[Report of the Medical Officer of Health for Fulham Borough].

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Metropolitan Borough of Fulham.

ANNUAL REPORT

of the

Medical Officer of Health

for the year

1933.

JOHN SULLIVAN, M.B., Ch.B., D.P.H.

Medical Officer of Health.

Metropolitan Borough of Fulham.

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FULHAM BOROUGH COUNCIL.

PUBLIC HEALTH COMMITTEE, 1932-1933.

His Worship the Mayor (Councillor W. Fowell, J.P., M.R.S.T.). *Ex-officio.*

Chairman: Councillor F. A. Barham.

Vice-Chairman: Councillor A. G. Everard.

Councillor Dr. T. J. Bokenham
,, S. T. Cave
,, J. Corcoran
,, Mrs. H. L. Cummins
,, L. F. Dew
,, H. Dodimead
Councillor A. W. Ford
,, Miss C. Fulford
,, G. L. Hodge
,, J. S. Melville
,, Mrs. R. H. B. Pavitt
,, Sir. T. W. Richardson
Councillor W. J. Stockwell, M.R.S.T.

MATERNITY AND CHILD WELFARE COMMITTEE, 1932-1933.

His Worship the Mayor (Councillor W. Fowell, J.P., M.R.S.T.). *Ex-officio.*

Chairman: Councillor Mrs. H. L. Cummins.

Vice-Chairman: Councillor H. Dodimead.

Councillor Mrs. W. Brooks
,, G. L. Hodge
,, Mrs. G. M. King
,, A. Minute, J.P.
,, Mrs. R. H. B. Pavitt
,, G. R. Renton
Councillor Mrs. G. M. Scates
,, Miss G. Waldron
*Mrs. E. Corbin
*Mrs. A. Minute
*Mrs. E. E. Pritchard
*Miss C. J. Sketchley
*Miss C. M. L. Wickham

*Co-opted members.

TOWN HALL,
FULHAM, S.W.6.
July, 1934.

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

MR. MAYOR, LADIES AND GENTLEMEN,

I have the honour to submit my Annual Report on the Vital Statistics and the Sanitary Condition of the Borough for the year 1933.

I wish to convey my thanks to the members of the Staff for their loyal services and to my colleagues in other departments for their willing co-operation.

I desire to take this opportunity of thanking the chairmen and members of the Public Health and Maternity and Child Welfare Committees for the valuable support they have given me, and I also wish to thank the members of the Voluntary Societies who have been so intimately associated with me in the course of their work, especially the Charity Organisation Society and the Invalid Children's Aid Association, who have both done a vast amount of visiting and other work on behalf of the Council in connection with cases of tuberculosis and maternity and child welfare. The members of the Committees of the Fulham Babies' Hospital and the Fulham Day Nursery have also contributed largely to the success of the Maternity and Child Welfare work.

I have to record with deep regret the death on 7th November, 1933, of the Founder of the Day Nursery, Mr. C. Frank Stoop. Mr. Stoop was a very great friend to the Nursery and his death was a great loss.

The helpful co-operation of Head Masters and Mistresses of schools and of teachers has been most valuable.

The Medical Profession in the Borough have shown an increasing desire to co-operate in public health work, for which I thank my colleagues.

We have in Fulham a most enlightened press who give publicity to the various objects of the department. The public take more and more interest in health questions and a constructive public opinion is especially desirable.

I may say that the Staff have endeavoured loyally to carry out the desires of the Council and to act in conformity with the London County Council and the instructions of the Ministry of Health.

During 1933 the duties of the Public Health Department were increased by the Housing Campaign and the passing of the Transfer of Powers (London) Order, 1933, which transferred certain powers and duties of the London County Council to Borough Councils as from 1st April, 1933, including Infant Life Protection, the control of Common Lodging Houses and the licensing of slaughterhouses.

During 1933 the Borough Council accepted my recommendation to establish a Clinic for Immunisation against Diphtheria for the ensuing year.

I have the honour to be,

Mr. Mayor, Ladies and Gentlemen,

Your obedient Servant,

JOHN SULLIVAN,

Medical Officer of Health.

STAFF IN THE PUBLIC HEALTH DEPARTMENT.

Staff Changes. I regret to record the untimely death of the Council's Public Analyst, Mr. William Partridge, F.I.C., which occurred on 11th December, 1933.

Mr. Partridge was a most distinguished and well loved member of his profession and his death was a great loss to the Borough.

The death of Mr. A. J. Parsons, the Council's Senior Inspector, on 7th March, 1934, which took place shortly after his resignation on 30th September, 1933, was a great shock to the members of the Council and the Staff. Mr. Parsons was an inspector for 34 years and was greatly respected and liked for his great work and his genial personality.

Other staff changes are shown in the following list of members of the staff.

Medical Officer of Health:
*JOHN SULLIVAN, M.B., Ch.B. (Edin.), D.P.H. (Lond.).

Deputy Medical Officer of Health:
*P. L. T. BENNETT, *M.C.*, M.R.C.S. (Eng.), L.R.C.P. (Lond.). D.P.H. (Lond.), T.D.D. (Wales).
(*Tuberculosis Officer and Medical Officer Borough Bacteriological Laboratory*).

Assistant Medical Officers of Health:
*RUBY THOMSON, M.B., Ch.B. (Edin.), D.P.H. (Edin. and Glas.).
(*Maternity and Child Welfare Officer*).

*ANNA R. PARK, M.B., Ch.B., B.A.O., (Belf.), D.P.H. (Belf.).
(*Resigned 14th May*, 1933).

*HELENA E. BARRETT, B.A., M.B., Ch.B., B.A.O. (N.U.I.), D.P.H. (Edin. and Glas.).
(*Appointed 28th June*, 1933).

Dental Surgeon:
*W. E. DODD, L.D.S. (*part-time*).

Consulting Obstetrician:
ALEX. GALLETLY, *M.C.*, M.B., Ch.B., (Edin.), F.R.C.S.E.

Public Analyst:
WILLIAM PARTRIDGE, F.I.C. (*part-time*).
(*Died 11th December*, 1933).

THOMAS MCLACHLAN, A.C.G.F.C., F.I.C. (*part-time*).

Public Vaccinators:

North District: A. G. WELLS, M.R.C.S. (Eng.), L.R.C.P. (Lond.), L.S.A. (*part-time*).

South District: T. DUFF MILLER, M.D. (Glas.), Ch.B. (Glas.), F.R.F.P.S. (*part-time*).

Vaccination Officer:

HUGH DAVIES.

Clerical Staff:

A. T. HURFORD, *Chief Clerk.*

O. A. TRENDELL
1 L. G. BROOKS
1 S. J. CASSIDY
1 J. D. DANT
W. SWINSON

Maternity and Child Welfare:

*Miss A. DRURY
*Miss G. M. KNIGHT (*Resigned 31st March*, 1933).
*Miss E. G. GOODRUM (*Appointed 1st April*, 1933).
*Miss W. E. NOBLE

Senior Sanitary Inspector:

13 *ALFRED J. PARSONS (*Retired 30th September*, 1933).
1 *ALBERT E. CLUTTERBUCK.

Sanitary Inspectors:

1 *EDGAR DRAKE.
12 *THOMAS HENRY ROBEY.
12 *ALEX. W. GAMMACK, (*Food and Drugs Inspector*)
12 *FREDERICK E. WALSH.
12 *ARTHUR S. JONES.
12 *HENRY HUTCHINSON.
12 *FREDERICK C. PAYNE.
12 *WILFRED C. TURNER.
12 *CHARLES J. PRICE. (*Appointed 19th July*, 1933).
156 *Miss M. E. RAYNOR, (*Resigned 14th Jan.*, 1933).
1456 *Miss ELLEN H. SEXTON (*Appointed 15th Feb.*, 1933).

Health Visitors:

456 *Mrs. J. BRYNING.
146 *Miss A. PERRETT.
4567 *Miss D. M. HAYWARD.
456 *Miss G. LEACH.
4568 *Miss E. BECKETT.
456 *Mrs. J. GRANVILLE-SMITH
456 *Miss P. KAYE.

Tuberculosis Dispensary Staff:

Nurses:

4 6 *Miss R. Bowen. (*Retired 15th Feb.*, 1933).
4 *Miss E. E. Walker.
4 5 6 *Miss E. C. Carmichael.
4 5 6 *Miss E. M. Pretty. (*Appointed 12th April*, 1933).

*Miss M. C. Robinson, *Bacteriological Assistant and Dispenser.*
*Miss M. E. Sargent, *Clerk and Secretary of the Care Committee,*
*Miss W. Wright, *Clerk (part-time).*
*Mr. and Mrs. Roberts, *Caretakers.*

Maternity Home:

Matron: 4 6 *Miss M. Bustard.
Assistant Matron: 4 6 *Miss M. Denman.

Disinfecting Station:

Superintendent: A. V. Williams.
Disinfectors: E. J. Eyles, W. Leaton *and* G. Passenger.
Van Driver: S. Webb.

Mortuary Keeper: S. Churchill.
Rat Officer: J. Gigner.
Housekeeper at Greyhound Road Infant Welfare Centre:
*Mrs. B. Gregory.

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*The Council receives Exchequer grants towards the salaries of these Officers:—

1 Certified Sanitary Inspector.
2 Food Inspector's Certificate.
3 Registered Plumber.
4 Trained Nurse.
5 Health Visitor's Certificate.
6 Certificate of Central Midwives Board.
7 Fever Trained.
8 Queen's Nurse.

General Statistics.

Area (Acres)	1,706
Population (Census, 1931)	150,928
Population (mid 1933)	148,200
Number of inhabited houses (Census, 1931)	26,245
Rateable Value	£1,136,356
Sum represented by a penny rate	£4,620

Extracts from Vital Statistics for the Year.

	Total.	Males.	Females.	
Live Births:—				
Legitimate	1806	906	900	Birth rate per 1,000 of the estimated resident population, 13.08
Illegitimate	132	60	72	
Stillbirths:—				
Legitimate	59	31	28	Rate per 1,000 total (live and stillbirths) births, 32.5
Illegitimate	6	5	1	
Deaths:—	1926	943	983	Death rate per 1,000 of the estimated resident population, 13.00

Percentage of deaths occurring in Public Institutions 58.1

Deaths from diseases and accidents of pregnancy and childbirth ..... from sepsis ..... 4; from other causes 5

Death Rate of Infants under One Year of age:—

All infants per 1,000 live births	65
Legitimate infants per 1,000 legitimate live births	58
Illegitimate infants per 1,000 illegitimate live births	159

Deaths from:—

Measles (all ages)	2
Whooping Cough (all ages)	14
Diarrhoea (under 2 years of age)	25

Population. The census taken during 1931 showed that the population of the borough was 150,928 but the Registrar-General's estimate of the population for the year 1933 was 148,200. This latter figure has been used for the compilation of the various rates mentioned in this report.

