterers	—
(f) Dyers	—
(g) Blouses	14
(h) Ties	1
(i.) Others (*e.g.*, embroidery, shirts, bandeaux, underclothing, etc.)	21
Work*rooms* inspected	99
Workshops* re-inspected	2

* Workshops include Work-places.

Work*rooms* re-inspected	4
Workshops*: workrooms therein measured ...	276
Workshops* newly discovered and registered ...	14
†Premises visited, but not inspected, owing to the persons or patients concerned being out or, if employees being no longer employed	1427
Workshops* removed from Register	2
Workshops* reported to H.M. Inspector	5
Workshops* reported by H.M. Inspector	6

Female Conveniences visited and inspected—

Public (visits paid)	230
Private	—

Schools visited—

Public (visits paid)	126
Private	—

Special places visited and inspected—

(a) Private Houses‡	2610
(b) Outworkers	192

Outworkers and Private Houses‖ re-inspected ...	516
Written Intimations and Statutory Notices served ...	238
No. of Workshops*, etc. in which defects were found	246
No. of Workshops*, etc., in which no defects were found	2778
Nuisances referred to M.O.H. for attention by male inspectors	19

* Workshops include Work-places.

† Births (561), Workshops (5), Out-workers (246), Diarrhœa cases (52), Schools (43), special complaints (28), and Tuberculosis cases (492).

‡ Births (1417), Diarrhœa cases (121), Tuberculosis cases (1016), Ophthalmia cases (20), and special complaints (36).

‖ Births (92), Diarrhœa cases (7), Tuberculosis cases (319), Ophthalmia cases (51), and special complaints (11).

Particulars of Defects Found.

Work*shops*,**etc.*—

Work*rooms*—

Overcrowded	11
Damp	24
Dirty	51
Ill-ventilated	5
Badly-lighted	—
Insufficiently warmed	1
Otherwise	1

Defective or dirty—

Yards	23
Floors	16
Roofs	14
Windows	—
Ceilings	7
Rain Water Pipes	3
Sink Wastes	7
Water supply	7
Premises generaly	73

Sanitary Appliances: Water Closets—

Dirty	39
Ill-lighted	—
Unventilated	—
Choked	4
Defective	13
Defective Flushing Tanks and Water Supply	17

Sanitary Appliances: Drainage—

Choked	2
Defective	7
Unventilated	—

* Workshops include Work-places.

Sanitary Appliances: Dustbins—

Wanting	12
Defective	35

Sanitary Appliances: Lavatories—

Dirty	—
Defective	—
*No separate suitable sufficient W.C. accommodation for the sexes	1
Miscellaneous defects, *e.g.*, accumulations, animals, improperly kept, personal uncleanliness, etc. ...	11

The Female Inspectors, during 1913, were engaged in visiting 121 houses wherein deaths from infantile (summer) diarrhœa were reported as having occurred, with a view to helping to further elucidate the predisposing causes of this disease; in inspecting schools (126) in connection with outbreaks of disease (more especially measles); and in visiting (a) 1417 private houses, wherein births had been notified or registered, with a view to educating the mothers and others concerned how best to feed their infants, and (b) 1016 private houses, wherein tuberculosis patients had been notified, with a view to educating the patients and their relatives or friends in the nature of the disease, and the simple precautionary measures to be taken to prevent its spread to others, and (c) 20 private houses, wherein infants suffering from ophthalmia neonatorum had been notified, with a view to educating the parents and others concerned in the proper treatment for that disease. Revisits were paid to, and re-inspections made of, houses in connection with 92 births and 7 diarrhœa, 319 tuberculosis and 51 ophthalmia cases, etc.

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* The Sanitary Accommodation Order 1903 does not apply to the Metropolis.

FACTORIES AND WORKSHOPS.

Factories.

During 1913, 2 new factories were added to the Register, consisting of (a) bedsteads, 1; (b) Laundry, 1.

The Inspection of Factories by the Sanitary Inspectors is limited to that of the sanitary accommodation provided for the workers (such accommodation to be separate, sufficient, and suitable) and sanitary defects, when found, are reported by the Factory Inspectors.

Workshops.

During 1913, 57 new workshops were added to the Register, consisting of the following:—

Name of Trade or Business.	No. of Workshops.
Dressmakers	13
Laundries	2
Milliners	3
Tailors	10
Blouses	5
Scenic Artists	1
Mantles	4
Underclothing	1
Ties and Belts	4
Boots and Shoes	3
Babies' Linen	3
Not classified	8
Total	57

Full particulars concerning these 57 workshops were entered up in the Register shewing that, at the time of inspection, there were 87 workrooms, in which were working 316 persons—62 males and 254 females, as follow:

	M.	F.	Total.
Children	—	—	—
Young Persons ...	7	37	44
Adults	55	217	272

5 Notices as to "protected persons" (*i.e.*, children, young persons, and women) employed were sent on, during 1913, to the Factory Inspectors, from time to time as required, (*i.e.*, where no Abstract under the Act was found to have been posted up in a work-place).

48 Notices of occupation (representing 46 workshops) were received during 1913 by the Borough Council from the Factory Inspector.

6 written Notices were received during 1913 by the Borough Council from the Factory Inspectors with reference to contraventions of the Public Health Acts in connection with Factories and Workshops, and all such nuisances were abated, as found necessary, and due notices sent to the Factory Inspectors as to action taken in each case.

In connection with the 57 new workshops, inspected during 1913, the insanitary conditions found at the time of inspection are set out in the Table subjoined.

The cubic capacities of the different workrooms were, naturally, found to vary considerably, and in 5 workrooms (*i.e.*, 5.7 per cent.), overcrowding was found to exist.

WORKSHOPS REGISTERED DURING 1913.

Numbers of Rooms and Persons Employed.

Wards.	No. of Workshops.	No. of Workrooms.	Children.		Young Persons.		Adults.		TOTALS.		
			M.	F.	M.	F.	M.	F.	M.	F.	Total.
Marsh	3	10	...	...	3	4	10	45	13	49	62
Bishop's	1	1	...	...	..	10	...	19	...	29	29
Prince's	3	4	...	...	1	6	1	9	2	15	17
Vauxhall	5	7	..	.	2	2	6	9	8	11	19
Stockwell	11	15	...	...		6	8	32	8	38	46
Brixton	21	27	...	...	1	7	28	41	29	48	77
Herne Hill	4	5	...	...	...	...	...	12	...	12	12
Tulse Hill	6	10	...	..	...	1	1	22	1	23	24
Norwood	3	8	...	...	...	1	1	28	1	29	30
Total	57	87	...	...	7	37	55	217	62	254	316

WORKSHOPS:—Details as to Sanitary Conditions and Defects found in 1913.

Details as to Sanitary Conditions and Defects found.		Marsh.	Bishop's.	Prince's.	Vauxhall.	Stockwell.	Brixton.	Herne Hill.	Tulse Hill.	Norwood.	Totals.
Ventilation ...	satisfactory ...	3	1	3	5	11	20	3	6	3	55
	not	...	...	...	...	...	1	1	...	...	2
Cleanliness ...	satisfactory ...	3	1	3	5	11	19	4	5	3	54
	not	...	...	...	...	...	2	...	1	...	3
Workrooms ...	damp... ...	...	...	...	...	...	...	...	...	...	...
	not	3	1	3	5	11	21	4	6	3	57
Workrooms ...	warm... ..	3	1	3	5	11	21	3	6	2	55
	not	...	...	...	...	...	.	1	...	1	2
State of Sanitary fittings, &c.	good ...	3	1	3	5	11	21	4	6	3	57
	bad ...	...	...	.	..	...	...	...	...	...	...
Soil pipe ...	ventilated ...	2	1	3	5	11	21	4	6	3	56
	not ventilated	1	...	...	...	...	...	...	..	...	1
	no soil pipe...	...	...	...	...	...	...	...	...	...	..
Position of W.C.	outside	1	...	1	2	2	7	1	1	...	15
	inside	...	1	2	1	1	7	2	1	...	15
	outside and inside	2	...	...	2	8	7	1	4	3	27
	no W.C.	...	...	...	...	...	..	...	...	...	...
Separate W.C. accommodation (sufficient and suitable)	Yes ...	2	1	2	2	9	10	1	4	3	34
	No ...	1	...	1	3	2	11	3	2	...	23
Communication (direct) between W.C.s and rooms	Yes ...	...	...	..	...	...	...	...	...	...	...
	No ..	3	1	3	5	11	21	4	6	3	57

* In only 1 of these 23 cases was separate W.C. accommodation required—persons of one sex only being employed in the other 22 cases.

OUT-WORKERS.

The work, commenced by the Female Inspectors in 1903, and continued since, connected with the visiting and inspecting of out-workers' premises and homes (situated within the Borough), was further continued during 1913.

Lists of out-workers require to be sent in to the Council by employers, engaged in the special trades scheduled in the Home Work Order, 1911, twice yearly, viz. : on or before February 1st and August 1st respectively. During 1913, 20 February and 22 August lists were received, dealing with 207 and 217 out-workers respectively. Of the 424 out-workers, 181 belonged to Lambeth and 243 elsewhere. Particulars of the latter were sent to the Authorities concerned, whilst, in return, 157 lists were received from various authorities dealing with 953 workers, of whom 920 belonged to Lambeth and 33 to districts outside Lambeth. Of the total 1101 Lambeth out-workers reported, 154 were new out-workers, *i.e.*, not previously notified, as follows :—

Mantles	9	Millinery	3
Blouses and skirts ...	13	Dresses	5
Ties, belts, and braces	16	Collars	2
Children's undercloth-		Bag stringing ...	11
ing and costumes ..	4	Boxes and boxmaking	4
Women's clothing ...	11	Pattern bookmakers	2
Tailors	28	Brushes	1
Embroidery	6	Artificial flowers ...	7
Waistcoats	2	Paper Bags	9
Shirts	4	Tennis Ball Covering	1
Printers	1		
Corsets	3		154
Boots and shoes ...	12		

The Wards, in which the houses (wherein the 154 new out-workers were found to be working during 1913) are situated, are as follows:—

Wards.	No.	Wards.	No.
Marsh	16	Herne Hill	19
Bishop's	20	Tulse Hill	9
Prince's	34	Norwood	1
Vauxhall	9		——
Stockwell	20	Borough of Lambeth ..	154
Brixton	26		——

FEMALE HEALTH VISITOR.

Work of Female Health Visitor.

The Council's Health Visitor has been engaged, during 1913, in the systematic visiting and re-visiting of houses wherein births had been notified, in looking after the milk depot children (at the depot and at their own homes), in inspecting the infants notified as suffering from ophthalmia neonatorum, and in assisting in making enquiries in connection with tuberculosis cases—this last-mentioned work being carried out on a separate day or days from those devoted to infant visiting, etc. The work may be summarised as follows:—

Visits and Revisits made in connection with—	1st Q.	2nd Q.	3rd Q.	4th Q.	Total.
Births...	359	246	525	360	1490
Ophthalmia cases ...	26	26	58	21	131
Depot children ..	51	10	10	8	79
Milk Depôts—					
York Road ...	12	10	16	15	53
Moffat Institute* ...	77	85	74	74	310
Special cases ..	20	7	7	5	39
Tuberculosis cases ..	109	87	83	118	397
Premises, but no one found at home ...	132	88	222	160	602

*Used as a branch (distributing centre) in connection with the Council's York Road Milk Depot.

DISINFECTING DEPARTMENT.*

Details of work done during 1913, in connection with the Disinfecting Department, are subjoined. A total of 3,531 infectious diseases, notifiable compulsorily under the clauses of the Public Health (London) Act, 1891, were reported and dealt with, including cases of cerebro-spinal meningitis (7), acute polio-myelitis (6), ophthalmia neonatorum (57), and whooping-cough (1,428), whilst the following diseases were voluntarily notified by school teachers and others: measles (1,085), chicken-pox (679), cancer (71), verminous houses (649), and bedding or clothing (1,386), and other diseases† (176), 1,753 cases were removed to hospital.

In addition, 1,571 cases of pulmonary tuberculosis (consumption), were notified and dealt with—210 under the old Public Health (Tuberculosis) Regulations, 1908 (Poor Law), 1911 (Hospitals), and 1911 (Private), and 1,361 under the new Public Health (Tuberculosis) Regulations, 1912. The houses were visited and pamphlets left, dealing with consumption and its prevention, and disinfection was carried out, as required, in the event of death or removal of a patient.

456 cases of non-pulmonary tuberculosis were notified and dealt with in the same way under the new Public Health (Tuberculosis) Regulations, 1912.

23 schools were disinfected in connection with outbreaks of infectious disease, viz.: measles, 7, scarlet fever, 14, diphtheria, 1, and mumps, 1.

A total of 8,098 infected rooms and 29,881 infected articles (bedding, etc.) were disinfected officially.

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*The Staff consists of 1 Superintendent (W. Lockyear), 4 Disinfectors, 4 Drivers, 1 Boiler Attendant, and 1 Yard and Stable Attendant.

† Mumps, scabies, ringworm, influenza, &c.

The yearly averages are given in the Table of Disinfection Work carried out during the past 30 years.

Summary of work carried out by the Disinfecting Department in the Borough of Lambeth during 1913.

Total No. of rooms disinfected by Council	8098
Cases in which bedding was disinfected at home* ...	2420
Do. do. do. at Chamber ...	3555
Do. do. do. destroyed ...	80
Premises disinfected and disinfectants supplied ...	19375
No. of Cleansing Notices served in connection with infected houses	1783
Certificates of Medical Practitioners received in lieu of disinfection by the Council	15
Schools disinfected† (156 class-rooms)	23
Certificates of disinfection left with occupiers of disinfected premises	6097
Library books disinfected‡	348
Mattresses re-tabbed by Council	913
Cabs disinfected	4
Railway carriage disinfected	1

Articles of bedding, etc., disinfected.

Beds	2178
Bolsters	1773
Pillows	4852
Mattresses	1787
Palliasses	85
Chair Cushions	517
Clothing	6078
Sheets	2431
Blankets	4099

* The number is increased, compared with previous years, owing to bedding no longer being removed to the disinfecting station in the cases of Measles, Chicken-pox and Whooping Cough.

† Scarlet Fever 14, Diphtheria 1, Measles 7, Mumps 1.

‡ 158 Public Library and 190 Private Library Books.

Rugs and Mats	62
Counterpanes and Eiderdown Quilts	2043
Carpets	16
Extras (*i.e.*, articles not included above)	3960
Total	29881

Articles of bedding, etc., destroyed.

Beds	47
Bolsters	13
Blankets	9
Pillows	30
Quilts and Counterpanes	6
Mattresses	38
Palliasses	39
Sheets	5
Chair Cushions	18
Clothing	76
Carpets	3
Extras (*i.e.*, articles not included above)	272
Total ...	556

Practically *all* the disinfection was carried out by the Council's staff—only 15 certifictes being received from Medical Practitioners during 1913, as follows:—

Medical Practitioners Certificates accepted in lieu of Disinfection being carried out by the Borough Council.

Nature of Certificate.	1st Q.	2nd Q.	3rd Q.	4th Q.	Total.
For Rooms only	...	...	...	...	...
For Bedding only ...	...	..	...	...	...
For Rooms and Bedding ...	7	6	1	1	15
Total	7	6	1	1	15

Refuges.

There is one refuge in the Borough. at Wanless Road but it has not been called into use during 1913.

DISINFECTION STATISTICS.

For eight years prior, and twenty-two years subsequent, to the passing of the Notification of Infectious Diseases Act; and for the year 1913.

—	Yearly average for 8 years preceding the Notification Act, 1882–1889 (Parish).	Yearly average for 11 years succeeding the Notification Act, 1890-1900 (Parish).	Yearly average for 12 years succeeding the Notification Act, 1901–10 & 1906–12 (Borough)		1913.
			1901–5.	1906–12.	
No. of Cases in which Bedding, etc., has been disinfected { At Home ...	142·8	240·8	16·6	1403·3*	2420
{ At Chamber	452·8	2333·3	2337·0	2875·1	3555
No. of Cases in which Bedding, etc., has been destroyed	45·7	121·6	74·2	107·4	80
No. of Articles of Bedding, etc, disinfected	2253·2	15600·4	34632·4	22540·1	29881
No. of Articles of Bedding, etc., destroyed	113·0	489·4	710 0	329 0	556
Premises disinfected and disinfectants supplied	916·8	6191·7	11738·4	13451·0	19375
Infectious diseases dealt with { Notifiable	...	2408·5	2335·2	1821·4	3529†
{ Non-notifiable	...	299·3	2260·8	4076·3	4741

* This number is increased for 1906, 1907, 1908, 1909, 1910 and 1911, on account of bedding no longer being removed to the Disinfection Station as a routine in connection with Measles, Whooping Cough and Chicken-pox.

† Whooping Cough became compulsorily notifiable on January 1st, 1913, so that the figures for notifiable infectious diseases for 1913 are increased.

N.B.—The Statistics for 1901–1913 refer to the present Borough Council; those for all previous years to the late Vestry.

Cleansing of Verminous Persons.

No proper local arrangements have yet been made by the London County Council for the cleansing of verminous school children and occupiers of common lodging houses within the Borough—statutory obligations imposed upon the County Council by Parliament. The London County Council, as the Educational Authority, have simply suggested that the Borough Council should provide cleansing stations under the Cleansing of Persons Act, 1897 (a permissive Act), and that the County Council should have the use of the same by agreement at stipulated charges, for the cleansing of verminous (*a*) school children, and (*b*) adults, *e.g.*, inmates of common lodging houses, the stations to be planned with separate entrances for children and adults. The stipulated charge offered by the County Council is 2/0 a child, such payment to cover any number of attendances by the child at the station for cleansing within a period of one calendar month from the date of the first cleansing. No stipulated charge is offered for adults.

This suggestion of the County Council has not yet been accepted by the Borough Council, who are of opinion that the provision of cleansing stations for verminous (*a*) school children, and (*b*) inmates of common lodging houses, is a statutory obligation devolving upon the County Council, under whose jurisdiction schools and common lodging houses are. Meanwhile, Lambeth Borough remains unprovided with the required cleansing stations.

Verminous premises are disinfected as required, but such disinfection is not satisfactory without the school children and inmates of the common lodging houses, who are themselves verminous, being cleansed also at the same time.

The numbers of verminous houses and rooms disinfected and cleansed during 1913, and the four previous years are :—

Year.	*Houses.*	*Rooms.*
1909	148	387
1910	207	646
1911	268	535
1912	580	1109
1913	649	927*

SMOKE ABATEMENT.

During 1913, observations and enquiries were made in connection with smoke abatement throughout the Borough and smoke notices were served as required. In no case was it found necessary to proceed to a summons.

The L.C.C. and the Coal Smoke Abatement Society reported, during 1913, nuisances as follows :—

1. London County Council—6 letters dealing with alleged smoke nuisances connected with :

Doulton & Co., Ltd. (High Street), Frederick Hygienic Laundry, Ltd. (Langton Road), Sir Joseph Causton & Sons, Ltd. (Clapham Road), Hammerton & Co., Ltd. (Stockwell Green), A. Beattie & Co. (39 Lower Kennington Lane), and J. & A. Sharwood & Co., Ltd. (Offley Road).

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* Bedding 1245 and Clothing 141, in addition.

2. Coal Smoke Abatement Society—11 letters dealing with alleged smoke nuisances connected with :—

Lion Brewery Co, (Belvedere Road), Walker, Parker & Co. (Belvedere Road), Meredith Bros. (Belvedere Road), Holloway Bros. (Belvedere Road), St. Thomas's Hospital (Westminster Bridge), McGaw & Co. (York Road), J. C. & J. Field (Upper Marsh), London & South Western Railway (Waterloo Station).

Special observations were made, during 1913, with reference to St. Thomas's Hospital (Westminster Bridge), Rogers & Cook (South Lambeth Road), Lion Brewery (Belvedere Road), Sir Joseph Causton & Sons, Ltd. (Clapham Road), Arlington Laundry (Cambria Road), and Meredith Bros. (Belvedere Road).

A new furnace was provided to the boiler in connection with the Arlington Laundry (Cambria Road), whilst a new boiler plant was installed in connection with Rogers & Cook (South Lambeth Road), consisting of two Lancashire boilers (30ft. by 8ft. 3in. each), two Fergusson's superheaters and one of Green's patent economisers—all installed in new settings and in a new boiler house. The flues are connected to a newly erected chimney 100ft. 0in. high.

In connection with Sir Joseph Causton & Sons, Ltd. (Clapham Road), a combustion indicator was placed in the boiler house, so as to enable the stokers to have a constant knowledge of the condition of the smoke issuing at any time from the top of the chimney stack.

The St. Thomas's Hospital authorities are considering a scheme for enlarging the boiler plant, so as permanently to abate the nuisance from black smoke from time to time as complained of, as also the nuisance from fine particles of unburnt or partially burnt coal, which, at times, issue from the chimney shaft, and are deposited upon the St. St. Thomas's Hospital premises and other neighbouring premises.

UNDERGROUND CONVENIENCES.*

The conveniences were kept under regular inspection and supervision during 1913—the male conveniences by the male inspectors and the female conveniences by the female inspectors.

During 1913, there has been no alteration in the *personnel* of the attendants.

ANALYSIS OF FOOD AND DRUGS, WATER, etc.

1.—Food and Drugs.

During the year 1913, 800 formal samples were purchased within the Borough, and submitted to the Public Analyst for analysis. Of the 800 samples, 80 (*i.e.*, 10 per cent.) were reported by the Analyst to be adulterated, and 54 summonses were issued, with the result that 43 convictions were obtained, together with £76 5s. 5d. in penalties and £38 13s. 6d. in costs.

The annual averages of the two decennia 1891-1900 (Parish) and 1901-1910 (Borough), are respectively: (1) number of samples aken 501.9 and 1352.4, of which 74.6 and 89.1 (*i.e.*, 14.9 and 6.6 per cent.) were found on analysis to be adulterated; (2) number of summonses taken out 53.1 and 63.8 with 52.3 and 48.5 convictions, and £104 5s. 5d. and £74 0s. 4d. in penalties and £35 0s. 3d. and £38 16s. 6d. in costs.

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* The Staff consists of 19 male and 17 female attendants. There are 8 male and 7 female conveniences.

During 1913, 1,055 informal samples (139 adulterated) were taken by the Inspector, in addition to the 800 formal samples (80 adulterated), making a total of 1855 samples, of which 219 (*i.e*, 11.8 per cent.) were reported by the analyst to be adulterated, varying quarterly as follows:— 1st quarter, 13.4 per cent., 2nd, 11.6 per cent., 3rd, 10.9 per cent. and 4th, 11.5 per cent.

Particulars of the 1,855 articles submitted by the Food and Drugs Inspector during 1913 are as follow:—

(*a*) Milk.

1. *Formal Samples.*

477 samples were taken, and of these 50 (*i.e.*, 10.5 per cent.) were declared by the Analyst to be adulterated. Of the 477 samples, 2 were separated milk (none adulterated), 1 was skim milk (not adulterated), and 474 were ordinary milks (50 adulterated). These 50 adulterations were as follows:—

(1) Extraneous water 24, varying from a *minimum* 1 to a *maximum* 45 per cent., viz., 1, 2, 2, 2 3, 3, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 12, 13, 13, 14, 21, 37 and 45 respectively.

(2) Deficiency in milk-fat 23 varying from a *minimum* 2 to a *maximum* 37 per cent., viz.: 2, 3, 3, 4, 4, 4, 4, 6, 6, 6, 7, 7, 9, 9, 10, 10, 10, 10, 11, 12, 19, 30 and 37 respectively.

(3) Extraneous water and deficiency in milk-fat (3), viz., 5 and 3, 6 and 17, 15 and 6 per cent., respectively.

In 23 cases, no summonses were taken out for the following reasons:—

(1) Amounts of adulteration being too small (21), viz.: (*a*) extraneous water, 1, 2, 2, 3, 3, 3, 4,

5 and 5 per cent. respectively; (*b*) fat deficiencies, 2, 3, 3, 4, 4, 4, 4, 6, 6, 6, 7 and 10 per cent. respectively.

(2) Sample being used for evidence only (1), viz.: 19 per cent. fat deficient.

(3) Bottle burst (1), viz.: 37 per cent. fat deficient.

Out of the 27 samples, there were 20 convictions, 6 summonses were dismissed, the Magistrate being satisfied with the evidence for the defence, and 1 summons was adjourned *sine die*.

The total fines amounted to £29 10s. 0d., with £22 1s. 0d. costs.

2. *Informal Samples.*

18 samples were taken, but none were declared by the Analyst to be adulterated.

(*b*) BUTTER.

1. *Formal Samples.*

218 samples of butter were taken, and of these 28 (*i.e.*, 12.8 per cent.) were declared by the Analyst to be adulterated the adulterations consisting of (1) added margarine (21), varying from a *minimum* 75 per cent. to a *maximum* 100 per cent. viz.: 75, 90, 90, 90, 95, 96, 98, 98, 98, 99, 100, 100, 100, 100, 100, 100, 100, 100, 100, 100 and 100 respectively; (2) preservatives present (4), varying from a *minimum* 0.12 per cent. to a *maximum* 0.28 per cent. crystallised boric acid, viz.: 0.12, 0.28, 0.18 and 0.28 respectively; (3) added margarine and preservatives present (3), viz.: 93 and 0.12, 94 and 0.12, and 100 and 0.22 respectively.

In 3 cases, no summonses were taken out for the following reasons: (1) amount of adulteration being too small (1), viz.: 0.28 per cent. boric preservative.

(2) Vendor absconded before summons could be served (1), viz. : 75 per cent. margarine;

(3) Insufficient evidence obtainable (1), viz. : 98 per cent. margarine respectively.

Out of the 25 summonses taken out, there were 22 convictions, 3 summonses were withdrawn for the following reasons: (*a*) Magistrate satisfied with the evidence for the defence (1), and (*b*) wrong persons summoned (2).

The total fines amounted to £46 10s. 0d., with £16 costs.

2. *Informal Samples.*

809 samples were taken, and, of these, 124 (*i.e.*, 15.8 per cent.) were declared by the Analyst to be adulterated, viz. : (1) added margarine (118), (2) preservatives present (4), and (3) added margarine and preservatives present (2).

(*c*) Margarine.

17 samples of margarine were taken formally, but none were declared by the Analyst to be adulterated.

(*d*) Cream.

6 samples were taken informally, and of these 5 were declared by the Analyst to be adulterated, the adulterations consisting of the presence of preservatives, viz. : (*a*) ordinary cream 0.06, 0.25, 0.31, and 0.43 per cent. of crystallised boric acid respectively; (*b*) preserved cream 0.33 per cent. of crystallised boric acid in excess of that declared on the label.

(*e*) Coffee.

4 samples of coffee were taken formally (none adulterated) and 15 samples informally (none adulterated).

(*f*) Mustard.

8 samples of mustard were taken formally (1 adulterated with 25 per cent. of wheaten flour), and 30 samples informally (1 adulterated with 25 per cent. of wheaten flour).

In the case of the adulterated formal sample, the defendant was fined 5s. with 12s. 6d. costs.

(*g*) Pepper.

8 samples of pepper were taken formally (none adulterated) and 30 samples informally (none adulterated).

(*h*) Other Groceries.

7 samples of arrowroot, 6 of cocoa, 6 of ground rice, and 8 of rice, were taken informally, but none were declared by the Analyst to be adulterated.

6 samples of sago were taken informally, and, of these, 1 was declared by the Analyst to be adulterated, viz. : with 4.5 per cent. of cane sugar.

(*i.*) Drugs.

3 samples were taken formally (1 adulterated, viz. : saffron with 16.$\dot{3}$ extraneous mineral matter), and 62 samples informally (4 adulterated, viz. : (*a*) saffron with 17.6 per cent. extraneous mineral matter, (*b*) cream of tartar with 10 per cent. deficiency in potassium tartrate, (*c*) tincture of iodine with 16 per cent. excess of iodine, (*d*) gregory powder, made with carbonate and not with oxide of magnesia).

In the case of the adulterated formal sample, the summons was withdrawn, by direction of the Public Health Committee, owing to a difficulty *re* warranty.

(*j*) Lard.

48 samples of lard were taken formally (none adulterated) and 6 samples informally (none adulterated).

(*k*) Vinegar.

3 samples of vinegar were taken informally, and of these 1 (*i.e.*, 33.3 per cent.) was declared by the Analyst to be adulterated, viz. : deficient in acetic acid to the extent of 26 per cent.

(*l*) Bacon.

6 samples were taken informally, and, of these, 3 were declared by the Analyst to be adulterated, the adulterations consisting of .0.08, 0.16 and 0.21 per cent. of crystallised boric acid respectively.

(*m*) Other Articles.

3 samples of sultanas, 3 of currants, 3 of raisins, 9 of bottle fruit, 6 of cheese, 3 of bread, 4 of oatmeal, and 6 of wheaten flour, were taken informally, but none were declared by the Analyst to be adulterated.

17 samples of dripping were taken formally, but none were declared by the Analyst to be adulterated.

Summary of Legal Proceedings taken under the Sale of Food and Drugs Acts.

Of the total 54 summonses taken out, viz: 27 milks, 25 butters, 1 mustard and 1 saffron (drug), there were convictions in 43 cases, in 20 milks, 22 butters (6 under the Margarine Act), and 1 mustard, whilst in the remaining 11, the results were as follows:—

(*a*) 7 summonses *dismissed*:—

(1) Contrary proved, 7 (all milks).

(*b*) 3 summonses *withdrawn*:—

(1) Wrong persons summoned, 2 (butters).

(2) By order of Public Health Committee, 1 (saffron).

(*c*) 1 summons *adjourned sine die* (milk).

Registration of Margarine Factories.

During 1913, two margarine manufactories were registered, viz.: 22 Wilcox Road, and 58 Patmos Road.

Since the Margarine Act, 1887, came into force within the Borough, the following premises have been registered in addition to the above: 233 Wandsworth Road, 417 Brixton Road, 413 Norwood Road, 71 Robsart Street, 75 Atlantic Road, 114 Camberwell New Road, 32 Commercial Road, 14 Vassall Road, 92 Lambeth Walk, 266 Brixton Road, 64 Stamford Street, 21 Lower Marsh, *11-13 Gray Street, 7 Juxon Street, 15 New Cut, 448 and 450 Brixton Road, and Wessex House (Oakley Street).

EXPENSES OF CARRYING OUT THE FOOD AND DRUGS ACTS.

The total expenses connected with the carrying out of the Food and Drugs Acts in the Borough during 1913 amounted to £98 7s. 3d., and are made up as follow:— £32 1s. 8d. for samples, £34 16s. 0d. for assistants, £8 0s. 0d. for witnesses, £17 16s. 6d. for travelling expenses (including £8 18s. 0d. for cabs) and £5 13s. 1d. for sundries. The salary of the Food and Drugs Inspector (£120, rising by £10 annual increases to £200), and the cost of the summonses (£7 2s. 0d.), are not included.

The annual averages for the last 10 years (1903-12) are (1) total expenses, £81 10s. 1d., (2) number of formal samples, 1,571.

2. Water.

No sample of water was submitted for analysis during 1913.

PUBLIC HEALTH (MILK AND CREAM) REGULATIONS, 1912.

All samples of milk are examined by the Public Analyst, as a routine, for the presence of preservatives, and, of the total samples of milk taken during 1913 (477 formal and 18

* Registration was withdrawn on May 29th, 1913.

informal), in no single instance were preservatives found. Six samples of cream (one a preserved cream) were taken during 1913, and 5 (including the preserved cream) were found to be adulterated, the adulterations consisting of (*a*) the presence of preservatives in fresh cream, and (*b*) an excess of declared preservative in preserved cream, thus:—

1. Milk; and cream not sold as preserved cream:—

	(*a*) No. of samples examined for the presence of preservative	(*b*) No. in which a preservative was reported to be found
Milk	495	0
Cream	5	4

2. Cream sold as preserved cream:—

(*a*) Correct statement made on label ...	—
(b) Statement incorrect (viz.: slight excess beyond quantity declared) ...	1

No action was taken owing to the difficulty in proving guilty knowledge.

Informal v. Formal Sampling.

During 1913, a total of 1,055 informal samples have been taken, as compared with 800 formal samples.

The Local Government Board drew the attention of Sanitary Authorities to the advisability of taking informal samples instead of formal samples with all the formalities required by the Acts, *i.e.*, samples of foods and drugs for analysis without disclosing to the vendors the purpose for which the samples are required, as the Board is of opinion that, by that means, habitual offenders could be more readily detected, and especially those guilty of the fraud of substituting margarine for butter. Informal sampling is particularly useful to the Inspectors, who desire to detect tradesmen in a small way of business, who may practice

adulteration systematically, and, indeed, speaking generally, such informal sampling, when judiciously carried out, is shown, by evidence that is accumulating, to be by far the best method for the detection of offenders under the Food and Drugs Acts. A deputy calls again and again, day by day or week by week, or longer, at a certain shop or shops where it is thought adulteration is being systematically carried out, and in that way, is regarded, after a longer or shorter period by the tradesman as a regular customer, who can with safety, they think, be imposed upon! A formal sample or samples are taken after an interval, and the vendors are caught. The suspicions of traders are not raised by informal sampling, and much time is saved.

Informal sampling (where the samples are reported against) must be followed up by formal sampling.

Of the 108,174 samples submitted for analysis during 1912-13 in England and Wales, nearly 24,000, taken in 184 districts, were purchased informally, 1,886 being condemned.

The results obtained in the case of samples of butter purchased within the Borough of Lambeth, during 1912, when practically there was no informal sampling, and during 1913, when there was systematic informal sampling, are as follow:—

	Formal.		Informal.	
Year.	Samples taken.	Samples adulterated.	Samples taken.	Samples adulterated.
1912	581	31=6·4%	5	2
1913	318	28=12·8%	809	124

Informal sampling is of little use in the case of milk (except, perhaps, "station" milk), but is of value in the case of butter.

SALE OF FOOD AND DRUGS ACTS.

Samples procured, together with the results of the analyses, during the year **1913**:—

Samples.	Formal.		Informal.	
	Number Analysed	Number Adulterated.	Number Analysed	Number Adulterated.
Milk*	477	50	18	..
Butter	218	28	809	124
Lard	48	...	6	...
Coffee	4	...	15	...
Margarine	17	...	...	...
Mustard	8	1	30	1
Pepper...	8	...	30	...
Arrowroot	...	...	7	...
Vinegar	...	...	3	1
Sago	...	...	6	1
Oatmeal	...	...	4	..
Ground Rice	...	..	6	...
Flour (Wheaten) ...	...	...	6	...
Cocoa	...	...	6	...
Dripping	17	...		..
Drugs	3	1	62	4
Rice	...	...	8	...
Cream	...	...	6	5
Sultanas	...	...	3	...
Currants	...	...	3	...
Raisins...	...	...	3	...
Bottle Fruit	...	...	9	...
Cheese...	...	...	6	...
Bacon	...	...	6	3
Bread	...	...	3	...
Totals	800	80	1,055	139

Total Samples taken ... 1,855

Samples Adulterated ... 219

* 2 separated and 1 skim milk.

Particulars as to samples analysed, and proceedings taken, under the Sale of Food and Drugs Acts, during 1913 (Borough), together with the yearly averages for the two decennia, 1891-1900 (Parish) and 1901-10 (Borough).

Year.	No. of Samples analysed.	No. of Samples adulterated.	Percentage of Samples adulterated.	No. of Summonses issued.	No. of Convictions.	Penalties.	Costs.
						£ s. d.	£ s. d.
1913	**800**	**80**	**10·0**	**54**	**43**	**76 5 5**	**38 13 6**
1910	1800	70	3·9	49	33	66 12 0	30 2 6
1909	1800	88	4·9	76	59	86 10 0	48 9 8
1908	1800	153	8·5	109	76	88 4 6	72 11 7
1907	1800	154	8·6	110	79	118 10 0	61 16 0
1906	1500	69	4·6	38	35	52 0 0	27 3 7
1905	1200	57	4·7	41	30	47 0 0	19 8 0
1904	1200	79	6·6	66	43	80 19 6	39 17 6
1903	1010	97	9·6	66	60	71 7 6	38 17 0
1902	704	51	7·2	21	19	14 5 0	16 5 6
1901	710	73	10·3	62	51	114 15 0	33 14 0
Average of 10 years, 1901–1910 (Borough)	1352·4	89·1	6·6	63·8	48·5	74 0 4	38 16 6
Average of 10 years, 1891–1900 (Parish)	501·7	74·6	15·1	53·1	52·5	104 5 5	35 0 3

Inspector Perrin commenced his duties on February 21st, 1898, *vice* Inspector Wiggs, who did the work from August, 1892 to November, 1897.

N.B.—During 1913, in addition to the 800 formal, 1,055 informal samples were taken, and, of the informal samples, 139 (*i.e.*, 13·2 per cent.) were declared by the Analyst to be adulterated.

COMMON LODGING HOUSES.

The 6 Common Lodging Houses (for men) within the Borough were inspected during 1913, but no defects were found to exis t. The 6 common lodging houses were again licensed by the London County Council at the Annual Licensing Meeting held June 26th, 1913, in accordance with the requirements of Section 46 of Part ix. of the London County Council (General Powers) Act, 1902 :—

Dates when registered originally.	Situations of premises.		Authorised No. of Lodgers.
27th January, 1905	10A	Belvedere crescent	99
18th July, 1900	108	Lambeth walk (c.h.) (house in rear)	39
30th October, 1890	55	Belvedere road ...	49
21st December, 1883	90-92	Westminster bridge road	197
24th October, 1885	89 & 91	Wandsworth road	188
12th February, 1887	106	Wandsworth road	133

HOUSES LET IN LODGINGS.

The 372 registered houses were under inspection during 1913, but no new houses were registered under the by-laws. Experience in Lambeth goes to show that the by-laws do not work out in practice as well as was anticipated when the by-laws were framed—the powers under the other Sections of the Public Health (London) Act, 1891, being more

easily used in connection with keeping of houses let in lodgings in proper order and condition.

The Council has drafted, during 1913, for approval by the Local Government Board, new by-laws, made under Section 16 of the Housing, Town Planning, etc., Act, 1909.

REVENUE ACT, 1903

(*And Section* 35 *of the Housing, Town Planning, etc., Act,* 1909).

During 1913, 84 certificates under the Revenue Act, 1903, in connection with tenements (or dwellings) so constructed as to afford suitable, separate accommodation for each of the families inhabiting the same, were applied for, and, of these, 38 were granted unconditionally, 36 were granted conditionally, *i.e.*, subject to certain alterations and improvements being carried out, and 10 were refused.

(1) *Certificates granted unconditionally.*

	Blocks or Houses.	*Tenements.*
21 Alexandra Road	1	2
110a, 110b, and 110c Brixton Hill	3	9
63 Mervan Road	1	2
117 Oakley Street	1	5
65, 67, 69, 71, 73, 75, 77, 79, 130 132 Stamford Street ...	5	20
	11	38

(2) *Certificates granted conditionally.*

	Blocks or Houses.	*Tenements.*
7 Alexandra Road	1	2
67 Angell Road	1	3
29 Guildford Road	1	3
15 Kepler Road	1	2
56, 58, 60, 62 Lambert Road ...	2	4
30, 32 Morval Road	2	4
29, 31, 33 Rosendale Road (Southwell and Delcourt Mansions)	3	12
52, 52a South Island Place ...	1	2
125, 127, 129, 131 Strathleven Road	2	4
	14	36

(3) *Certificates refused.*

50, 52 Branksome Road ...	2	6
41, 43 Margate Road	2	4
	4	10

HOUSING OF THE WORKING CLASSES.

HOUSING, TOWN PLANNING, &c., ACT, 1909.

House-to-House Inspections.

These inspections are necessary under Section 17 of the Housing, Town P'anning, &c., Act, 1909, and under Regulations issued, as an Order, on September 2nd, 1910, with respect to the method in which such house-to-house inspections of the district are to be made and records kept During 1913, the Medical Officer of Health, as required by Article 1 of the Regulations or Order, prepared the following lists of dwelling houses, the early inspection of which was, in his opinion, desirable :—

Marsh Ward.—Ethelm Street, Gilbert's Court, James Place, Linnett Street, Starling Place and Tanswell Street.

Bishop's Ward.—China Walk, Karl Place, and St. Alban's Buildings.

Prince's Ward.—Bloomfield Place, Bonnington Square, Durham Street, Farnham Royal, Glasshouse Street. Heyford Terrace, Kennington Grove, Montford Place, The Grove (South Lambeth Road), Trigon Grove, Tyers Street, Vauxhall Street, and Wickham Street.

Vauxhall Ward.—Albert Square Mews, Meadow Place and Old South Lambeth Road.

Stockwell Ward.—Bedford Court, Burgoyne Road, Clarence Cottages, Nealdon Street, and Tandridge Place.

Brixton Ward.—Ann's Place (Robsart Street), Cancell Road, Clark's Row (Robsart Street), Chryssell Road, Frederick Crescent, Halstead Street, Ingleborough Street, Ingleton Street, Peckford Place and Russell Grove.

Herne Hill Ward.—Lewis Road and Lewis Road East.

Tulse Hill Ward.—Archbishop's Terrace, Birkbeck Place, Birkbeck Road and Somers Road.

Norwood Ward.—Berridge Road and Rommany Road.

A total number of 775 houses have been systematically inspected during 1913, and in 48, *i.e.*, 6.2 per cent., a result has been obtained from the test applied to the drains. A total of 1,987 other nuisances were found to exist in 661 houses (*i.e.*, 85.3 per cent. of the total houses inspected) but many were of a trifling nature and not in any sense dangerous to the health of the inmates of the houses concerned. In 114, *i.e.*, 14.7 per cent., no nuisances were found on inspection.

Summary.

Number of houses inspected	775
Number of houses in which a result was obtained from test (chemical) applied to drains	48
Number of houses in which other nuisances were found to exist	661
Number of houses in which no nuisances were found to exist	114

Nature of all Nuisances found and dealt with under the Housing, Town Planning, etc., Act, 1909, *or the Public Health (London) Act,* 1891.

Dirty premises (walls, ceilings, etc.) ... ...,	293
Defective roofs, gutters, and rain-water pipes, etc....	250
Defective yard pavings	263
Defective flushing apparatus in w.c.s.	28
W.C. pans foul	5
Drinking water taps defective	7
Drains stopped	7
Floors, windows, doors, and sash-cords defective...	226
No dust bins (or dust bins defective or dilapidated)...	73
Damp premises	243
Overcrowding	7
Defective w.c.s.	18
Defective drains	48
Defective or deficient vent. or soil pipes	5
Defective sink wastes (or not under-trapped)	115
Defective manhole covers	3
Animals improperly kept	1
Cisterns uncovered or improperly covered	3
Improper water supplies (not from main direct, etc.)	50
Forecourts insufficiently paved, or unpaved ...	33
W.C.s insufficiently lighted and ventilated	1
Want of Ventilation under floors	115

Want of proper dung receptacles	—
Underground rooms illegally occupied	11
Accumulations of manure	3
Defective traps and stopped gullies	1
Sinks connected direct to drains	1
Mica valves defective	25
Light and air spaces limited	125
Dilapidated Premises	47
Sundry minor defects, viz.: Defective fire-places (18) coppers (14), and chimneys (7)	39
Total ...	1987

Under the House-to-House Inspections Regulations, or Order, of 2nd September, 1910, certain classifications are adopted, so as to secure uniformity of statistics throughout the various sanitary districts, and, adopting this classification, the results in connection with the 775 houses inspected during 1913 may be tabulated as follows:—

i. Arrangements for preventing contamination of Water Supplies.

(a) Drinking water from the main	616
(b) Drinking water from cisterns	30
(c) Cisterns uncovered, or improperly covered	3
(d) Defective water taps	7

ii. Water Closet Accommodation.

(a) Defective water closets	18
(b) Foul water closets	5
(c) Water closets insufficiently lighted and ventilated	1
(d) Defective water closet flushing apparatus...	37
(e) Defective, or deficient, ventilating or soil pipes	5

iii. Drainage (with Results of Tests).

(a) Results from chemical tests	48
(b) No results from chemical tests	727
(c) Drainage stopped	7
(d) Defective manhole covers	3
(e) Defective mica valves	25

iv. Condition as to Light, Circulation of Air, Dampness and Cleanliness.

(a) Light and circulation of air limited	125
(b) Damp premises	243
(c) Dirty premises	293
(d) Over-crowded premises	7

v. Paving, Drainage and Sanitary Condition of Yard or Out-Houses belonging to or connected with the Dwelling Houses.

(a) Defective yard paving	263
(b) Insufficiently paved forecourts	53

vi. Arrangements for House Refuse.

(a) No dust bins, or dust bins defective or dilapidated	73
(b) Want of proper dung receptacles	---
(c) Accumulations of manure	3

vii. Any Underground Rooms so dangerous or injurious to health as to be unfit for human habitation.

(a) Underground rooms occupied in contravention of Section 17, Sub-section 7 ...	11

viii. Defects or other matters tending to render houses dangerous or injurious to the other inmates.

(a) Dilapidated premises	47

(b) Defective roofs, gutters, rain water pipes, etc.	250
(c) Defective floors, windows, doors, sash boards, fireplaces, coppers and chimneys	265
(d) Sink waste pipes connected direct to drain or defective or not under-trapped ...	116
(e) Want of air, or insufficient ventilation under floors	115
(f) Defective traps (gullies, etc.) and stopped gullies	1
(g) Animals improperly kept	1

ix. Action taken.

Under the Housing, Town Planning, etc., Act, 1909, and the Public Health (London) Act, 1891, whilst in 16 cases, the dwelling-houses were closed by the Borough Council as the Local Authority under the Housing, Town Planning, etc., Act, 1909, as being unfit for human habitation, and have since been closed and demolished, closed, or put (or are being put) into proper order and condition so as to render them fit for human occupation.

REPRESENTATIONS AND CLOSING ORDERS UNDER SECTION 17.

During 1913, the Medical Officer of Health made the following representations to the Council as the Local Authority under the Act, and Closing Orders were made by the Council in each case.

PREMISES.	STATE.	Date of Orders made by the Council.
1, 2, 3, 4, 5, 6, 7, 8, Wigton Place (late Cumberland Mews), Milverton Street, Kennington, S.E.	Dwelling-houses being unfit for human habitation (a) by virtue of their positions (above stables), allowing the effiuvia from such stables to permeate the dwelling-rooms, and (b) on account of the water closets being placed beneath the staircases in positions which are dark, unventilated, and difficult and dangerous of access.	May 29th 1913
19, Albert Square Mews, Albert Sq., Clapham Road, S.W.	The dwelling-house being unfit for human habitation (a) by virtue of its position (above stable), allowing effluvium from stable to permeate the dwelling-room, and (b) on account of the water-closet being placed beneath the staircase in a position which is dark, unventilated and difficult and dangerous of access.	July 10th 1913
1, 3, 5, 7, 14, 16, 63, 67, 69, 113, 115, 117, 119, 121, 123, Wickham Street	The dwelling-houses being unfit for human habitation, being, generally speaking, dirty, damp and dilapidated and worn out.	Nov. 27th 1913

During 1913, 24 houses were dealt with by Closing Orders, and of these, 13 have since been demolished, and 11 have been or are being rendered fit for human habitation.

In connection with the closing of houses under the Housing, Town Planning, &c., Act, 1909, a total of 94 dwelling houses within the Borough have been represented by the Medical Officer of Health as being unfit for human habitation from the time the Act came into force (December 3rd, 1909) until the end of 1913, and Closing Orders have been made by the Borough Council, as the Local Authority, in connection therewith under Section 17 of the Act, with the result that :—

(*a*) 69 houses have been closed and since demolished;

(*b*) 25 houses have been, or are in process of being, rendered fit for human habitation (22 houses completed).

In addition to the houses mentioned above, 27 houses have been dealt with under Section 15 of the Act, and voluntarily closed and since demolished by the owners. Comparison may be made with similar work (closure of dwelling houses) carried out under the Housing of the Working Classes Act, 1890, Section 32, from the date upon which it came into force (viz. : August 18th, 1890) up to the introduction of the Housing, Town Planning, &c , Act, 1909,—a period of 19 years—during which a total of 385 houses were dealt with by notices served by the late Vestry and the present Borough Council, under Section 32 of the Housing of the Working Classes Act, 1890, on the representation of the Medical Officer of Health that such dwelling houses were unfit for human habitation, viz. :—

(*a*) 1891 to 1900 (10 years)—old Vestry	...	337
(*b*) 1901 to 1909 (9 years)—Borough Council	...	48
Total	...	385

It must be remembered that the powers under the Housing, Town Planning, &c., Act, 1909, are wider than those under the Housing of the Working Classes Act, 1890, and deal with empty houses as well as with occupied houses; whilst Closing Orders under the former Act are made by the Borough Council, whereas under the latter Act such Closing Orders could only be made by a Magistrate, after taking evidence, in the usual way, in the Court.

The important point has been raised again as to whether or not a condemned dwelling house can be converted to other uses after condemnation, *e.g.*, for a store. The general interpretation placed upon Section 18 (2) of the Housing, Town Planning, &c., Act, 1909, is that demolition must follow condemnation of a dwelling house, unless such dwelling house be put into proper order and condition, *i.e.*, rendered habitable as a dwelling house. The Scottish Law Officers of the Crown hold the following opinion (*vide* Local Government Board for Scotland Annual Report, 1912), and this may be quoted for reference:—

> "We are of opinion if the owner of a building which has been occupied as a dwelling house undertakes that it shall no longer be so occupied, but shall be put to a different use, *e.g.*, a store, then a demolition order under Section 18 (2) of the Housing, Town Planning, &c., Act, 1909, ought not to be pronounced. If, however, the building, although not occupied as a dwelling house, is in such a condition as to be a nuisance, or dangerous to the health of the public or of the neighbours, then a demolition order must be pronounced, even although there is no intention to use it as a dwelling house. This appears to us to be the correct interpretation of the Act, which in Section 18 (1), and in the former of the two alternatives to which Section 18

(2) relates, speaks exclusively of dwelling houses. It would, in our judgment, be absurd to compel the owner of, say, a store, to render it 'fit for human habitation' on pain of having it demolished. This would be the effect of so interpreting the Act as to force an owner whose property had once been used as a dwelling house to continue so to use it, or have it demolished by order of a public authority."

MUNICIPAL MILK DEPOT.*

The statistics for 1913 are subjoined.

246 new infants and children were entered upon the Register and fed, their ages being at the time of commencing the milk :—

Under 3 months...	135	9—12 months ...	8
3—6 months ...	73	Over 12 months ..	7
6—9 months ...	23		
			246

Of the 135 infants under 3 months, 18 were aged 14 days or under, viz. :—1, 1, 1, 2, 2, 3, 4, 5, 6, 10, 10, 10, 10, 11, 11, 12, 12 and 13 days respectively.

These 246 infants and children may be classified, as to their states of health at the time of being put upon the milk, as follows :—Healthy, *i.e.*, showing no sign of wasting or disease, though below par constitutionally 129, weakly 15, wasting 47, diseased 55, total 246. The diseases from which the 55 infants and children were actually suffering at the time of being put upon the milk were : Diarrhœa 12, sickness 6, bronchitis 15, pneumonia 2, eczema 1, tabes

* The Staff consists of a Manageress (Miss Paterson), one permanent Assistant (Miss Violet Berkeley) and one temporary Assistant. Miss Paterson succeeded Mrs. Burke (resigned) on April 24th, 1913.

mesenterica, 1, indigestion 1, convulsions 1, rickets 3, hernia 1, sickness and diarrhœa 5, measles 1, harelip 1 anæmia 1, nœvus 1, teething 2, and operation 1.

In 2 cases the infants were in a "moribund" condition.

The periods during which the 246 infants and children continued to use the milk were :—

26 weeks and over ...	34	Under 4 weeks—	
13—26 weeks ...	47	2—4 weeks ...	26
6—13 weeks ...	52	Under 2 weeks	58
4—6 weeks	29		246

54.1 per cent. used the milk for periods extending from 6 to 26 weeks and over, whilst 34.1 per cent. used the milk for short varying periods under 4 weeks. The reasons assigned for discounting the milk after varying intervals were :—(1) leaving the neighbourhood; (2) unable, or too far, to send; (3) by order of medical attendant; (4) unable to pay; (5) taken off by Relieving Officer; (6) unsuitable.

In regard to (6), it is noteworthy that, of the 246 infants and children fed, in only 2 cases (*i.e.*, 0.8 per cent.), was the milk stated to be unsuitable.

An average of 98.9 infants and children were fed per week at the Depot, necessitating the distribution for the year of 253,176 bottles of milk mixture, whilst, in addition, milk was also supplied as follows :—

1. Lambeth Infirmary—a total of 1,140 (estimated) infants and children, using 12,708 pint bottles of milk mixture;

2. Lambeth Workhouse—a total of 69 (estimated) infants and children, using 780 pint bottles of milk mixture;

3. Invalids—a total of 14 persons, using 4,005 pint bottles of milk mixture.

4. Relieving Officers' cases—a total of 20 children over 2 years of age, using 404 pint bottles of milk mixture.

Weekly medical consultations with mothers were held at the Depot, the babies being weighed, the weights and other details tabulated in the Milk Register, whilst the babies were visited also at their homes by the Health Visitor as required.

Milk was distributed not only from the Depot, but also from the Moffatt Institute (Upper Kennington Lane), the latter branch depot (distributing centre) being used for the convenience of the mothers living in the Vauxhall District.

Of the 246 new infants and children fed, 10 died, and the periods (in days), during which they had been fed upon the milk prior to death, varied as follow:—3, 4, 9, 14, 26, 31, 39, 40, 126, and 142 respectively.

In other words:—

Infants and children fed for 13 weeks and over	81 (2 deaths)
Infants and children fed for 4 to 13 weeks	81 (3 deaths)
Infants and children fed for periods under 4 weeks	84 (5 deaths)

N.B.—Of the 10 deaths, all were in infants under 12 months, viz.:—11 days, 3 weeks, 1 month, 1 month, 2 months, 2 months, 2 months, 2 months, 7 months, and 8 months respectively. The stated causes of death were:—measles 1, bronchitis 2, pneumonia 1, marasmus 1, convulsions 1, and diarrhœa 4.

The mortality rates amongst the Depot-fed infants and children are lower than those registered in the Borough generally.

As has been pointed out in previous reports in connection with these mortality rates, allowance must be made for the difficulties of strictly comparing the rates amongst infants and children fed upon the milk and under observation for varying periods, with the rates for the whole, or portions, of the Borough, for a year or period of years. To be statistically correct, only those infants or children who have been fed upon the Depot milk for continuous lengthened periods should be tabulated, whilst the numbers of deaths that occur during any given period less than a year should be increased *pro rata,* when dealing with rates for a year or period of years. It is assumed that the rates that are found to exist for short periods would be maintained during longer periods—an assumption that, in practice, is found to be warranted. It must be remembered that, as already stated, the infants who are placed upon the Depot milk are, as a rule, unhealthy and below par constitutionally, if not actually diseased, at the time of commencing the milk, and the longer they use the milk, the better their chances of life. If some children died during the first month during which they were taking the milk, it would be misleading to assume that all children would die at the same rate during the succeeding period of eleven months.

The most conclusive proof of the value of a Milk Depot, in so far as the infants and children fed are concerned, is to be found in the medical histories of individual cases, which show again and again, in the case of the Depot, that those infants and children who appear to be seriously ill and wasting, if not moribund, as the result of improper or irregular feeding, at the time of commencing the milk, actually recover and become strong and healthy.

The educational value, too, of a Milk Depot must not be lost sight of.

The net expenditure upon the maintenance of the Milk Depot, during the year ending December 31st, 1913, is stated by the Borough Accountant to have been £306 0s. 2d.

(*a*) Expenditure	£891	0	8
(*b*) Income	585	0	6
i.e., Expenditure in excess of Income	£306	0	2

The net yearly expenditures since the Depot was opened are: 1906, £233 12s. 6d.; 1907, £206 0s. 0d.; 1908, £233 16s. 7d.; 1909, £315 8s. 8d.; 1910, £294 5s. 3d.; 1911, £214 18s. 10d.; 1912, £256 13s. 11d.; 1913, £306 0s. 2d.

The financial statistics must be considered with the good derived by the infants and children fed.

BAKEHOUSES.

There are, within the Borough, 214* Bakehouses (135 above ground and 79 underground), and these were inspected officially during 1913, and the necessary annual white-washing and cleaning carried out, as required.

* 72 were certified during 1903-4 as "suitable" for occupation as underground bakehouses under section 101 Factory and Workshop Act, 1901.

DAIRIES, MILKSHOPS AND MILK STORES.

During 1913, 64 applications for registration were received and dealt with by the Council as follow:—

1.—*Applicants not registered, the premises being "unsuitable" (i.e., not in accordance with the Council's requirements)*—7.

Wards and Addresses of Premises.	Names of Applicants.	Dates of Refusal by Council.
MARSH.		
56 Ethelm Street ...	Swift, James C. ...	Feb. 13th
127 Oakley Street ...	Potter, Fred. Chas. ...	Feb. 27th
BISHOP'S	Nil	
PRINCE'S		
119 Tyers Street ...	Stow, William	Jan. 30th
119 Tyers Street * ...	Steggall, Frank... ...	April 24th
VAUXHALL.	Nil	
STOCKWELL.		
31 Bedford Road ...	Masters, George ...	Feb. 27th

* Change of occupier.

1.—*Applicants not registered, the premises being "unsuitable" (i.e., not in accordance with the Council's requirements)—continued.*

Wards and Addresses of Premises.	Names of Applicants.	Dates of Refusal by Council.
BRIXTON.	Nil	
HERNE HILL.	Nil	
TULSE HILL.		
3 Probert Rood ...	Roberts, Thomas ..	Sept. 9th
NORWOOD.		
25 Camden Hill Road...	White, John	June26th

2.—*Applicants registered the premises being "suitable" (i.e., in accordance with the Council's requirements)—57.*

Wards and Addresses of Premises.	Names of Applicants.	Dates of Registration by Council.
MARSH.		
64 Broadwall * ...	Selby, Charles ...	Jan. 16th
48 Coral Street ...	Bennett, Wm. James ...	Jan. 16th
14 Duke Street	Deerman, Arthur J. ...	Sept. 18th
17 Duke street	Rees, John	Sept. 18th

* Change of occupier.

Applicants registered, etc.—continued.

Wards and Addresses of Premises.	Names of Applicants.	Dates of Registration by Council.
9 Eaton Street ...	Field, Elizabeth ...	Feb. 13th
1 Howley Place ...	Rogers, Edward ...	June 12th
6 Lanfranc Street ...	Woolley, Harry ...	April 10th
2 Oakley Street ...	Hughes, Edward ...	June 26th
127 Oakley Street ...	Potter, Fredk. Charles ...	April 10th
6 Tower Street ...	Stott, Ernest	Mar. 10th
BISHOP'S.		
9 China Walk ...	Manwaring, George ...	Nov. 13th
4 Crozier Street * ...	Maier, Eugen	Jan. 16th
11 Lambeth Walk ...	Nicholls, Henry ...	June 26th
26 Lambeth Walk ...	Dickman, Harry ...	Oct. 2nd
17 Little Paris Street ..	Gillson, Charles F. ...	Nov. 13th
137 Lollard Street ...	Goode, Joseph	May 29th
141 Lollard Street ...	Jones, Susannah ...	June 26th
11 Oakden Street ...	Parker, George James ..	April 10th
1 Old Paradise Street...	Taynton, Samuel Bailey	Feb. 27th
5 Upper Marsh ..	Gibbons, William Hy. ...	Nov. 13th
25 Upper Marsh ...	Evans, Rees	Nov. 13th
36 Upper Marsh ...	Ingram, Ellen C. ...	Oct. 30th
89 Walcot Square ...	Penneck, Jane	July 10th
52 Walnut Tree Walk ...	Baker, David	Sept. 18th
PRINCE'S.		
2 Kennington Grove ..	Lovegrove, John ...	Mar. 13th
70 Tyers Street ...	Smith, Thos. James ...	Oct. 30th
119 Tyers Street ...	Steggall, Frank ...	May 8th
3 Windmill Row ..	Burrows, Mary Ann ...	May 29th

* Change of occupier.

Applicants registered. etc.—continued.

Wards and Addresses of Premises.	Names of Applicants.	Dates of Registration by Council.
VAUXHALL.		
29 Paradise Road ...	Black, James A. ...	Oct. 16th
6 Portland Place, S. ...	Osborne, James ...	Oct. 2nd
STOCKWELL.		
20 Garden Row * ..	Belton, Alfred Edmond	Feb. 27th
56 Stockwell Road ...	Goodwin, Charles Marshall	Feb. 27th
12 Stockwell Green ...	Collett, Albert and Squires, Samuel ..	June 26th
49 Willington Road ...	Pickard, Thomas H. J.	April 10th
BRIXTON.		
40 Atlantic Road ...	Oettle, Charles ...	Oct. 30th
56 Brixton Road ...	Geddes, John Percy ...	May 8th
433 Brixton Road ...	Williamsons, Ltd. ...	Sept. 18th
54 Elliott Road ...	Berkshire, William ...	April 10th
9 Gordon Grove ...	Tyler, Henry Wm. ...	Oct. 30th
50 Holland Road ...	Gander, Thomas ...	Jan. 30th
54 Holland Road ...	James, Mary	May 8th
53 Langton Road ..	Hills, George Ernest ...	April 10th
86 Patmos Road ...	Smith, John W. ...	Oct. 30th
15 Robsart street ..	Moylett, Patrick ...	May 29th
56 South Island Place*	Bone, Frances Mary ...	May 29th
23 Warham Street † ...	King, Robert John	Feb. 13th
23 Warham Street † ..	Beal, Mary Ann ..	June 12th

* Change of Occupier.

† Since withdrawn.

Applicants registered, etc.—continued.

Wards and Addresses of Premises.	Names of Applicants.	Dates of Registration by Council.
HERNE HILL.		
229 Coldharbour Lane ...	Knight, Robert ...	Oct. 30th
319 Coldharbour Lane ...	Mozzocchi, Joseph ...	Oct. 30th
331 Coldharbour Lane ...	Warman, Annie ...	Oct. 30th
2 Vaughan Road ...	Wood, George	July 10th
2 Vaughan Road ...	Hill, Wm. Horace ...	July 24th
TULSE HILL.		
9 Croxted Road ...	Welfords Surrey Dairies, Ltd.	April 24th
NORWOOD.		
38 Gipsy Hill	White, John	July 24th
Knight's Hill	Wraight, Dumbrill & Co., Ltd.	Oct. 30th
232 Rommany Road ...	Leg, Nicholas	June 12th
20 St. Gothards Road ...	Ashley, Sidney	July 10th

COWHOUSES.

There were, within the Borough, at the end of 1912, 33 registered Cowhouses, and, at the Annual Licensing of the London County Council, held on October 27th and December 11th, 1913, the licenses were renewed with the following exceptions:—

30 Upper Kennington Lane (premises unoccupied).

67 Rosendale Road (no application made).

LIST OF THE 11 COWHOUSES LICENSED IN THE BOROUGH OF LAMBETH DURING 1913.

Wards.	Situation of Premises.	No. of Sheds.	Names of Licensees.
Marsh	6 Coral Street, Lower Marsh	1	Owen, William.
Bishop's ..	24 Distin Street	2	Vaughan, David.
,, ..	36 Tracey Street	1	Evans, Anne.
Vauxhall ..	9 Dawlish Street	1	Adams, John.
,, ..	38 Hartington Road	1	Williams, John Morgan and Lewis, Davis
Brixton ..	34 Ingleton Street	1	Baker, Sarah Amelia & Frederick.
Norwood	93 Clive Road, W. Norwood ..	1	Wraight, Dumbrill & Co. Ltd.
,, ..	15 Croxted Road, W. Dulwich .	1	Wraight, Dumbrill & Co. Ltd.
,, ..	E der Road Dairy, W. Norwood	2	Bacon, Charles.
,, ..	156 Hamilton Road, W. Norwood	3	Grant, George Ephraim.
,, ..	76 & 78 Gipsy Hill	3	French, Jame s Thomas.