Marriages. The number of marriages during 1933 was 1,256 and the marriage rate (the number of marriages per 1,000 of the population) was 8.47. In 1932 the number of marriages was 1,211 and the marriage rate 8.09, while the marriages in the previous year numbered 1,336, giving a marriage rate of 8.8 per thousand of the population.

Births. During the year the live births, corrected by the distribution of those occurring in lying-in institutions in the borough to those districts in which the mothers resided and the inclusion of children born to Fulham mothers in institutions outside the borough, numbered 1,938 of whom 966 were males and 972 were females. The birth rate (the number of live births per 1,000 of the population) was 13.08. The birth rate for the whole of London was 13.2 and for England and Wales 14.4.

Stillbirths. The number of stillbirths during 1933 was 65, compared with 64 during the previous year. The stillbirths amounted to 32.5 per 1,000 of the total births (live and stillbirths).

Illegitimacy. The illegitimate live births numbered 132 (60 males and 72 females) during 1933 as compared with 136 for the previous year and they constituted 6.8 per cent. of the total live births.

Natural Increase of the Population. The natural increase of the population, that is to say the excess of the total live births over the deaths, was 12 compared with 289 in 1932.

Deaths. During the year ended 31st December, 1933, 1,531 deaths were registered as having occurred in the borough. Of these, 143 were of persons not belonging to the borough while 538 inhabitants of Fulham died outside the borough, chiefly in public institutions. There were, there-

fore, 1926 deaths of persons—943 males and 983 females—having their usual residence in Fulham, representing an annual rate of 13.00 per thousand of the population. This rate is 0.6 above that of the previous year and 0.3 below that of 1931.

The following death rates for 1933 are of interest :—

England and Wales	12.3
London	12.2
Fulham	13.0

Certifications of causes of death. Of the 1,926 deaths belonging to the borough, 1,730 or 89.8 per cent. were certified by registered medical practitioners ; 121 or 6.3 per cent. by coroners after inquests ; 74 or 3.8 per cent. by coroners without inquests, while one case was uncertified.

Deaths in Public Institutions.

Fulham Hospital. In this institution, belonging to the London County Council, there were 664 deaths, of which 624 were of Fulham residents, while 40 were of persons belonging to other districts.

Western Hospital, one of the London County Council Infectious Diseases Hospitals, had 98 deaths during the year. Of this number 18 were Fulham residents and 80 were patients admitted from other districts.

Deaths of Fulham residents outside the borough. The deaths of Fulham residents in institutions outside the borough numbered 477 and occurred in the following places :—

St. George's Hospital	23
West London Hospital	29
Other General Hospitals	93
Children's Hospitals	18
Women's Hospitals	6
Other special Hospitals	32
L.C.C. Infectious Disease Hospitals	14
Public Assistance Hospitals	179
Mental Hospitals	71
Sanatoria	12
	477

Of the deaths of Fulham persons 58.1 per cent. took place in public institutions as follows:

	Per cent.
803 in Public Assistance Institutions or Hospitals	40.15
32 in Infectious Disease Hospitals	2.16
213 in other Hospitals	11.20
71 in Mental Hospitals	3.89

Zymotic Deaths. The Zymotic Death Rate is that from the principal zymotic or infectious diseases, viz.—smallpox, scarlet fever, diphtheria, measles, whooping-cough, diarrhoea and fevers (typhus, enteric, other or doubtful fevers).

The mortality from these diseases was lower than in 1932, 50 deaths being due to them as against 73. The death rate per 1,000 of the population was 0.33 as compared with 0.49 for 1932.

Seasonal Mortality. The mortality in the four quarters of the year under review was as follows:

	1933	1932
First Quarter	704	566
Second quarter	407	451
Third quarter	337	365
Fourth quarter	478	466
	1,926	1,848

Causes of Death. These are classified in Table II., pages 19 and 20. The following table shows the diseases which caused the largest number of deaths :—

Disease.	Males.	Females.	Both Sexes.	Percentage of total deaths.
Heart Disease	222	290	512	26.6
Cancer	116	124	240	12.5
Tuberculosis	84	56	140	7.3
Pneumonia	55	56	111	5.7
Influenza	36	41	77	3.9
Bronchitis	39	36	75	3.8
Chronic and Acute Nephritis	34	25	59	3.1
Cerebral Haemorrhage, etc	23	31	54	2.8
Totals	609	659	1,268	65.8.

It will be seen that heart disease, as in the last four years, heads the list ; 512 deaths were certified as due to this cause in 1933 compared with 493 during 1932. Cancer came next with 240 deaths, an increase of seven on the previous year.

Tuberculosis took third place with 140 deaths as against 160 during 1932.

There was a decrease in the mortality from pneumonia, the number falling from 118 to 111.

There was an increase in the deaths from bronchitis, the number being 75 compared with 48 during 1932.

Influenza caused 77 deaths compared with 31 in the previous year.

The following figures show the number of deaths from the common diseases classified according to the organs of the body affected.

Diseases of the organs of circulation caused 623 deaths in 1933 or 32.3 per cent. of the total, including 512 from heart disease, 2 from aneurysm and 109 from other circulatory diseases. Including haemorrhage into the brain, the deaths from circulatory diseases were 677.

There were 325 deaths in 1933 from diseases of the respiratory organs, equal to 16.8 per cent. of the total deaths. This number was made up as follows :—Pneumonia 111, Tuberculosis of the lungs, 126, Bronchitis 75, and other respiratory diseases 13. A large number of deaths from bronchitis (55.4 per cent.) were in persons over 65 years of age. In the case of deaths from pneumonia 35.1 per cent. were in persons over 65 years of age and 7.2 per cent. were in children under one year of age.

Cancer.

An important report on Cancer of the Skin was published by the Ministry of Health in May, 1933, (Price 2/-) as the result of an inquiry undertaken at the instance of the Yorkshire Council of the British Empire Cancer Campaign under the direction of the Faculty of the General Infirmary at Leeds.

Deaths from Cancer in 1933.

	Males.	Females.	Total.
Carcinoma	108	115	223
Sarcoma	4	1	5
Epithelioma	2	1	3
Not defined	4	7	11
	116	124	240

Deaths Classified According to the Organ Affected.

Cancer of Digestive Organs and Peritoneum	110	(63 males, 47 females)
Cancer of Respiratory Organs	20	(12 males, 8 females)
Cancer of Breast	18	
Cancer of Genito-Urinary Organs, males	13	
Cancer of Uterus	24	
Cancer of Buccal Cavity and Pharynx	21	(17 males, 4 females)
Cancer of other organs	34	(11 males, 23 females)

Ages at Death of Persons Dying from Cancer in 1933.

Age Periods.	Males.	Females.	Total.
0 to 25 years	1	—	1
25 to 35 years	2	1	3
35 to 45 years	2	9	11
45 to 55 years	20	25	45
55 to 65 years	44	34	78
65 to 75 years	36	31	67
75 years upwards	11	24	35
	116	124	240

From the table showing the principal causes of death it will be seen that one out of every eight deaths in the borough in 1933 was due to Cancer.

Infantile Mortality.

Of 1,926 deaths of persons of all ages belonging to Fulham during 1933, 126 or 6.5 per cent. occurred in infants under One Year of age.

The Infantile Mortality rate (the number of deaths of infants under One Year of age per 1,000 live births) was 65 as compared with 58 during 1932. The actual number of deaths was 126 compared with 124.

The infantile mortality rate for England and Wales was 64 and for London 59.

Infantile Mortality Rate in Fulham since 1891.

Average for five years.		Actual rate for last seven years.	
1891-1895	168	1927	66
1896-1900	167	1928	77
1901-1905	144	1929	69
1906-1910	117	1930	57
1911-1915	109	1931	67
1916-1920	92	1932	58
1921-1925	73	1933	65
1926-1930	67		

The following table shows the birth and infantile mortality rates during the last two years for the various wards in the borough :—

Wards.	Births and Birth rates.		Infantile deaths.		Infantile mortality rates.	
	1933	1932	1933	1932	1933	1932
Baron's Court	131 (8.7)	139 (9.2)	14	8	107	57
Lillie	167 (7.3)	228 (9.9)	24	23	144	100
Walham	163 (11.4)	215 (15.1)	23	20	141	93
Margravine	465 (27.8)	514 (30.8)	13	19	28	37
Munster	433 (21.4)	433 (12.7)	19	20	44	46
Hurlingham.....	61 (6.8)	68 (7.6)	9	10	147	147
Sands End	181 (7.6)	214 (8.9)	17	20	94	93
Town	337 (24.6)	326 (23.8)	7	4	21	12
BOROUGH.....	1938 (13.08)	2137 (14.3)	126	124	65	58

It will be seen from Table III. on pages 21 and 22 that the principal causes of intantile mortality were as follows :—

Prematurity	45 deaths	compared with 29 in 1932
Diarrhoea and Enteritis	17 ,,	,, ,, 21 ,, ,,
Pneumonia (all forms).....	16..... ,,	,, ,, 16 ,, ,,
Atrophy, debility and Marasmus	16 ,,	,, ,, 12 ,, ,,

Forty-eight deaths of infants under four weeks of age occurred in 1933 as compared with 50 during 1932 and 55 during 1931.

The following table shows the number of infantile deaths from all causes as compared with infantile deaths from diarrhoea since 1923:—

	Infantile deaths from all causes.	Infantile deaths from Diarrhoea.
1923	199	21
1924	214	18
1925	211	36
1926	173	28
1927	162	16
1928	185	50
1929	173	33
1930	136	28
1931	154	15
1932	124	21
1933	126	17

TABLE I.—VITAL STATISTICS OF THE WHOLE BOROUGH DURING 1933 AND TEN PRECEDING YEARS.

YEAR.	Population Estimated to Middle of each Year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE BOROUGH.		TRANSFERABLE DEATHS. †		NETT DEATHS BELONGING TO THE BOROUGH.			
		Uncorrected Number.	Nett.						Under 1 Year of Age.		At all Ages.	
			Number.	Rate.	Number. *	Rate.	Of Non-Residents registered in the Borough.	Of Residents not registered in the Borough.	Number. *	Rate per 1,000 Nett Births.	Number *	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1923	161600	3312	3123	19.3	1632	10.0	252	328	199	64	1708	10.5
1924	163100	2975	2967	18.2	1717	10.5	270	373	214	72	1820	11.1
1925	163700	2780	2771	16.9	1620	9.9	209	343	211	76	1754	10.7
1926	164300	2691	2670	16.2	1578	9.6	168	373	173	64	1783	10.8
1927	161900	2356	2444	15.1	1588	9.8	121	366	162	66	1833	11.3
1928	155300	2319	2388	15.4	1548	9.9	128	360	185	77	1780	11.5
1929	153700	2328	2502	16.2	1882	12.2	157	394	173	69	2119	13.7
1930	153700	2226	2366	15.3	1473	9.5	143	343	136	57	1673	10.8
1931	151200	2103	2281	15.08	1532	10.1	107	432	154	67	1857	13.3
1932	149600	1842	2137	14.3	1569	10.5	202	481	124	58	1848	12.4
1933	148200	1579	1938	13.08	1531	10.3	143	538	126	65	1926	13.00

NOTES.—This Table is arranged to show the gross births and deaths registered in the borough during the year, and the births and deaths properly belonging to it with the corresponding rates.