The Borough Council is now responsible for the periodical inspection of the Cowhouses, and the due enforcement of all By-laws and Regulations, made in connection therewith under the Dairies, Cowsheds and Milkshops Orders, 1885, 1886, and 1899. Such duties were carried out by the London County Council previous to the passing of the Local Government Act, 1899. During 1913, no action was required to be taken before the Magistrate in regard to infringements of By-laws, but a cautionary letter was addressed to the occupier of the cowshed at 6 Coral Street, drawing attention to the unsatisfactory manner in which the manure was being dealt with on several occasions when the Inspector called.

SLAUGHTER-HOUSES.

There were within the Borough, at the end of 1912, 19 registered Slaughter-houses, and at the Annual Licensing of the London County Council, held on October 27th and December 11th, 1913, the licenses were renewed with the following exceptions:—

18 Paradise Road (no application made).

10 Foxley Road (no application made).

List of the 17 *Slaughter-Houses licensed in the Borough of Lambeth during* 1913.

Wards.	Situations of Premises.	Names of Licensees.
Marsh ...	99 Lower Marsh*	Bacchus, James
,, ..	106 ,, ,, ...	Thomas, Robert Edwin

* Small cattle only to be killed.

Wards.	Situations of Premises.	Names of Licensees.
Bishop's ...	151 Lambeth Walk ...	Milton, Robert William
Prince's ...	60 Kennington Park Road	Grellier, Frederick
,,	406 Kennington Road ..	Parsons, Bernard William ...
Vauxhall ...	152 Clapham Road ...	Lawrence Bros
Stockwell	27 Bedford Road, Clapham Road	Pooley, John Peed
Brixton ...	Near Railway Hotel Brewery, Electric Lane, Brixton	Ford, Henry, & Co., Ltd.
,, ...	Industry Terrace (yard leading to), Canterbury Road	Warren, Emma Sanders
Herne Hill	207 Coldharbour Lane ...	Clark, Albert John
,, ..	309 Coldharbour Lane ..	Ford, Henry, & Co., Ltd,
,, ...	77 Dulwich Road ...	Atkin, Jim Cook
Tulse Hill	12 Lower Tulse Hill ..	Rooksby, Walter
,, ...	45 New Park Road ...	Beaumont, Edith Mary
Norwood	125 Hamilton Road ...	Forss, Thomas Lionel
,, ...	120 High Street*† ..	Griffiths, Frederic
,, ...	121 ,, ,, ...	Hindle, Richard John

* Small cattle only to be killed.
† Special conditions laid down.

The Borough Council is now responsible for the periodical inspection of the Slaughter-houses and the due enforcement of all By-laws and Regulations, &c., made in connecnection therewith, under the Slaughter-houses, &c., Metropolis Act, 1874, and the Local Government Act, 1888. Such duties were carried out by the London County Council previous to the passing of the Local Government Act, 1899.

During 1913, no action was required to be taken before the Magistrate in regard to infringement of By-laws, but a cautionary letter was sent to the occupier of the Slaughter-house at 120 High Street, West Norwood, drawing attention to what the Inspector found at one of his usual inspections, viz.: (1) garbage from previous slaughtering left in uncovered receptacles, (2) the floor of the slaughter-house left uncleansed on completion of the slaughtering, and (3) 13 sheep accommodated in the pound, which is 45½ square feet in area.

OFFENSIVE TRADES.

During 1913, no nuisance was reported in connection with the three offensive trades, which are registered as established within the Borough, and which are under the supervision of the Borough Council:—

1. Fat Melters—Upper Marsh (Messrs. J. C. & J. Field).

2. Soap Boilers—Upper Marsh (Messrs. J. C. & J. Field).

3. Tripe Boilers—103 Lambeth Walk (Messrs. Bennett, Son & Co.).

REFUSE AND MANURE DEPOTS.

The 13 Public Depots, situated in the Borough, were under constant (daily, during the summer months) supervision during 1913, and, in connection with the Destructors and Dust Yards situated in Tinworth Street (Prince's Ward) and Commercial Road (Marsh Ward), a large number of visits were paid, but in no instance was a nuisance discovered with which the Council could deal under the By-laws, having regard to the provision in the By-laws, which permits of the depositing of refuse and offensive matters for a reasonable period of 12 hours during the process of removal. Cautionary letters were sent, as required, in one or two instances, but no action was taken before the Magistrate.

EFFLUVIUM NUISANCES.

(*a*) Arlington Laundry, Cambria Road, Herne Hill.

A petition was received on the 1st July, 1913, signed by 31 inhabitants of the neighbourhood, drawing attention to an alleged nuisance arising from the choking fumes issuing from the chimney connected with the Arlington Laundry, Cambria Road, Herne Hill. Enquires in the neighbourhood elicited the fact that in addition to smoke and choking fumes, small particles of unburnt or partly burnt coal, were deposited from time to time in the gardens in the neighbourhood. A letter was sent to the proprietors of the laundry, and a new furnace was in consequence fitted, being provided with smoke preventing appliances. The chimney connected with the furnace is not very high and it was pointed out to the proprietors that the nuisance would not be satisfactorily abated, unless this chimney were heightened, in addition to the provision of the new furnace with its smoke-preventing appliances.

It was decided to allow the matter to stand over for the purpose of seeing if the nuisance was satisfactorily abated without the chimney being heightened, and, consequently, the Borough Council decided to take no further action for the time being under Section 21 of the Public Health (London) Act, 1891 but gave instructions for a further report to be presented to them in due course (during 1914).

(*b*) Lilford Road Railway Arches.

A Petition was received on 1st August, 1913, signed by 14 inhabitants of the neighbourhood, drawing attention to an alleged nuisance arising from the making of dog biscuits, etc., in connection with certain arches situated in the Lilford Road. A letter was sent to the occupiers of the railway arches, with the result that the nuisance was abated, by the moving into the country of that portion of the business which appeared to cause the nuisance, and the prevention of the preliminary sorting at the arches of the refuse fat used as one of the ingredients in connection with the making of dog buiscuits. No action was, consequently, taken by the Borough Council under Section 21 of the Public Health (London) Act, 1891, the nuisance being satisfactorily abated between the time the petition was received and the first meeting of the Council afterwards.

BACTERIOLOGICAL LABORATORY.

At the Bacteriological Laboratory, during 1913, 2,565 examinations were carried out as compared with a yearly average for the decennium 1903-12 (Borough) of 1,053.1. The *local* and *central* position of the Laboratory at Wanless Road is advantageous, enabling the results of examinations to be quickly obtained at a *minimum* cost.

The Laboratory was originally fitted up by the late Vestry in 1899, and since then (up to the end of 1913) *13,252 examinations have been made, viz. :—Tuberculosis 4391, typhoid fever 945, diphtheria 7,698, and others 218.

The total 2,565 bacteriological examinations carried out during 1913 deal with 1,484 sputa (suspected consumption), 47 bloods (suspected typhoid fever), 997 throat and nose membranes and discharges (suspected diphtheria) and 37 other materials, *e.g.*, hairs (2), urine (4), fœces (1) and smearings of pus (30).

Details are as follow :—

Tuberculosis—

1,484 samples of sputa from doubtful tuberculosis cases were examined, and in 614 (*i.e.*, 41.4 per cent.) tubercle bacilli were found.

Pneumococci were isolated in one sample. Pulmonary consumption (with tuberculous expectorations) was made voluntarily notifiable throughout the Borough of Lambeth on (and after) June 1st, 1902, and pulmonary consumption compulsorily notifiable under the Public Health (Tuberculosis) Poor Law Regulations, 1908, on and after January 1st, 1909, under the Public Health (Tuberculosis) in Hospitals) Regulations, 1911, on and after May 1st, 1911, under the Public Health (Tuberculosis) Regulations, 1911, on and after January 1st, 1912, and tuberculosis (both pulmonary and other forms) under the new Public Health (Tuberculosis) Regulations, 1911, on and after February 1st, 1913. By means of bacteriological examinations, greater exactitude in diagnosis of tuberculosis (pulmonary) is secured. The large increase in the numbers of samples of sputum examined during 1913 is due to the introduction

* 1889, 389 ; 1900, 703 ; 1901, 479 ; 1902. 466 : 1903, 525 ; 1904, 447 ; 1905, 1874 ; 1906, 761 ; 1907, 786 ; 1908, 718 ; 1909, 781 ; 1910, 605 ; 1911, 976 ; 1912, 1177 ; 1913, 2565 ; total, 13,252.

of the new Public Health (Tuberculosis) Regulations, 1912, and the carrying out of the "sanatorium benefit" under the National Insurance Act, together with the opening to the public of the Council's Tuberculosis Dispensary (Central).

Typhoid Fever.

47 samples of blood from suspected typhoid cases were examined, and in 12 (*i.e.*, 25.1 per cent.) the characteristic Widal reaction was obtained, although in 7 cases the reactions were but slightly marked. A high dilution of blood-serum was used (1-60 to 1-100).

Diphtheria.

997 samples of throat and nose membranes and secretions from doubtful diphtheria cases were examined, and in 130 (*i.e.*, 13.04 per cent.), the true Klebs-Lœffler bacilli were isolated.

40 swabs (all negative as far as Klebs-Lœffler bacilli were concerned) were connected with an outbreak of sore throats at the Norwood Schools; Pseudo Hoffmann bacilli found in 6.

In 867 (*i.e.*, 86.96 per cent.) of the total number of throat and nose samples examined, the Klebs-Lœffler bacilli were not isolated, but other bacilli were, *e.g.*, staphylococci, streptococci, torulœ, micrococci, diplococci, sarcinœ and pseudo (Hoffmann) bacilli. The last-named, viz.: pseudo (Hoffmann) bacilli, were isolated in 41 cases—8 in pure cultivation, 30 mixed with staphylococci and streptococci, and 3 mixed with true Klebs-Lœffler bacilli.

37 samples of other materials were examined, viz.: hairs (for tinea tonsurans), 2 (0 positive), pus smearings (for gonococci) 28 (15 positive), urine (for phosphates and urates) 2 (1 positive), urine (for gonococci) 1 (negative), urine (for

albumen) 1 (positive), urethal discharge (for tubercle bacilli) 1 (negative), uterine smear (for staphylococci) 1 positive), and fœces (for blood) 1 (negative). The pus smearings were from the eyes (1), urethra (17), and vagina (10).

1913.	Sputa—Tub. Bac. found.			Bloods—Typhoid reaction obtained.			Throat and Nose Membranes and Discharges—Klebs. Lœffler Diphtheria Bac. found.		
	Yes.	No.	Total.	Yes.	No.	Total.	Yes.	No.	Total.
January	63	43	106	1	4	5	2	25	27
February	56	68	124	3	5	8	7	31	38
March	48	92	140	3	4	7	13	56	69
April	56	108	164	—	2	2	7	38	45
May	42	65	107	—	1	1	12	65	77
June	35	49	84	1	4	5	7	45	52
July	31	57	88	1	5	6	2	44	46
August	54	52	106	1	3	4	1	31	32
September	55	77	132	—	2	2	6	103	109
October	63	76	139	—	1	1	10	120	130
November	58	84	142	1	1	2	10	105	115
December	53	99	152	1	3	4	53	204	257
TOTALS ...	614	870	1484	12	35	47	130	867	997

N.B.—37 other samples were also examined during 1913, viz.: Hairs (2), Fœces (1), Pus Smearings (30), Urine (4).

Antitoxin.

The Borough Council distributed during 1913, free of cost to medical practitioners practising in the Borough, 50 vials of antitoxin under the Antitoxin Order, 1910.

MORTUARIES AND CORONERS' COURTS.*

The 2 Coroners' Courts are under the jurisdiction of the London County Council—the Wanless Road one being the freehold of the County Council, and the High Street one being rented at a rent of £100 per annum by the London County Council from the Borough Council, the freeholders.

The 2 Mortuaries (Wanless Road and High Street) are the freeholds of the Borough Council.

The following are the details of work done during 1913 at the two mortuaries and coroners' courts:—

(*a*) Total number of bodies received, 383—280 at High Street and 103 at Wanless Road.

(*b*) Post-mortem examinations conducted 208—144 at High Street and 64 at Wanless Road.

(*c*) Coroners' court sat 177 times—137 at High Street and 40 Wanless Road.

(*d*) Number of bodies brought in by the Police, 56—44 to High Street and 12 to Wanless Road.

(*e*) Number of bodies brought in by undertakers or private persons 327—236 to High Street and 91 to Wanless Road.

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* The Council's Mortuary Keepers are:—Joshua Fazey (Wanless Road and Robert William Harriss (High Street). There is also a Deputy Mortuary Keeper.

(*f*) No infectious bodies received either at High Street or at Wanless Road.

There were 49 suicides investigated (18 drowning, 4 poisoning, 5 hanging, 11 throat cutting, 5 shooting, 3 coal gas, and 3 on railway track); and 122 accidental deaths—falls 41, run over 38, crushing 8, poison 2, strangulation 2, overlying 10, burns and scalds 17, and drowning 4.

Of the total 383 bodies received, 238 were males and 145 females. The yearly averages for the two decennia 1891-1900 (Parish) and 1901-10 (Borough) are respectively (*a*) bodies received 355.8 and 399.8, (*b*) post-mortems conducted 210.8 and 218.4, (*c*) sittings of coroners' court 194.0 and 175.7.

The mortuary for Norwood has not yet been provided, but it has been provisionally arranged on the plan for such a mortuary in connection with a small part of the freehold site (south-eastern corner) in Rommany Road, which is being developed by the Council for a Dust Depot at Norwood.

The old Watch House (the residence of the High Street Mortuary Keeper) was condemned during 1912 on the ground of its dampness due to its unfavourable site and the absence of damp courses and concrete, etc., and a temporary residence was provided for the Mortuary Keeper at 206 Lambeth Road.

INQUESTS.

During the year 1913, within the Borough of Lambeth, 316 Lambeth cases were submitted to the Coroner (who, in 19 instances, decided that no further inquiries were necessary, the deaths being due to natural causes). In the remaining 297 cases, inquests were held with the following result:—

I.	Natural Causes		141
II.	Accidental Causes		115
	Burns and Scalds	13	
	Drowning	6	
	Run over	15	
	Falls, etc.	26	
	Suffocation	11	
	Fracture	19	
	Misadventure	14	
	Crushed	4	
	Blood Poisoning	7	
III.	Homicidal Causes		37
	Suicide	34	
	Murder	2	
	Manslaughter	1	
IV.	Open Verdicts		4
	Found Drowned	4	
	Total ...		297

CLERICAL STAFF.

The clerical staff consists of 1 Chief Clerk Class 1 (W. R. Lawrence); 1 Special Clerk to the Medical Officer of Health, to have the status of a Chief Clerk in Class 1 (A. L. Baxter); 2 Assistant Clerks, Class 2 (W. J. Lawrence and A. E. Ruel) and two Boy Clerks, Class 3 (W. E. Croley and T. N. Charlton.

During 1913, there were 14,831 letters, &c., received (entered in letter book), 25,157 letters, etc., sent out (entered in postal book), 14,397 Notices issued, 7,390 letters typed, and 5,081 complaints entered in the complaint book.

APPENDIX.

Local Government Board New Tables.

Table i.

VITAL STATISTICS OF THE BOROUGH OF LAMBETH DURING 1913 AND PREVIOUS FIVE YEARS (1908-12).

Year.	Population estimated to Middle of each Year.	Births.			Total Deaths Registered in District.		Transferable Deaths. ‡		Nett Deaths belonging to the District.			
		Uncorrected Number.	Nett.						Under 1 Year of Age.		At all Ages.	
			Number. †	Rate.	Number. *	Rate.	of Non-residents registered in the District. †	of Residents not registered in the District. †	Number. *	Rate per 1,000 Nett Births.	Number. *	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1908	321344	8906	8035	25·0	4692	14·6	863	512	829	103·1	4341	13.5
1909	324188	8445	7578	23·4	4876	15·0	826	490	830	109·5	4540	14.0
1910	327074	8373	7344	22·5	4348	13·3	795	527	691	94·1	4080	12·5
1911	297957	8405	7292	24·5	4584	15·4	852	712	905	124·0	4444	14·9
1912	297550	8168	6953	23·3	4189	14·1	823	634	600	86·3	4000	13.4
1913	**297139**	**8341**	**7238**	**24·4**	**4476**	**15·1**	**883**	**780**	**537**	**74.2**	**4373**	**14·7**

NOTES.—This Table is arranged to show the gross births and deaths in the Borough, and the births and deaths properly belonging to it with the corresponding rates. For years before 1911 the corrected rates are slightly different. The rates are calculated per 1000 of the estimated gross population, and no deductions have been made from the population for large Public Institutions for the sick or infirm.

*In Column 6 are included the whole of the deaths registered during the year as having actually occurred within the Borough.

In Column 12 is entered the number in Column 6, corrected by subtraction of the number in Column 8 and by addition of the number in Column 9. Deaths in Column 10 are similarly corrected by subtraction of the deaths under 1, included in the number given in Column 8, and by addition of the deaths under 1 included in the number given in Column 9.

†Column 8 is prepared from the returns made by the local Registrars of Deaths in accordance with the rule in the next paragraph below; the Registrar-General supplied the particulars of deaths (93) entered in Column 9; and all such deaths are included in this Column, unless an error has been detected, and its correction has been accepted by the Registrar-General. For Column 4 the Registrar-General has furnished a Statement of the number of births needing to be added to or subtracted from the total supplied by the local Registrar (1169 outward and 66 inward transfers).

"Transferable Deaths" are deaths of persons who, having a fixed or usual residence in England or Wales, die in a district other than that in which they resided. The deaths of persons without fixed or usual residence, *e.g.*, casuals, are not included in Columns 8 or 9, except in certain instances under 3 (*b*) below. In Column 8 the number of transferable deaths of "non-residents" which are deducted and in Column 9 the number of deaths of "residents" registered outside the district which are added are stated in calculating the nett death-rate of the Borough.

Census 1911.
- Area of Borough in acres (exclusive of area covered by water), 4079.6.
- Average number of persons per house (estimated) 6·7.
- Number of inhabited houses 44123.
- Total population at all ages, 298058.

Local Government Board New Tables. **Table ii.**

CASES OF INFECTIOUS DISEASE NOTIFIED WITHIN THE BOROUGH OF LAMBETH DURING THE YEAR 1913.

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.								TOTAL CASES NOTIFIED IN EACH LOCALITY. (*e.g.* Parish or Ward) of the District.					TOTAL CASES REMOVED TO HOSPITAL.
	At all Ages.	At Ages—Years.												
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.	65 and upwds.	Lambeth Church.	Kennington.	Stockwell.	Brixton.	Norwood.	
Small-pox	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria (including Membranous Croup)	392	18	126	180	38	24	5	1	66	58	95	72	101	338
Erysipelas	206	4	10	15	21	71	62	23	38	46	39	64	19	59
Scarlet Fever	1370	7	303	897	113	43	6	1	200	217	320	456	177	1212
Typhus Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever	38	—	—	9	12	13	4	—	9	5	8	6	10	33
Relapsing Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Continued Fever	2	—	—	—	—	2	—	—	—	1	—	1	—	1
Puerperal Fever	25	—	—	—	6	19	—	—	4	5	5	6	5	15
Plague	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis *	1571	1	18	174	296	772	285	25	354	337	252	387	241	—
Other Forms of Tuberculosis †	456	5	81	213	73	53	21	10	96	83	86	110	81	—
Cerebro-spinal Meningitis	7	2	4	1	—	—	—	—	2	3	—	2	—	2
Polio-myelitis acuta	6	—	5	—	1	—	—	—	1	1	1	1	2	3
Opthalmia Neonatorum	57	57	—	—	—	—	—	—	9	14	16	16	2	—
Whooping Cough ‡	1428	178	812	430	1	6	1	—	249	291	301	351	236	90
	5558	272	1359	1919	561	1003	384	60	1028	1061	1123	1472	874	1753

Isolation Hospitals, Name and Situation—Hospitals of the Metropolitan Asylums Board (one situated in the Brixton Sub-District and Stockwell Ward of the Borough of Lambeth). Total available beds provided by the Board—8555. Number of Diseases that can be concurrently treated—All notifiable infectious diseases and (partly) Measles and Whooping Cough.

* Excluding all renotifications (164) of pulmonary tuberculosis, and notifications under Form C (8) of the 1908 Regulations, and under Form C (343) and Form D (269) of the 1912 Regulations.

† Excluding all renotifications (56) of non-pulmonary tuberculosis, and notifications under Form C (32) and Form D (29).

‡ Whooping Cough became compulsorily notifiable within the Borough of Lambeth on January 1st, 1913.

Local Government Board New Tables. **Table iii.**

CAUSES OF, AND AGES AT, DEATH (CORRECTED) DURING THE YEAR 1913.

BOROUGH OF LAMBETH.

CAUSES OF DEATH.	NETT DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT (*a*).									TOTAL DEATHS WHETHER OF "RESIDENTS" OR "NON-RESIDENTS" IN INSTITUTIONS IN THE DISTRICT (*b*).
	All ages.	Under 1 year	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards	
1	2	3	4	5	6	7	8	9	10	11
All causes { Certified (*c*) / Uncertified } 4280	4017	705	145	151	115	131	801	851	1118	2015
	263	28	15	10	20	13	51	67	59	
Typhus Fever	...	...	...	...	...	...	...	...	...	...
Enteric Fever	7	...	...	...	1	1	4	1	...	18
Continued Fever	...	...	...	...	...	...	...	...	...	...
Small-pox	...	...	...	...	...	...	...	...	...	...
Measles	98	23	43	28	4	...	...	...	...	30
Scarlet Fever	14	...	2	8	3	1	...	...	...	14
Whooping Cough	47	21	16	8	2	...	...	...	...	2
Diphtheria and Croup (*See* note (*d*)) ...	37	4	7	16	9	...	..	...	1	42
Influenza	67	2	...	1	3	3	7	19	32	2
Erysipelas	8	...	...	...	...	...	1	4	3	9
Cerebro-Spinal Fever	3	1	1	...	1	...	...	...	...	6
Polio-myelitis acuta	...	...	...	...	...	...	...	...	...	...
Venereal Diseases	24	10	2	...	...	...	2	7	3	...
Phthisis (Pulmonary Tuberculosis) ...	370	1	1	2	7	52	183	103	21	137
Tuberculous Meningitis (*See* note (*e*)) ...	49	12	11	16	7	1	2	...	...	...
Other Tuberculous Diseases	66	9	6	6	10	7	18	6	3	...
Rheumatic Fever	11	...	...	...	3	1	4	3	...	7
Cancer, malignant disease (*See* note (*f*)) ...	369	...	...	...	1	2	42	165	159	...
Bronchitis	373	48	12	5	2	1	20	64	221	
Broncho-Pneumonia	165	76	35	14	2	...	12	10	16	244
Pneumonia (all other forms)	201	20	7	6	5	8	39	54	62	
Other diseases of Respiratory organs ...	67	5	1	4	2	3	7	20	25	...
Diseases of Circulatory System	555	3	...	1	12	14	60	166	299	217
Diseases of Nervous System	333	30	6	9	9	6	39	100	134	...
Diarrhœa and Enteritis (*See* note (*g*)) ...	190	141	28	10	2	...	4	3	2	111
Appendicitis and Typhlitis	24	...	...	...	8	4	5	4	3	44
Alcoholism (*See* note (*h*))	24	...	...	...	...	...	9	13	2	...
Cirrhosis of Liver	45	...	...	...	...	...	7	30	8	...
Nephritis and Bright's Diseases	165	3	...	2	...	4	29	74	53	...
Puerperal Fever (*See* note (*i*))	10	...	...	...	...	1	9	...	...	14
Other accidents and diseases of Pregnancy and Parturition	10	...	...	...	...	1	9	...	...	...
Congenital Debility and Malformation, including Premature Birth (*See* note (*j*)) ...	165	158	3	1	1	1	...	...	1	...
Violent Deaths, excluding Suicide	144	18	6	9	16	11	22	25	37	
Suicides	37	...	...	...	...	...	14	21	2	88
Other Defined Diseases	503	65	12	8	10	12	42	94	261	1030
Diseases ill-defined or unknown	99	83	6	2	1	1	2	4	...	...
	4280	733	160	161	135	144	852	918	1177	2015

NOTES TO TABLE iii.

(*a*) All "Transferable Deaths" of residents, *i.e.*, of persons resident in the District who have died outside it, are *included* with the other deaths in columns 2-10. Transferable deaths of non-residents, *i.e.*, of persons resident elsewhere in England and Wales who have died in the District, are in like manner *excluded* from these columns. For the precise meaning of the term "transferable deaths" *see* footnote to Table I.

The total deaths in column 2 of Table III. equal the figures for the year in column 12 of Table I.

(*b*) All deaths occurring in institutions for the sick and infirm situated within the district, whether of residents or non-residents, are entered in the last column of Table III.

(*c*) All deaths certified by registered Medical Practitioners and all Inquest cases are classed as "Certified"; all other deaths are to be regarded as "Uncertified."

(*d*) This heading includes all deaths from croup except those certified as due to 'spasmodic,' 'stridulous,' 'catarrhal,' or 'false' croup.

(*e*) Under "Tuberculous Meningitis" are included deaths from Acute Hydrocephalus.

(*f*) Under "Cancer" are included deaths under such headings as Carcinoma, Scirrhus, Epithelioma, Rodent ulcer, Sarcoma, Cancer, and Malignant Disease.

(*g*) Under this heading are included deaths registered as due to Epidemic diarrhœa, Epidemic enteritis, Infective enteritis, Zymotic enteritis, Summer diarrhœa, Choleraic diarrhœa, Cholera (other than Asiatic), Gastro-enteritis, Gastro-intestinal catarrh, Muco-enteritis, Colitis, etc. Deaths from Diarrhœa secondary to some other well-defined disease are included under the latter.

For "Dysentery" *see* note at foot of Table III.

(*h*) Under this heading are included deaths from Delirium tremens, acute and chronic alcoholism, etc., but *not* those certified as due to organic disease attributed to alcoholism. The number of the latter may with advantage be stated separately, though this statement cannot be included in Table III.

(*i*) Under "Puerperal Fever" are included deaths under such headings as Pyæmia, Septicæmia, Sapræmia, Pelvic peritonitis, Peri- and Endo-metritis occuring in the Puerperium.

(*j*) Under this heading are included also deaths from Atrophy and Marasmus of Infants, and want of Breast-milk, but not from Atelectasis.

Local Government Board New Tables. **Table iv.**

BOROUGH OF LAMBETH—INFANTILE MORTALITY, 1913.

Nett Deaths from stated causes at various Ages under 1 Year of Age.

	Under 1 week.	1–2 weeks.	2–3 weeks.	3–4 weeks.	Total under 1 month.	1–3 months.	3–6 months.	6–9 months.	9–12 months.	Total Deaths under 1 year.
All Causes {Certified	139	31	22	30	222	130	154	104	95	705
All Causes {Uncertified	5	3	—	1	9	9	5	2	3	28
Chicken Pox	—	—	—	—	—	—	—	—	1	1
Measles	—	—	—	—	—	1	2	6	14	23
Diphtheria and Croup	—	—	—	—	—	—	—	3	1	4
Whooping Cough	—	—	1	—	1	3	3	9	5	21
Diarrhœa	—	—	—	1	1	30	50	25	25	131
Enteritis (Epidemic)	—	1	2	—	3	—	4	2	1	10
Influenza	—	—	—	—	—	—	—	2	—	2
Cerebro Spinal Meningitis	—	—	—	—	—	—	1	—	—	1
Ophthalmia Neonatorum	—	1	—	—	1	—	—	—	—	1
Tuberculous Meningitis	1	—	—	—	1	3	4	2	2	12
Abdominal Tuberculosis	—	—	—	—	—	1	1	1	1	4
Other Tuberculous Diseases	—	—	—	—	—	2	3	1	—	6
Congenital Malformations	11	2	2	2	17	6	4	—	—	27

Premature Birth	86	10	6	8	110	18	2	—	—	130
Atrophy, Debility and Marasmus	14	7	5	3	29	18	24	3	5	79
Atelectasis	10	2	—	—	12	—	—	—	—	12
Erysipelas	—	—	—	—	—	—	—	—	—	—
Syphilis	1	—	1	1	3	5	1	1	—	10
Rickets	—	—	—	—	—	—	1	2	1	4
Meningitis (*not Tuberculous*)	—	—	1	2	3	—	1	—	—	4
Convulsions	7	1	1	2	11	5	4	—	—	20
Gastritis	1	—	—	1	2	5	1	—	—	8
Dentition	—	—	—	—	—	—	3	5	2	10
Laryngitis	—	—	—	—	—	—	—	—	—	—
Bronchitis	—	2	2	3	7	15	9	9	8	48
Pneumonia	1	—	—	—	1	3	2	1	6	13
Broncho Pneumonia	—	3	1	5	9	15	16	20	16	76
Pleuro ,,	—	—	—	—	—	3	2	1	1	7
Suffocation, overlying	—	—	—	—	—	1	7	1	1	10
Accident, other than Suffocation	4	—	—	—	4	—	2	—	—	6
Other causes not classified above	8	5	—	3	16	5	12	12	8	53
	144	34	22	31	231	139	159	106	98	733

Local Government Board New Tables.]

Table

BOROUGH OF LAMBETH—Particulars of cases of cerebro-spinal meningitis, notified within the Borough

	Total number of Cases notified.	NUMBER OF CASES.																			
		0-1 year.						1-5 years.						5-10 years.				10-15 years.			
		M.			F.			M.			F.			M.			F.				
		Cases.	Deaths.	Permanent Paralysis.*	Cases.	Deaths.	Permanent Paralysis.*	Cases.	Deaths.	Permanent Paralysis.*	Cases.	Deaths.	Permanent Paralysis.*	Cases.	Deaths.	Permanent Paralysis.*	Cases.	Deaths.	Permanent Paralysis.*	Cases.	Deaths.
Acute Polio-myelitis ...	6	–	–	–	–	–	–	1	–	1	4	–	4	–	–	–	–	–	–	–	–
Cerebro-Spinal Fever ...	7	1	1	–	1	–	–	1	1	–	3	1	1	–	–	–	–	–	–	1	1

	15-20 years.			20-30 years.			Over 30 years.		
	M.			F.			M.		F.
	Permanent Paralysis.*	Cases.	Deaths.	Permanent Paralysis.*	Cases.	Deaths.	Permanent Paralysis.*	Cases.	Deaths.	Permanent Paralysis.*
Acute Polio-myelitis ...	–	–	–	–	–	–	–	–	–	–
Cerebro-Spinal Fever ...	–	–	–	–	–	–	1	–	–	–

i.e., Recovered with permanent Paralysis of one or more groups of muscles.

Number of cases removed to Isolation Hospital.										
Acute Polio-myelitis	—	—	—	2	—	—	—	—	—	—
Cerebro-Spinal Fever...	—	—	1	1	—	—	—	—	—	—

Observations :—In 2 of the polio-myelitis, and 2 of the cerebro-spinal meningitis cases, there was some evidence of animals (cats and dogs) being connected, in some way or other, with the illnesses.

N.B.—The usual preventive measures, that are taken in connection with other infectious diseases, were taken, together with the routine stripping of papers off the walls of infected rooms.

v.

acute polio-myelitis, and polio-encephalitis and epidemic of Lambeth, during 1913.

Home Office Tables.

BOROUGH OF LAMBETH, 1913.

FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES AND HOMEWORK.

1.—Inspection of Factories, Workshops and Workplaces including inspections made by Sanitary Inspectors.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories ... ... (Including Factory Laundries).	2	238	—
Workshops ... ... (Including Workshop Laundries).	94		
Workplaces ... ... (Other than Outworkers' Premises included in part 3 of this Report).	—		
Total	96	238	—

2.—Defects found in Factories, Workshops and Workplaces.

Particulars.	Number of defects.			No. of Prosecutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
Nuisances under the Public Health Acts :—*				
Want of Cleanliness ...	51	51	—	—
Want of Ventilation ...	5	5	—	—
Overcrowding	11	11	—	—
Want of drainage of floors...	—	—	—	—
Other nuisances	243	243	—	—
Sanitary accommodations. insufficient	—	—	—	—
Sanitary accommodations. unsuitable or defective	73	73	—	—
Sanitary accommodations. not separate for sexes	1	1	—	—
Offences under the Factory and Workshops Act :—				
Illegal occupation of underground bakehouse (S. 101)	—	—	—	—
Breach of special sanitary requirements for bakehouses (SS. 97 to 100) ...	—	—	—	—
Other offences ... ... (Excluding offences relating to outwork which are included in Part 3 of this Report)	—	—	—	—
Totals	384	384	—	—

* Including those specified in Sections 2, 8, 7 and 8 of the Factory and Workshop Act, as remediable under the Public Health Acts.

NATURE OF WORK.	OUTWORKERS' LISTS, SECTION 107.							OUTWORK IN UNWHOLESOME PREMISES SECTIONS 108.			OUTWORK IN INFECTED PREMISES SECTIONS 109, 110.		
	Lists received from Employers.							Prosecutions					
	Sending Twice in the year.			Sending Once in the year.			Notices served on Occupiers as to keeping or sending lists.	Failing to keep or permit inspection of Lists.	Failing to send Lists.	Instances.	Notices served.	Prosecutions	Instances.	Orders made (S. 110).	Prosecutions (Section 109, 110).
	Lists.	Outworkers.† Contractors.	Outworkers.† Workmen.	Lists.	Outworkers. Contractors	Outworkers. Workmen.									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Wearing Apparel—															
(1) making, &c.	27	10	253	6	...	19	32						6		
(2) cleaning and washing	...	...	...	...	...	...	...						...		
Household linen	...	...	...	...	...	...	...						...		
Lace, lace curtains and nets	...	...	...	...	...	...	...						...		
Curtains and furniture hangings	...	...	...	...	...	...	...						...		
Furniture and upholstery	1	...	...	...	...	...	2						...		
Electro-plate	...	...	...	...	...	...	...						...		
File making	...	...	...	...	...	...	...						...		
Brass and brass articles	...	...	...	...	...	...	...						...		
Fur pulling	...	...	...	...	...	...	...						...		
Cables and chains	...	...	...	...	...	...	...						...		
Anchors and grapnels	...	...	...	...	...	...	...						...		
Cart gear	...	...	...	...	...	...	...						...		
Locks, latches and keys	...	...	...	...	...	...	...						...		
Umbrellas, &c.	...	...	...	...	...	...	...						...		
Artificial flowers	...	...	...	...	...	...	...						...		
Nets, other than wire nets	...	...	...	...	...	...	...						...		
Tents	...	...	...	...	...	...	...						...		
Sacks and bag stringing	2	...	68	...	...	...	...						...		
Racquet and tennis balls	...	...	...	...	...	...	...						...		
Paper bags and boxes	2	...	44	...	...	...	...						...		
Brush making	...	...	...	...	...	...	...						...		
Pea picking	...	...	...	...	...	...	...						...		
Feather sorting	...	...	...	...	...	...	...						...		
Carding, &c., of buttons, &c.	...	...	...	...	...	...	...						...		
Stuffed toys	...	...	...	...	...	...	...						...		
Basket making	...	...	...	...	...	...	...						...		
Printing	2	...	31	...	...	...	...						...		
Cigarette making	2	...	7	...	...	...	2						...		
TOTAL	36	10	405	6	...	19	36	Nil.	Nil.	Nil.	Nil.	Nil.	6	Nil.	Nil.

*If an occupier gives out work of more than one of the classes specified in column 1, and subdivides his list in such a way as to show the number of workers in each class of work, the list should be included among those in column 2 (or 5 as the case may be) against the principal class *only*, but the outworkers should be assigned in columns 3 and 4 (or 6 and 7) into their respective classes. A footnote should be added to show that this has been done.

†The figures required in columns 2, 3 and 4 are the *total* number of the lists received from those employers who comply strictly with the statutory duty of sending *two* lists each year and of the entries of names of outworkers in those lists. The entries in column 2 must necessarily be *even* numbers, as there will be two lists for each employer—in some previous returns odd numbers have been inserted. The figures in columns 3 and 4 will usually be (approximately) double of the number of individual outworkers whose names are given, since in the February and August lists of the same employer the same outworker's name will often be repeated.

4.—Registered Workshops.

Workshops on the Register (s. 131) at the end of the year 1913. (1)	Number. (2)
Bakehouses	214
Restaurants	296
Laundries	203
Dressmakers	320
Tailors	137
Milliners and Mantle Makers	82
Blouse Makers	75
Other Businesses	378
Total number of workshops on Register	1705

5.—Other Matters.

Class. (1)		Number. (2)
Matters notified to H.M. Inspector of Factories:—		5
Failure to affix Abstract of the Factory and Workshop Act (s. 133)		—
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5)	Notified by H.M. Inspector	6
	Reports (of action taken) sent to H.M. Inspector	6
Other		—
Underground Bakehouses (s. 101):—		
Certificates granted during 1913		—
In use at the end of 1913		72

Note.—The Factory and Workshop Act, 1901 (s. 132) requires the Medical Officer of Health in his Annual Report to the District Council to report specifically on the administration of that Act in workshops and workplaces, and to send a copy of his Annual Report, or so much of it as deals with this subject, to the Secretary of State (Home Office). If the Annual Report is presented otherwise than in print, it is unnecessary to include in the copy sent to the Home Office the portions which do not relate to factories, workshops, workplaces or homework. The duties of Local Authorities and the Medical Officer of Health under the Acts are detailed in the Home Office Memoranda, issued to all Districts, Councils and Medical Officers of Health.

London County Council Table.

SANITARY PROCEEDINGS DURING 1913.

(RETURN PREPARED FOR THE LONDON COUNTY COUNCIL.)

Premises.	Number of Places.				Number of inspections, 1913.	Number of notices, 1913.	Number of prosecutions, 1913.
	On register at end of 1912.	Added in 1913.	Removed in 1913.	On register at end of 1913.			
Milk premises* ...	143	57	2	198	594	48	—
Cowsheds	13	—	2	11	22	3	—
Slaughter-houses ...	19	—	2	17	64	6	—
Other offensive trade premises	3	—	—	3	6	—	—
Registered houses let in lodgings	372	—	—	372	744	—	—
Bakehouses	214	—	—	214	428	—	—
Restaurant Kitchens	248	—	—	248	—	—	—

* During 1913, a total of 57 applications were received and approved, but 2 were withdrawn by the applicants after registraon, and 5 were simply changes of occupiers.

Total number of Intimation or Preliminary Notices served for all purposes	7121

Overcrowding—

Dwelling rooms overcrowded	19
Remedied	19
Prosecutions	—

Underground Rooms—

Illegal occupation	16
Closed	—

Insanitary houses—

Closed (under the Public Health (London) Act, 1891)	—
Closed (under the Housing of the Working Classes Acts, including the Housing, Town Planning, etc., Act)	24
Verminous rooms cleansed	927

Shelters provided under Sec. 60 (4) *of the Public Health (London) Act,* 1891—

Number provided	1
Persons accommodated	—

Revenue Act, 1903—

Houses for which applications were received...		29
Tenements comprised therein		84
Tenements for which Certificates were		
	(*a*) granted	38
,, ,, ,,	(*b*) refused	10
,, ,, ,,	(*c*) deferred*	36

Common Lodging Houses—

Certificates granted	6

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

Mortuaries—

Number of bodies 383 (infectious cases 0).

*Certificates since granted, the necessary works having been carried out.

LAMBETH BOROUGH.—Deaths Registered from all Causes during the Year, 1913.

NOTE.—The Deaths of Non-Residents occurring in Public Institutions situated in the District are excluded, and the Deaths of Residents occurring in Public Institutions situated beyond the limits of the District are included.

	Sub-Districts.										Total.
	Lambeth Church		Kennington.		Stockwell.		Brixton.		Norwood.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
I. Specific Febrile, or Zymotic Diseases	82	58	55	41	53	48	45	43	35	33	494
II. Parasitic Diseases	...	...	...	...	...	...	...	...	...	...	...
III. Dietetic Diseases	3	1	3	4	3	2	2	2	2	3	25
IV. Constitutional Diseases	98	84	80	88	107	96	114	109	77	76	936
V. Developmental Diseases	25	37	32	42	17	43	38	55	20	41	350
VI. Local Diseases	225	197	206	221	254	195	230	266	176	194	2195
VII. Deaths from Violence	34	13	14	19	24	14	23	11	19	8	181
VIII. Deaths from Ill-defined and not specified Causes	10	11	14	4	14	10	9	6	13	7	99
Totals	477	401	404	419	472	408	461	492	342	362	4280
I.—Specific Febrile or Zymotic Diseases.											
1.—Miasmatic Diseases.											
Small-pox (Vaccinated	...	...	...	...	...	...	...	...	...	...	...
Small-pox (Unvaccinated	...	...	...	...	...	...	...	...	...	...	...
Small-pox (No Statement	...	...	...	...	...	...	...	...	...	...	...
Measles	27	12	13	11	14	8	4	5	2	2	98
Whooping Cough	7	3	5	6	2	8	4	7	2	3	47
Scarlet Fever	1	1	1	1	4	...	3	2	1	...	14
Typhus	...	...	...	...	...	...	...	...	...	...	...
Simple Continued and Ill-defined Fever	...	...	...	...	...	...	...	...	...	...	...
Enteric or Typhoid Fever	...	...	...	...	...	...	...	...	...	...	...
Diphtheria	...	...	...	...	1	1	1	3	...	1	7
Membranous Croup	6	3	4	3	6	5	1	...	6	2	36
Influenza	...	...	...	...	...	1	...	...	...	...	1
Other Miasmatic Diseases	4	...	2	2	8	8	8	11	10	14	67
Cerebro Spinal Fever	1	...	...	1	1	...	1	1	...	...	5
	...	1	...	...	...	...	1	1	...	...	3
2.—Diarrhœal Diseases.											
Cholera Nostras	...	...	...	...	...	...	...	...	...	...	...
Cholera Asiatica	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa Dysentry	31	31	26	11	13	13	13	9	9	10	166
3.—Malarial Diseases.											
Remittent or Relapsing Fever	...	...	...	...	...	...	...	...	...	...	...
Ague	...	...	...	...	...	...	...	...	...	...	...
4.—Zoogenous Diseases.											
Cowpox and effects of Vaccination	...	...	...	...	...	...	...	...	...	...	...
Other Diseases (*e.g.*, Hydrophobia, Glanders, Splenic Fever)	...	...	...	...	...	...	...	...	...	...	...
5.—Venereal Diseases.											
Syphilis	4	3	2	3	2	1	4	...	1	...	21
Gonorrhœa, Stricture of Urethra	...	...	1	...	...	...	1	...	1	...	3
6. Septic Diseases.											
Erysipelas	1	...	...	...	1	2	2	1	1	...	8
Pyæmia, Septicæmia	...	2	1	...	1	...	2	...	2	...	8
Puerperal Fever	...	2	...	3	...	1	...	3	...	1	10

	Sub-Districts.										Total.
	No Address.		All Ages.								
	M.	F.	M.	F.							
I. Specific Febrile, or Zymotic Diseases	...	1	270	224	494						
II. Parasitic Diseases	...	...	...	...	...						
III. Dietetic Diseases	...	...	13	12	25						
IV. Constitutional Diseases	3	4	479	457	936						
V. Developmental Diseases	...	...	132	218	350						
VI. Local Diseases	17	14	1108	1087	2195						
VII. Deaths from Violence	1	1	115	66	181						
VIII. Deaths from Ill-defined and not specified Causes	1	...	61	38	99						
Totals	22	20	2178	2102	4280						
I.—Specific Febrile or Zymotic Diseases.											
1.—Miasmatic Diseases.											
Small-pox (Vaccinated	...	...	...	...	...						
Small-pox (Unvaccinated	...	...	...	...	...						
Small-pox (No Statement	...	...	...	...	...						
Measles	...	...	60	38	98						
Whooping Cough	...	...	20	27	47						
Scarlet Fever	...	...	10	4	14						
Typhus	...	...	...	...	...						
Simple Continued and Ill-defined Fever	...	...	...	...	...						
Enteric or Typhoid Fever	...	...	...	...	...						
Diphtheria	...	...	2	5	7						
Membranous Croup	...	...	23	13	36						
Influenza	...	...	...	1	1						
Other Miasmatic Diseases	...	...	32	35	67						
Cerebro Spinal Fever	...	...	3	2	5						
	...	...	1	2	3						
2.—Diarrhœal Diseases.											
Cholera Nostras	...	...	...	...	...						
Cholera Asiatica	...	...	...	...	...						
Diarrhœa Dysentry	...	...	92	74	166						
3.—Malarial Diseases.											
Remittent or Relapsing Fever	...	...	...	...	...						
Ague	...	...	...	...	...						
4.—Zoogenous Diseases.											
Cowpox and effects of Vaccination	...	...	...	...	...						
Other Diseases (*e.g.*, Hydrophobia, Glanders, Splenic Fever)	...	...	...	...	...						
5.—Venereal Diseases.											
Syphilis	...	1	13	8	21						
Gonorrhœa, Stricture of Urethra	...	...	3	...	3						
6. Septic Diseases.											
Erysipelas	...	...	5	3	8						
Pyæmia, Septicæmia	...	...	6	2	8						
Puerperal Fever	...	...	...	10	10						

LAMBETH BOROUGH—Deaths Registered

NOTE.—The Deaths of Non-Residents occurring in Public Institutions situated in the District are excluded, and the Deaths of Residents occurring in Public Institutions situated beyond the limits of the District are included.

	Sub-Districts.			
	Lambeth Church		Kennington.	
	M.	F.	M.	F.
II.—Parasitic Diseases.				
Thrush, and other Vegetable Parasitic Diseases	...	...	...	...
Worms, Hydatids, and other Animal Parasitic Diseases	...	...	...	...
III.—Dietetic Diseases.				
Want of Breast Milk, Starvation	...	...	1	...
Scurvy	...	...	...	...
Chronic Alcoholism	3	1	2	4
Delirium Tremens	...	...	...	...
IV —Constitutional Diseases.				
Rheumatic Fever	...	2	1	2
Rheumatism of the Heart	...	...	...	...
Rheumatism	1	...	1	1
Gout	...	...	2	1
Rickets	...	2	2	...
Cancer, Malignant Disease	22	31	20	36
Cancum Oris (Noma)	...	...	...	...
Tabes Mesenterica	1	...	4	1
Tubercular Meningitis, Hydrocephalus	10	8	5	4
Phthisis	55	36	35	33
Scrofula	...	...	...	...
Other forms of Tuberculosis	7	4	8	7
Purpura, Hæmorrhagic Diathesis	...	...	...	...
Anæmia, Chlorosis, Leucocythæmia	...	...	1	...
Glycosuria, Diabetes Mellitus	2	...	...	1
Other Constitutional Diseases	..	1	1	2
V.—Developmental Diseases.				
Premature Birth	17	18	12	8
Atelectasis	...	...	1	1
Congenital Malformations	3	9	2	2
Old Age	5	10	17	31
VI.—Local Diseases.				
1.—Diseases of Nervous System.				
Inflammation of Brain or Membranes	2	2	1	3
Apoplexy, Softening of Brain, Hemiplegia, Brain Paralysis	15	11	11	17
Insanity, General Paralysis of the Insane	6	1	6	2
Epilepsy	1	1	3	4
Convulsions	3	3	6	2
Laryngismus Stridulus (Spasm of Glottis)	...	...	...	...
Disease of Spinal Cord, Paraplegia, Paralysis Agitans	1	...	4	4
Other Diseases of Nervous System	2	7	2	2
2. Diseases of Organs of Special Sense. (*e.g.*, of Ear, Eye, Nose)	4	1	...	...

from all Causes during the year 1913—*continued.*

Sub-Districts.										Total.
Stockwell.		Brixton.		Norwood.		No Address.		All Ages.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	1	...	1
...	...	...	...	...	...	...	...	...	...	...
2	2	2	2	2	3	...	...	11	12	23
1	...	...	...	...	...	...	...	1	...	1
1	2	2	1	...	...	...	...	4	7	11
...	...	...	...	...	...	...	...	...	...	...
...	...	...	2	...	...	...	...	2	3	5
2	...	1	...	...	...	...	...	5	1	6
1	...	1	...	...	...	...	...	4	2	6
42	48	35	53	36	44	1	1	156	213	369
...	...	...	...	...	...	...	...	...	...	...
1	...	2	1	1	...	...	...	9	2	11
6	3	5	4	3	1	...	...	29	20	49
41	33	52	32	28	20	2	3	213	157	370
...	...	...	...	...	...	...	...	...	...	...
7	4	6	6	4	2	...	...	32	23	55
...	1	...	1	...	...	...	...	...	2	2
...	1	2	2	1	1	...	...	4	4	8
5	3	6	4	4	3	...	...	17	11	28
1	1	2	3	...	5	...	...	4	12	16
11	8	20	16	7	13	...	...	67	63	130
1	2	4	1	1	1	...	...	7	5	12
1	5	2	6	2	2	...	...	10	24	34
4	28	12	32	10	25	...	...	48	126	174
3	3	...	2	3	...	...	...	9	10	19
17	21	23	21	17	29	1	1	84	100	184
3	4	5	2	4	2	...	...	24	11	35
2	1	1	4	...	3	...	...	7	13	20
2	2	1	1	3	2	...	...	15	10	25
...	...	...	...	...	...	...	...	...	...	...
2	1	2	2	4	2	...	...	13	9	22
4	1	1	4	2	3	...	...	11	17	28
1	1	4	1	...	...	...	...	9	3	12

LAMBETH BOROUGH—Deaths Registered

NOTE.—The Deaths of Non-Residents occurring in Public Institutions situated in the Districts are excluded, and the Deaths of Residents occurring in Public Institutions situated beyond the limits of the District are included.

	Sub-Districts.			
	Lambeth Church.		Kennington.	
3.—DISEASES OF CIRCULATORY SYSTEM.	M.	F.	M.	F.
Pericarditis	...	...	...	...
Acute Endocarditis	2	4	...	...
Valvular Diseases of Heart	13	13	14	23
Other Diseases of Heart	13	11	12	18
Aneurism	4	...	2	2
Embolism, Thrombosis	...	...	...	4
Other Diseases of Blood Vessels	18	8	14	22
4.—DISEASES OF RESPIRATORY SYSTEM.				
Laryngitis	1	...	1	...
Croup	...	...	...	...
Emphysema, Asthma	1	...	1	5
Bronchitis	34	48	31	37
Pneumonia	11	10	17	11
Pleurisy	1	...	1	2
Bronchopneumonia	26	26	22	18
Pleuropneumonia	11	4	12	7
Other Diseases of Respiratory System	5	1	3	2
5.—DISEASES OF DIGESTIVE SYSTEM.				
Appendicitis	1	1	3	1
Dentition	2	2	1	2
Sore Throat, Quinsy	...	...	...	...
Diseases of Stomach	2	4	7	2
Enteritis	6	3	2	1
Obstructive Diseases of Intestine	2	1	2	2
Peritonitis	...	...	...	2
Ascites	...	...	...	...
Cirrhosis of Liver	10	4	5	4
Jaundice and other Diseases of Liver	1	5	1	1
Diseases of the Pancreas	...	...	...	...
Other Diseases of Digestive System	5	2	5	7
6.—DISEASES OF LYMPHATIC SYSTEM.				
(*e.g.*, of Lymphatics and of Spleen)	2	...	...	...
7.—DISEASES OF GLAND-LIKE ORGANS OF UNCERTAIN USE.				
(*e.g.*, Bronchocele, Addison's Disease)	1	...	...	...
8.—DISEASES OF URINARY SYSTEM.				
Nephritis	3	2	1	1
Bright's Disease, Albuminuria	13	12	11	8
Disease of Bladder or of Prostate	1	1	4	...
Calculus (Stone)	...	...	...	...
Other Diseases of the Urinary System	...	1	...	...
9.—DISEASES OF REPRODUCTIVE SYSTEM.				
A. *Of Organs of Generation.*				
Male Organs	...	...	...	...
Female Organs	...	2	...	1

from all Causes during the Year 1913—*continued.*

Sub-Districts.										Total.
Stockwell.		Brixton.		Norwood.		No Address.		All Ages.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
2	1	...	...	...	...	...	...	2	1	3
...	1	3	1	2	...	...	...	7	6	13
21	15	15	22	12	18	..	...	75	91	166
15	14	24	28	17	15	2	2	83	88	171
3	...	1	...	9	1	2	...	21	3	24
1	2	3	3	1	3	...	1	5	13	18
24	8	12	21	12	15	...	6	80	80	160
...	1	...	...	1	1	...	...	3	2	5
...	...	...	...	...	...	...	...	...	...	...
2	1	5	1	4	2	...	...	13	9	22
42	40	41	56	11	30	1	2	160	213	373
27	6	16	14	6	7	...	...	77	48	125
1	1	3	2	1	1	...	...	7	6	13
11	17	12	11	8	14	...	...	79	86	165
9	6	6	8	4	4	5	...	47	29	76
4	2	2	2	1	4	1	...	16	11	27
1	3	4	2	7	1	...	...	16	8	24
2	1	1	1	2	...	...	...	8	6	14
1	...	1	1	...	...	...	...	2	1	3
3	5	5	4	2	5	...	...	19	20	39
2	2	1	2	3	2	...	...	14	10	24
7	1	4	4	2	4	...	...	17	12	29
2	2	..	...	...	...	...	...	2	4	6
...	...	...	..	...	..	...	...	...	...	...
6	2	4	5	5	...	...	...	30	15	45
1	3	2	2	2	2	...	...	7	13	20
...	...	...	...	...	...	...	...	...	...	...
3	4	1	2	3	4	...	...	17	19	36
1	...	...	...	1	...	...	...	4	...	4
...	...	...	3	...	...	...	...	1	3	4
3	1	1	3	1	...	...	...	9	7	16
16	16	19	18	17	14	4	1	80	69	149
4	...	4	1	3	...	...	1	16	3	19
1	...	...	1	...	2	...	...	1	3	4
1	...	...	...	...	...	1	...	2	1	3
...	...	...	...	...	...	...	...	...	...	...
...	...	...	7	...	3	...	...	...	13	13

LAMBETH BOROUGH—Deaths Registered

NOTE.—The Deaths of Non-Residents occurring in Public Institutions occurring in Public Institutions situated beyond

	Sub-Districts.			
	Lambeth Church.		Kennington.	
	M.	F.	M.	F.
B. *Of Parturition.*				
Abortion, Miscarriage	...	...	...	...
Puerperal Convulsions	...	1	...	...
Placenta prævia, Flooding	...	...	...	...
Other Accidents of Child Birth	...	2	...	1
10.—DISEASES OF BONES AND JOINTS.				
Caries, Necrosis	...	...	...	...
Arthritis, Ostitis, Periostitis	...	2	1	...
Other Diseases of Bones and Joints ...	1	...	...	1
11.—DISEASES OF INTEGUMENTARY SYSTEM.				
Carbuncle, Phlegmon	...	1	...	2
Other Diseases of Integumentary System	1	...	...	...
VII.—Deaths from Violence.				
1.—ACCIDENT OR NEGLIGENCE.				
Fractures and Contusions	9	4	3	6
Gunshot Wounds	...	...	...	...
Cut, Stab	...	...	...	...
Burn, Scald	1	3	2	4
Poison	1	...	...	...
Drowning	4	2	2	1
Suffocation	1	1	1	3
Otherwise	12	1	2	3
2.—HOMICIDE.				
Manslaughter	...	...	...	...
Murder	...	...	...	...
3.—SUICIDE.				
Gunshot Wounds	...	...	1	...
Cut, Stab	...	...	...	1
Poison	3	1	3	...
Drowning	...	...	...	...
Hanging	2	...	...	1
Otherwise	1	1	...	...
4.—EXECUTION.				
Hanging	...	...	...	...
VIII.—Deaths from Ill-Defined and not Specified Causes.				
Dropsy	...	...	...	...
Debility, Atrophy, Inanition	10	10	12	4
Mortification	...	...	...	...
Tumour	...	...	1	...
Abscess	...	...	1	...
Hæmorrhage	...	...	...	...
Sudden Death (cause not ascertained) ...	...	...	...	...
Causes not specified, or Ill-defined ...	...	1	...	...

from all Causes during the Year 1913—*continued.*

situated in the District are excluded, and the Deaths of Residents the limits of the District are included.

Sub-Districts.										Total.
Stockwell.		Brixton.		Norwood.		No Address.		All Ages.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
...	...	...	...	...	...	...	...	...	...	...
...	1	...	...	...	...	...	...	...	2	2
...	...	...	...	...	...	...	...	...	...	...
...	2	...	2	...	1	...	...	...	8	8
...	...	1	...	...	...	...	...	1	...	1
1	1	...	...	...	...	..	...	2	3	5
...	1	...	...	...	...	...	...	1	2	3
1	1	1	1	4	...	...	...	6	5	11
2	...	1	1	2	...	...	...	6	1	7
7	3	7	5	3	1	...	1	29	20	49
...	..	...	...	...	...	...	...	...	...	...
...	...	...	1	...	...	...	...	...	1	1
1	2	1	...	1	...	...	...	6	9	15
...	1	1	...	...	...	...	...	2	1	3
5	...	1	...	1	...	...	...	13	3	16
...	3	1	1	...	...	...	...	3	8	11
6	3	6	2	7	5	...	.	33	14	47
...	...	...	...	...	...	1	...	1	...	1
...	1	...	...	...	...	...	...	...	1	1
1	...	...	...	2	...	...	...	4	...	4
1	...	1	...	1	...	...	...	3	1	4
1	1	1	2	1	1	...	...	9	5	14
1	...	1	...	1	1	...	...	3	1	4
...	...	2	...	2	...	...	...	6	1	7
1	...	1	...	...	...	...	...	3	1	4
...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...
11	9	8	4	13	7	1	...	55	34	89
...	...	...	...	...	...	...	...	...	...	...
...	...	...	2	...	...	...	...	1	2	3
1	...	...	...	...	...	...	...	2	...	2
...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...
2	1	1	...	...	...	...	...	3	2	5

LAMBETH BOROUGH.—Deaths Registered from all Causes during the Year, 1913.

NOTE.—The Deaths of Non-Residents occurring in Public Institutions situated in the District are excluded, and the Deaths of Residents occurring in Public Institutions situated beyond the limits of the District are included.

	AGES.																				Total.
	Under 1 Year.		1–2		2–5		Under 5 Years.		5–15		15–20		20–25		25–40		40–45		45–60		60–65		65 and over.		Over 5 Years.		All Ages.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
I. Specific Febrile, or Zymotic Diseases	111	84	58	38	35	35	204	157	14	10	1	1	1	3	7	11	2	5	15	6	8	6	18	25	66	67	270	224	494
II. Parasitic Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
III. Dietetic Diseases	1	...	...	...	...	...	1	...	...	...	...	...	...	...	4	3	2	...	6	7	...	...	...	2	12	12	13	12	25
IV. Constitutional Diseases	16	10	12	2	12	12	40	31	17	13	7	14	22	23	91	81	45	35	122	108	47	34	88	118	439	426	479	457	936
V. Developmental Diseases	82	87	1	2	1	...	84	89	...	1	...	...	...	...	...	...	...	...	...	1	1	1	47	125	48	129	132	218	350
VI. Local Diseases	122	119	45	28	32	11	199	165	25	24	20	12	11	7	97	90	43	38	215	171	105	87	393	493	909	922	1108	1087	2195
VII. Deaths from Violence	6	12	3	3	5	4	14	19	12	4	6	1	3	1	22	6	6	2	31	5	8	2	13	26	101	47	115	66	181
VIII. Deaths from Ill-defined and not specified Causes	52	31	3	3	1	1	56	35	1	...	...	...	...	1	2	...	...	...	1	2	1	...	...	...	5	3	61	38	99
Totals	390	343	122	83	86	70	598	496	69	52	34	29	37	35	223	191	98	80	390	300	170	130	559	789	1580	1606	2178	2102	4280
I.—Specific Febrile or Zymotic Diseases.																													
1.—Miasmatic Diseases.																													
Small-pox (Vaccinated	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Small-pox (Unvaccinated	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Small-pox (No Statement	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	10	13	32	11	14	14	56	38	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	60	38	98
Whooping Cough	13	8	4	12	2	6	19	26	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	20	27	47
Scarlet Fever	...	...	2	...	4	4	6	4	3	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	10	4	14
Typhus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Simple Continued and Ill-defined Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric or Typhoid Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria	3	1	3	3	12	4	18	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Membranous Croup	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Influenza	1	1	...	...	...	1	1	2	...	1	...	...	...	...	2	5	...	...	2	5	...	...	...	...	2	5	5	7	7
Other Miasmatic Diseases	1	...	...	...	1	...	2	...	5	4	...	...	...	...	...	...	...	...	...	...	...	...	...	1	5	5	23	13	36
Cerebro Spinal Fever	...	1	1	..	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
2.—Diarrhœal Diseases.																													
Cholera Nostras	...	...	...	...	...	...	...	...	1	2	...	...	...	...	1	2	...	...	1	2	1	...	...	...	5	3	61	38	99
Cholera Asiatica	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa Dysentry	77	54	13	11	2	5	92	70	69	52	34	29	37	35	223	191	98	80	390	300	170	130	559	789	1580	1606	2178	2102	4280
3.—Malarial Diseases.																													
Remittent or Relapsing Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ague	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4.—Zoogenous Diseases.																													
Cowpox and effects of Vaccination	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Diseases (*e.g.*, Hydrophobia, Glanders, Splenic Fever)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5.—Venereal Diseases.																													
Syphilis	5	5	2	...	...	...	7	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gonorrhœa, Stricture of Urethra	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6. Septic Diseases.																													
Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	1	2	...	2	1	6	3	13	8	21
Pyæmia, Septicæmia	1	1	1	...	...	1	2	2	...	...	...	...	...	...	...	...	1	...	1	...	1	...	...	...	3	...	3	...	3
Puerperal Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	2	...	...	2	3	...	5	3	5	3	8
	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	1	...	1	...	4	...	6	2	8
	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10	...	10	10

LAMBETH BOROUGH—Deaths Registered

NOTE.—The Deaths of Non-Residents occurring in Public Institutions situated in the District are excluded, and the Deaths of Residents occurring in Public Institutions situated beyond the limits of the District are included.