* In Column 6 are included the whole of the deaths registered during the calendar year as having actually occurred within the borough, *but excluding the deaths of Soldiers and Sailors that have occurred in hospitals and institutions in 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.

† "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 is stated, and in Column 9 the number of deaths of "residents" outside the district which are added in calculating the nett death-rate of the Borough.

The following special cases arise as to Transferable Deaths :—

(1) Persons dying in Institutions for the sick or infirm, such as hospitals, lunatic asylums, workhouses and nursing homes (but not almshouses) are regarded as residents of the district in which they had a fixed or usual residence at the time of admission. If the person dying in an Institution had no fixed residence at the time of admission, the death is not transferable. If the patient has been directly transferred from one such Institution to another, the death is transferable to the district of residence at the time of admission to the first institution.

(2) The deaths of infants born and dying within a year of birth in an Institution to which the mother was admitted for her confinement are referred to the district of fixed or usual residence of the parent.

(3) Deaths from Violence are referred (*a*) to the district of residence, under the general rule ; (*b*) if this district is unknown, or the deceased had no fixed abode, to the district where the accident occurred, if known ; (*c*) failing this, to the district where death occurred, if known ; and (*d*) failing this, to the district where the body was found.

Area of District in acres (land and inland water), 1,706. Total population at all ages at the Census of 1931 : 150,928.

TABLE II.

Causes of and Ages at Death during the Year 1933.

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)	*Nett deaths at all ages of "Residents" in the Wards of the Borough, whether occurring in or beyond the Wards.*						
	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 35 years	35 and under 45 years	45 and under 55 years	55 and under 65 years	65 and under 75 years	75 years and upwards		Baron's Court Ward	Lillie Ward	Walham Ward	Margravine Ward	Munster Ward	Hurlingham Ward	Sands End Ward	Town Ward
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
All Causes { Certified (c)	1925	126	23	22	37	80	83	116	234	321	407	476	782	202	334	186	207	409	142	261	184
All Causes { Uncertified	1	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—
1. Typhoid and paratyphoid fevers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2. Measles	2	—	—	1	1	—	—	—	—	—	—	—	8	—	1	1	—	—	—	—	—
3. Scarelt Fever	6	—	1	2	3	—	—	—	—	—	—	—	12	—	2	1	1	2	—	—	—
4. Whooping Cough	14	7	2	3	2	—	—	—	—	—	—	—	18	2	1	—	3	3	1	3	1
5. Diphtheria	8	—	2	3	3	—	—	—	—	—	—	—	46	1	2	1	1	2	1	—	—
6. Influenza	77	1	—	1	2	5	4	8	9	13	15	19	24	8	11	7	9	21	1	13	7
7. Encephalitis Lethargica	1	—	—	—	1	—	—	—	—	—	—	—	1	—	—	—	—	—	1	—	—
8. Cerebro-spinal fever	4	—	1	—	2	—	—	1	—	—	—	—	3	—	—	1	—	1	—	—	2
9. Tuberculosis of respiratory system	126	—	—	—	1	31	21	25	25	18	5	—	44	9	24	15	16	22	10	17	13
10. Other tuberculous diseases	14	—	—	—	3	5	4	—	1	—	1	—	3	1	4	1	2	—	2	4	—
11. Syphilis	8	1	—	1	—	—	1	—	1	4	—	—	3	—	1	1	—	4	—	1	1
12. General paralysis of the insane	13	—	—	—	—	—	—	2	2	4	4	1	5	—	3	2	2	4	—	1	1
13. Cancer, malignant disease	240	—	—	—	—	1	3	11	45	78	67	35	70	33	43	23	27	49	18	20	27
14. Diabetes	21	—	—	—	1	—	—	—	4	7	6	3	6	2	3	4	—	5	1	4	2
15. Cerebral haemorrhage, etc.	54	—	—	—	—	—	—	—	5	12	15	22	8	8	11	4	5	9	6	8	3
16. Heart disease	512	—	—	—	3	6	6	21	37	67	135	237	217	44	95	41	58	108	45	69	52
17. Aneurysm	2	—	—	—	—	—	—	1	—	—	—	—	—	1	—	—	—	—	1	—	—
18. Other circulatory diseases	109	1	—	—	—	—	1	—	4	22	43	38	56	18	12	10	9	29	3	12	16
19. Bronchitis	76	9	1	—	—	—	1	6	8	10	17	24	17	7	7	5	9	18	5	13	12
20. Pneumonia (all forms)	121	13	8	3	2	4	5	5	28	14	22	17	37	10	24	16	14	26	7	18	6
21. Other respiratory diseases	13	—	—	—	—	1	—	1	—	3	4	4	4	1	2	1	1	4	—	4	—
22. Peptic ulcer	16	—	—	—	—	—	—	3	4	5	4	—	7	3	3	1	1	2	1	3	2
23. Diarrhoea, etc.	25	16	4	—	1	1	—	—	1	—	1	1	9	3	3	4	2	3	3	5	2
24. Appendicitis	16	—	—	1	1	1	2	2	3	3	3	—	8	3	2	1	1	5	—	1	3
25. Cirrhosis of liver	9	—	—	—	—	—	—	—	4	3	1	1	1	—	3	—	—	4	1	—	1
26. Other diseases of liver, etc.	7	—	—	—	—	—	—	—	2	1	2	2	—	1	2	—	—	1	1	1	1
27. Other digestive diseases	38	3	—	—	1	—	2	6	5	7	8	6	13	5	6	5	5	8	4	4	1
28. Acute and chronic nephritis	59	—	—	—	1	—	4	4	6	18	18	8	27	5	12	5	5	11	5	10	6
29. Puerperal sepsis	4	—	—	—	—	1	1	2	—	—	—	—	4	—	1	1	—	—	—	1	1
30. Other puerperal causes	5	—	—	—	—	1	3	1	—	—	—	—	3	—	1	1	—	—	—	3	—
31. Congenital debility, premature birth, malformations, etc.	74	71	2	—	1	—	—	—	—	—	—	—	37	10	15	12	8	10	4	11	4
32. Senility	30	—	—	—	—	—	—	—	—	1	4	25	—	5	—	4	3	12	1	3	2
33. Suicide	20	—	—	—	—	2	5	4	2	3	3	1	3	2	4	2	1	—	2	5	4
34. Other violence	72	1	1	4	3	9	10	5	8	8	11	12	26	5	13	5	10	16	8	10	5
35. Other defined causes	130	3	1	3	4	12	10	8	30	20	18	21	62	16	23	11	14	30	10	17	9
36. Causes ill-defined, or unknown	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL	1926	126	23	22	37	80	83	116	234	321	407	477	782	203	334	186	207	409	142	261	184

(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 column 2—13, and columns 15—22. 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.

(b) All deaths occurring in institutions for the sick and infirm situated within the district, whether of residents or of non-residents, are entered in column 14 of Table II.

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

TABLE III.

Infant Mortality during Year 1933.

CAUSE OF DEATH.	*Nett Deaths from stated causes at various ages under One Year of Age.*										*Nett Deaths under One Year of Residents in the Wards of the Borough.*							
	Under 1 Week.	1—2 Weeks.	2—3 Weeks.	3—4 Weeks.	Total under 4 Weeks.	4 Weeks and under 3 Months.	3 Months and under 6 Months.	6 Months and under 9 Months.	9 Months and under 12 months.	TOTAL DEATHS UNDER ONE YEAR.	Baron's Court Ward.	Lillie Ward.	Walham Ward.	Margravine Ward.	Munster Ward.	Hurlingham Ward.	Sands End Ward.	Town Ward.
All Causes { Certified	45	6	3	4	58	20	30	9	9	126	14	24	23	13	19	9	17	7
All Causes { Uncertified	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1. Small-pox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2. Chicken-pox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. Measles	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4. Scarlet Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
5. Whooping Cough	—	—	—	—	—	1	4	—	2	7	—	1	—	2	2	1	1	—
6. Diphtheria and Croup	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. Erysipelas	—	—	—	—	—	—	—	1	—	1	—	—	1	—	—	—	—	—
8. Tuberculous Meningitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9. Abdominal Tuberculosis (*a*)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10. Disseminated Tuberculosis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. Other Tuberculous Diseases	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. Meningitis (not Tuberculous)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
13. Convulsions	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	1	—
14. Laryngitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
15. Bronchitis	—	—	—	—	—	1	3	4	1	9	1	1	3	1	1	1	—	1
16. Pneumonia (all forms)	—	1	—	—	1	2	6	1	2	12	—	1	4	2	3	—	1	1
17. Influenza	—	—	—	—	—	—	—	—	1	1	—	1	—	—	—	—	—	—
18. Diarrhoea	—	—	—	—	—	1	3	—	1	5	—	1	1	—	—	—	3	—
19. Enteritis	—	—	—	—	—	5	4	1	2	12	3	1	2	1	1	2	1	1
20. Gastritis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
21. Syphilis	—	—	—	—	—	—	1	—	—	1	—	1	—	—	—	—	—	—
22. Rickets	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
23. Suffocation, overlaying	—	—	—	—	—	—	1	—	—	1	—	—	—	—	—	1	—	—
24. Injury by Birth	1	1	—	—	2	—	—	—	—	2	—	—	1	—	—	—	1	—
25. Atelectasis	2	—	—	—	2	—	—	—	—	2	—	1	1	—	—	—	—	—
26. Congenital Malformations	1	2	1	—	4	2	—	1	—	7	—	1	1	1	2	—	1	1
27. Premature Birth	38	2	2	3	45	—	—	—	—	45	7	8	8	5	5	2	7	3
28. Atrophy, Debility and Marasmus	1	—	—	1	2	7	7	—	—	16	2	5	1	1	4	2	1	—
29. Other Causes	2	—	—	—	2	1	1	—	—	4	1	2	—	—	1	—	—	—
TOTAL	45	6	3	4	58	20	30	9	9	126	14	24	23	13	19	9	17	7

Nett Births in the Year :—
Legitimate 1,806
Illegitimate 132
Nett Deaths in the Year of :—
Legitimate infants 105
Illegitimate infants 21

(*a*) Under Abdominal Tuberculosis are included deaths from Tuberculous Peritonitis and Enteritis, and from Tabes Mesenterica.
Want of breast milk is included under Atrophy and Debility.

Maternal Mortality.

During the year investigations were made into the causes of death in nine cases of Maternal Mortality and the reports were transmitted to the Maternal Mortality Committee.