	AGES.																				Total.
	Under 1 Year.		1–2		2–5		Under 5 Years.		5–15		15–20		20–25		25–40		40–45		45–60		60–65		65 and over.		Over 5 Years.		All Ages.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M	F.	M.	F.	
II.—Parasitic Diseases.																													
Thrush, and other Vegetable Parasitic Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	..	...		...
Worms, Hydatids, and other Animal Parasitic Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
III.—Dietetic Diseases.																													
Want of Breast Milk, Starvation	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	1	...	1
Scurvy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...		...
Chronic Alcoholism	...	...	...	...	...	...	...	...	...	...	..	..	...	...	4	3	1	..	6	7	...	..	...	2	11	12	11	12	23
Delirium Tremens	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	..	...	...	...	...	...	...	1	...	1	...	1
IV.—Constitutional Diseases.																													
Rheumatic Fever	...	...	...	...	...	...	..	...	1	2	...	...	1	..	...	1	1	2	1	1	...	1	...	...	4	7	4	7	11
Rheumatism of the Heart	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	..	...	...	...	...	...		...
Rheumatism	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	..	2	1	2	3	2	3	5
Gout	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	1	1	2	...	5	1	5	1	6
Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	5	1	5	1	6
Cancer, Malignant Disease	3	1	1	1	...	...	4	2	1	...	...	...	2	6	13	3	20	53	63	28	21	65	94	156	213	156	213	369
Cancum Oris (Noma)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
Tabes Mesenterica	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
Tubercular Meningitis, Hydrocephalus	3	1	2	..	..	...	5	1	...	...	...	...	1	...	1	..	..	..	1	...	1	..	..	...	4	1	9	2	11
Phthisis	7	5	8	3	6	10	21	18	5	2	1	...	...	...	2	...	...	...	...	...	...	...	...	...	8	2	29	20	49
Scrofula	1	...	...	1	1	1	2	2	5	2	4	13	15	20	72	61	38	12	60	27	10	6	7	14	211	155	213	157	370
Other forms of Tuberculosis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
Purpura, Hæmorrhagic Diathesis	2	3	1	3	5	1	8	7	4	5	2	1	3	...	9	5	2	1	1	3	1	..	2	1	24	16	32	23	55
Anæmia, Chlorosis, Leucocythæmia	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	..	1	...	..	...	1	...	2	2
Glycosuria, Diabetes Mellitus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	1	1	2	1	4	4	4	4	8
Other Constitutional Diseases	...	...	...	...	...	...	...	...	1	1	...	..	2	1	...	1	1	..	3	4	5	...	5	4	17	11	17	11	28
V.—Developmental Diseases.									...	...	...	...	...	...	...	...	...	..	1	6	..	2	3	3	4	12	4	12	16
Premature Birth	67	63	...	...	...	...	67	63	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	67	63	130
Atelectasis	7	5	...	...	...	...	7	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	5	12
Congenital Malformations	8	19	1	2	1	...	10	21	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	10	24	34
Old Age	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	1	1	1	47	124	48	126	48	126	174
VI.—Local Diseases.																													
1.—DISEASES OF NERVOUS SYSTEM.																													
Inflammation of Brain or Membranes	2	2	...	2	3	2	5	6	2	2	1	..	...	...	1	...	...	..	.	2	..	...	...	...	4	4	9	10	19
Apoplexy, Softening of Brain, Hemiplegia, Brain Paralysis	3	...	...	...	1	...	4	...	...	...	...	..	...	...	2	2	3	1	22	17	11	14	42	66	80	100	84	100	184
Insanity, General Paralysis of the Insane	...	...	...	...	...	...	...	...	...	...	...	1	...	...	8	1	4	1	7	3	1	1	4	4	24	11	24	11	35
Epilepsy	...	...	...	...	1	...	1	...	2	...	...	..	...	...	1	2	...	1	1	6	1	1	1	2	6	13	7	13	20
Convulsions	12	8	2	2	1	...	15	10	...	...	..	...	...	...	...	..	..	..	...	..	...	..	..	...	...	...	15	10	25
Laryngismus Stridulus (Spasm of Glottis)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Disease of Spinal Cord, Paraplegia, Paralysis Agitans	...	...	...	...	...	...	..	...	...	...	...	...	...	...	2	...	...	4	1	2	1	7	5	13	9	13	9	22
Other Diseases of Nervous System	1	2	..	...	...	1	1	3	1	2	2	3	1	3	2	2	1	...	...	3	10	14	11	17	28				
2. DISEASES OF ORGANS OF SPECIAL SENSE. (e.g., of Ear, Eye, Nose)	1	1	...	...	...	...	1	1	2	...	1	1	1	...	3	...	..	...	...	1	...	...	1	...	8	2	9	3	12

from all Causes during the year 1913—*continued.*

LAMBETH BOROUGH—Deaths Registered from all Causes during the Year 1913—*continued.*

NOTE.—The Deaths of Non-Residents occurring in Public Institutions situated in the Districts are excluded, and the Deaths of Residents occurring in Public Institutions situated beyond the limits of the District are included.

	AGES.							
	Under 1 Year.		1–2		2–5		Under 5 Years.	
	M.	F.	M.	F.	M.	F.	M.	F.
3.—DISEASES OF CIRCULATORY SYSTEM.								
Pericarditis	1	...	...	...	...	...	1	...
Acute Endocarditis	...	...	...	...	...	...	...	...
Valvular Diseases of Heart	...	1	...	...	1	...	1	1
Other Diseases of Heart	...	...	...	...	...	...	...	...
Aneurism	...	...	...	...	...	...	...	...
Embolism, Thrombosis	...	...	...	...	...	...	...	...
Other Diseases of Blood Vessels	..	1	...	..	...	..	...	1
4.—DISEASES OF RESPIRATORY SYSTEM.								
Laryngitis	..	.	1	...	...	1	1	1
Croup	...	..	...	...	...	...	..	...
Emphysema, Asthma	.	...	...	...	...	...	...	...
Bronchitis	21	27	7	5	3	2	31	34
Pneumonia	7	6	2	...	4	1	13	7
Pleurisy	1	1	...	...	...	2	1	3
Bronchopneumonia	35	41	21	14	8	6	64	61
Pleuropneumonia	3	4	5	...	...	1	8	5
Other Diseases of Respiratory System	2	1	...	...	1	...	3	1
5.—DISEASES OF DIGESTIVE SYSTEM.								
Aop endicitis	...	...	...	...	...	...	...	...
Dentition	4	6	3	...	1	...	8	6
Sore Throat, Quinsy	...	...	...	...	1	...	1	...
Diseases of Stomach	5	3	...	...	2	1	7	4
Enteritis	6	4	2	2	2	1	10	7
Obstructive Diseases of Intestine	3	1	...	...	...	...	3	1
Peritonitis	...	...	...	...	...	...	...	...
Ascites	...	...	...	...	...	...	...	...
Cirrhosis of Liver	...	...	...	...	...	...	...	...
Jaundice and other Diseases of Liver	1	1	..	...	...	...	1	1
Diseases of the Pancreas	...	...	...	...	...	...	..	...
Other Diseases of Digestive System	7	7	...	3	...	...	7	10
6.—DISEASES OF LYMPHATIC SYSTEM.								
(*e.g.*, of Lymphatics and of Spleen)	1	...	...	...	1	...	2	...
7.—DISEASES OF GLAND-LIKE ORGANS OF UNCERTAIN USE.								
(*e.g.*, Bronchocele, Addison's Disease)	...	...	...	...	...	...	...	...
8.—DISEASES OF URINARY SYSTEM.								
Nephritis	2	1	...	...	1	...	3	1
Bright's Disease, Albuminuria	...	..	...	..	1	...	1	...
Disease of Bladder or of Prostate	...	..	...	...	...	...	...	...
Calculus (Stone)	...	..		...	...	...	...	...
Other Diseases of the Urinary System	...	...	...	...	...	...	...	...
9.—DISEASES OF REPRODUCTIVE SYSTEM.								
A. *Of Organs of Generation.*								
Male Organs	...	...	...	...	...	...	...	...
Female Organs	...	...	...	...	..	...	...	...

	AGES.																				Total.
	5–15		15–20		20–25		25–40		40–45		45–60		60–65		65 and over.		Over 5 Years.		All Ages.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
3.—DISEASES OF CIRCULATORY SYSTEM.																					
Pericarditis	1	...	...		...	...	...	...	...	...	...	1	...	...	...	...	1	1	2	1	3
Acute Endocarditis	1		1	...	...	...	1	4	...	1	3	...	...	...	1	1	7	6	7	6	13
Valvular Diseases of Heart	2	4	3	4	2	1	11	11	7	5	16	20	11	7	22	38	74	90	75	91	166
Other Diseases of Heart	2	1	1	2	...	...	5	6	...	3	19	15	8	15	48	46	83	88	83	88	171
Aneurism	...	...	...	..	...	...	5	...	1	...	8	2	4	...	3	1	21	3	21	3	24
Embolism, Thrombosis	...	1	.	..	...	...	...	...	...	...	1	3	2	2	2	7	5	13	5	13	18
Other Diseases of Blood Vessels	...	..	...	...	...	...	...	...	...	...	8	5	14	2	58	72	80	79	80	80	160
4.—DISEASES OF RESPIRATORY SYSTEM.																					
Laryngitis	...	1	...	...	...	...	...	...	...	...	1	...	...	...	1	...	2	1	3	2	5
Croup	...	...	...	...	...	..	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...
Emphysema, Asthma	...	...	1	...	...	1	...	...	...	...	4	4	1	...	7	4	13	9	13	9	22
Bronchitis	...	2	1	...	...	...	2	4	8	6	21	19	11	13	86	135	129	179	160	213	373
Pneumonia	1	4	1	1	3	1	9	5	2	2	16	4	10	4	22	20	64	41	77	48	125
Pleurisy	...	...	...	...	...	...	...	1	...	...	4	1	1	...	1	1	6	3	7	6	13
Bronchopneumonia	1	1	...	...	...	...	3	5	1	3	1	5	3	1	6	10	15	25	79	86	165
Pleuropneumonia	...	...	1	1	...	..	13	6	2	...	8	6	4	2	11	9	39	24	47	29	76
Other Diseases of Respiratory System	..	1	...	...	1	...	5	1	..	...	3	...	...	1	4	7	13	10	16	11	27
5.—DISEASES OF DIGESTIVE SYSTEM.																					
Aop endicitis	6	2	2	...	...	2	5	...	...	...	2	...	1	1	...	3	16	8	16	8	24
Dentition	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	8	6	14
Sore Throat, Quinsy	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	2	1	3
Diseases of Stomach	...	...	...	...	...	...	3	3	2	1	4	6	...	1	3	5	12	16	19	20	39
Enteritis	1	1	...	...	...	...	.	1	2	...	...	1	1		...	...	4	3	14	10	24
Obstructive Diseases of Intestine	...	...	...	...	...	...	...	1	2	...	4	2	...	2	8	6	14	11	17	12	29
Peritonitis	1	1	...	...	...	...	...	2	...	...	...	1	...	...	1	...	2	4	2	4	6
Ascites	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cirrhosis of Liver	...	...	...	...	...	...	1	1	1	4	21	5	2	2	5	3	30	15	30	15	45
Jaundice and other Diseases of Liver	...	...	...	...	...	...	1	1	...	...	4	4	...	2	1	5	6	12	7	13	20
Diseases of the Pancreas	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Diseases of Digestive System	2	...	1	...	...	...	1	2	...	...	3	3	...	...	3	4	10	9	17	19	36
6.—DISEASES OF LYMPHATIC SYSTEM.																					
(*e.g.*, of Lymphatics and of Spleen)	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	2	...	4	...	4
7.—DISEASES OF GLAND-LIKE ORGANS OF UNCERTAIN USE.																					
(*e.g.*, Bronchocele, Addison's Disease)	...	...	1	...	...	...	...	1	...	...	...	1	...	...	...	1	1	3	1	3	4
8.—DISEASES OF URINARY SYSTEM.																					
Nephritis	...	...	...	...	2	...	1	1	...	..	1	3	...	1	2	1	6	6	9	7	16
Bright's Disease, Albuminuria	...	...	...	1	1	...	10	6	6	5	22	21	14	12	26	24	79	69	80	69	149
Disease of Bladder or of Prostate	...	...	...	...	...	...	...	...	...	...	3	..	...	...	13	3	16	3	16	3	19
Calculus (Stone)	...	...	1	...	...	...	...	2	...	...	...	1	...	...	...	...	1	3	1	3	4
Other Diseases of the Urinary System	...	...	...	...	...	...	...	1	1	...	...	...	1	...	...	...	2	1	2	1	3
9.—DISEASES OF REPRODUCTIVE SYSTEM.																					
A. *Of Organs of Generation.*																					
Male Organs	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Female Organs	...	...	...	...	...	1	...	5	...	2	...	3	...	...	...	2	...	13	...	13	13

LAMBETH BOROUGH—Deaths Registered from all Causes during the Year 1913—*continued.*

NOTE.—The Deaths of Non-Residents occurring in Public Institutions situated in the Districts are excluded, and the Deaths of Residents occurring in Public Institutions situated beyond the limits of the District are included.

	AGES.																				Total.
	Under 1 Year.		1–2		2–5		Under 5 Years.		5–15		15–20		20–25		25–40		40–45		45–60		60–65		65 and over.		Over 5 Years.		All Ages.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
B. *Of Parturition.*																													
Abortion, Miscarriage	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Convulsions	...	...	...	...	...	...	...	...	...	...	...	..	...	...	2	...	...	...	...	...	...	...	...	2	...	2	...	2	2
Placenta prævia, Flooding	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Accidents of Child Birth	...	...	...	...	...	...	...	...	...	...	1	...	...	...	7	...	...	...	...	...	...	...	...	8	...	8	...	8	8
10.—DISEASES OF BONES AND JOINTS.																													
Caries, Necrosis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	1	...	1	1
Arthritis, Ostitis, Periostitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	..	...	1	...	1	1	1	2	2	3	5
Other Diseases of Bones and Joints ...	...	..	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	1	...	1	2	1	2	3	3
11.—DISEASES OF INTEGUMENTARY SYSTEM.																													
Carbuncle, Phlegmon	...	..	1	...	...	...	1	...	...	...	1	...	..	...	1	...	...	...	2	2	...	...	1	3	5	5	6	5	11
Other Diseases of Integumentary System	4	1	1	...	...	...	5	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	6	1	7
VII.—Deaths from Violence.																													
1.—ACCIDENT OR NEGLIGENCE.																													
Fractures and Contusions	...	1	...	...	1	...	1	1	6	...	1	...	1	...	3	...	...	...	6	1	3	...	8	18	28	19	29	20	49
Gunshot Wounds	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cut, Stab	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	1
Burn, Scald	..	...	3	3	2	3	5	6	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	3	6	9	15
Poison	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	1	2	1	2	1	3
Drowning	...	1	...	...	...	...	...	1	..	...	...	...	1	...	6	1	1	...	3	1	2	...	...	...	13	2	13	3	16
Suffocation	3	7	...	...	...	...	3	7	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3	8	11	11
Otherwise	2	2	...	...	2	1	4	3	5	2	5	1	1	1	7	2	1	..	6	...	...	2	4	3	29	11	33	14	47
2.—HOMICIDE.																													
Manslaughter	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Murder	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
3.—SUICIDE.																													
Gunshot Wounds	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	1	...	...	...	4	...	4	...	4
Cut, Stab	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	2	1	...	...	...	...	3	1	3	1	4
Poison	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	2	5	2	1	...	1	...	9	5	9	5	14
Drowning	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	1	...	...	...	..	...	3	1	3	1	4
Hanging	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	4	...	...	...	1	6	1	6	1	7	7
Otherwise	...	...	..	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	1	...	...	...	...	...	3	1	3	1	4
4.—EXECUTION.																													
Hanging	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
VIII.—Deaths from Ill-Defined and not Specified Causes.																													
Dropsy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Debility, Atrophy, Inanition	50	29	3	3	..	1	53	33	1	...	...	...	...	...	...	...	...	...	1	1	...	...	...	2	1	55	34	89	89
Mortification	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tumour	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	1	...	...	...	...	1	2	1	2	3
Abscess	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	2	...	2
Hæmorrhage	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sudden Death (cause not ascertained) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Causes not specified, or Ill-defined ...	2	2	...	...	...	...	2	2	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	3	2	5	5

SUMMARY OF TABLE.

	No. of Deaths.		Total.
	M.	F.	
I.—Specific Febrile, or Zymotic Diseases.			
1. Miasmatic Diseases	151	127	278
2. Diarrhœal ,, ...	92	74	166
3. Malarial ,, ...	—	—	—
4. Zoogenous ,, ...	—	—	—
5. Venereal ,, ...	16	8	24
6. Septic ,, ...	11	15	26
II.—Parasitic Diseases	—	—	—
III.—Dietetic Diseases	13	12	25
IV.—Constitutional Diseases ...	479	457	936
V.—Developmental Diseases ...	132	218	350
VI.—Local Diseases			
1. Diseases of Nervous System	163	170	333
2. Diseases of Organs of Special Sense	9	3	12
3. Diseases of Circulatory System	273	282	555
4. Diseases of Respiratory System	402	404	806
5. Diseases of Digestive System	132	108	240
Carried forward ...	1873	1878	3751

	No. of Deaths.		Total.
	M.	F.	
Brought forward	1873	1878	3751
VI.—Local Diseases—*continued*			
6. Diseases of Lymphatic System	4	—	4
7. Diseases of Gland-like Organs of Uncertain Use	1	3	4
8. Diseases of Urinary System ...	108	83	191
9. Diseases of Reproductive System			
(*a*) Diseases of Organs of Generation	—	13	13
(*b*) Diseases of Parturition	—	10	10
10. Diseases of Bones and Joints	4	5	9
11. Diseases of Integumentary System	12	6	18
VII.—Violence.			
1. Accident or Negligence ...	86	56	142
2. Homicide	1	1	2
3. Suicide	28	9	37
4. Execution	—	—	—
VIII.—Ill-defined and not Specified Causes	61	38	99
Total	2178	2102	4280

Metropolitan Borough of Lambeth.

REPORT ON AN OUTBREAK OF MILK-BORNE DIPHTHERIA IN UPPER NORWOOD, NOVEMBER TO DECEMBER, 1913.

Incidences of the disease.

At the end of November and the beginning of December, 1913, the numbers of notified cases of diphtheria in Upper Norwood increased beyond the average for that time of year—not only in Lambeth, but also in the neighbouring districts of Croydon, Penge, Camberwell, Lewisham, and Beckenham. 117 cases were notified, 31 inside the Borough of Lambeth and 86 outside the Borough, viz., Croydon 42, Penge 19, Camberwell 14, Lewisham 7, and Beckenham 4. 26 of the patients were secondary or "contact" cases, *i.e.*, cases occurring secondarily in, or in connection with, previously notified infected houses. Fortunately, there was only one death out of the total of 117 cases notified, whilst the type of the disease, generally speaking, was mild. Table I. gives full details of the notified cases. Further, noticeable features of the outbreak were the ages and sex of the notified patients (chiefly women) and their social standings (the infected houses being principally of the better, or even the best, class). Of the 117 patients notified, 17 were under 10 years of age (4 males and 13 females) and 100 were over 10 years of age (36 males and 64 females). 2 patients were under 5 years of age (1 male and 1 female), 18 over 40 years of age (3 males and 15 females), and 4 over 60 years of age (all females). Full details are set out in Table II. A comparatively large number of servants were infected, whilst the actual large number of adults infected is specially noteworthy.

Onsets of Attacks.

Table I. gives the dates of the onsets of the attacks in all the cases notified, and Table III. sets out the numbers of patients sickening *daily*, in the different districts, and shews that the incidence of the disease was greatest in the first two weeks in December. The *maximum* number of patients sickening on one day was 11, viz., on December 1st (9 patients having sickened on the previous day, November 30th). Arranged weekly, the growth of the outbreak is readily seen, as follows :—

	No. of cases sickening.		Per cent. of total cases.	
Week ending Nov. 23rd	2	=	1·7	
,, Nov. 30th	27	=	23·9	} 29·5
,, Dec 7th	41	=	35·1	
,, Dec. 14th	37	=	31·6	} 19·2
,, Dec. 21st	8	=	6·8	
,, Dec. 28th	2	=	1·7	
Total ...	147		100·0	

The sudden increase of cases sickening during the last week in November still further increased during the first two weeks in December and then suddenly decreased during the third and fourth weeks in December.

Channels of Infection.

The incidence of the outbreak in all the affected districts was more or less localised, and appeared to point to some factor, or factors, at work over a circumscribed area or areas.

The usual common channels, by which diphtheria is known to spread, were investigated in each notified case, *e.g.*, (*a*) contact from person to person, (*b*) school influence (day, Sunday, and dancing schools), (*c*) insanitary house conditions, and (*d*) defective drainage or sewerage areas, but no satisfactory evidence could be obtained, pointing to one or other, or all, of these usual common channels of infection being the channels through which the outbreak had spread to the various districts affected—the cases notified being not sufficiently definitely localised for channels

(*a*), (*b*) and (*c*), and too irregularly localised for channel (*d*). The more uncommon and rarer channels of infection in recorded diphtheria outbreaks were, consequently, investigated, viz.: (*a*) ordinary sore throats developing into diphtheria, (*b*) infected water supply, and (*c*) infected milk supply. Evidence was obtained of ordinary sore throats being common throughout the districts affected, but these ordinary sore throats were prevalent, too, in neighbouring districts, which were not affected with diphtheria, so that eventually this channel of infection was abandoned as a definite cause of the outbreak. Finally, the water and milk supplies came under review, and, in connection with the former (the water supply), it was decided that the outbreak was not sufficiently extensively widespread, that the cases were too irregularly localised, to warrant the water supply being suspected as the infecting cause. The milk supply, therefore, was the only probable source of infection left, after excluding all the others, and the evidence from all the affected districts appeared to point to a milk supply, or supplies, being infected, in some way or other, with the diphtheria poison. In this connection, however, there were difficulties that had to be faced at the commencement of the investigations. Assuming the existence of such an infected milk supply, or supplies, how was it

(1) That the outbreak was not more sudden in onset, of a more explosive nature, and more widespread following the milk-carts generally, in all the districts supplied with infected milk, more especially having regard to the large amount of milk distributed daily throughout the districts affected;

(2) That the outbreak did not show a more rapid rate of increase, having regard to the way in which the diphtheria bacillus grows and thrives in milk (especially raw milk) more even at comparatively low temperatures than at 37 degrees C. (98.6 degrees F.);

(3) That the incidence of the disease was practically not upon milk drinkers, being chiefly upon adults, and not upon children and invalids, who are, generally speaking, the principal milk consumers, especially children in better (or best) class houses;

(4) That better (or best) class houses, though infected (comparatively) out of proportion to others, were not more generally involved, more milk (generally uncooked) being drunk in such houses;

(5) That the infection was most irregularly distributed, Croydon, Penge and Lambeth suffering out of all proportion, and that the localisation of the infected houses was peculiarly limited in certain districts and parts of districts, *e.g.*, even certain roads, and that large areas and several large Institutions, known to be supplied with the suspected milk in the infected areas, escaped the disease?

Evidence in support of infected milk supply.

In Upper Norwood there are two large local dairies, which, for convenience, may be designated in this Report as dairies X and Y, in connection with which children of distributors of milk had been officially notified, at the end of November and beginning of December, 1913, as suffering from diphtheria. These children were removed to hospital, viz. : 2 connected with dairy Y on November 27th and 1 connected with dairy X on December 3rd, 1913, respectively. Disinfection was carried out and the work (distributing milk) of the fathers was stopped. The 3 infected children had attended Woodland Road L. C. C. School (Girls' Department), and also Christchurch Sunday School, so that it is possible that they caught the disease one from the other by personal contact, coming home from or going to school, at school, or at play, whilst it may be mentioned that, in connection with the first cases notified, viz., the 2 children of the distributor of milk from dairy Y, a local sanitary defect at the house in the living room on the first floor was discovered, viz. : a foul and defective (untrapped) sink waste, which might render the throats of the inmates of such room liable to develop diphtheria, on account of the foul air given off from such a defective appliance tending to render the throat congested and a suitable *nidus* for the diphtheria germ. The milk supplies of these children were obtained from dairies X and Y respectively, it being customary in the trade for distributors to be allowed each a certain amount of milk daily by their employers, for the use of themselves and their families.

As the cases were notified at the commencement of the outbreak, it was found, on enquiry at the notified houses, that, in all the affected districts, with few exceptions, the milk supply was the same in all, viz. : dairy X. Investigations were made, consequently, in connection therewith, including enquiries into the conditions of

(1) The farms and other wholesale sources (*e.g.*, creameries and milk factories), from which the milk supplies of dairy X were drawn, including general sanitation, water supply, the cows and the employees;*

(2) The dairy X, from which the milk, obtained from the farms and other wholesale sources,* was distributed into the various affected districts, including general sanitation, water supply and the employees, especially the distributors and their particular "rounds," in connection with which they were engaged (as shewn by the books) in distributing milk from house to house at the time of, and before the outbreak.

The work involved was considerable, and much patience was required in following up every hint or clue as to a possible or probable channel or channels of infection, to arrive at the ultimate truth. This was due to the fact that the milk trade in any large town, and especially so in London, is complex, having many ramifications, and an intimate knowledge of such trade became, therefore, a first necessity—not only the milk trade as a whole, but also the particular milk trade of dairy X. In these and similar investigations, no fact is too trivial to be neglected, but on the other hand, great care must be taken to prevent official action being drawn to side issues or on "false scents."

Bacteriological examinations were also carried out in great numbers.

1. *The Farms and other Wholesale Sources of Milk.*

All the milk received from the farms and other wholesale sources (creameries and milk factories) is *practically* mixed together at dairy X before distribution.

* Including nursery milk supplied from 21 cows belonging to Dairy X (*vide* p. 40).

For this purpose, there are 3 mixing drums, holding 100, 50 and 50 gallons respectively, and into these drums the different milks, received at Gipsy Hill Railway Station from farms and other wholesale sources, are poured and mixed together in the mixing room at the back of the dairy, the object of the mixing being to secure an uniformity of composition of milk before distribution. The milk, mixed separately in the 3 drums, is not afterwards mixed together as a whole, but is poured into the churns for distribution from each drum when mixed. The separate drums used receive different milks daily, and the mixed milk in the different drums is distributed to different districts daily. There is no uniformity of mixing and no uniformity of distribution of particular milk to particular districts. In this way, no milk from an individual farm, or farms, or other wholesale source, or sources, would be likely to be distributed in any one particular district or districts, from day to day, or from week to week. On the contrary, all the districts would be supplied differently daily from different farms or other wholesale sources. This is an important consideration in connection with the outbreak, and hence it is that the milk is described above as being *practically* all mixed together before final distribution amongst consumers.

In addition to the milk received from the farms and other wholesale sources, nursery milk is supplied separately from special cows, pastured in the open in the neighbourhood during 9 months of the year and stalled for the remaining 3 months in cowsheds (licensed for 44 cows) at the rear of the dairy X—a total of 21 cows (14 Jerseys, 1 Guernsey, 3 shorthorns and 3 cross-breds). Inspection shewed that these cows were sanitarily housed and pastured, and veterinary examination proved that the cows themselves were in a good state of health at the time of the outbreak.

The farms are 18 in number—5 in Surrey and 13 in Sussex, and the creameries and milk factories 3 in number, The creameries and milk factories draw their supplies of milk from farms in Dorsetshire, Wiltshire, Buckinghamshire, Somersetshire, and Staffordshire. Investigations were conducted at all these Farms and other Wholesale Sources, situated outside the Borough

of Lambeth, through the County Medical Officers of Health, Veterinary Inspectors, Analysts and others concerned, and Table IV. gives the results. The farms are designated by the letters A to R, and the creameries or milk factories by the Roman numerals I. to III. respectively.

The infected farm was finally discovered in Sussex (Farm G), where several cows were found to be ill, two with mastitis, giving milk unfit for use, and others with teat eruptions, and several milkers with sores on their hands, and one cowman (also a milker) with an ulcerated finger. The facts in regard to the last-mentioned (the cowman) are specially interesting and noteworthy (*see Table* VI.).

On further investigation, this cowman, who also acted as a milker, was found to be suffering from an indolent ulcer on the back of one of his fingers the wound having commenced apparently with a scratch received from a thorn about 15th September, 1913, becoming ulcerated at the end of November, and remaining so until the end of December, when the finger, being a hindrance to the cowman's work (milking), was amputated on December 27th, 1913. The medical man in attendance suspected tuberculosis or a malignant growth, but bacteriological examinations of the amputated finger showed that the ulcer was simply of an inflammatory nature, probably of long-standing. Cell débris, micrococci, staphylococci, dense leucocytic infiltration and fibrous induration were noted on examination microscopically, but the ulcer was found, on bacteriological examination, to be infected, also with organisms indistinguishable culturally from true diphtheria (Klebs-Lœffler) bacilli, which proved, on further examination, to be virulent, *i.e.*, pathogenic to animals, as shown by inoculation experiments carried out on guinea pigs. There was no evidence found of tubercule, syphilis or malignant growth. It was found, further, that, prior to having his finger amputated, the cowman had been at work assisting in milking the cows, with the ulcer present upon his finger and simply wrapped round with rag or bandage. The ulcer was, therefore, diphtheria-infected and capable of adding germs to the milk and, by inoculation, transferring them to the cows and, through the cows, to the other milkers, one of whom

was also found afterwards, on bacteriological examination, to be infected in a sore on his hand with the true diphtheria (Klebs-Lœffler) bacillus. If the cowman infected the cows, he may have contracted the diphtheria in his ulcer from his own throat, or nose, during the well-known habit of milkers of spitting upon their hands prior to starting milking, though, in this connection, no true diphtheria (Klebs-Lœffler), nor any other suspected, bacilli, were obtained therefrom, on examination. If the view of the cowman's ulcer, being infected directly from the cowman be correct, the source of his diphtheria remains obscure, as no cases of that disease, nor of sore throat, were known officially in connection with the particular farm, or in connection with the particular neighbourhood. An alternative explanation is that the cows infected the cowman and the other milkers by inoculation, but there was no direct evidence to shew that the cows' mastitis or teat eruptions were diphtheria-infected, the teat sores being dried up and scaled and giving no results, on bacteriological examination.

Whichever of these views be true, the interest is purely scientific, and the conclusions drawn in this Report, are in no way affected. In any case, it is practically certain, from information received locally, that the cowman's ulcerated finger was infectious (diphtheria-infected) from about the last week in November up to the date of the amputation, viz.: December 27th, 1913, and that during that time infected milk was being sent from the farm G to the dairy X, for distribution into the different districts supplied. The milk from farm G was under contract—75 to 90 imperial gallons daily. Taking the dates of onsets of the diphtheria in the notified patients (Table III.) it will be noticed that the infection began to spread during the last week in November and continued during the first two weeks in December, when it suddenly ceased, coincidently with the whole of the milk, supplied from the suspected dairy X, being pasteurised (not less than a temperature of 180 degrees F.), before distribution to the public, as a *temporary* preventive measure, which was ordered by the Medical Officer of Health, pending investigations as to the actual source or sources of infection being completed and the necessary *permanent* preventive measures being taken. The wisdom of this *temporary* preventive measure cannot be gainsaid, no further case of diphtheria being notified afterwards, *i.e.*, no case that

could be definitely traced to infected milk from farm G through the dairy X, in any of the districts previously affected, though a few cases were notified during the last two weeks in December (*vide pages* 50-53 *and Table* III.).

Between the last week of November and the end of December, diphtheria-infected milk from farm G was being distributed in Lambeth Borough and in the surrounding districts—the infection being added, in greater or lesser quantity, daily or even twice *daily, i.e.*, at each milking, by the infected cowman. There was a systematic poisoning of the milk day by day for about 5 weeks. It is difficult to understand why more cases of diphtheria were not notified, why the outbreak was not wider spread, more especially having regard to the fact that raw milk, at ordinary temperatures, is a suitable *nidus* for the multiplication of diphtheria bacilli, and that such germs grow and thrive more at comparatively low temperatures than at 37 degrees C. (98.6 degrees F.), *i.e.*, at such low atmospheric temperatures as obtained during November and December. Further, the milk population supplied daily from the suspected dairy X numbered not less than 10,000 persons.

This limitation of the outbreak is still more difficult to understand in view of the fact that more or less mixing of the milks from all the farms and other wholesale sources took place at dairy X prior to distribution, so that the infected milk from farm G would get mixed with the non-infected milks from elsewhere before distribution. The infected milk from farm G was certainly not sent to one or two particular districts only. It is probable that only few (comparatively) of the diphtheria bacilli, or a small amount of toxin, gained access to the milk during the milking process, owing to the ulcer being bound up with rag or bandage, which kept back or filtered the bacilli or toxin, and, in addition, being situated on the back of the finger. Probably on this account, and owing to the vehicle being milk, and the fact that other commoner germs, such as staphylococci and streptococci, crowded out or tended to crowd out the diphtheria germs, the latter bacillus or the toxin was attenuated and of such a mild type of virulence when distributed in the milk to customers as to cause corresponding mild attacks of

the disease in those affected (many even escaping infection altogether), and so mild, indeed, that probably, many patients were not even notified officially, but were treated simply as ordinary sore throats, of which there had been many reported cases in the districts affected with diphtheria as well as in other districts not affected with diphtheria. In this connection, the exceedingly low mortality (only one death amongst the 117 diphtheria patients notified) is noteworthy, as is also the extreme mildness of the attacks in the majority of the patients treated.

It may be added that, sanitarily, farm G was also found, on inspection, to be unsatisfactory. the water supply being also reported by the Analyst as unfit for dairy purposes, being pond water containing a large amount of organic matter.

The milk supply from farm G was stopped as soon as the evidence of infection was satisfactorily proved—the farmer's milk contract being suspended. In such a case, naturally, strong evidence is required before extreme official action is taken, such as the stoppage of a milk supply from being brought into a particular district, or districts.