The following is a list of the cases with the causes of death :—

Occupation.	Age.	Date and Place of death.	Cause of Death.
Wife of an electrical fitter	28	Dec. 31st, 1932, in hospital	1. (a) Puerperal Septicaemia. (b) Parametritis. 2. Confinement (10-12-32) full time live foetus.
Wife of a tin box maker	25	April 9th, in hospital	1. (a) Post-Partum collapse. (b) Ac. fulminating tox-aemia of pregnancy.
Spinster, general domestic servant	24	April 27th, in hospital	1. (a) Puerperal Septicaemia. (b) Parturition.
Wife of a slate machinist	34	May 15th, in hospital	1. (a) Concealed accidental haemorrhage (uterine). (b) Pregnancy.
Wife of a labourer	35	May 29th, in hospital	1. (a) Ac. oedema of lungs. (b) Eclampsia. 2. Partus, 29-5-33.
Wife of a milkman	24	July 8th, in hospital	1. (a) Post-partum haemorrhage (b) Retained placenta.
Wife of a chef.	29	Oct. 3rd, in hospital.	1. (a) Shock. Childbirth. (b) Instrumental delivery. Chloroform anaesthesia.
Wife of a builder's labourer	39	Nov. 3rd, in hospital	1. (a) Pulmonary embolism. (b) Puerperal pyaemia. (c) Miscarriage.
Wife of a journeyman carpenter	39	Nov. 9th, in hospital.	1. Pyaemia following delivery.

Infectious Diseases.

Incidence. Full particulars of all notifiable diseases arranged according to disease, ward and age, will be found in Table IV. on page 37.

The number of cases of infectious disease notified during 1933 was 1,711 compared with 4,190 in 1932. This large decrease was due to the epidemic of Measles which occurred during 1932 and, excluding this disease, the cases notified were 1,648 as against 1,508 in 1932. The increase in the number of notified cases, excluding Measles, was again due to a larger number of Scarlet Fever cases.

The notifications of Diphtheria increased from 177 to 185 and those of Scarlet Fever rose from 543 to 720. There was a decrease in the notifications of primary and influenzal Pneumonia from 241 to 203. Notifications of Erysipelas decreased from 106 to 104 and Enteric Fever from 11 to 5, while those of Epidemic Diarrhoea fell from 22 to 13. There was a decrease in the number of notifications of Tuberculosis, 257 as compared with 314. The number of cases of infectious disease of the central nervous system was 7 compared with 12 in the previous year; they included 5 cases of Cerebro-spinal Fever and 2 of Polio-myelitis.

Mortality from Infectious Diseases. There were 320 deaths from notifiable infectious diseases in 1933 compared with 349 in 1932.

The deaths from Diphtheria were 8 compared with 10 and those from Scarlet Fever rose from 2 to 6.

The deaths from Tuberculosis fell from 160 to 140 and those due to Pneumonia from 118 to 111. There were 2 deaths from Measles compared with 26 in 1932. Diseases of the nervous system

accounted for 5 deaths as against 8 during 1933. (Cerebro-spinal fever 4 and Encephalitis Lethargica 1).

There were 14 deaths from Whooping Cough compared with 12 during 1932, the deaths occurring in the cases of seven children under one year of age; two of 1½ years; two of 2 years; one of 4; one of 5, and one of 12 years.

Diphtheria.

Notification. One hundred and eighty-five notifications were received during 1933, an increase of 8 compared with 1932. The attack rate was equal to 1.24 per thousand of the population and the two sexes were affected in the proportion of 83 males to 102 females.

The following table shows that most cases occurred in children under ten years of age:—

0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 15	15 to 20	20 to 35	35 to 45	45 to 65	65 and up	TOTALS
3	12	12	14	24	19	23	9	10	8	21	14	1	2	3	—	185

The disease was prevalent all the year round, the cases varying from seven in April to 27 in December.

The following summary shows the number of notifications received during each month of the year:—

First Quarter:—		*Second Quarter*:—	
January	11	April	7
February	12	May	13
March	12	June	22

Third Quarter :—		*Fourth Quarter :—*	
July	18	October	23
August	10	November	16
September	14	December	27

Deaths. Eight deaths were due to Diphtheria, giving a case mortality of 4.3 per cent. and a death rate of 0.05 per thousand of the population at all ages. Four deaths were in males and four in females.

Ages at death were, in three cases five years, in two cases four years, in one case three years and in the other two cases 20 months.

The Prevention and Control of Diphtheria. The methods employed for the prevention of diphtheria are :—

1. Notification of cases to the Medical Officer of Health.

2. Isolation in hospital of patients suffering from the disease.

3. Thorough cleansing and disinfection of rooms and articles which have been in contact with the patient, (bedding, clothing, feeding utensils, books, toys, pencils, pens, etc.).

4. Examination and supervision of contacts, and

5. General improvement in sanitation and housing conditions.

Diphtheria is spread mainly from person to person through the medium of the respiratory channels, e.g., during the act of coughing, sneezing, talking, kissing, etc. Persons suffering from the disease are the principal causes of spreading the infection. Diphtheria is caused by Klebs-Loeffler bacilli and is spread not only by patients suffering from signs and symptoms of the disease but also by persons showing neither objective signs nor subjective symptoms of diphtheria ; such

persons are known as "carriers" and harbour diphtheria bacilli in the nose, throat, or even the ear. As already stated, clinical signs (e.g., sore throat or obvious nasal discharge) such as would justify the notification of the case as diphtheria, are absent, and diphtheria carriers are not notifiable and are not treated as in-patients in infectious disease hospitals. They require a different type of treatment. Carrier clinics have now been established in Guy's Hospital, St. Mary's Hospital and in the London Hospital.

The carrier condition may last for a short time only, but it may last also for prolonged periods. During the investigation of outbreaks of diphtheria among children in schools the Public Health Department of the London County Council ascertained, on swabbing large numbers of children, that over 3 per cent. of the swabs examined were carrying germs indistinguishable from diphtheria bacilli. Some of the bacilli were found on further tests (inoculation into guinea-pigs) to be non-virulent, that is to say they were innocuous to the child carrying them and did not spread diphtheria. Children harbouring *true* diphtheria bacilli (true carriers), however, as stated by Sir Frederick Menzies in his reports, present a serious problem.

Frequently when enlarged tonsils and adenoids are removed and diseased conditions or abnormalities (deflected septum) in the nasal passages are treated on the recommendation of the physicians at the carrier clinics, the carrier condition disappears. In addition to the routine use of mild nasal douches and surgical measures, vaccines have been employed at weekly intervals in carrier cases.

Inanimate objects, called fomites, with which diphtheria patients have been in contact are of secondary importance as regards the spread of

diphtheria compared with the patients themselves and carriers, but thorough cleansing of infected rooms and their contents is always advised and disinfection of the rooms and their contents is a routine procedure. The patient's bedding and clothing are sent to the disinfecting station and the rooms are fumigated or sprayed with formalin. The efficacy of disinfection in preventing the spread is liable to be exaggerated by the public. Thorough cleansing by the families themselves is of greater importance.

Healthy contacts do not as a rule spread the disease but inquiries are made as to the degree of contact with the patients and appropriate measures are taken. All contacts are advised to be examined by a doctor as they may be suffering from a mild unrecognized attack and persons engaged in food occupations or the handling of clothing are especially urged to submit themselves for examination. The Medical Officer of Health of a neighbouring borough in which a contact works is advised in such cases.

In a few instances symptoms of diphtheria, e.g. nasal discharge, may reappear or persist after apparent recovery and lead to another case (return case) in the patient's home.

Many people have the idea that bad drains and housing conditions are direct causes of infectious diseases. This is of course erroneous. Such conditions are liable to lower the resistance to diseases of all types and have only an indirect effect on the incidence of diphtheria or scarlet fever. In Fulham, on the occurrence of infectious diseases the homes of the patients are inspected and the drains tested and defects are remedied as a result of the inspections.

Anti-Toxic Serum. The introduction of antitoxin for the treatment of diphtheria in 1894 by

Behring led to a marked fall in the case mortality (the number of deaths per 100 cases). Its introduction revolutionised the treatment of the disease. The results are rapid and effective. Unfortunately, however, some cases do not come under treatment until too late. The longer anti-toxin treatment is delayed, the less the chance of the patient's recovery; for every day's delay the case mortality rises rapidly. The average case mortality in Fulham during the ten years prior to the general introduction of this treatment, 1901, was 17.9. During 1932 the case mortality in the administrative County of London was 3.77 per cent., while the corresponding figure for Fulham was 5.65 per cent.

There is no doubt that the main reason for this decrease in the case mortality is the early use of diphtheria antitoxin. This can be stated to be the case even although one knows that nowadays doctors take swabs of the throats of cases on the slightest suspicion of diphtheria and are able to diagnose many more mild cases, which, previous to the general introduction of bacteriological examination of swabs, would have been unrecognised.

Diphtheria antitoxic serum contains the blood serum of horses into whose withers gradually increasing doses of diphtheria toxin (a filtrate of a liquid culture of diphtheria bacilli) have been injected. Diphtheria toxin is the specific poison of diphtheria but, being injected in small doses, it does not cause diphtheria in the horse but instead stimulates the animal's resistance against the disease. The horse actively produces anti-toxin as the result of the injections and blood is drawn from a vein. When the serum of the blood separates out it is found to contain the antitoxin. The whole process is complicated as both the toxin and the antitoxin have to be standardised and precautions are taken regarding

cleanliness, asepsis and absence of disease in the horse.

When antitoxic serum is injected into a patient with diphtheria it produces passive immunity. The immunity is passive because the patient takes no active part in the production of the antitoxin but merely receives it ready made. I may say that the Public Health Department of the Borough Council has for many years provided antitoxic serum free of charge to doctors.

Antitoxic serum is used almost exclusively for the treatment of diphtheria but is sometimes employed also for prophylaxis or prevention in the case of child contacts.

Notwithstanding all the measures described above and the laborious efforts of public health authorities to control and eradicate diphtheria, the number of cases notified remains high. The number of cases in Fulham during the last five years, including 1933, was 1,359. The number of deaths in Fulham during the last five years, including 1933, was 56, giving a case mortality of 4.12 per cent.

Diphtheria, however, is a preventable disease, and the mortality should be nil. In plain words the disease should be entirely eradicated from our midst. How then is this to be done?

Immunisation against Diphtheria. In April, 1927, I submitted a report to the Public Health Committee in which I recommended the establishment of a clinic for immunisation against diphtheria. Since then I have submitted further reports; the last report was presented on 13th November, 1933 and was favourably received by the Public Health Committee and I am very pleased to say that the Council, on the recommendation of the Committee, agreed to establish a clinic for the purpose,

which was opened on 5th April, 1934, at 170, Wandsworth Bridge Road. The clinic is doing splendid work. The Maternity and Child Welfare Committee co-operated with the Public Health Committee by agreeing to the use of their Maternity and Child Welfare centre at Wandsworth Bridge Road on one day a week for the immunisation. The clinic is conducted by Dr. Guy Bousfield.