2. *The Dairy X and the Distributors of Milk.*

The dairy X is a model dairy, both as to construction and as to design and its sanitation and general management are up-to-date. The buildings consist of the dairy proper and shop with offices and residence attached, whilst, at the rear, there are a large mixing room, a butter store, a general washing shed, stables and cow sheds, together with a large paved yard (partly covered), where the milk carts and "prams" (or perambulators) are drawn up for the purpose of being loaded with milk in churns, etc. In the mixing room, at the rear, there is a model pasteurising plant.

The employees connected with the dairy at the time of the outbreak consisted of 22 regular distributors, 3 "odd" men helping the regular distributors, 1 station man (carting the milk in churns from the station to the

dairy), 3 stablemen, 2 pasteurisers and dairymen, 2 cowmen, 4 office staff, 3 helpers in the shop, and 1 cook and 1 housemaid (attending upon the proprietors). For the purposes of this Report, the regular distributors are designated by their numbers, viz., 1 to 22, and the 3 "odd" men by their initials, viz., "odd" men E.F., W.K. and S.J.A. respectively. The distribution of the milk was by means of churns carried in (*a*) hand prams or perambulators, and (*b*) horse carts—regular distributors Nos. 1, 2, 3, 4, 9, 11, 13, 15, 16, 17, 18, 19, 20, 21 using the former, and regular distributors Nos. 5, 6, 7, 8, 10, 12, 14 and 22, and "odd" man S.J.A. the latter. There were, also, the usual bottles and cans in use. The ordinary rounds are made in the mornings and afternoons, and the so-called "pudding" rounds between 10 and 11 a.m. The ordinary rounds do not tally with the "pudding" rounds, some distributors taking the "pudding" rounds in an area or areas (or parts thereof) outside their ordinary rounds, whilst the "odd" man, S.J.A., had a special "pudding" round in parts of Beckenham, Lewisham, Camberwell and Penge (but not in Croydon, nor in Lambeth) and the other "odd" men assisted the regular distributors as follow:—

"Odd" Men.	Distributors Assisted.		
	Ordinary Rounds.		"Pudding" Rounds.
	Morning.	Afternoon.	
E.F.	No. 4	No. 9	"Odd" Man S.J.A.
W.K.	—	—	No. 12.

*N.B.—"Odd" man S.J.A., who had a special "pudding" round of his own, was assisted by "odd" man E.F.

In addition, as occasion required, "odd" man E.F. was accustomed to take butter or milk into any district, using for that purpose a bicycle.

These complicated arrangements in connection with the different rounds or distribution areas made the investigations into the cause or causes of the outbreak all the more difficult.

The *average* amount of milk dealt with daily is large—3,047 quarts, or 762 gallons, being distributed to 2,529 houses, representing a milk population of not less than 10,000 individual consumers of milk (in greater or lesser amounts).

Table I. gives not only particulars of the notified cases (age, sex, address, date of onset, etc.), but shews also the ordinary and "pudding" rounds of the various distributors (regular and "odd" men) in connection with such cases, before, at the time of, and during, the outbreak.

Dividing the total 117 notified cases of diphtheria amongst the 25 distributors (both regular and "odd" men) according to their milk rounds (both ordinary and "pudding"), the numbers for each individual distributor were found to vary within wide ranges, as follow, the total being, of course, double the notified cases, viz., 234, on account of the double daily rounds:—

Distributors.	Milk Rounds.			Distributors.	Milk Rounds.		
Regular.	Ordinary	"Pudding."	Total.	Regular.	Ordinary	"Pudding."	Total.
No.							
1	2	8*	10				
2	5	10*	15	15	2	7*	9
3	4	6*	10	16	5	—	5
4	2	—	2	17	2	—	2
5	3	—	3	18	2	—	2
6	9	—	9	19	4	31*	35
7	10	—	10	20	5	3*	8
8	15	—	15	21	2	—	2
9	9	14*	23	22	3	—	3
10	8	—	8	'Odd' men.			
11	11	—	11	S.J.A.†	—	24*	24
12	12	14*	26	E.F.	11	24*	35
13	2	—	2				
14	—	—	—	W.K.	—	14*	14

* Of the "pudding" rounds, the following houses are doubtful, *i.e.*, the distributors did not actually call at the infected houses, but passed down the roads, or near to, daily:—No. 1—8, No. 2—2, No. 3—2, No. 9—11, No. 12—6, No. 15—6, No. 19—20, No. 20—2, "odd" man S.J.A.—18, "odd" man E.F.—18, and "odd" man W.K.—6.

† "Odd" man S.J.A. has a special "pudding" round.

N.B.—"Odd" man E.F. assists *daily* "odd" man S.J.A. on his special "pudding" round, and regular distributors Nos. 4 and 9 on their ordinary rounds (morning and afternoon respectively). "Odd" man W.K. assists

daily regular distributor No. 12 on his "pudding" round. The numbers opposite the "odd" men E.F. and W.K., are repetitions, being given also opposite regular distributors Nos. 4, 9, 12 and "odd" man S.J.A. respectively.

From this summary it will be noted that 5 of the distributors had each more than 20 infected customers (*i.e.*, notified cases) on their rounds, viz., regular distributors Nos. 9, 12 and 19, and "odd" men S.J.A. and E.F. In other words, 5 of the distributors appeared to be common to several of the infected districts, and these 5 distributors are noted in leaded type in Table I. As "odd" man E.F. assists regular distributor No. 9, and "odd man" S.J.A., it is probable that he was the cause of the *apparent* increased number of infected customers (*i.e.*, notified cases) on their rounds, especially so as "odd" man E.F. showed, on bacteriological examination, the presence of the bacillus diphtheroides in his throat, whereas regular distributor No. 9 and "odd" man S.J.A. proved *negative* to examination. Regular distributors Nos. 12 and 19 showed the bacillus diphtheroides in their throats (No. 19, the Klebs-Lœffler bacillus also). Fuller bacteriological details will be found under the heading "bacteriological results connected with the employees of dairy X" (*vide pages* 52-55).

The 3 suspected distributors, therefore, were regular distributors Nos. 12 and 19 and "odd" man E.F. Analysing the figures more in detail, it will be seen that it was the "pudding" rounds that were chiefly affected. These "pudding" rounds would offer more chances of contact infection between the distributors and their customers or of special localised infection of a pail, from which such customers would be served, than would be the case in the ordinary rounds, which are chiefly bottle or can trade, separate bottles and cans (often sealed) being frequently used. On theoretical grounds, this would be so, and in actual practice there was evidence which seemed to point to a special localisation of cases in particular roads in connection with the special rounds or distributing areas suspected. Taking only notified cases about which the evidence of being supplied (either

on the ordinary or "pudding" rounds, or on both) by one or other of the suspected distributors was definite, it was found that special roads were infected as follow :—

Distributors.	Notified cases of Diphtheria and the Milk Rounds in connection with which they occurred. Ordinary.	"Pudding."	Total.	Notified cases showing special localisation in certain roads (numbers of cases in brackets).
No. 12	12	8	20	Belvedere Road (6) Hamlet Road (2) Sylvan Road (3)
No. 19	4	11	15	Beulah Hill (5) Church Road (4) Harold Road (5)
No. 9 "Odd" man E.F.	11	6	17	Central Hill (5) College Road (2) Crystal Palace and Laurie Park Roads (2) Essex Road (3)

The above figures are based on cases about which the evidence was satisfactory as to the infected houses having been served by the distributors named. There was also evidence (much less satisfactory) that, in addition, 24 other notified cases might be connected with the "pudding" rounds of regular distributors Nos. 12 and 19 (6 and 20 cases respectively) and "odd" man E.F. (12 cases), it being possible for such distributors to have supplied *occasionally* milk on emergency to the infected houses.

The following further details are noteworthy :—

1. Of the 20 infected persons (notified cases) connected with the rounds of regular distributor No. 12, 8 occurred in houses at which he called *daily* (all "pudding" rounds), and the other 12 in houses at which there was a history of his having called, but *not daily;*

2. Of the 15 infected persons (notified cases) connected with the rounds of regular distributor No. 19, 11 occurred in houses at which he called *daily* (all "pudding" rounds), and the other 4 in houses at which there was a history of his having called, but *not daily;*

3. Of the 17 infected persons (notified cases) connected with the rounds of "odd" man E.F., 6 occurred in houses at which he called *daily* (all "pudding" rounds), and the other 11 in houses at which there was a history of his having called, but *not daily;*

4. Taking the middle of Church Road as a centre, 55 of the total notified cases (117), *i.e.*, 47 per cent., occurred within a radius of half-a-mile; and, taking an area about half-a-mile square, bounded by Central and Beulah Hills and Church and Hermitage Roads, respectively, 28 of the total notified Croydon cases (42), *i.e.*, 66.6 per cent., occurred therein, this being, practically, the area supplied with milk by regular distributor No. 19.

What was the cause of the particular grouping of cases, specially in the Croydon and Penge areas?

The bacteriological results obtained in connection with the suspected distributors are instructive, and may afford the necessary explanation, at least in part:—

The results were as follow:—

Distributors.	Bacillus isolated
No. 12	... *b* Diphtheroides (doubtful diphtheria).
No. 19	... *b* Klebs Lœffleri (true diphtheria) and *b* diphtheroides (doubtful diphtheria).
"Odd" Man E.F....	... *b* Diphtheroides (doubtful diphtheria).

The bacillus diphtheroides is regarded as a modified and attenuated form of the true Klebs-Lœffler diphtheria bacillus, so that regular distributor No. 19, was an *actual* "carrier," and regular distributor No. 12 and "odd" man E.F. were *probable* "carriers" of diphtheria germs, at least to some extent.

Regular distributor No. 9 and "odd" men S.J.A. and W.K. proved *negative* to bacteriological examination, but these negative results must be read in conjunction with the *positive* result (bacillus diphtheroides) obtained from "odd" man E. F., who might have been, in that

way, as already suggested, the connecting link, seeing that he assisted both regular distributor No. 9 and "odd" man S.J.A. For fuller particulars, reference must be made to the heading "Bacteriological Results connected with the employees of dairy X" (*vide pages* 52-55).

It may be mentioned that regular distributors Nos. 1 and 2 shewed a similar tendency (but not so marked) to special localisation in certain roads or small areas, viz., distributor No. 1 in Alexandra Road (5 cases), and distributor No. 2 in Alleyn Park (5 cases), and Camden Hill Road (3 cases) respectively. The facts in connection with these two distributors are interesting. Distributor No. 1 had his child removed to hospital suffering from diphtheria on December 3rd, 1913, and his work (distributing milk) was stopped the same day. He had, however, been distributing milk between the time when his child sickened on November 29th, 1913, and the date when diphtheria was diagnosed, and the child removed to hospital (viz., on December 3rd, 1913). A total of 8 cases of diphtheria were notified in houses on his round, and, of these 8 cases, 5 occurred in one road (Alexandra Road), the dates of onsets of the attacks being December 1st, 2nd, 3rd, 4th, 7th, 9th, 10th and 12th (the last 3 being secondary cases), pointing to this distributor being probably a "carrier" from his own child from November 29th to December 3rd, but the cases ceased in this particular distributor's round when his work of distributing milk was stopped, although the farm infection (farm G) must have still continued, its source not having been, at that time, discovered.

Regular distributor No. 2 lived in the same house as regular distributor No. 19, but they had separate and distinct rounds or distribution areas. 15 cases were notified in connection with the round of regular distributor No. 2—5 on the ordinary and 10 on the "pudding" round—and, of these 15 cases, 8 occurred in two roads (Alleyn Park and Camden Hill Road), the dates of onsets of the attacks being November 21st, 25th, 27th, 29th, 29th, December 1st, 6th, 6th, 6th, 7th, 8th, 9th, 15th, 17th and 30th respectively.

Bacteriological examinations of regular distributors Nos. 1 and 2 showed the presence of the bacillus

diphtheroides and the bacillus Klebs-Lœffleri in the latter (No. 2) and the bacillus Hofmanni in the former (No. 1).

The peculiar localisation of these cases appears to point to a sort of contact infection between distributor and consumer, or what may be termed a limited milk can or milk pail infection as opposed to a general milk supply infection, when the localisation is more general, following practically the milk carts. These specially localised cases cannot be satisfactorily explained on the theory of farm infection alone, but can on that of farm infection as modified by contact infection (can or pail). Diphtheria-infected farm milk was sent to the dairy X, and distributed therefrom over wide areas, giving rise to cases of diphtheria in many different districts, but more or less sporadic cases, amongst the consumers of the milk. Amongst the consumers were the milk distributors, some of whom, in their turns, appear to have caused crops of cases in specially localised centres (special roads) by contact infection or milk can or milk pail infection, almost house to house infection, through distributors who were "carriers." It is somewhat difficult to allocate exactly and definitely the parts played by these two separate and distinct infecting agents.

The farm infection closed with the pasteurising of the milk, and the "carrier" infection with the stopping of the distributors from work, but, as the pasteurising of the milk was commenced on a date prior to the suspected distributors being definitely proved to be "carriers" and consequently stopped from work, these two preventive measures overlapped in their beneficial effects. A few cases, however, might be expected to occur after pasteurisation from the "carrier" infection, which, if present, would have continued during the time that elapsed between the pasteurisation of the milk being commenced and the distributors' work being stopped. On theoretical grounds this should be so, and a few of the late cases notified can, perhaps, be satisfactorily accounted for on that assumption. Pasteurisation appears to have overshadowed in its beneficial effects the beneficial effects that might have resulted from the stopping of the suspected distributors' work.

The infected farm milk infected certain of the distributors, viz., regular distributors 12 and 19 and "odd" man E.F., whilst regular distributor No. 19 probably infected No. 2 (with whom he lived in the same house) and regular distributor No. 1 was probably infected from his own child, who sickened with the disease on November 29th, and was notified and removed to Hospital on December 3rd, 1913, the father's work being stopped on the same day.

The incubation period is shorter in milk diphtheria than in other kinds, varying from a few hours to a few days (average 3 days), so that, in drawing conclusions from the dates of onsets, this fact must be borne in mind.

Farm infection ceased when pasteurisation of the milk commenced (December 12th), and, allowing the average incubation period of three days, any patients sickening with diphtheria after December 15th, could not be farm infected, provided, of course, the pasteurisation was efficiently carried out, and there was no reason for supposing that such was not done, the pasteurising plant being a modern one and carefully worked. Dealing with the "carrier" infection in the same way, and allowing the same *average* incubation period for milk diphtheria, such infection would continue until December 21st for regular distributors Nos. 12 and 19 and for "odd" man E.F., and until December 26th for regular distributor No. 2, according to the dates when their work was stopped, so that between December 12th (pasteurisation commenced) and December 18th and 23rd (dates of stoppage of distributors' work), new patients might be expected to sicken. In connection with the rounds of regular distributor No. 1 the "carrier" infection (if any) from him would cease on December 6th, *i.e.*, 3 days after his ceasing from work. Let the facts speak for themselves in the following summary :—

Distributors as "Carriers."	Dates of stoppage of work.	Patients notified as having sickened outside the periods of farm infection.	Dates of onsets of attacks.
No. 1	Dec. 3 ...	0	—
No. 2	Dec. 23 ...	2	Dec. 17 Dec. 30
No. 12	Dec. 18 ...	1	Dec. 16
No. 19	Dec. 18 ...	2	Dec. 16* Dec. 16*
"Odd" man E.F.	Dec. 18 ...	4	Dec. 17 Dec. 18* Dec. 21* Dec. 26

*Cases previously notified in the houses.

N.B.—Pasteurisation commenced December 12th.

It will be noted that there are 2 cases, that sickened on December 26th and December 30th, 1913, respectively, that do not appear to fit in with the theory of a "carrier" infection, though these cases may be explained on a basis of a longer incubation period than 3 days, or of an error of observation as to the exact dates of onset. The remaining 7 cases contain 4 secondary cases, leaving 3 to be explained by "carrier" infection, the dates of onset being December 16th, December 17th, and December 18th respectively.

These figures do not prove anything very satisfactorily but, in this connection, it must be remembered (1) that the pasteurisation of all farm infected milk prior to its distribution, on and from December 12th, was a very radical measure, and (2) that pasteurised milk is less likely to become infected, the diphtheria bacillus tending to die or become inoperative in such a medium.

Bacteriological Results connected with the employees of Dairy X.

A large number of bacteriological examinations was carried out in connection with the outbreak. The whole of the employees and the proprietors of the suspected

dairy X were examined, some of them on several occasions, and the results obtained were as follow:—

Persons examined.	*Bacilli found.*
1—Distributors.	
(a) *Regular.*	
Nos. 2 and 19 ...	(1) *b* Klebs Lœffleri; (2) b, Diphtheroides; (3 b, Streptococcus; (4) b, Staphylococcus.
No. 12	(1) *b* Diphtheroides; (2) b, Streptococcus; (3) b, Staphylococcus; (4) Torula.
Nos. 1, 4, 5 and 9...	(1) *b* Hoffmanni; (2) b, Streptococcus; (3) b, Staphylococcus.
Nos. 8, 14, 15, 16, 18, 21, 22 ...	(1) *b* Staphylococcus.
No. 17	(1) *b* Staphylococcus; (2) Torula.
No, 10	... (1) *b* Streptococcus.
Nos. 3, 6, 7, 11, 13, 20	(1) *b* Streptococcus; (2) *b* Staphylococcus.
(b) "*Odd*" *Men.*	
E.F.	(1) *b* Diphtheroides; (2) b, Streptococcus; (3) b, Staphylococcus.
S.J.A.	(1) *b* Staphylococcus: (2) Torula.
W.K.	... (1) *b* Staphylococcus.

2—Proprietors' House (Inmates).

One proprietor shewed bacillus Hofmanni, bacillus streptococcus and bacillus staphylococcus in his throat and nose, the other inmates (including the cook and housemaid) shewing bacillus staphylococcus or bacillus streptococcus and bacillus staphylococcus.

3—Stablemen.

T.S.	(1) *b* Mesentericus; (2) *b* Staphylococcus.
T.L. and F.G. ...	(1) *b* Staphylococcus; (2) *b* Streptococcus.

4—OTHERS.

Bacillus staphylococcus was found in connection with the following other employees, viz., 1 station man (calling for the milk), 2 pasteurisers and dairymen, 2 cowmen, 4 office staff and 2 shop staff, whilst the extra employee engaged in the shop temporarily shewed the presence in her throat of the bacillus staphylococcus and the bacillus streptococcus.

The bacillus Hoffmanni is, in this Report, regarded as a distinct organism unconnected with the bacillus Klebs-Lœffleri (true diphtheria), though some bacteriologists regard it as a sign or evidence of contact with true diphtheria. The bacillus diphtheroides is, however, in this Report, regarded as a modified or attenuated form of the bacillus Klebs-Lœffleri (true diphtheria), a changed type or variant, the one form developing into the other under certain conditions. If this be the correct view, the bacteriological results obtained in connection with the outbreak are significant, as shewing that, whilst regular distributors Nos. 2 and 19 were *actual* "carriers" of the diphtheria germ, regular distributor No. 12 and "odd" man E.F., were *probable* "carriers" of the same germ (modified and attenuated as the effect of time). It will be noted that the bacillus staphylococcus and the bacillus streptococcus were also found in these distributors as also in many others of the employees, pointing to the diphtheria infected farm milk being also, probably, pus contaminated and dirty—a condition to be expected from the ulcerated finger of the cowman, and also having regard to the unsatisfactory state of the farm G and its unwholesome water supply as found on inspection.

The work of all employees connected with the dairy X, who shewed, on examination, suspicious germs, was stopped.

Milk is a favourable *nidus* for the development of the diphtheria bacillus, which lives and multiplies therein more at comparatively low temperatures than at 37 degrees C. (98.6 degrees F.), but so do the commoner organisms and much more rapidly, thereby tending to crowd out the diphtheria germs. The presence of the bacilli streptococcus and staphylococcus in large numbers in the majority of cases examined lends support to such having been the case in the present outbreak.

The conclusions to be drawn from the bacteriological results connected with the distributors may be summarised as follow :—

1. Regular distributors Nos. 2 and 19 were "carriers" (actual);

2. Regular distributor No. 12 and "odd" man E.F. were "carriers" (probable).

Full particulars as to the farm infection and the bacteriological results in connection therewith will be found on pages 41 and 42 and Table VI.

4. *School Influence.*

Enquiries made as to any school influence, or influences, at work in connection with the outbreak proved negative, though, at one time, it was thought that a private school in Lewisham and a dancing academy in Anerley were acting, in some way, at least as contributory causes, several Lambeth patients attending there prior to being notified as suffering from diphtheria. The Medical Officers of the districts concerned made enquiries, but failed to discover anything suspicious, so that these two sources of infection were discarded as even probable contributory causes.

9 of the Lambeth cases were connected with the London County Council schools, as follows: Woodland Road 5, Gipsy Road 2, Salter's Hill 1, Eden Road (Wesleyan) 1; 4 with the Lewisham private school; 1 with the Dulwich College Preparatory; 1 with a College at Kensington, and 3 with private Lambeth schools. The Lambeth schools, as a whole, however, did not appear, upon investigation, to have caused any part of the milk borne outbreak, and, in the other districts affected by the outbreak, the same was found to be true of the schools there. These decisions were come to only after careful investigation and enquiry, as it is now generally recognised that school influence is often at work in

causing, or assisting in causing, a diphtheria outbreak owing to mild or "carrier" cases of the disease being unrecognised amongst the scholars.

It may be noted, however, that the earliest notified Lambeth case (the children of a distributor of dairy Y) attended Woodland Road L.C.C. school, in the same girls' department as another Lambeth case (the child of a distributor of dairy X), and there was evidence pointing to the probability of these cases being connected, the latter arising from the former.

SUMMARY.

A.—Facts in favour of an ordinary infected milk supply—

(1) Incidence as regards (*a*) social position of persons notified, and (*b*) class of houses infected.

(2) Slightness of virulence of diphtheria poison, as shewn by (*a*) mildness of cases treated and lessened (practically absent) mortality (1 death only), and (*b*) lessened contagiousness of the disease (only 117 notified cases reported out of a total of not less than 10,000 milk consumers).

(3) Outbreak of ordinary "sore throat" in the area affected, *i.e.*, within the area of the diphtheria prevalence, before and during the outbreak.

(4) Infection operative (*a*) during limited time, and (*b*) with rapidity of decline.

N.B.—The rapidity of decline of the infection may be due to the pasteurisation of the infected milk, prior to its distribution on and from December 12th, 1913.

B.—Facts against an ordinary infected milk supply—

(1) Local incidence not following exactly the milk carts or churns.

(2) No particular incidence on milk drinkers, *i.e.*, no special milk age- and sex-incidence, children being specially exempt.

N.B.—The children may have escaped owing to the custom in better class houses of cooking milk that is to be consumed by them, or it may be that they consumed nursery milk from the cows belonging to dairy X, this nursery milk being unmixed with the ordinary farm milks.

(3) No sudden outburst of cases.

(4) Notified patients scattered over widely-different parts of the districts, and many districts and large institutions, known to be supplied with infected milk from the dairy X, exempt.

Conclusions.

From the above facts, it will be seen that the outbreak was somewhat peculiar and did not follow the usual lines of an ordinary milk outbreak of diphtheria. It is probable that there was some other factor at work beyond the infected milk supplied from the infected farm G, causing the peculiar variation in the localisation of the disease throughout the different districts, and this factor appears from the evidence to be certain infected distributors of milk, who proved, on bacteriological examination, to be "carriers" of diphtheria. In any case, there can be little or no doubt as to the effect of distributor No. 19, who was an *actual* "carrier," having assisted in causing the increased local incidence in Croydon, in the area bounded by Central and Beulah Hills and Church and Hermitage Roads—an area containing 28 of the total cases (42) notified in that district, *i.e.*, 66.6 per cent. There is evidence also that "carriers" Nos. 2 and 12 and "odd" man E.F. may have exercised a somewhat similar influence, though to a less marked extent, in other districts. Though the factor of the infected farm G is proved, the result of the infection during the outbreak is undoubtedly peculiar and anomalous in another way, viz., in the slightness of the virulence of the poison when distributed through the milk, causing the disease to spread in an exceedingly mild form as well as irregularly throughout

the various districts supplied, some districts of large areas and several large institutions, as already stated, even escaping altogether. Admitting then, the factor of the infected farm G, it may be stated that the other factor, working through the distributors, who were "carriers," showed itself in a special localisation of cases in certain very small areas, *e.g.*, separate roads. That both factors were at work, in some areas, there can be little doubt, and the details of the outbreak are, consequently, of interest epidemiologically and otherwise. It is true that the "carrier" infection takes a secondary and subordinate place in the causes of the outbreak, but, for a complete understanding of the whole of the details, it must be considered and allowed for. Idiosyncracy and susceptibility of patients, too, may have played their parts.

The dates of onsets of the attacks in the notified patients, set out in Table I., are interesting in connection with both the farm infection (commencing about the last week in November) and the "carrier" infection (commencing about the same time). These infections continued at work until the third week in December, when (they ceased—the cessation tallying with (1) the pasteurisation of all farm milk before distribution, and (2) the stopping of the suspected distributors from work. The pasteurisation of the milk commenced on December 12th, and the stopping of the suspected distributors at a later date, *i.e.*, when the bacteriological evidence proved definitely that the distributors were, or had recently, been, "carriers" (*actual* or *probable*) of diphtheria.

From December 12th, 1913, onwards, all milk was pasteurised before being distributed from dairy X, and all cases of diphtheria connected with that milk, consequently ceased. What applied to diphtheria should have applied to other infectious diseases, and it is interesting, in passing, to note the following details, collected in the Lambeth area, Norwood Ward, during the month of January, 1914:—

No. of Infected Houses obtaining Milk.	Cases Notified.		
	Diphtheria.	Scarlet Fever.	Typhoid Fever.
(a) From Dairy X	—	1	1
(b) From other Dairies ...	2	14	—

The experiment is noteworthy in its results, but whether the small number of cases connected with dairy X customers is the direct result of pasteurisation or simply a coincidence is difficult to say definitely. On theoretical grounds, assuming that milk is the chief channel of infection in spreading infectious diseases generally throughout a district, the results could be satisfactorily explained on the pasteurisation theory, scarlet fever and typhoid fever in the same way as diphtheria. It is probable, however, that the view of coincidence is true and that the scarlet fever and typhoid fever cases arose from other sources than the milk supply, as did also the diphtheria cases, tabulated during January, 1914. The facts are interesting as a record.

The Preventive Measures carried out may be tabulated as follows :—

1. Notification of patients;

2. Isolation of patients;

3. Bacteriological examinations of doubtful cases;

4. Medical inspection of "contacts" and "suspects";

5. Pasteurisation of milk supply;

6. Stoppage from work of "carrier" distributors and those suspected of being infected;

7. Stoppage of milk supply from the proved infected farm.

Addendum.

The Report would not be complete without acknowledging the help and assistance given to me by the Medical Officers of Health of the neighbouring districts affected, the County Medical Officers of Health, and specially the Medical Officer of Health for the West Sussex Northern Combined Sanitary District, in whose areas the farms and creameries, etc., are situated, and finally the proprietors of the infected dairy X, who readily placed all their books at my disposal, and to whom I am indebted for details as to sources of milk supply, rounds of distribution, amounts of milk distributed, etc. To Dr. Macewen also, of the Local Government Board, my thanks are due. Without the help of all concerned, the outbreak would not have been so quickly brought to such a satisfactory ending. The statistics dealing with the districts outside Lambeth have been supplied by the Medical Officers of Health concerned.

JOSEPH PRIESTLEY,

Medical Officer of Health.

LAMBETH TOWN HALL.

February 2nd, 1914.

Outbreak of Milk-borne Diphtheria in Upper Norwood.

NOVEMBER TO DECEMBER, 1913.

TABLE I.

Shewing the Ages, Sex, and Addresses of the notified cases of Diphtheria, together with the Dates of Onsets of the Disease and the details of the Milk Rounds (both ordinary, *i.e*, morning and afternoon, and "pudding," *i.e.*, 10–11 a.m.) supplying the various infected houses with milk from Dairy X, giving the numbers of the regular distributors (Nos. 1 to 22 inclusive) and the initials of the "odd" men assisting in the rounds. Regular distributors Nos. 9, 12, 19 and "odd" men S.J.A. and E.F. are printed in leaded type, being common to several of the infected districts, and having the greatest numbers of infected customers (*i.e.*, notified cases) on their respective rounds.

LAMBETH. (31 Cases.)

Addresses.	Ages.	Sex.	No. of Cases.		Dates of Onset of Disease.	Milk Rounds, with particulars of Distributors serving.		No. of Houses in Roads served regularly daily by the different Distributors.	
			Primary	Secondary		Ordinary.	Pudding.	Ordinary	Pudding.
Alexandra Road ...	28	F.	1	—	December 7	No. 13	?No. 1	37	
Alexandra Road ...	35	F.	1	—	December 3	,, 3	? ,, 1		
Alexandra Road ...	17	F.	1	—	December 2	,, 3	? ,, 1	15	15
Alexandra Road* ...	10	M.	—	1	December 10*	,, 3	? ,, 1		
Alexandra Road* ...	19	F.	—	1	December 12*	,, 3	? ,, 1		
Camden Hill Road ...	9	F,	1	—	December 6	,, 2	? ,, 15		
Camden Hill Road* ...	18	M.	—	1	December 9*	,, 2	? ,, 15	37	2
Camden Hill Road ...	17	M.	1	—	December 7	,, 2	? ,, 15		
Central Hill ... ... (*See Croydon*)	12	M.	1	—	December 2	,, 16	,, **9**	14	17†
Central Hill ... ... (*See Croydon*)	36	F.	1	—	December 12	No. **9** and **E.F.**	? ,, **9**	42	17
Clive Road	9	F.	1	—	December 6	No. 18	? ,, 2	27	—
Gipsy Hill	16	F.	1	—	December 7	,, 11	? ,, 1	37	5
Gipsy Hill	12	F.	1	—	December 7	No. 4 and **E.F.**	? ,, 15	30	8
Gipsy Hill	1½	M.	1	—	December 8	No. 11	? ,, 1	37	5
Highland Road* ...	18	F.	—	1	December 9*	No. 11	?No. **9**		
Highland Road ...	13	F.	1	—	December 5	,, 11	? ,, **9**	17	2
Highland Road ...	48	F.	1	—	December 6	,, 11	? ,, **9**		
Knights Hill*	4	F.	—	1	December 3*	,, 8	? ,, **19**		
Knights Hill	10	F.	1	—	November 30	,, 8	? ,, **19**	4	—
Knights Hill*	12	F.	—	1	December 8*	,, 8	? ,, **19**		
Rosendale Road* ...	33	F.	—	1	December 1*	,, 18	,, 2	11	3†
Victoria Road* ...	17	F.	—	1	December 4*	,, 11	,, 3		19†
Victoria Road ...	5	F.	1	—	November 30	,, 11	,, 3		19†
Victoria Road ...	8	F	1	—	November 30	,, 11	? ,, 3		19
Victoria Road* ...	22	M.	—	1	December 3*	,, 11	? ,, 3	47	19
Victoria Road ...	5	F.	1	—	December 6	,, 11	,, 3		19
Victoria Road ...	49	M	1	—	December 11	,, 11	,, 3		19†
Westow Hill	17	M.	1	—	December 1	,, 1	? ,, 20	32	14
Whiteley Road* ...	17	F.	—	1	December 9*	,, 13	? ,, 1	47	1
Woodland Hill ...	7	F.	1	—	November 29	,, 2	? ,, 15	39	1
Woodland Road ...	8	F.	1	—	December 8	,, 2	,, 20	74	10†

CROYDON. (42 Cases.)

Beulah Hill	24	F.	1	—	November 30	No. 8	?No. **19**		
Beulah Hill	22	F.	1	—	November 30	,, 8	,, **19**		12
Beulah Hill	10	F.	1	—	November 27	,, 8	,, **19**		12†
Beulah Hill*	12	M.	—	1	December 1*	,, 8	,, **19**		12†
Beulah Hill	27	F.	1	—	December 16	,, 8	,, **19**		12†
Beulah Hill	27	M.	1	—	November 30	,, 8	,, **19**	64	12†
Beulah Hill	13	M.	1	—	November 26	,, 8	,, **19**		12†
Beulah Hill	26	M.	1	—	December 3	,, 8	? ,, **19**		12†
Beulah Hill	10	M.	1	—	December 8	,, 8	? ,, **19**		12
									12

* Secondary or "contact" cases, *i.e.*, cases occurring secondarily in, or in connection with, previously notified infected houses.

† Including infected houses actually supplied on the "pudding" as well as on the ordinary round.

N.B.—Query mark in front of distributor means that the distributor does not call at the house but passes down the road or near daily.

Addresses.	Ages.	Sex.	No. of Cases.		Dates of Onset of Disease.	Milk Rounds with particulars of Distributors serving.		No. of Houses in Roads served regularly daily by the different Distributors.	
			Primary	Secondary		Ordinary.	Pudding.	Ordinary.	Pudding.
Central Hill ... ... (*See Lambeth*)	56	F.	1	—	December 10	No **9** and **E.F.**	? No. **9**		17
Central Hill ... ... (*See Lambeth*)	50	F.	1	—	December 12	,, **9** and **E.F.**	? ,, **9**	42	17
Central Hill ... .. (*See Lambeth*)	20	M.	1	—	November 25	,, **9** and **E.F.**	,, **9**		17†
Church Road§ ...	68	F.	1	—	November 29†	No. **19**	? ,, **19**		10
Church Road ...	20	F.	1	—	December 6	,, **19**	,, **19**	46	10†
Church Road ...	61	F.	1	—	November 29	,, **19**	? ,, **19**		10
Church Road	14	F.	1	—	December 7	,, **19**	? ,, **19**		10
Cypress Road ...	17	M.	1	—	November 27	,, 6	? ,, **19**		
Cypress Road* ...	18	F.	—	1	December 1*	,, 6	? ,, **19**	1	—
Cypress Road* ...	16	F.	—	* 1	December 1*	,, 6	? ,, **19**		
Cypress Road* ...	21	M.	—	1	December 16*	,, 6	? ,, **19**		
Essex Grove... ...	7	F.	1	—	December 9	No. **9** and **E.F.**	? ,, **9**	9	4
Essex Grove* ...	5	F.	—	1	December 17*	,, **9** and **E.F.**	? ,, **9**		
Essex Grove ...	14	M.	1	—	December 14	,, **9** and **E F.**	? ,, **9**		
Grange Road	25	F.	1	—	December 14	No. 6	? ,, **19**	7	1
Harold Road	35	M.	1	—	November 30	,, 8	,, **19**	5	
Harold Road... ...	30	M.	1	—	December 5	,, 8	,, **19**		18
Harold Road... ...	27	F.	1	—	December 10	,, 16	,, **19**	30	
Harold Road... ...	8	F.	1	—	December 10	,, 16	,, **19**		
Harold Road* ...	54	M.	—	1	December 12*	,, 16	,, **19**		
Highfield Hill	28	F.	1	—	November 28	,, 8	? ,, **19**	8	5

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Highview Road ...	19	F.	1	—	November 24	No. **9** and **E.F.**	No. **9**	13	6†
Mowbray Road ...	18	M.	1	—	November 25	No. **12**	No. **12** & W.K.	7	3†
Ross Road	28	M.	1	—	December 1	,, 6	? No. **19**	2	—
St. Aubyn's Road ...	17	M.	1	—	December 4	,, 1	? No. 20	17	3
South Norwood Hill ...	72	F	1	—	December 9	,, 6	? ,, **19**	19	1
South Norwood Hill ...	9	F.	1	—	December 10	,, 6	? ,, **19**		
Sunny Bank	20	F.	1	—	December 14	,, 6	? ,, **19**	2	—
Sylvan Hill	27	M.	1	—	December 2	,, **12**	No. **12** & W.K.	3	2†
Sylvan Hill*	23	F.	—	1	December 16*	,, **12**	,, **12** & W.K.		
Sylvan Road	10	F.	1	—	December 2	,, **12**	? ,, **12** & ?W.K.	13	1
Troy Road	14	M.	1	—	December 13	No. **9** and **E.F.**	?No. **9**	5	—
Vermont Road ...	13	M.	1	—	December 1	No. 16	? ,, **9**	9	5

PENGE. (19 Cases.)

Anerley Park	14	M.	1	—	December 1	No. 7	?**S.J.A.**&?**E.F.**	2	1
Anerley Road	22	F.	1	—	December 1	,, 22	**S.J.A.**&**E.F.**	16	1†
Belvedere Road ...	30	F.	1	—	December 12	,, 15	No. **12** & W.K.	16	13†
Belvedere Road ...	45	M.	1	—	November 29	,, **12**	? ,, **12** &?W.K.		13
Belvedere Road* ...	17	M.	—	1	December 12*	,, **12**	,, **12** & W.K.		13†
Belvedere Road ...	22	F.	1	—	November 30	,, **12**	,, **12** & W.K.	24	13†
Belvedere Road* ...	49	F.	—	1	November 28*	,, **12**	? ,, **12** &?W.K.		13
Belvedere Road ...	32	F.	1	—	November 25	,, **12**	? ,, **12** &?W.K.		13
Croydon Road	20	M.	1	—	December 2	,, 22	?**S.J.A.** & ?**E.F.**	4	—
Croydon Road*	15	M.	—	1	December 5*	,, 22	?**S.J.A.** & ?**E.F.**		
Crystal Palace Park Road (*See Beckenham*)	22	F.	1	—	December 5	,, 7	?**S.J.A.** & ?**E.E.**	13	2
Hamlet Road	24	M.	1	—	November 27	,, **12**	No. **12** & W.K.	5	3†
Hamlet Road*	45	F.	—	1	November 30*	,, **12**	No. **12** & W.K.		

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* Secondary or "contact cases, *i.e.*, cases occurring secondarily in, or in connection with, previously notified infected houses. § Patient died.

† Including infected houses actually supplied on the "pudding" as well as on the ordinary round.

N.B.—Query mark in front of distributor means that the distributor does not call at the house but passes down the road or near daily.

PENGE—*continued.*

Addresses.	Ages.	Sex.	No. of Cases.		Dates of Onset of Disease.	Milk Rounds with particulars of Distributors serving.		No. of Houses in Roads served regularly daily by the different Distributors.	
			Primary	Secondary		Ordinary.	Pudding.	Ordinary.	Pudding.
Lansdowne Place ...	47	F.	1	—	December 10	No. 15	?No. 12 & ?W.K.	4	1
Maberley Road ...	32	F.	1	—	December 14	,, 12	? ,, 12 & ?W.K.	17	3
Thickett Road* ...	15	M.	—	1	December 2*	,, 7	?S.J.A. & ?E.F.	19	—
Thickett Road ...	18	F.	1	—	December 1	,, 7	?S.J.A. & ?E.F.		
Thickett Rord ...	29	F.	1	—	November 23	,, 7	?S.J.A. & ?E.F.		
Thickett Road ...	43	F.	1	—	December 18	,, 7	?S.J.A. & ?E.F.		

CAMBERWELL. (14 Cases.)

Alleyn Park	40	F.	1	—	November 29	No. 20	No. 2	28	9†
Alleyn Park*... ...	10	F.	—	1	November 25*	,, 20	,, 2		
Alleyn Park	41	F.	1	—	November 21	,, 20	,, 2		
Alleyn Park*... ...	29	F.	—	1	December 15*	,, 20	,, 2		
Alleyn Road	16	F.	1	—	December 17	,, 17	? ,, 2	23	10
College Road	12	M.	1	—	November 27	,, 5	S.J.A.&E.F.	5	11†
College Road	24	F.	1	—	December 14	,, 21	S.J.A.&E.F.	9	11†
Crescent Wood Road, Sydenham	16	F.	1	—	December 14	,, 10	?S.J.A.&?E.F.	4	2
Dulwich Wood Park...	31	F.	1	—	December 14	,, 21	S.J.A.&E.F.	8	6†
Dulwich Wood Park...	60	F.	1	—	December 13	,, 17	? ,, 15	5	1
Kingswood Road ...	11	M.	1	—	November 27	,, 5	,, 2	8	2†
Kingswood Road* ...	32	F.	—	1	December 6*	,, 5	,, 2		
South Croxted Road ...	10	F.	1	—	December 30	,, 20	,, 2	24	11†
The Avenue	22	F.	1	—	December 9	No. 4 and E.F.	,, 15	20	4†

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LEWISHAM. (7 Cases.)

Bishopsthorpe Road, Sydenham	8	M.	1	—	December 1	No. 10	?S.J.A. & ?E.F.	3	—
Bishopsthorpe Road,* Sydenham	5	M.	—	1	December 21*	,, 10	?S.J.A. & ?E.F.		
Bishopsthorpe Road, Sydenham	27	F.	1	—	December 4	,, 10	?S.J.A. & ?E.F.		
MayowRoad,Sydenham	11	M.	1	—	December 26	,, 10	?S.J.A. & ?E.F.	1	—
Silverdale, Sydenham..	28	F.	1	—	December 5	,, 10	?S.J.A. & ?E.F.	1	—
Sydenham Hill ...	13	M.	1	—	December 8	,, 10	?S.J.A.&?E.F	18	4
West Hill, Sydenham ...	6	M.	1	—	December 9	,, 10	?S.J.A.&?E.F.	7	3

BECKENHAM. (4 Cases.)

Crystal Palace Park Road (*See Penge*)	35	F.	1	—	December 7	No. 7	?S.J.A.&?E.F.	13	2
Crystal Palace Park Road (*See Penge*)	10	F.	1	—	December 8	,, 7	?S.J.A.&?E.F.		2
Crystal Palace Park Road (*See Penge*)	40	F.	1	—	December 14	,, 7	S.J.A.&E.F.		2†
Lawrie Park Road ...	49	F.	1	—	December 13	,, 7	S.J.A.&E.F.	6	1†

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* Secondary or "contact cases," *i.e.*, cases occurring secondarily in, or in connection with, previously notified infected houses.

† Including infected houses actually supplied on the "pudding" as well as on the ordinary round.

N.B.—Query mark in front of distributor means that the distributor does not call at the house but passes down the road or near daily.

N.B.—Beckenham ceased having milk from the suspected Dairy X on Dec. 16th, 1913, and resumed it on Jan. 5th, 1914, milk from another dealer (at New Cross) being used meanwhile. Between Dec. 16th, 1913 and Jan. 5th, 1914, 5 fresh cases of Diphtheria, and between Jan. 5th and Jan. 31st, 1914, 4 fresh cases of Diphtheria, were notified in Beckenham.

Outbreak of Milk-borne Diphtheria in Upper Norwood.

NOVEMBER TO DECEMBER, 1913.

TABLE II.

Shewing the Age and Sex incidence of notified cases in the various Districts affected.

Age Periods.	Districts Affected.																		Totals.		
	Lambeth.			Croydon.			Penge.			Camberwell.			Lewisham.			Beckenham.					
	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total
0— 5	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	2
5—10	—	8	8	—	4	4	—	—	—	—	—	—	3	—	3	—	—	—	3	12	15
10—15	2	2	4	6	4	10	1	—	1	2	—	2	2	—	2	—	1	1	13	7	20
15—20	3	6	9	3	2	5	3	1	4	—	2	2	—	—	—	—	—	—	9	11	20
20—25	1	1	2	2	5	7	2	3	5	—	4	4	—	—	—	—	—	—	5	13	18
25—30	—	1	1	4	4	8	—	1	1	—	—	—	—	2	2	—	—	—	4	8	12
30—35	—	1	1	1	—	1	—	3	3	—	2	2	—	—	—	—	—	—	1	6	7
35—40	—	2	2	1	—	1	—	—	—	—	1	1	—	—	—	—	1	1	1	4	5
40—45	—	—	—	—	—	—	—	1	1	—	2	2	—	—	—	—	1	1	—	4	4
45—50	1	1	2	—	—	—	1	3	4	—	—	—	—	—	—	—	1	1	2	5	7
50—60	—	—	—	1	2	3	—	—	—	—	—	—	—	—	—	—	—	—	1	2	3
60 & over	—	—	—	—	3	3	—	—	—	—	1	1	—	—	—	—	—	—	—	4	4
All Ages	8	23	31	18	24	42	7	12	19	2	12	14	5	2	7	—	4	4	40	77	117
Under 10 yrs.	1	9	10	—	4	4	—	—	—	—	—	—	3	—	3	—	—	—	4	13	17
Over 10 yrs.	7	14	21	18	20	38	7	12	19	2	12	14	2	2	4	—	4	4	36	64	100

Outbreak of Milk-borne Diphtheria in Upper Norwood.

NOVEMBER TO DECEMBER, 1913.

TABLE III.

Shewing the *daily* numbers of diphtheria patients sickening with the disease (as shewn by the dates of onset) in Lambeth and in the other districts affected.

1913.	Lambeth.	Croydon.	Penge.	Camberwell.	Lewisham.	Peckham.	TOTALS
Nov. 21	—	—	—	1	—	—	1
,, 22	—	—	—	—	—	—	—
,, 23	—	—	1	—	—	—	1
,, 24	—	1	—	—	—	—	1
,, 25	—	2	1	1	—	—	4
,, 26	—	1	—	—	—	—	1
,, 27	—	2	1	2	—	—	5
,, 28	—	1	1	—	—	—	2
,, 29	1	2	1	1	—	—	5
,, 30	3	4	2	—	—	—	9
Dec. 1	2	5	3	—	1	—	11
,, 2	2	2	2	—	—	—	6
,, 3	3	1	—	—	—	—	4
,, 4	1	1	—	—	1	—	3
,, 5	1	1	2	—	1	—	5
,, 6	5	1	—	1	—	—	7
,, 7	3	1	—	—	—	1	5
,, 8	3	1	—	—	1	1	6
,, 9	3	2	—	1	1	—	7
,, 10	1	4	1	—	—	—	6
,, 11	1	—	—	—	—	—	1
,, 19	2	2	2	—	—	—	6
,, 13	—	1	—	1	—	1	3
,, 14	—	3	1	3	—	1	8
,, 15	—	—	—	1	—	—	1
,, 16	—	3	—	—	—	—	3
,, 17	—	1	—	1	—	—	2
,, 18	—	—	1	—	—	—	1
,, 19	—	—	—	—	—	—	—
,, 20	—	—	—	—	—	—	—
,, 21	—	—	—	—	1	—	1
,, 22	—	—	—	—	—	—	—
,, 23	—	—	—	—	—	—	—
,, 24	—	—	—	—	—	—	—
,, 25	—	—	—	—	—	—	—
,, 26	—	—	—	—	1	—	1
,, 27	—	—	—	—	—	—	—
,, 28	—	—	—	—	—	—	—
,, 29	—	—	—	—	—	—	—
,, 30	—	—	—	1	—	—	1
,, 31	—	—	—	—	—	—	—
TOTALS	31	42	19	14	7	4	117

Outbreak of Milk-borne Diphtheria in Upper Norwood.

NOVEMBER TO DECEMBER, 1913.

TABLE IV.

Shewing the Farms and other Wholesale Sources (Creameries and Factories), from which Dairy X was found at the time of the outbreak, and prior to such outbreak, to derive its milk supply, with Results of Investigations and Inspections made by Veterinary Inspectors, Analysts and County Medical Officers of Health concerned.

Farms and other Wholesale Sources.	Counties in which situated.	Results of Investigations and Inspections made by—			
		Veterinary Inspectors.	Analysts.	County Medical Officers of Health.	
Farms.					
A (37)	Surrey	Satisfactory	Excellent water	No diphtheria nor suspicious throats	
B (26)	Surrey	Satisfactory (one cow with throat gland thickened and two cows being dried off)	Dirty pump water	Ditto	ditto
C (50)	Surrey	Satisfactory	Dirty well water	Ditto	ditto
D (13)	Surrey	Ditto	Excellent water	Ditto	ditto
E (12)	Surrey	Ditto	Good water	Ditto	ditto
F (34)	Sussex	Ditto	Ditto	Ditto	ditto
G (75)	Sussex	Unsatisfactory, 2 cows with mastitis (milk unfit for use) and several cows with teat eruptions	Pond water unfit for use	Diphtheria infected cowman who acted also as a milker (ulcerated finger), other milkers with sores on their hands (one sore being found to be diphtheria-infected) Condition of farm unsatisfactory.	
H (14)	Sussex	Satisfactory	Suspicious well water	No diphtheria nor suspicious throats (diphtheria 4 miles away)	
I (20)	Sussex	Ditto	Good Spring water	No diphtheria nor suspicious throats	
J (23)	Sussex	Ditto	Good well water	Ditto	ditto
K (59	Sussex	Ditto	Doubtful deep well water	Ditto	ditto
L (25)	Sussex	Ditto	Excellent water	Ditto	ditto
M (6)	Sussex	Ditto	Unsuitable well water	Ditto	ditto
N (56)	Sussex	Ditto	Suitable well water	Ditto	ditto
O (43)	Sussex	Ditto	Bad well water	Ditto	ditto
P (47)	Sussex	Ditto	Satisfactory water	Ditto	ditto
Q (45)	Sussex	Ditto	Good spring water	Ditto	ditto
R (40)	Sussex	Ditto	Ditto	Ditto	ditto
Creameries and Factories.					
I. (77)	Buck'hamshire / Staffordshire	Ditto	Good water	Ditto	ditto All milk pasteurised
II (60)	Dorsetshire / Wiltshire	Ditto	Ditto	Ditto	ditto
III. (60)	Dorsetshire / Somersetshire	Ditto	Ditto	Ditto	ditto

N.B.—The figures inserted in brackets after each Farm, Creamery or Factory, represent the average amount of milk daily supplied therefrom (in imperial gallons). 68 imperial gallons were also obtained from another Factory and Creamery on Dec. 19th, 1913 (one connsignment only).

Outbreak of Milk-borne Diphtheria in Upper Norwood.

NOVEMBER TO DECEMBER, 1913.

TABLE V.

Shewing "rounds," numbers of houses served and average amount of milk distributed by each distributor, bacilli found on bacteriological examination in each distributor and the number of notified diphtheria patients allocated to each distributor.

Rounds and distribution areas. DISTRIBUTORS	No. of houses served.	Average amount of milk in quarts.	Notified cases of diphtheria allocated to each distributor	Bacilli found in Bacteriological Examinations.
Regular.				
No. 1 ...	133	121	10*	*b* Staphylococcus *b* Streptococcus *b* Hofmanni
,, 2 ...	264	173	15*	*b* Staphylococcus *b* Streptococcus *b* Diphtheroides *b* Klebs-Lœffleri
,, 3 ...	129	128	10*	*b* Staphylococcus *b* Streptococcus
,, 4 (& E.F.)	150	136	2	*b* Staphylococcus *b* Streptococcus *b* Hofmanni
,, 5 ...	66	135	3	*b* Staphylococcus *b* Streptococcus *b* Hofmanni
,, 6 ...	187	198	9	*b* Staphylococcus *b* Streptococcus
,, 7 ...	78	114	10	*b* Staphylococcus *b* Streptococcus
,, 8 ...	134	212	15	*b* Staphylococcus
,, 9 (& E.F.)	152	174	23*	*b* Staphylococcus *b* Streptococcus *b* Hofmanni
,, 10 ...	98	182	8	*b* Streptococcus
,, 11 ...	131	135	11	*b* Staphylococcus *b* Streptococcus

* Including doubtful cases, *i.e.*, the distributors did not actually call at the infected houses but passed down the road, or near to, daily, as follows:—No. 1—8 houses, No. 2—2 houses, No. 3—2 houses and No. 9—11 houses.

Rounds and distribution areas. DISTRIBUTORS	No. of houses served.	Average amount of milk in quarts.	Notified cases of diphtheria allocated to each distributor	Bacilli found in Bacteriological Examinations.
No. 12 (&W.K.)	109	186	26*	*b* Staphylococcus *b* Streptococcus *b* Diphtheroides Torulæ
,, 13 ...	105	83	2	*b* Staphylococcus *b* Streptococcus
,, 14 ...	142	142	—	*b* Staphylococcus
,, 15 ...	134	145	9*	*b* Staphylococcus
,, 16 ...	85	145	5	*b* Staphylococcus
,, 17 ...	61	87	2	*b* Staphylococcus Torulæ
,, 18 ...	80	81	2	*b* Staphylococcus
,, 19 ...	67	(138) (16)	35*	*b* Staphylococcus *b* Streptococcus *b* Diphtheroides *b* Klebs-Lœffleri
,, 20 ...	57	116	8*	*b* Staphylococcus *b* Streptococcus
,, 21 ...	40	86	2	*b* Staphylococcus
,, 22 ...	127	112	3	*b* Staphylococcus
Odd men.				
S.J.A. ...	Included in above.	Included in above.	22*	*b* Staphylococcus Torulæ
E.F. ...			35*	*b* Staphylococcus *b* Streptococcus *b* Diphtheroides
W.K. ...			14*	*b* Staphylococcus
	2529	3047		

* Including doubtful cases, *i.e.*, the distributor did not actually call at the infected houses but passed down the road, or near to, daily, as follows:—No. 12—6 houses, No. 15—6 houses, No. 19—20 houses, No. 20—2 houses, "odd" man S.J.A.—18 houses, "odd" man E.F.—18 houses, and "odd" man W.K.—6 houses.

Outbreak of Milk-borne Diphtheria in Upper Norwood.

NOVEMBER TO DECEMBER, 1913.

TABLE IV.

Special Bacteriological reports on the cowman's finger (ulcerated) in connection with the infected Farm G.

No. 1.—December 30th, 1913.

Smear preparations made from the lesion shew cell debris with a fair number of diphtheroid bacilli and micrococci. Tubercle bacilli are not detected. It will be necessary to isolate the bacillus found in pure culture so that cultural tests may be made to distinguish between the Klebs-Lœffler bacillus and the common skin diphtheroid organism, if possible. We shall also proceed with a histological examination.

No. 2.—January 3rd, 1914.

Further Report. Histologically this ulcer is of a purely inflammatory origin, showing dense leucocytic infiltration of the tissues and much fibrous induration, as if the lesion were of long standing. There is no evidence of syphilis, tubercle or new growth.

The diphtheroid bacillus found in the cultures made from this specimen is not the common skin organism of this type, but the cultural characteristics as studied in young cultures are similar to those of the Klebs-Lœffler bacillus. Considerable numbers of the staphylococcus pryogenes aureas are also present.

No. 3.—January 12th, 1914.

Further Report. The post-mortem examination of the guinea-pig which was inoculated with a pure culture of the isolated diphtheroid bacillus, and which was found dead, showed the characteristic appearance of one injected with virulent Klebs-Lœffler bacilli, while the control animal injected with a similar amount of the same culture, together with diphtheria antitoxin, is still alive and shows no evident symptoms. In our opinion, the organism is a virulent Klebs-Lœffler bacillus.

(*Signed*) DIRECTOR OF LABORATORY.

Metropolitan Borough of Lambeth.

Municipal Tuberculosis Dispensaries Scheme.

FIRST REPORT

For the Year ending December 31st, 1913,

by

S. NICOL GALBRAITH, M.B., Glas., D.P.H., Camb.,
Tuberculosis Medical Officer, CENTRAL DISPENSARY,

and

R. C. WINGFIELD, B.A., M.B., Oxon, M.R.C.P., Lond.
Tuberculosis Medical Officer, BRANCH DISPENSARY,

with

INTRODUCTION

by

JOSEPH PRIESTLEY,
B.A., Lond., M.D., Edin., D.P.H., Camb.,
Chief Executive Tuberculosis Officer and Medical Officer of Health.

INTRODUCTION.

The Lambeth Municipal Tuberculosis Dispensaries Scheme, as approved by the Local Government Board and the National Insurance Commissioners, includes two properly equipped and officered Dispensaries, or Clinics,* both for diagnosis and treatment, for the use of the Borough, viz. :—

(*a*) A Central Dispensary at 73 Effra Road, Brixton, situated near to the Town Hall in the centre of the Borough, under the care of Dr. S. Nicol Galbraith, as Tuberculosis Medical Officer.

(*b*) A Branch Dispensary at St. Thomas's Hospital, Lambeth Palace Road (separate and distinct from the Main Out-Patient Departments), situated at the northern end of the Borough, under the care of Dr. R. C. Wingfield, as Tuberculosis Medical Officer.

The Medical Officer of Health of the Borough is the Chief Executive Tuberculosis Officer, responsible to the Borough Council for the general administration and local execution of the Scheme.

The Central Dispensary was opened to the public on July 23rd, 1913, and the Branch Dispensary on February 3rd, 1913, so that this First Report deals only with the work carried out since those dates, up to and including December 31st, 1913.

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* The American term "Clinic" is better for use than the word "Dispensary," preventing confusion with existing Special and General Dispensaries, whilst, in addition, it is a term that is coming into use in connection with other Departments of Public Health Administration, *e.g.*, treatment of school children, etc.

Special interest attaches to this First Report, dealing, as it does, with the commencing working of a Scheme, which depends upon a combined effort on the part of a Municipal and of a Hospital Authority. Hitherto, the Hospital Authorities have dealt with disease as met with in the individual, and not as it affects the community, as a whole, and much valuable help and material have, consequently, been wasted, or at least, diverted, in so far as Public Health Administration was concerned. The treatment and control of tuberculosis appears to be a subject specially suitable for the trial of a combined effort —the linking up of voluntary and official agencies, and this principle was, therefore, adopted as the basis of the Lambeth Scheme, and approved by the Local Government Board and the National Insurance Commissioners, and is now being adopted, after approval by the Local Government Board and the London County Council, in connection with other Tuberculosis Schemes.

The two Dispensaries are administered and worked on the same lines, and the patients are interchangeable between the two, as may be found necessary, whilst the resources of the one are open to the other, a valuable arrangement, in so far as Lambeth Borough is concerned, having regard to the fact that St. Thomas's Hospital is well organised and equipped with all modern appliances and special departments (pathological, dental, chemical, laryngological, X-ray, etc.), whilst the services of the well known consulting Medical and Surgical Staffs of the Hospital may be requisitioned, as required, by the Tuberculosis Medical Officers. Further, a ten-bed Ward is attached to the St. Thomas's Hospital Tuberculosis Department, for observation and treatment purposes.

The record of work carried out by the Tuberculosis Medical Officers, as shewn in their Joint Report, speaks for itself, and the details given under the various headings and tables will prove of interest, more especially those dealing (1) with the working capacities of the patients before and after treatment, *i.e.*, the practical results obtained, measured by the maintenance, or otherwise, of the working capacity of such patients, and (2) the systematic examinations of "contacts."

The early diagnosis and treatment of patients is important, though the difficulties connected therewith are well known, *e.g.*, the insidious onset of the disease, the reluctance of workers to stop work until the disease is too far advanced for cure or arrest, etc. Sanatorium treatment is being provided for some of the suitable (early) cases of pulmonary tuberculosis (consumption), but no proper provision, outside Poor Law Institutions, has yet been made at all for "advancing" or "advanced" cases, which are the chief cause of the spread of the disease (in the "commencing" form) to others. Satisfactory arrangements should be made for the segregation of such "advancing" or "advanced" cases as may be found necessary, and for their proper treatment in institutions other than those of the Poor Law, having regard to the infectious nature of such cases. Everything depends upon concentrating administrative (including remedial) efforts upon these cases: indeed, it is only in this way that tuberculosis will finally be eradicated. Taking the generally accepted lay classification of the disease into the usual three stages—stages i. (commencing), ii. (advancing), and iii. (advanced)—it is clear that, if patients suffering from stage i. of the disease are dealt with radically, and the disease in them is cured or arrested, so that there will be, eventually, practically no patients suffering from stage i. of the disease, stages ii. and iii. of the disease must also disappear, as these stages (ii. and iii.) are fed from stage i. Medical men and others should be encouraged to refer their patients at once to the Dispensaries for diagnosis or treatment, and all "contacts" found in infected houses should be encouraged to attend, and to continue to attend from time to time, at the Dispensaries for advice. The Tuberculosis Medical Officers are always ready to give expert assistance to medical men and others who require it, in connection with not only the diagnosis, but also the treatment, of the disease, both in its early and later stages.

The remarks of the Tuberculosis Medical Officers on the subject of tuberculin (both in diagnosis and treatment) are noteworthy, their opinions, as the result of experience, coinciding with those of other experts, viz.: that tuberculin is only one of the forms of treatment and, as such, was used in 71 out of the total 486 tuberculous patients treated during 1913 in connection with the Lambeth Tuberculosis Dispensaries under the Scheme.

JOSEPH PRIESTLEY.

JOINT REPORT OF THE TUBERCULOSIS MEDICAL OFFICERS.

For the Year ending December 31st, 1913.

Having no precedent, the form in which to present the Report was carefully considered, and it was finally decided to use, as headings, the "functions" of a Tuberculosis Dispensary, outlined in the Interim Report of the Departmental Committee on Tuberculosis, as follow:—

(1) Receiving House and Centre of Diagnosis.

Total Attendances:—

(*a*) New Patients; and (*b*) Old Patients.

Particulars of New Patients:—

(*a*) Age-Periods and Sex; (*b*) Lengths of Attendances; (*c*) Sources of Cases; (*d*) Results of diagnosis:—(1) Ordinary Patients, and (2) "Contacts."

Special Methods of Diagnosis:—

(*a*) Bacteriological; (*b*) X-rays; (*c*) Tuberculin: (1) Subcutaneous, and (2) Percutaneous.

Clinical classification of pulmonary tuberculosis cases:—

(*a*) Inman and (*b*) Turban.

(2) Clearing House and Centre for Observation.

(3) Centre for Curative Treatment.

Nature and results of treatments :—

(*a*) Routine; (*b*) Institutional :—(1) Sanatoria (including Tuberculosis Hospitals), (2) General Hospitals, and (3) Poor Law Institutions (*c*) Tuberculin.

Economic classification of results of treatment.

Open air schools for children.

(4) Centre for the Examination of "Contacts."

(5) Centre for "After-care."

(6) Information Bureau and Educational Centre.

(1) Receiving House and Centre of Diagnosis.

The total attendances of patients at the Dispensaries, with particulars as to ages and sex, are set out in full in Table I. The patients are also tabulated under the headings "insured" and "non-insured." These numbers of attendances are encouraging, viz., new patients 1,036, and old patients, 4,097—a total of 5,133. The comparatively large number of women attending as compared with men is due to what might be called the "hospital habit" amongst the former and the reluctance of the latter to be examined for fear that they should be required to give up work.

The lengths of attendances of patients vary, but for the purposes of classification (*see* Table I.), it has been deemed advisable to sub-divide them into two main classes, viz. : (*a*) one month and over, and (*b*) under one month—the latter including (1) cases sent for opinion only, (2) cases unfit to attend personally as patients, (3) cases diagnosed as not tuberculous, or doubtful, (4) "contacts," and (5) cases belonging and transferred to other districts. Many patients were transferred to, and from, other districts, due to the migratory nature of the population—a fact which might have proved an administrative difficulty in dealing with the disease from the point of

view of public health, had it not been that neighbouring districts are now beginning to co-ordinate their work and to send on particulars of patients who remove to other districts to the Medical Officers concerned.

The results of treatment (*vide infra*) have reference only to patients whose lengths of attendance were one month and over.

The different sources from which the patients were drawn are set out in Table III., from which it will be noted that the Scheme is receiving support in a way, and to an extent, that must tend to make it a success. Medical men and the public are taking an interest in the Scheme.

The results of diagnosis are given in Table III., shewing that, of the total 1,036 patients examined, 486 proved to be tuberculous and 550 *suspected* tuberculous, including "non-tuberculous" and "doubtful" cases. Of the total 1,036 patients examined, 306 were "contacts" and, of these 306 "contacts," 46 proved to be tuberculous and 260 *suspected* tuberculous. Further, of the 486 cases diagnosed as tuberculous, 470 were pulmonary and 16 non-pulmonary, and 251 (*i.e.*, 51.6 per cent.), gave a tuberculous family history, shewing the susceptibility of certain families and the direct infectivity of the disease. All tuberculous patients, attending the Dispensaries, are notified to the Medical Officer of Health as a routine, whether or not previously notified by medical practitioners.