I am not pretending that in a few years diphtheria can be stamped out by immunisation, but this is the biggest and most important step which the Council has yet taken. The results will depend on the response of the public. Individual children who are immunised at the Council's clinic will be protected against the disease but unless the majority of the children in the borough are immunised the results will have little or no effect on the statistics.

Active immunisation against diphtheria is usually known for simplicity as immunisation. This is the process which is being carried out at the Council's clinic for the prevention of diphtheria. The injections stimulate the person actively to produce antitoxin which counteracts the effect of any diphtheritic infection to which he may be exposed in the future. The substance used for the injections is toxoid-antitoxin mixture. It is not used for the treatment of diphtheria but to prevent persons from contracting the disease. As children are the principal sufferers from diphtheria most of those who attend such clinics are children.

A few persons have a natural resistance (natural immunity) against diphtheria and are not liable to the disease. A simple test (the Schick Test) is therefore done before the three immunising injections are given and if the result of the test is negative the immunisation is unnecessary. The Schick Test has other important uses in addition to the above.

Certain unfortunate results have occurred in various parts of the world after the use of toxin-antitoxin mixture, but the mixture used at the Council's clinic is not toxin-antitoxin mixture, but toxoid-antitoxin mixture, and its use is safe and effective. The injections are painless and no sore or scar is left on the arms. Not one child in a hundred is unwell after the injections. Even if a febrile reaction occurs it soon subsides.

It is to be noted that it is useless to wait until an epidemic occurs, as the immunisation acts very slowly and the protection does not develop until some weeks after the last injection. The protection, however, is generally of long duration, usually lasting for many years if not for life.

Scarlet Fever.

Notification. Seven hundred and twenty cases were notified during the year, an increase of 177 compared with 1932. The attack rate was equal to 4.8 per thousand of the population ; more females being affected by the disease than males in the proportion of 389 to 331 cases.

The ages at which the disease occurred will be seen from the following table :

0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 15	15 to 20	20 to 35	35 to 45	45 to 65	65 and up	TOTALS
6	27	35	57	73	75	66	58	47	33	144	29	57	8	5	—	720

As regards the season Scarlet Fever prevailed all the year round, being more prevalent during the last four months of the year. The following figures show the number of notifications received during each month of the year :—

First Quarter :—		*Third Quarter* :—	
January	43	July	62
February	26	August	43
March	51	September	80
Second Quarter :—		*Fourth Quarter* :—	
April	55	October	87
May	76	November	83
June	42	December	72

Deaths. The ages of the six fatal cases were: boys—3, 5; girls—1, 2, 5, 5. The death rate per thousand of the population was 0.04 and the case mortality 0.83 per cent.

Smallpox.

There were no cases of smallpox in the Borough during the year under review.

During the year 35 contacts living in the Borough were kept under observation.

Vaccination.

Mr. H. Davies, the Council's Vaccination Officer, has supplied me with the following statistics relating to his work:

Number of births registered during 1932	1,841
Successfully vaccinated	1,048
Insusceptible of vaccination	3
Unvaccinated on account of conscientious objections made by the parents	456
Died unvaccinated	70
Postponed by medical certificate and unvaccinated on 31st January, 1934	48
Removed to other districts and unvaccinated on 31st January, 1934	35
Removed to places unknown	169
Outstanding on 31st January, 1934	12
Number of successful primary vaccination certificates received during 1933	1,188
Number of Conscientious Objection Certificates received during 1933	435

The figures show that 56.9 per cent. of the infants born in 1932 had been successfully vaccinated by the end of January, 1934.

Measles.

The year 1933 was not one in which an epidemic was expected. Measles occurs in epidemics in this country every two years. During the year 163 cases were notified in the Borough and two deaths occurred from this disease. During 1932, in which an epidemic occurred, there were 2,682 cases and 26 deaths.

The number of cases which occurred during each month of the year 1933 was as follows:

First Quarter:—		*Third Quarter*:—	
January	11	July	12
February	4	August	11
March	19	September	12
Second Quarter:—		*Fourth Quarter*:—	
April	24	October	4
May	22	November	6
June	25	December	13

There were 99 cases in girls and 64 cases in boys. Regarding the ages of the children affected the following summary shows that those under five years of age were the chief sufferers:

0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 35	35 to 45	45 to 65	65 and up.	TOTAL.
7	19	14	15	25	66	7	4	6	—	—	—	163

The case mortality, that is to say the percentage of cases which proved fatal, was 1.2.

Enteric Fever.

Five cases were notified during the year, compared with 11 last year and no deaths occurred.

Cerebro-Spinal Fever.

Five cases were notified during the year. Of the 5 cases four were in males and one in a female. The ages of notified patients varied from 1 year to 39 years.

Four of the cases proved fatal.

Puerperal Fever.

Eleven cases, the same as in 1932, were notified and there were four deaths from puerperal sepsis. The incidence in 1933 was equivalent to 5.49 per thousand of the registered births (live and stillbirths). The incidence for England and Wales was equal to 3.5 per thousand.

Puerperal Pyrexia.

Puerperal Pyrexia is defined in the Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations of 1926 as "any febrile condition, other than a condition which is required to be notified under the Infectious Diseases (Notification) Acts, occurring in a woman within twenty-one days after child-birth or miscarriage in which a temperature of 100.4° Fahrenheit (38° Centigrade) or more has been sustained during a period of 24 hours or has recurred during that period."

Twenty-seven cases were notified during 1933 as compared with 37 during 1932. In addition four cases were subsequently notified as Puerperal Fever. The incidence per thousand births (live and stillbirths) was equivalent to 13.5 while that for England and Wales was equal to 9.6.

The services of Mr. Alexander Galletly are available for the purpose of consultation with private doctors in cases of Puerperal Fever and Puerperal Pyrexia.

Ophthalmia Neonatorum.

During the year 15 cases of Ophthalmia Neonatorum were notified compared with 28 during the previous year, giving an attack rate of 7.7 per thousand of the registered live births.

Through an arrangement between the Borough Council and the District Nursing Association, the services of the District Nurses are available for cases which are under medical treatment in their own homes. During 1933, visits were paid to one such case.

Cases Notified	Treated.		Vision.		Total Blindness	Deaths	Left the Borough	Still receiving Treatment
	At home	In hospital	Impaired	Unimpaired				
15	5	10	—	8	—	1	5	1

General.

The Leaflets "Advice on the Occurrence of Infectious Disease" have now been rewritten. They are given to occupiers of houses when a case of notifiable infectious disease occurs in the house.

Special leaflets giving instructions regarding preventive measures have been prepared and are handed to householders on the occurrence of acute Polio-Myelitis and Cerebro-spinal-fever.

TABLE IV.—*Cases of Infectious Diseases notified during the Year* 1933.

Notifiable Diseases.	Number of Cases Notified.													Total Cases Notified in each Ward of the Borough.								Total cases removed to Hospital.	Deaths.
	At all Ages.	At Ages—Years.												Baron's Court Ward.	Lillie Ward.	Walham Ward.	Margravine Ward.	Munster Ward.	Hurlingham Ward.	Sands End Ward.	Town Ward.		
		0—1.	1—2.	2—3.	3—4.	4—5.	5—10.	10—15.	15—20.	20—35.	35—45.	45—65.	65 and upwards.										
Smallpox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cholera, Plague	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria (including Membranous Croup)	185	3	12	12	14	24	69	21	14	11	2	3	—	10	33	28	17	48	19	24	6	183	8
Erysipelas	104	4	4	—	1	—	3	6	3	12	13	40	18	7	19	9	19	22	5	12	11	83	7
Scarlet Fever	720	6	27	35	57	73	279	144	29	57	8	5	—	57	122	115	67	159	37	112	51	704	6
Typhus Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever	5	—	—	—	—	—	—	—	4	—	1	—	—	2	—	—	—	1	1	1	—	4	—
Relapsing Fever, Continued Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Fever	11	—	—	—	—	—	—	—	—	8	3	—	—	1	1	1	1	2	2	1	2	11	4
Puerperal Pyrexia	27	—	—	—	—	—	—	—	3	22	2	—	—	1	7	6	2	3	—	3	5	27	—
Cerebro-Spinal Meningitis	5	—	1	—	—	—	2	—	—	1	1	—	—	—	1	1	—	—	1	1	1	5	4
Polio-myelitis	2	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	2	—
Ophthalmia Neonatorum	15	15	—	—	—	—	—	—	—	—	—	—	—	3	2	2	3	3	—	1	1	10	—
Tuberculosis of Respiratory System	219	—	—	—	—	—	5	2	25	94	32	56	5	15	38	28	27	42	6	37	26	—	128
Non-Pulmonary Tuberculosis	38	—	—	1	2	1	9	2	6	12	2	2	1	3	9	5	6	6	3	4	2	—	13
Measles	163	7	19	14	15	25	66	7	4	6	—	—	—	23	32	18	28	27	3	26	6	17	2
Encephalitis Lethargica	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Pneumonia	203	2	3	6	1	—	7	9	8	42	39	61	25	16	38	29	40	36	7	33	4	99	117
Diarrhoea	13	10	2	1	—	—	—	—	—	—	—	—	—	—	1	2	4	—	1	3	2	13	31
Malaria	1	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—	—	—	—	—	—	1	—
Dysentery	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Trench Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL	1711	47	68	69	91	124	440	191	96	265	104	167	49	138	304	244	214	350	86	258	117	1159	321

MATERNITY AND CHILD WELFARE.

Report by the Medical Officer in charge of the Maternity and Child Welfare Department (Miss Ruby Thomson, M.B., Ch.B., D.P.H.) on the work of the Department.

The year 1933 has been a difficult one from many points of view for the Maternity and Child Welfare Department. For half the year we were without a complete permanent medical staff, and for three quarters of the year much of the work of the Health Visitors had to be carried on under temporary arrangements.

Dr. Park left Fulham in March to take up a better appointment, and it was not until the end of August that the Council was able to fill her post and Dr. Barrett assumed duty. Dr. Barrett has taken on the same general duties as those done by Dr. Park, i.e., clinical charge of the Babies' Hospital, and a share of the general clinical work of the department.

Owing to the fact that the temporary Health Visitors had first to make the acquaintance of their districts, the visits paid by them were fewer than normal, and this lowered the total number of visits paid by Health Visitors. In addition, there was a good deal of illness amongst the staff, when it was impossible to put in a locum tenens. On the other hand, we had a locum tenens for two-thirds of the holiday period.

On 1st April, 1933, the London County Council handed over to the Borough Council the supervision of all foster-mothers in Fulham, under an order of the Ministry of Health. This has added very greatly to my own work. Miss Perrett, who has been for many years on the health visiting staff, was appointed Infant Life Protection Visitor to the Council.

We took over 112 foster-mothers, who had 174 foster-children in their care, and at the end of the year we had 100 foster-mothers registered, with a total of 137 foster-children in their care. Two foster-children died during the year, whilst there were 46 foster-mothers on the register on 31st December, 1933, who had no children in their care.

The work of this section is varied and interesting, involving, as it does, frequent visits to places outside the Borough ; and many legal points arise. The type of home varies considerably, but it has been interesting to me, when visiting, to see the loving care which surrounds most of these children, and it is astonishing to find that foster-mothers will often keep children for an indefinite period without payment rather than give them up after having become attached to them.

Unfortunately, until Miss Perrett took over the work, it was rather rare for foster-mothers to bring these children to the clinics ; but I am glad to say that this is being remedied, though naturally it is difficult for her to persuade the older foster-mothers that this is desirable.

An entirely new system of clerical administration was evolved by Mr. Hurford, the Chief Clerk, when the Council took over this work, and it goes very smoothly.

As will be seen later, the ante-natal visits paid by the Health Visitors during the past year have been nearly doubled. As this type of visit is apt to be long and sometimes difficult, a great deal of the Health Visitors' time is taken up by them, but, in my opinion, very usefully.

The number of ante-natal and other reports required by hospitals and such institutions has increased steadily. The Maternity and Child

Welfare clerk makes a precis of the Health Visitors' reports and forwards them to the institutions concerned. The increase in the clerical work of the Maternity and Child Welfare Department is a great strain on the clerical staff, which has not been correspondingly increased. I place on record my appreciation of the loyal work, both in official and unofficial hours, carried out by the Health Visiting and clerical staff of the Department.

We are very fortunate in having a dependable and helpful staff of voluntary workers, viz :— Miss Christian Wickham, Mrs. Bell, Mrs. Tait, Mrs. Falcon, Mrs. Pearson, and Mrs. Pope ; and we offer them our thanks for their devoted service. We have also to thank the members of the Fulham Free Church Women's Guild, who so kindly provide teas at a nominal cost for the mothers attending the Infant Welfare Centres.

Health Visitors.

The Health Visitors' work has been very difficult during 1933 as Miss Perrett's post, which she vacated on 1st April on her appointment as Infant Life Protection Visitor, had not yet been permanently filled at the end of the year, and for nine months we had locum tenens Health Visitors working in the department, with occasionally as many as three temporary officers at one time.

We have a highly trained and experienced staff of women on the health visiting staff, and it was fortunate for Fulham that we were able to transfer Miss Perrett to the Infant Life Protection work, thus bringing to it her long years of knowledge of the Borough. All the Health Visitors are fully trained nurses and have the certificate of the Central Midwives' Board, in addition to possessing the Health Visitors' certifi-

cate. Added to these three essential qualifications, several health visitors hold qualifications in special branches of nursing, as follows :—

One has had a complete fever training, with special experience in tuberculosis ; one is a Queen's Nurse ; a third has had special training in venereal disease and in tropical diseases ; six have had a wide experience in practical midwifery ; one has specialised knowledge of massage and actino-therapy ; another was for several years a district nurse for general and tuberculosis work.

There are seven health visitors working in the Department, and the scope of their work is indicated by the figures which follow :—

First visits to infants under one month	2,107
Re-visits to infants under one month	707
First visits to infants between 1 and 12 months.....	48
Re-visits do. do.	10,727
First visits to infants between 1 and 3 years	46
Re-visits do. do.	4,564
First visits to infants over 3 years of age	58
Re-visits do. do.	7,847
Visits to cases of Ophthalmia Neonatorum	7
,, Measles	71
,, Diarrhoea	4
,, Pneumonia	11
,, Puerperal Fever	10
,, Puerperal Pyrexia	21
Ante-natal visits	1,512
Other visits	109

Each Health Visitor has one seventh of the Borough as her area, and the Health Visitors' office is in the Town Hall. The work of the whole Department is controlled by the Maternity and Child Welfare Act, 1918, and a large proportion of the work of the Health Visitors is dependent upon the Notification of Births Act, 1907. By the provisions of this Act every birth or still-birth must be notified to the local authority. The Health Visitor calls as soon as the doctor or

midwife has ceased to attend. This is done in all cases, whether the child is born in an institution or at home.

Every mother in the Borough has a right to the services of a Health Visitor; and it is much to be desired that such a wealth of knowledge and information should be made use of more widely. The Health Visitors give advice on the general management of the children, and the importance of breast feeding is stressed where there is an infant. I am strongly of opinion that anything which concerns the well-being of the home is the concern of the Health Visitor and of the Medical Officers of the Maternity and Child Welfare Department. Mothers are encouraged to place their children under medical supervision either by their private doctors or at the Infant Welfare Centres. In spite of all that is done to promote breast-feeding, artificial feeding is increasingly popular. It seems to be so much easier when natural feeding becomes difficult, to buy a tin of some much advertised infant food than to persevere with the natural method. It is often very difficult to persuade a mother that the line of least resistance is frequently not the right one.

Ophthalmia Neonatorum—inflammation of the eyes of the new-born—is a disease which does a great deal of harm to the eyes of new-born infants, who may contract it unless most careful precautions are taken at the time of the confinement. When a case of this kind is notified, the Health Visitor calls immediately. Cases of Puerperal Pyrexia and Fever are also notifiable by law, and here again the Health Visitor calls to offer any advice which may be needed by the family. When a midwife is in charge of a case, any eye discharge occurring in the infant must be notified by her to her local supervising authority, which in London is the London County Council. Such notifications are forwarded to the Medical Officer of Health, and are handed over to the Health Visitors for home visitation.

Measles is a notifiable disease in the Borough, but in 1933 we had only a mild epidemic. No special Measles Nurse was appointed during the year and therefore the Health Visitors visited 71 cases of measles. As a report of these cases has to be entered on two sets of cards, these visits took up a considerable proportion of the Health Visitors' time.

Notification of Births.

The birth-rate went down during the year and only 1,811 births of living children and 58 still-births were notified—a decrease of the former and an increase of the latter. Of these 204 or 10.9 per cent. were notified by doctors, 1,657 or 88.7 per cent. by midwives and 8 or 0.4 per cent. by parents. The stillbirths during 1933 were equal to 3.1 per cent. of the notified births.

Maternity and Child Welfare Centres.

There are three Maternity and Child Welfare Centres in Fulham distributed over the Borough, at 90-92, Greyhound Road; 170, Wandsworth Bridge Road; and Melmoth Hall, Eustace Road.

The total attendances at the Infant Welfare Centres have increased by 1,114, and the first attendances of children under one year of age represents 56.3 per cent. of the notified live births.

The following is a table showing the attendances since the Centres were taken over by the Borough Council from a Voluntary Committee:—

Year.	Notified births.	Total attendances.	Percentage of births attending.
1930*	2133	15,600	46.3
1931	2013	20,759	57.8
1932	2093	19,522	52.2
1933	1811	20,636	56.3

* Taken over by Council 1/4/30.

It is to be regretted that so small a percentage of the mothers in the Borough recognise the importance of the Infant Welfare Centres. It cannot be too much emphasised that the Infant Welfare Centres are not dispensaries for sick children, but it also requires to be urged that many more mothers would do well to obtain regular supervision of their children's health. The Infant Welfare doctors and the local practitioners would then be spared many distressing cases of rickets and other manifestations of unsuitable child-management. There are many contributory causes of rickets, but undoubtedly one of the most common is an unsuitable diet in the first year of life, and the slogan of any Maternity and Child Welfare Department should be, that prevention is better than cure.

In Fulham we have had the experiment of special Toddlers' Clinics (i.e., special sessions for children between the ages of two and five), but, for some unknown reason, they did not justify their existence. We find in this Borough that we can more satisfactorily consider the mother and her whole family together at the same Infant Welfare session. The supervision of the nursing mother is of extreme importance, an importance which is very often not sufficiently recognised. The economic and environmental surroundings of the mother to a great extent influence the well-being of the family; and I am more than ever convinced that a Maternity and Child Welfare Department which does not keep that point before it fails in its chief duty. An oversight of the general outlook of the mother in reference to her child is as important as the physical care of her health, and Medical Officers doing Infant Welfare work should bear this constantly in mind. For nearly fifteen years we have had special cards at the clinics for recording the history of nursing mothers. I believe it to be of the greatest importance to keep an eye on the social welfare of the mothers, even if they have no infant children.

The attendances of nursing mothers at the Infant Welfare Centres during 1933 was 12,057.

There are nine Infant Welfare sessions per week, including two morning ones, and the following table shows the attendances of children at these clinics during 1933 :—

Clinic.	Number of Clinics held.	First attendance of babies.			Total Attendances.		
Age in Years		0—1	1—2	2—5	0—1	1—2	2—5
92, Greyhound Road	190	467	49	57	5,418	2,068	1,554
170, Wandsworth Bridge Road	148	304	24	41	3,907	1,501	1,315
Melmoth Hall, Eustace Road	95	249	15	49	2,979	1,018	876
Totals	433	1,020	88	147	12,304	4,587	3,745

Women's Holiday Fund.

The Women's Holiday Fund performs a valuable service to the mothers and children of the Borough, and provides a fortnight's wonderful holiday where this would otherwise be quite impossible. Those of us who have holidays as a matter of course can scarcely understand that thousands of women in this country never have a holiday from the incessant work and worry unavoidably associated with a home where the income is small The Committee and the Council have reason to be grateful to this Fund for its good work and its beneficial effect on the homes in the Borough.

Charitable Organisations.

We have received great help in our work from the Charity Organisation Society, the Invalid Children's Aid Association, and the Invalid Kitchens

of London. The local Invalid Kitchen is conducted at Bishop Creighton House, Lillie Road, but it is unfortunate that its distance from the southern part of the Borough makes it impossible for it to be of much use to the families in that area. In this respect the northern area of the Borough has a great advantage

Ante-Natal Clinics.

Ante-natal sessions are held at the centres at 92, Greyhound Road—two sessions weekly—and one session per week at 170, Wandsworth Bridge Road. The Medical Officers and the Health Visitors of the Department urge every pregnant mother known to them to place herself under medical supervision during pregnancy, either at the Infant Welfare Centres, at a hospital, or under a private doctor. The importance of ante-natal supervision cannot be over-estimated, and if only mothers would realise what a lot of post-natal suffering is avoidable, they would take greater advantage of the facilities offered.

The ante-natal clinics are primarily for supervision, and for the prevention of abnormalities at labour. The greatest care is taken that patients should make arrangements for their confinement to be conducted under suitable conditions. Close co-operation is maintained between the clinic and outside doctors and midwives, and written reports of the pregnancy are sent when necessary.

All cases booked for the Maternity Home are required to attend the Ante-natal Clinics, and one or other member of the Maternity Home staff attends at these sessions.

The Health Visitors also visit pregnant women in the Borough who are booked to enter maternity wards in hospitals. The Almoners send lists of such cases for visitation, and by this means this Department gets into touch with many pregnant women who would otherwise remain unknown.