The most powerful weapon in the fight against tuberculosis is early diagnosis. There is, at present, no specific diagnostic for every case. Patients are diagnosed on weight of evidence for or against and, in this connection, special and *all* methods of diagnosis are of value. It is now acknowledged that it is necessary to use all such methods of diagnosis, and not to trust to physical signs alone. The stethoscope, or the interpretation of what it conveys, is no longer considered to be infallible in the diagnosis of pulmonary tuberculosis.

The special methods of diagnosis may be tabulated as (1) Bacteriological, (2) X-rays, and (3) Tuberculin.

(1) *Bacteriological.*

A large number of routine bacteriological examinations of sputa has been carried out, and it has been

found that careful bacteriological examination of the sputum in several doubtful cases, and in those with secondary infections, has proved reliable. Where concentration methods have failed, repetition of the routine procedure has been successful in establishing the diagnosis.

(2) *X-rays.*

Many cases were examined by X-rays, and this examination has been of great help, but is found to be only of use when correlated with clinical examination. In certain cases with no physical signs, or with very indefinite ones, and with suggestive histories, X-ray photographs have shewn definite evidence of the disease.

(3) *Tuberculin.*

Diagnosis by tuberculin divides itself into (1) sub-cutaneous and (2) per-cutaneous. The sub-cutaneous diagnostic tuberculin injections have been used on cases in the Observation Ward only, and Koch's old tuberculin (O.T.) has been used in every case, the doses being .0002 c.c., .002 c.c., .01 c.c. Of the 12 patients injected, 9 gave postitive reactions. The experience of the Von Pirquet test (per-cutaneous) is that it is unreliable as a diagnostic measure, even in children, except possibly children in the age-period 1 to 5 years. This test was applied to 105 children, and in 38 the result was positive.

A detailed *clinical* classification is set out in Table IV., giving the special classifications introduced by Inman and Turban with reference to pulmonary tuberculosis patients.

It has long been recognised that, in any clinical classification of patients suffering from pulmonary tuberculosis, the essential fact to convey is a definite estimate of the capacity of such patients to take exercise or to work. This estimate must, of necessity, be based upon easily-recognised factors, which again must not be capable of being varied according to the judgment or point of view of the observer. The purely anatomical classification of Turban does not, in any respect, meet this requirement, as no indication of the general condition or working capacity of the patient is given, so that such a classification serves no other purpose than that of academic interest.

The prognosis in a given case depends not upon the extent of the local lesion, but on the degree of intoxication of the system, and this well-known fact is recognised in what is known as Philip's Classification, in which the amount of systemic disturbance is indicated by certain specific symbols added to the numbers of the respective anatomical stages. This is a step in the right direction, but no reliable indication is conveyed of the patient's capability of undertaking work. No standard factors are given whereby an estimate of the degree of systemic or auto-inoculation resulting from any such muscular effort can be made, and, failing such factors, different observers may very easily give widely varying reports. The clinical classification devised by Inman is found to meet all requirements, as the sorting out or selection of cases for sanatorium, tuberculin, or other treatment is invariably effected by clinical methods. Further, in such classification, everything of an empirical nature is eliminated and the incontrovertible standards (temperature, rest, exercise or work) are adopted. Inman's classification is as follows:

Stage or Class.	*Clinical.*	*Pathological.*
I.	... Resting febrile,	... Excessive auto-inoculations occurring spontaneously.
II.	... Ambulant febrile, resting afebrile	... Excessive auto-inoculations inducible by exercise.
III.	... Ambulant afebrile	... Appropriate auto-inoculations inducible by exercise.

To demonstrate the value of this method of division, all cases coming under stage or class III. (Inman) have been sub-divided into the three stages or classes of Turban (*see* Table IV.). Assuming that the greater the local lesion, the worse the general condition of the patient, the cases tabulated in this Report under stages 2 and 3 of Turban would be reckoned as hopeless, whereas the reverse is the case.

(2) Clearing House and Centre for Observation.

When the diagnosis has been made, the Tuberculosis Dispensary, or Clinic, serves as a "Clearing House," through which persons, suffering from the various types

of tuberculosis, are passed. The necessary arrangements are made for the course of treatment, either (1) Routine treatment, at one of the two Tuberculosis Dispensaries, connected with the Scheme; or (2) Institutional treatment.

Routine treatment includes the usual medicinal and hygienic measures, including the use of open-air shelters,* such as are in use at Tuberculosis Dispensaries throughout the Country.

Institutional treatment includes that received at Sanatoria (including Tuberculosis Hospitals), at General Hospitals and at Poor Law Institutions. "Insured" persons under the National Insurance are sent to Sanatoria (including Tuberculosis Hospitals) through the London County Insurance Committee, whilst "non-insured" persons are, at present, dealt with by Charitable Agencies. This provision, especially in so far as "non-insured" persons are concerned, is limited, and great difficulty is experienced in obtaining beds.

The importance of the function played by a General Hospital in any Scheme for dealing with tuberculosis is becoming increasingly evident. Not only are abundant facilities offered for diagnosis of tuberculosis by special methods, but the wards and special departments of General Hospitals provide means for treating any case of other disease or any emergency which may arise in connection with the special tuberculosis work. The dental, X-ray, and laryngological departments at St. Thomas's Hospital have been used to the greatest extent in connection with the Lambeth Scheme. This feature of the Lambeth Scheme is specially noteworthy, and its value has been proved, as shewn in this Report.

The problem of the treatment and segregation of advanced cases is still largely unsolved, as far as the Metropolis is concerned. No adequate provision has yet been made, so that Poor Law Institutions have had to be used as an alternative.

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* Open-air shelters are in use in connection with the Branch Dispensary (St. Thomas's Hospital) and have proved to be of great use in certain cases. Similar shelters might, with advantage, be provided in connection with the Central Dispensary (73 Effra Road, Brixton).

All experts are agreed upon the urgent necessity for admitting bed-ridden patients to Institutions, where they will cease to be centres of infection to the community, and there is little doubt but that the Poor Law Institutions have, in the past, played an important part in this way in the reduction of the death-rate from tuberculosis. There is, however, still the difficulty, in connection with Poor Law Institutions, the so-called "poor law stigma" as a sentimental objection.

For arranging for institutional treatment, a fully trained lady almoner or social worker is necessary, as she can, by her expert knowledge of the sources and means by which such treatment can be obtained, be of much help (*see also* "After Care").

(3) Centre for Curative Treatment.

In presenting the results of treatment, vague and general terms such as "improved," "worse," "in statu quo," etc., have been avoided, and a classification has been devised according to the standard factor of capacity for work. This classification presents a method of indexing the results of treatments and these results are set out in full in Table VI., under the headings of (1) total cases treated, (2) patients treated at a sanatorium, (3) patients treated with tuberculin. Results of treatment are most important from the economic point of view, and the following classification, which has been adopted, may be described as an *economic classification* :—

(*a*) *Fit for Work.*

(1) Patients fit for work at commencement of treatment and remaining so;

(2) Patients not fit for work at commencement of treatment but becoming fit;

(*b*) *Unfit for Work.*

(3) Patients fit for work at commencement of treatment but not remaining so;

(4) Patients not fit for work at commencement of treatment and remaining so;

(c) *Deaths.*

It has been difficult to find a wording sufficiently brief, and at the same time explicit, but the above description offers, at least, a working basis. For the Working Classes, this classification of the results of treatment seems to be adequate in most respects. All treatment should have one end in view, viz., to get the patient back to work. Permanent arrest of the disease is infrequent, owing to the conditions under which most of the patients live, and such patients require, therefore, constant "patching-up." To be able to keep an individual patient in class (i.) for 1 year means that the treatment has succeeded for that year. The classification adopted cuts out the personal element. As the statistics accumulate, more especially if the same system be adopted in different districts and areas, these records as to fitness or unfitness for work will be useful and will enable the work done under one Scheme to be compared with that done under another, in so far as practical results are concerned.

Table V. gives particulars of the natures of treatment, sub-divided into (1) Routine, (2) Institutional, and (3) Tuberculin.

The value of treatment by tuberculin is still a controversial subject and the majority of experts are against its indiscriminate use, being of opinion that its value, as such, is not proved. There is no criterion enabling a decision being come to as to whether or not a patient is likely to improve, far less be cured, by means of tuberculin therapy. In connection with the Lambeth Scheme, its use, in suitable cases, has been found to be an aid to other methods of treatment, but only an aid, the patients improving up to a certain point. Even with the most careful selection of cases according to recognised principles, some patients prove to be intolerant to tuberculin in the smallest doses. The preparations of tuberculin used have been (*a*) bacillary emulsion (B.E.) and (*b*) Tuberculin Béraneck (T.Bk.) the latter

being useful in sensitive and in febrile cases. The tuberculins are used in dilutions made according to the Philip's scale, but no attempt is made to label each dose as containing a given quantity of dried bacillary substance. The "tuberculin content" must be empirical, especially in the case of an emulsion. No patient is put through a "course" of injections as a routine, but small and gradually increasing doses are used till the most suitable or optimum is found for the particular patient. Suitable cases improve up to a certain point, but, when the dose is increased over this, weight decreases and the condition of the patient becomes worse or remains stationary.

As to the results from tuberculin treatment, the figures are too small upon which to base any definite conclusions, whilst the period has been to short to justify the detailing of individual cases. Favourable results have been obtained in some chronic advanced cases, so much so that it is difficult from practical experience to keep in accord with the accepted theories of the "mechanism" of tuberculin therapy.

Vaccine treatment in some cases of mixed infection has been commenced and appears to be giving good results.

Examining more in detail the figures given in Table VI., it will be noted that the results of treatment for the whole of the cases (633 treated for one month or over) are satisfactory, 494 remaining, or becoming after treatment, fit for work (*i.e.*, 78.04 per cent.).

With regard to Institutional Treatment, the figures have reference to such treatment at a Sanatorium, and the results are certainly favourable—a total of 101 patients, of whom 87 remained, or become after treatment, of residence, at a Sanatorium, fit for work (*i.e.*, 86.1 per cent.).

With further reference to the subject of Sanatorium Treatment, it may be pointed out that, prior to the opening of the two Dispensaries, or Clinics, under the Lambeth Scheme, patients had been sent previously for Sanatorium Treatment from St. Thomas's Out-Patients' Departments—a total of 87 during the past few years, and, of these, 45 (*i.e.*, 51.6 per cent.) are still fit to work. These figures appear to shew that the expense of Sanatorium treatment is indeed worth while.

The majority of the children, who attended, were notified to the Educational Medical Officer, and, in connection therewith, it was suggested that those found on examination to be tuberculous, and all "contacts" should be taught in open air schools. Unfortunately, there is only one open air school for the whole of South London, and there appears to be a difficulty in finding suitable sites for more. A suggestion has been made that suitable cheap erections of temporary open air schools, on the large open areas in the parks, might, with advantage, be introduced by the Educational Authority and that, in that connection, in so far as Lambeth is concerned, Brockwell Park and Norwood Park might be found suitable for such a purpose, being convenient enough to allow children to go home for their meals, and being very little used by the public during what would be the teaching hours. It is reported that playground classes will shortly be held in connection with some of the schools.

(4) Centre for the Examination of "Contacts."

"Contacts" are persons living in close association with a patient, or patients, who have been notified as suffering from tuberculosis, and an important part of any Scheme for the prevention of the disease must deal with them systematically. A total of 306 "contacts" have been dealt with and Tables II. and III. give particulars. Of the 306 "contacts" examined, 46 proved to be tuberculous. In many districts, systematic visiting by a Tuberculosis Medical Officer and a Tuberculosis Nurse of infected houses is carried out, for the purpose

of discovering, and examining, "contacts" in such houses—a method that is known as "A March Past." This method has its drawbacks. Both a Medical Officer and Nurse have to visit the houses, thereby expending a large amount of valuable time; whilst there is a great danger of the Medical Officer at the house passing a "contact" as sound and, in consequence, unintentionally misleading, by allowing him or her to become lax in the carrying out of preventive measures, even though such "contact" is still living in contact with active disease.

The method adopted in connection with the Lambeth Scheme is as follows:—

"Contacts" attend at the Dispensaries, and continue to attend there from time to time, as may be required, such "contacts" being readily picked out for attendance at the Dispensaries by a nurse or other (non-medical) visitor, when visiting an infected house. In this way the work of medical observation is concentrated at the Dispensaries, and the "contacts" are kept under such observation and treated, as required, at the same time as are the patients in connection with whom they are "contacts." Not only are the individual patients treated, but also the whole families. The details of each family and particulars as to the house and living arrangements are obtained by the visiting official who, as far as possible, makes a periodical visit (not less than once a month) at the notified house, visiting, as required, urgent cases daily or twice weekly. The inmates of these notified houses are also educated in preventive measures by these visiting officials.

(5) Centre for "After-Care."

Nothing need be said here as to the importance of "after-care" of patients treated at sanatoria. The ease with which this can be carried out depends largely upon the sanatorium at which the particular patient has been treated. Some patients will come back after a stay at a sanatorium with a clear idea of the nature of their condition and of the method necessary to preserve their health and to protect their families: whilst others come

back from what appears to be nothing more than a long and arduous course of treatment that has simply restored to them some measure of health, but has not impressed upon them any clear idea of the nature of their condition, or of the preventive measures that are necessary. "After-care" in the former case is easy; in the latter case, difficult. "After-care" cannot, however, be efficiently carried out by a Tuberculosis Medical Officer, and much less can it be done by a Medical Attendant. What is required is a social worker or lady almoner thoroughly trained and suitably equipped in that type of work, and she would assist also in arranging for Institutional treatment, under the supervision of the Tuberculosis Medical Officer. The question of "after-care" generally resolves itself into one of suitable employment for the individual patient. Efficient "after-care" depends, therefore, upon efficiently trained visitors or nurses and, in this respect, Lambeth Borough is provided for under the Scheme. The staff of the Lady Almoner's Department at St. Thomas's Hospital visit chiefly the Inner Wards of the Borough, and report on the official cards to the Medical Officer of Health, but the Outer Wards are not yet provided with a similar Lady Almoner's Department. The Council's Female Staff, consisting of the Tuberculosis Nurse, the Female Inspectors and the Health Visitor, assist also in visiting the houses wherein patients are notified officially as suffering from tuberculosis. Patients who have had sanatorium treatment, and who do not require any further treatment, are asked to report themselves every three months.

(6) Information Bureau and Educational Centre.

A large amount of clinical material is now available in connection with the Lambeth Dispensaries, and the different methods of diagnosis and treatment can be watched by Medical Practitioners, and others interested in the subject. Arrangements have been made for the Tuberculosis Medical Officers to confer with Medical Practitioners in connection with the exact diagnosis (especially of early cases) and up-to-date treatment (with tuberculin, or otherwise). Until an uniform system of

collecting statistics throughout the country is introduced, valuable information will be lost yearly, as each Tuberculosis Medical Officer generally makes a special point of those facts which particularly interest him, making note of but few other points which may be equally important but in which he, personally, is not interested. There is no doubt that, as Tuberculosis Dispensaries are established, valuable statistics of the results of different methods of treatment and diagnosis should be soon available, and the importance, therefore, of some standardisation of method and report is obvious.

Monthly or quarterly popular lectures to patients (and "contacts") have been found of use in enlisting their help, and even arousing a certain amount of enthusiasm in this direction. This is a means of education that will, in all probability, grow, and is certainly one that might, with advantage, be encouraged by Public Health Authorities.

S. NICOL GALBRAITH.

R. C. WINGFIELD.

TABLES I. to VIII.

	Central Dispensary.					Branch Dispensary.					Combined Totals.
	Insured.		Not Insured.		Total.	Insured.		Not Insured.		Total.	
	Males.	Females.	Males.	Females.		Males.	Females.	Males.	Females.		
TABLE I.											
I.—Total Attendances.											
(a) New Patients	127	85	122	229	**563**	177	72	41	183	**473**	1036
(b) Old Patients	440	383	305	851	**1979**	628	201	127	1162	**2118**	4097
Totals	567	468	427	1080	**2542**	805	273	168	1345	**2591**	5133
II.—Particulars of New Patients.											
A—*Age Periods and Sex*—											
(1) Under 15	—	—	88	86	**174**	—	—	16	23	**39**	213
(2) 15 and over	127	85	34	143	**389**	177	72	25	160	**434**	823
(a) 15—25	39	41	6	26	**112**	51	31	2	25	**109**	221
(b) 25—35	34	24	10	42	**110**	67	20	2	66	**155**	265
(c) 35—45	33	14	12	51	**110**	33	13	9	47	**102**	212
(d) 45—55	16	5	2	18	**41**	18	7	10	12	**47**	88
(e) 55—65	5	1	2	5	**13**	6	1	1	10	**18**	31
(f) 65 and over	—	—	2	1	**3**	2	—	1	—	**3**	6
Lengths of Attendances—											
(1) One month and over	77	50	47	117	**291**	118	54	26	144	**342**	633*
(2) Under one month*	50	35	75	112	**272**	59	18	15	39	**131**	403
TABLE II.											
C—*Sources of Cases*—											
(1) Medical Men	66	47	14	31	**158**	71	25	4	19	**119**	277
(2) Charitable Societies	1	1	7	10	**19**	2	4	6	2	**14**	33
(3) Out-Patients' Departments (St. Thomas' Hospital)	—	—	—	—	—	50	24	12	102	**188**	188
(4) Others (*e.g.*, Public Health Department, Patients, etc.) ...	32	17	45	86	**180**	16	5	3	28	**52**	232
(5) "Contacts"	28	20	56	102	**206**	38	14	16	32	**100**	306
TABLE III.											
D—*Results of Diagnosis*—											
1. Ordinary Patients—											
(a) Tuberculous†	63	33	24	41	**161**	98	43	22	116	**279**	440†
(b) Suspected Tuberculous ...	36	32	42	86	**196**	41	15	3	35	**94**	290
2. "Contacts"—											
(a) Tuberculous†	7	7	7	9	**30**	6	2	2	6	**16**	46†
(b) Suspected Tuberculous ...	21	13	49	93	**176**	32	12	14	26	**84**	260

* Including cases sent for opinion only, cases unfit or unsuitable to attend, cases classified as suspected tuberculous (including non-tuberculous or doubtful), "contacts," and cases belonging and transferred to other Districts.

N.B.—Of the 486 cases (pulmonary 470, and non-pulmonary 16), diagnosed as tuberculous, 251 (*i.e.*, 51·6 per cent.) gave a family history of tuberculosis—Central Dispensary 79 out of 191 (pulmonary 184, and non-pulmonary 7), Branch Dispensary 172 out of 295 (pulmonary 286, and non-pulmonary 9).

Tables I. to VIII.—*continued.*

	Central Dispensary.					Branch Dispensary.					
	Insured.		Not Insured.		Total.	Insured.		Not Insured.		Total.	Combined Totals.
	Males.	Females.	Males.	Females.		Males.	Females.	Males.	Females.		
3. Tuberculin—											
Diagnostic	—	—	56	49	**105**	7	4	—	1	**12**	117
(Positive Reaction	—	—	20	18	**38**	5	3	—	1	**9**	47
(Negative Reaction	—	—	36	31	**67**	2	1	—	—	**3**	70
TABLE IV.											
E—*Clinical Classification of Pulmonary Tuberculous Cases.*											
(a) *Inman*—											
Stage I.	6	3	5	12	**26**	10	5	4	23	**42**	68
Stage II.	16	10	5	13	**44**	20	4	4	21	**49**	93
Stage III.	48	27	18	21	**114**	74	36	13	72	**195**	309
(b) *Turban**—											
Stage I.	11	16	8	8	**43**	17	21	5	27	**70**	113
Stage II.	24	7	5	4	**40**	37	9	3	13	**62**	102
Stage III.	13	4	5	9	**31**	20	6	5	32	**63**	94

TABLE V.											
F—*Nature of Treatment*—											
1. Routine (total cases treated one month and over)	77	50	47	117	**291**	118	54	26	144	**342**	633
including—											
2. Institutional—											
(a) Sanatoria (including Tuberculosis Hospitals)	11	10	6	10	**37**	39	14	1	20	**74**	111
(b) General Hospitals	1	2	—	—	**3**	2	—	—	—	**2**	5
(c) Poor Law Institutions ...	2	—	1	4	**7**	16	10	5	21	**52**	59
3. Tuberculin—											
Remedial	15	5	3	10	**33**	13	6	5	14	**38**	71
TABLE VI.											
C—*Results of Treatment*—											
1. Routine (total cases treated one month and over)—											
(a) Fit for work	54	41	37	92	**224**	87	44	19	120	**270**	494*
(Fit for work and remaining so	36	31	33	90	**190**	74	38	18	115	**245**	435
(Not fit for work but becoming fit	18	10	4	2	**34**	13	6	1	5	**25**	59
(b) Unfit for work	18	9	8	18	**53**	26	10	6	20	**62**	115*
(Fit for work but not remaining so	—	1	—	8	**9**	2	2	—	2	**6**	15
(Not fit for work and remaining so	18	8	8	10	**44**	24	8	6	18	**56**	100
(c) Deaths	5	—	2	7	**14**	5	—	1	4	**10**	24*
2. Institutional (Sanatorium)—											
(a) Fit for work	11	10	6	10	**37**	32	13	1	14	**60**	97
(Fit for work and remaining so	10	6	4	10	**30**	23	9	1	12	**45**	75
(Not fit for work but becoming fit	1	4	2	—	**7**	9	4	—	2	**15**	22

* N.B.—Cases in Stage III. of Inman only.

Tables I. to VIII.—*continued.*

	Central Dispensary.					Branch Dispensary.					Combined Totals.
	Insured.		Not Insured.		Total.	Insured.		Not Insured.		Total.	
	Males.	Females.	Males.	Females.		Males.	Females.	Males.	Females.		
(b) Unfit for work	—	—	—	—	—	5	1	—	5	11	11
Fit for work but not remaining so	—	—	—	—	—	—	—	—	1	1	1
Not fit for work and remaining so	—	—	—	—	—	5	1	—	4	10	10
(c) Deaths	—	—	—	—	—	2	—	—	1	3	3
(3) Tuberculin*—											
(a) Fit for work	12	4	3	8	27	12	4	4	12	32	59
Fit for work and remaining so	9	3	1	8	21	8	3	4	12	27	48
Not fit for work but becoming fit	3	1	2	—	6	4	1	—	—	5	11
(b) Unfit for work	3	1	—	—	4	1	2	1	2	6	10
Fit for work but not remaining so	—	—	—	—	—	—	—	—	—	—	—
Not fit for work and remaining so	3	1	—	—	4	1	2	1	2	6	10
(c) Deaths	—	—	—	—	—	—	—	—	—	—	—

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TABLE VII.

H—*Occupations of Tuberculous and other Patients*—										
Baker	—	—	—	—	—	3	—	—	—	3	3
Bar Attendant	2	—	—	—	2	2	1	—	1	4	6
Box-maker	—	—	—	—	—	—	—	—	—	—	—
Butcher	2	—	—	—	2	—	—	—	—	—	2
Carman	1	—	—	—	1	10	—	—	—	10	11
Carpenter	2	—	—	—	2	4	—	—	—	4	6
Chaff-cutter	—	—	—	—	—	1	—	—	—	1	1
Charwoman	—	1	—	—	1	—	4	—	—	4	5
Chauffeur	2	—	—	—	2	1	—	—	—	1	3
Clerk	9	1	5	1	16	11	—	2	1	14	30
Conductor	—	—	—	—	—	—	—	—	—	—	—
Dairyman	—	—	—	—	—	—	—	—	—	—	—
Decorator	4	—	—	—	4	9	—	2	—	11	15
Draughtsman	1	—	—	—	1	—	—	—	—	—	1
Dressmaker	—	7	—	2	9	—	9	—	5	14	23
Electrotype Finisher	1	—	—	—	1	—	—	—	—	—	1
Engineer	4	—	—	—	4	10	—	—	—	10	14
Fishmonger	1	—	—	—	1	2	—	—	—	2	3
Foreman	1	—	—	—	1	—	—	—	—	—	1
Gardener	1	—	1	—	2	1	—	—	—	1	3
General Dealer	1	—	—	1	2	2	—	—	—	2	4
Glazier	—	—	1	—	1	1	—	—	—	1	2
Housework	—	4	—	30	34	—	12	—	102	114	148
Insurance Agent	3	—	—	—	3	1	—	—	—	1	4
Labourer	3	—	1	—	4	12	—	—	—	12	16
Laundry Work	1	6	—	—	7	—	4	—	—	4	11
Milliner	—	1	—	—	1	—	—	—	1	1	2

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* N.B.—2 cases (Central Dispensary) were found to be unsuitable for tuberculin treatment and are not included.

Tables I. to VIII.—*continued.*

	Central Dispensary.					Branch Dispensary.					Combined Totals.
	Insured.		Not Insured.		Total.	Insured.		Not Insured.		Total.	
	Males.	Females.	Males.	Females.		Males.	Females.	Males.	Females.		
Miner	1	—	—	—	1	—	—	—	—	—	1
Musician	1	—	2	—	3	—	1	1	—	2	5
Newsagent	1	—	—	—	1	1	—	2	—	3	4
Nurse	—	—	—	—	—	1	1	—	—	2	2
Packer	—	—	—	—	—	5	1	—	—	6	6
Paper Maker	1	—	—	—	1	—	—	—	—	—	1
Pavior	—	—	—	—	—	—	—	—	—	—	—
Post Office Employees	3	—	2	—	5	—	1	—	—	1	6
Potter	—	—	—	—	—	2	—	—	—	2	2
Printer	3	—	1	—	4	4	3	1	—	8	12
Railway Employees	2	—	—	—	2	5	—	—	—	5	7
Royal Marine	1	—	1	—	2	—	—	—	—	—	2
School Children	—	—	10	11	21	—	—	10	7	17	38
Servant	3	19	—	1	23	1	6	1	1	9	32
Sewerman	—	—	—	—	—	—	—	—	—	—	—
Shoemaker	—	—	—	—	—	2	—	—	—	2	2
Shop Assistant	5	—	3	—	8	3	—	—	—	3	11
Stoker	2	—	—	—	2	—	—	—	—	—	2
Stone Mason	—	—	—	—	—	—	—	—	—	—	—
Tailor	2	—	1	—	3	2	—	—	—	2	5
Teacher	—	—	—	—	—	—	—	—	—	—	—
Tinsmith	2	—	—	—	2	—	—	—	—	—	2
Traveller	1	—	—	—	1	2	—	—	—	2	3
Typist	—	—	—	—	—	—	—	—	—	—	—
Waiter or Waitress	1	1	—	—	2	2	2	—	2	6	8
Warehouseman	—	—	—	—	—	4	—	—	—	4	4
Welder	1	—	1	—	2	—	—	—	—	—	2
Window Cleaner	1	—	—	—	1	—	—	—	—	—	1
No Occupation	—	—	2	4	6	—	—	5	2	7	13
Totals	70	40	31	50	191	104	45	24	122	295	486

	Dispensary Patients.	Others.	Total.	Dispensary Patients.	Others.	Total.	Combined Totals.
TABLE VIII.							
III.—Visits paid to homes of Patients by Tuberculosis Officers. *							
(a) Medical Officer †	190	22	212	—	—	...	212
(b) Nurses or Visitors †	264	197	461	218	—	218	679

* N.B.—The Tuberculosis Medical Officer attached to the Branch Dispensary, St. Thomas' Hospital, does not visit at patients' Homes, but the Lady Almoner (connected with the Hospital) does, reporting direct to the Medical Officer of Health on the official report cards.

† Prior to the opening of the Central Dispensary to the Public on July 23rd, 1913, the Tuberculosis Medical Officer (attached to that Dispensary) made 632 visits (*i.e.*, from the time of his commencing his duties on May 1st, 1913), and the Tuberculosis Nurse (attached to that Dispensary), 156 visits *i.e.*, from the time of her commencing her duties on June, 19th, 1913). These figures are in addition to those given above.

ADDENDUM.*

Table

Shewing total patients dealt with at St. Thomas's Hospital Tuberculosis Out-Patients' Department (including the Lambeth Branch Dispensary), under the care of Dr. R. C. Wingfield, during the year 1913.†

TOTAL ATTENDANCES AND PARTICULARS OF NEW PATIENTS.

Total Attendances.		*Lengths of Attendances.*		*Results of Diagnosis.*			
					Tuberculous.	Suspected Tuberculous.	Total.
(a) New Patients ...	1032	(1) One month and over	607	(1) Ordinary Patients...	608	191	799
(b) Old Patients ...	4573	(2) Under one month ‡ ...	425	(2) "Contacts" ...	20	213	233
TOTAL ...	**5605**	TOTAL ...	**1032**	TOTAL ...	**628**	**404**	**1032**

N.B.– Of the 628 patients classified as tuberculous, 596 were pulmonary, and 22 non-pulmonary cases (tub. med. glands). These numbers are exclusive of the ordinary surgical tuberculosis patients who are admitted for treatment direct into the surgical wards of the Hospital and not through the Tuberculosis Department.

ADDENDUM—*continued.*

Sources of Cases.

1.	Medical Men	175
2.	Charitable Societies ...	30
3.	Out-patients' Departments (St. Thomas' Hospital)	491
4.	Others (Public Health Department, private, recommendations of patients, &c.)	103
5.	"Contacts"	233
	TOTAL	1032

Clinical Classification of Pulmonary Tuberculosis cases

Inman.

Stage I. ...	100
Stage II. ...	93
Stage III. ...	393
TOTAL ...	586‖

Nature and Results of Treatment.

	Routine (all cases)	Institutional (Sanat'rium)	Previous Institutional (Sanat'rium)	Tuberculin.
(a) Fit for work ...	443	73	88	46
Fit for work and remaining so ...	395	46	88	36
Not fit for work but becoming fit ...	48	27	—	10
(b) Unfit for work ...	142	18	34	9
Fit for work but not remaining so ...	37	8	2	4
Not fit for work and remaining so ...	105	10	32	5
(c) Deaths	22	4	3	—
TOTAL ...	607	95	125	55 §

* The figures are supplied by Dr. Wingfield through the Secretary of the Hospital.
† St. Thomas' Hospital, being a General Hospital, deals with patients coming from all parts, *e.g.* Lambeth and other Metropolitan areas and the Provinces.
‡ Including cases sent for opinion only, cases unfit to attend as patients, cases diagnosed as suspected tuberculous (including non-tuberculous or doubtful) and "contacts."
‖ The remaining tuberculous ordinary patients, *i.e.*, 22, were non-pulmonary cases, making up the total of €08.
§ 15 cases were found to be unsuitable for tuberculin treatment and are not included.

ADDENDUM—*continued.*

Transfers of Patients to other Special Hospital Departments.

Of the 799 new patients attending the Tuberculosis Department, 431 were referred or transferred for opinion or treatment to the following Special Hospital Departments :—

Dental	150	Medical	35	Gynæcological ...	20	Others	19
Larygological ...	70	Surgical	21	Ophthalmic ...	17		
X Ray	70	In-patients ...	21	Skin	8	TOTAL	**431**

N.B.—A special ward (10 beds) for diagnosis and treatment is attached to the Tuberculosis Department and from June (when the ward was opened) up to the end of the year 1913, the following patients have been dealt with :—

1. Diagnosis ... ... 20 (positive 16, negative 4)
2. Treatment ... ... 23 (1 death)

Hospital Lady Almoner's Department.

Houses visited :

Houses visited regularly by Lady Almoner's staff	**478**
Houses visited by other Agencies	**331**
Houses not visited (common lodging houses, cases for opinion only, &c.) ...	**77**

ADDENDUM—*continued.*

Nature of help given.	Through National Insurance.	Through Charitable Societies.	TOTAL.
1. Sanatoria, Homes, Tuberculosis Hospitals, &c :—			
Patients sent to Sanatoria	77	58	135
Patients sent to Homes	1	38	39
Patients sent to Tuberculosis Hospitals	11	50	61
Patients boarded out in the country	—	23	23
2. Other help :—			
Patients given extra food (milk, eggs, &c.)	12	114	126
Patients given extra clothing (blankets and bedding)	—	27	27
Patients allowed the use of shelters...	—	10	10
Patients provided with nurses for prolonged periods	—	14	14
Patients who had suitable work found for them	—	12	12
Other matters (not classified above, *e.g.*, false teeth, surgical appliances, financial help, &c., provided)	—	60	60
TOTALS ...	101	406	507

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GENERAL INDEX.