The two Ante-natal sessions at Greyhound Road are conducted by myself, and the clinic at Wandsworth Bridge Road was conducted by Dr. Park until March, and then by acting medical officers until the appointment of Dr. Barrett in August.

The number of attendances at the ante-natal clinics has increased slightly, but the actual number of patients who attended has decreased somewhat. This is partially due to the changes in the staff. The increase in the number of attendances means, however, that mothers are tending to come to the clinics early on in their pregnancy, and this is all to the good. The increase in the number of hospital beds available for maternity work necessarily involves that many patients who would otherwise come to us now go into hospitals. The fees charged by hospitals in almost all cases are less than those charged for the Council's Maternity Home.

The following is a record of the work done at the Ante-natal clinics :—

Clinic.	No. of Sessions.	No. of Patients. New.	No. of Patients. Total.	No. of Attendances.
92, Greyhound Road	93	232	457	1,527
170, Wandsworth Bridge Road	49	120	153	637
Totals	142	352	610	2,164

Minor Ailments.

We are very careful not to undertake any treatment at the Infant Welfare Centres which should be undertaken by a doctor, midwife, or district nurse. Children requiring treatment that is outside the scope of the work of the Centres are referred to the proper quarter for the attention they may need.

Massage Clinic.

The massage work is now done entirely at Bishop Creighton House by Miss Christian Wickham, to whom we are indebted for much time and thought spent on the mothers and children. The psychological help which mothers and children receive at the Massage Centre is of great value.

The sessions are held twice weekly and take up the whole morning.

Dental Clinic.

Mr. William E. Dodd continues to conduct the Council's dental work for mothers and children attending the Infant Welfare Centres, and a special Dental Session is held weekly at 92, Greyhound Road. Every effort is made by the Council's Medical Officers, both at the Infant Welfare sessions and the Ante-Natal clinics, to urge the necessity for dental care and supervision, but it is often difficult to persuade mothers of the importance of conservative treatment of their teeth and those of their children.

Mothers receiving treatment	139
Children receiving treatment	81
Attendances made by mothers	326
Attendances made by children	176
Dentures supplied	10
Repairs to Dentures	3
Teeth filled :	
Mothers	20
Children	63
Teeth extracted :	
Mothers	302
Children	124
Scalings :	
Mothers	17
Children	12
Examinations—no treatment required	27
Sessions :	
Gas	10
Ordinary	34

Eye and Skin Defects.

Cases of eye defects in mothers and children are dealt with by the London County Council oculist, and this is a convenience to the mothers. Children who attend the clinics regularly are referred to the London County Council local School Treatment Centres when they are found to be suffering from Impetigo Contagiosa, as no contagious or infectious disease is allowed in the clinics.

Home Nursing.

Home nursing is provided by the Borough Council for persons requiring such attention and unable to pay for it privately. There are three groups of cases included in the Council's scheme—certain illnesses in children under five years of age; certain illnesses in expectant and nursing mothers; and certain infectious diseases.

A fee of 1s. per patient is paid for each attendance on a case, in the first two groups by the Maternity and Child Welfare Committee, and in the third group by the Public Health Committee.

The co-operation we receive from Miss Watson, the Superintendent of the District Nurses, is always most cordial and helpful.

Maternity Home.

The Fulham Borough Council Maternity Home is situated at 706, Fulham Road, S.W.6. It has ten beds for patients, with an isolation ward containing one bed. The home is primarily intended to ensure that mothers whose home surroundings are unsuitable for confinement should have such privacy and proper attention as they could not have in their own homes.

It should be understood that the Maternity Home is essentially a Home and not a Hospital, and cases in which any abnormality is to be anticipated are not admitted. Members of the nursing staff of the Maternity Home attend twice weekly at the Ante-natal clinics to learn ante-natal care, and to afford the women opportunities of seeing beforehand the nurses who will be responsible for them at their confinement. The advantage is mutual.

We prepare trained nurses for the certificate of the Central Midwives Board.

The following is a record of the work done during the year 1933 :—

Cases admitted	206
Average duration of stay (days)	14
Number of cases notified as puerperal sepsis	—
Number of cases notified as ophthalmia neonatorum	3
Number of cases of infectious disease	—
Number of infants not entirely breast-fed while in the Institution	—
Number of maternal deaths	—
Number of foetal deaths (stillborn or within ten days of birth)	4

The minimum fee is £3 for the fortnight at the Maternity Home and this is the normal duration of treatment. The highest fee charged during 1933 was £6-7-6 for the two weeks and the average fee charged was £4-8-10. The net cost per patient week to the Council for the financial year 1933-34 was £2-7-4.

Day Nursery.

The Fulham Day Nursery is situated at Eridge House, Fulham Park Road, S.W.6., and is under the control of a Voluntary Committee. The Council makes a grant of £626 per annum to the Day Nursery, in addition to providing the services of myself and the Assistant Medical Officer for Maternity and Child Welfare as Medical Officers. The institution is visited by one or other of us four times weekly.

The Day Nursery was established to meet the needs of mothers who are under the necessity of going out to work and who have no suitable person with whom to leave their children. Children can be left for whole or half-days, and it means much to these mothers to know that their children are being well looked after and fed, in many cases in a manner which would be impossible in their own homes. Children are admitted between the ages of six weeks and five years, and a small daily payment is required.

In every case the Matron receives a home report of the circumstances of the child, and these reports made by the Health Visitors are of great value to Matron and myself.

Breast-feeding is not only encouraged but insisted upon where possible, if only partially. All the feeding of infants is done on the principle of the use of breast standard milk, and the older children get a diet which is based on modern principles of dietetics.

An open-air life is strictly enforced and, winter or summer, when the weather is suitable, the children live out of doors. An old army hut in the garden makes it possible for the children to be out even in wet weather. They are not allowed out in fog.

The following are the figures showing the attendances at the Day Nursery during 1933 :—

Individual children under 3 years	60
Individual children over 3 years	30
WHOLE DAYS :—	
Attendances under 3 years	4494
do. over 3 years	2600
HALF-DAYS :—	
Attendances under 3 years	767
do. over 3 years	313
TOTALS :—	
Whole days	7094
Half-days	1080
	8174

Supply of Milk under the Provisions of the Maternity and Child Welfare Act, 1918.

Under the provisions of the Maternity and Child Welfare Act, 1918, considerable quantities of milk, for the most part dried milk, are supplied free, to necessitous nursing and expectant mothers and to children under three years of age.

The Local Authority is required by the regulations of the Ministry of Health to ascertain that need actually exists, and a special Visitor visits the homes of applicants and reports on the home circumstances, while the ordinary reports of the Health Visitors are also available for reference. A special Milk Sub-Committee of the Maternity and Child Welfare Committee meets every week to consider these reports.

The approximate cost of the milk granted free or at less than cost price during 1933 was :—

	£	s.	d.
Dried Milk	424	7	6
Wet Milk	62	9	11
Total	£486	17	5

Milk is also sold at cost price in cases recommended by the Medical Officers, Health Visitors, or any local practitioner or Hospital Medical Officer. During 1933 under this part of the scheme 6,085 lbs. of dried milk were supplied at a cost to the families of £533-16-7 as compared with 5,915 lbs. at a cost of £634-14-6 during the previous year.

My long experience in the Infant Welfare Centres of the needs of the infant population in Fulham convinces me more than ever of the importance of the dried milk preparations on the market, and the steady influence these have on the reduction of infant mortality. As I have

remarked before, it is a waste of public money to supply wet milk to houses where it is impossible to keep it in a reasonable state of purity. Every house into which dried milk is received from the Borough Council is visited by a Health Visitor, who sees to it that full information is given as to the necessity for the addition of fresh fruit juice to the diet with this form of feeding.

The Borough Council supplies a full-cream or humanised dried milk prepared by the spray method and similar preparations dried by the roller process. It is found that where one type of milk does not suit a child, almost invariably the other form will agree with its digestion. The digestibility of dried milk is considerably greater than that of wet milk, and this is an important point in a household where money to pay for remedies for indigestion simply does not exist.

Recent research on anaemia has proved conclusively that a large proportion of the population of Great Britain is suffering from anaemia of one form or another; and as we find that the Fulham babies and mothers are no exception to this rule, we keep stocks of a dried milk with which iron in a digestible form has been incorporated. This is found very useful for mothers during pregnancy and lactation.

Maternal Mortality.

The investigations called for by a special memorandum of the Ministry of Health in October 1928, requiring careful enquiry into the causes of death in all cases in which women have died during pregnancy, at childbirth, or in the puerperium, are conducted by me, as they are intimately connected with the work of the Maternity and Child Welfare Department.

The annual figure of Maternal Mortality is still high in spite of all that is being done towards prevention. Only constant observation and medical supervision of pregnant women will in time effect satisfactory results in this direction. Every effort is being made by the Fulham Maternity and Child Welfare Department towards this end.

Babies' Hospital.

The Hospital was opened in March, 1916, at 706, Fulham Road, and the present freehold premises at 23, Broomhouse Road were acquired in 1921; they were reconstructed for the purposes of a Babies' Hospital during that year. The building is eminently suitable for the purpose and the sunlight balcony and the beautiful garden are interesting and useful features.

During the fine weather patients who are not acutely ill are greatly benefitted by exposure to the open air and sunlight.

The Babies' Hospital is a voluntary institution under the management of an executive committee, several of the members of which have been associated with the Hospital since it was opened.

The physician in charge of the medical side of the work is one of the Assistant Medical Officers of Health of the Borough of Fulham. Dr. Park resigned during the year upon obtaining an appointment in Essex, and Dr. Barrett took over the duties in August. The Committee are grateful to Dr. Wakeford for his voluntary assistance during the year in consultation with the medical officer in charge.

Miss Driver and her staff have, as in former years, carried out their arduous duties in a most skilful and conscientious manner.

The Hospital forms an important link with the Maternity and Child Welfare Department of the Borough of Fulham. There is accommodation for 21 children in two wards, a large ward for children under two and a smaller ward for toddlers under five years of age.

During the calendar year 1933, 127 cases were admitted. The following table gives details of the types of cases treated and the results achieved during the year. It will be seen that most of the cases are of the type requiring prolonged and expert dietetic treatment, including cases of malnutrition and deficiency diseases such as rickets. These classes of patients cannot generally be kept long enough in the large hospitals to effect a cure as acute cases necessarily have a prior claim on the available accommodation. Forty-three of the patients were admitted on account of loss of weight or marasmus (severe wasting). Many of the patients were suffering from diseases of the digestive organs, a considerable number of which were primarily due to improper methods of feeding, not necessarily the fault of the mother. Acute respiratory diseases form a moderate proportion of the cases: 18 children having been treated for bronchitis and four for acute pneumonia. Accommodation is also available for children who have had minor operations in other hospitals and, during the year under review, 14 patients were admitted after circumcision and one after an operation for adenoids. During 1933 there were fortunately no outbreaks of infectious diseases in the Hospital.

The Borough Council give a grant to the Hospital part of which is derived from the Ministry of Health and the public can be assured that the work of the institution is carried out on the most modern and enlightened principles.

In Hospital January 1st, 1933			14
Number admitted during the year			127
Average duration of stay (days)			39
Number of cases discharged :—			
(*a*) In good health		97	
(*b*) Improved		12	
(*c*) No improvement		10	
			119
Number of deaths			6
Number of babies in hospital, December 31st, 1933			16

Reasons for admission of the 127 children were:—

Anaemia	2	Hydrocephalus	1
Bronchitis	18	Indigestion	7
Broncho-Pneumonia	4	Inflamed Buttocks	1
Convulsions	1	Influenza	1
Constipation	1	Loss of Weight	32
Debility	2	Marasmus	11
Dieting	2	Observation	3
Diarrhoea	4	Prematurity	2
Eczema	2	Rickets	3
Enteritis	1	Rheumatism	1
Enlarged Tonsils	1	Septic Knee	2
For Weaning	1	Vomiting	9
Gastro-Enteritis	1	After circumcision	14

Prevention of Blindness.

(Blind Persons Act, 1920).

The London County Council are responsible for the administration of this Act the main objects of which are the prevention of blindness and the care of blind persons. The co-operation of the Metropolitan Borough Councils is part of the London County Council's scheme for the Welfare of Blind Persons.

Home Nursing by the District Nursing Association on behalf of the Fulham Borough Council.

	Jan. to Mar.		April to June.		July to Sept.		Oct. to Dec.		TOTALS.	
	Cases.	Visits.	Cases.	Visits.	Cases.	Visits.	Cases.	Visits.	Cases.	Visits.
Ophthalmia	-	-	-	-	1	52	-	-	1	52
Mammary Abscess	-	-	-	-	1	8	2	47	3	55
Ante-Natal	1	31	1	7	5	50	-	-	7	88
Parturition	-	-	1	2	1	9	3	25	5	36
Discharging Eyes	9	71	4	32	5	52	6	121	24	276
Pemphigus	1	6	-	-	-	-	-	-	1	6
Mastitis	1	6	-	-	-	-	1	12	2	18
Puerperal Fever	1	24	-	-	-	-	-	-	1	24
Pneumonia	35	346	11	147	7	65	4	37	57	595
Broncho-Pneumonia	8	90	6	69	-	-	7	74	21	233
Influenza	29	208	2	20	1	12	7	63	39	303
Whooping Cough	2	18	1	6	-	-	4	45	7	69
Mumps	2	8	-	-	1	10	-	-	3	18
Marasmus	-	-	-	-	-	-	1	13	1	13
Septic Spots	-	-	-	-	-	-	1	4	1	4
Diarrhoea	-	-	1	3	--	-	1	5	2	8
Scarlet Fever	1	2	-	-	-	-	1	2	2	4
Measles	-	-	1	5	1	3	-	-	2	8
Chicken Pox	-	-	-	-	-	-	1	12	1	12
TOTALS	90	810	28	291	23	261	39	460	180	1822

A fee of 1s. per visit was paid by the Borough Council to the Association for the above-mentioned cases.

TUBERCULOSIS.

During the year under review the Tuberculosis Register has been corrected by the removal of all cases under the headings: Recovered, arrested, diagnosis not confirmed, lost sight of, left the district, or died, and the addition of all new cases notified, in accordance with the Public Health (Tuberculosis) Regulations.

The details of these removals and additions are as follows:—

	Pulmonary:		*Non-Pulmonary:*		
	Males.	*Females.*	*Males.*	*Females.*	*TOTALS*
Number of cases on register at commencement of 1933	539	533	305	293	1,670
Number of cases removed during the year	125	92	19	22	258
	414	441	286	271	1,412
Number of cases notified for the first time during 1933	131	107	20	23	281
Number of cases restored to Register during the year	—	1	—	—	1
Number of cases remaining on the Register at the end of 1933	545	549	306	294	1,694

The number of cases notified for the first time during 1933 shown in the above Table includes 257 cases analysed in Table VII. (page 63) and

24 in Table VIII. (page 64). The 24 cases are, of course, also included in the 258 cases removed from the Register during the year.

In Table IV. (page 37) the notifications received during the year are classified according to the ages of the persons affected and the number of cases notified in each ward of the Borough is also given.

Mortality from Tuberculosis.

Respiratory System:—

126 deaths .... 75 males, 51 females.
Death Rate ..... 0.85 per 1,000, being 0.06 lower than in 1932.
109 notified (86.51 per cent.)
17 not notified (13.49 per cent.) Of these 17 cases, six died in institutions.

Other Tuberculous Diseases:—

14 deaths .... 9 males, 5 females.
Death rate ..... 0.09 per 1,000, being 0.06 lower than in 1932.
11 notified (78.57 per cent.)
3 not notified (21.43 per cent.). Of these three cases, one was notified after death; two died in institutions.

Period between Primary Notification and Death.

Respiratory System:—

Under 1 month	....	12 (11.01 per cent.)
1—3 months	....	6 (5.50 per cent.)
3—6 months	....	9 (8.26 per cent.)
6—12 months	....	9 (8.26 per cent.)
1—2 years	....	24 (22.02 per cent.)
Over two years	....	49 (44.95 per cent.)

Other Tuberculous Diseases:—

Under 1 month	....	5 (45.46 per cent.)
1—3 months	....	—
3—6 months	....	—
6—12 months	....	—
1—2 years	....	2 (18.18 per cent.)
Over two years	....	4 (36.36 per cent.)

DISPENSARY STATISTICS, 1913—1933.

TABLE V.

Year.	New Patients.				Attendances at Dispensary.		Doctors' Home Visits.	Nurses' Home Visits.
	Suffering from Pulmonary Tuberculosis.	Suffering from other forms of Tuberculosis.	Doubtful Cases.	Non-Tuberculous Cases.	Insured.	Uninsured.		
1913	324	86	323	429	2361	11967	2175	1517
1914	203	45	261	361	2276	8084	2385	2547
1915	174	28	260	323	1171	5568	1970	2918
1916	225	13	311	200	852	5954	1079	2828
1917	286	13	349	329	1052	6528	1141	2789
1918	235	14	201	478	1223	8465	1435	2317
1919	221	50	251	281	1444	8116	1724	4043
1920	142	37	239	342	1850	6713	2004	4989
1921	116	23	163	344	2074	5387	2217	5640
1922	155	35	13	388	2507	3703	1264	5447
1923	132	70	24	401	2288	3261	552	4603
1924	142	65	32	443	2133	3619	549	4775
1925	162	44	46	414	1956	3405	605	5421
1926	183	53	37	318	1741	2876	481	5355
1927	143	56	14	431	1612	2666	592	5422
1928	160	42	26	490	1548	2448	571	4989
1929	158	48	23	436	1411	1834	521	5272
1930	154	25	7	407	1558	1545	427	4532
1931	159	20	7	422	1444	1625	292	4156
1932	143	35	7	380	1329	1521	291	4125
1933	161	14	—	331	1312	1916	409	3936

TABLE VI.

Year.	Notifications.		Deaths.		Death-Rate.	
	Pulmonary.	Other forms of Tuberculosis.	Pulmonary.	Other forms of Tuberculosis.	Pulmonary.	Other forms of Tuberculosis.
1913	765	289	215	49	1.34	0.31
1914	531	164	207	45	1.32	0.29
1915	461	97	198	51	1.29	0.34
1916	496	92	210	56	1.41	0.38
1917	582	118	191	49	1.32	0.34
1918	561	80	207	47	1.45	0.33
1919	433	145	168	42	1.01	0.27
1920	282	93	142	30	0.89	0.19
1921	287	76	153	31	0.96	0.19
1922	272	113	163	33	1.02	0.20
1923	319	155	149	32	0.92	0.19
1924	270	126	129	33	0.80	0.20
1925	279	114	151	22	0.92	0.13
1926	312	122	161	17	0.98	0.10
1927	251	95	126	21	0.77	0.13
1928	258	75	114	33	0.73	0.21
1929	279	85	149	24	0.96	0.15
1930	244	52	118	16	0.76	0.10
1931	275	78	146	23	0.97	0.15
1932	236	90	137	23	0.91	0.15
1933	219	38	126	14	0.85	0.09

TABLE VII.

PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1930.

Summary of notifications during the period from 1st January, 1933, to 31st December, 1933.

Age Periods.	Formal Notifications.												
	Number of Primary Notifications of new cases of tuberculosis.												
	0—1	1—5	5—10	10—15	15—20	20—25	25—35	35—45	45—55	55—65	65 and upwards.	Total (all ages).	Total Notifications
Pulmonary : Males	—	—	1	—	11	18	29	19	26	11	4	119	219
Females	—	—	4	2	14	19	28	13	12	7	1	100	193
Non-Pulmonary : Males	—	3	3	2	2	2	2	1	1	—	1	17	27
Females	—	1	6	—	4	5	3	1	—	1	—	21	30
Totals	—	4	14	4	31	44	62	34	39	19	6	257	469

TABLE VIII.

NEW CASES OF TUBERCULOSIS COMING TO THE KNOWLEDGE OF THE MEDICAL OFFICER OF HEALTH DURING THE PERIOD, OTHERWISE THAN BY FORMAL NOTIFICATION.

Age Periods.	0-1	1-5	5-10	10-15	15-20	20-25	25-35	35-45	45-55	55-65	65 upwards	Total Cases.
Pulmonary : Males	—	—	—	—	—	3	2	—	1	6	—	12
Females	—	—	—	—	—	—	2	1	—	3	1	7
Non-Pulmonary : Males	—	1	—	—	1	—	—	—	—	—	1	3
Females	—	—	1	1	—	—	—	—	—	—	—	2
Totals	—	1	1	1	1	3	4	1	1	9	2	24

Report on the work of the Tuberculosis Dispensary for the year 1933 by Dr. P. L. T. Bennett, Tuberculosis Officer and Medical Officer Borough Bacteriological Laboratory.

The work of the Dispensary for the year 1933 has been carried out on similar lines to those of the preceding year.

The Dispensary time-table (given below) indicates the hours of different clinics for men, women and children, and has been unaltered :—

Monday :	10 to 11.30 a.m.	Women and Young Children.
	1.45 to 3 p.m.	School Children.
Tuesday :	10 to 11.30 a.m.	Men, old and new cases.
	6 to 7.30 p.m.	Men and Women Workers.
Wednesday:	10 to 11.30 a.m.	Women, old and new cases.
Thursday :	1.45 to 3 p.m.	Children, new cases.

New cases, unable to attend the appropriate clinics for various reasons, have been given special appointments for examination, usually either on Thursday afternoon after 3 p.m., or on Friday and Saturday mornings at 10 a.m.

Ear, nose and throat cases requiring special preparation are seen on Friday or Saturday morning as their inclusion into an ordinary clinic tends to delay other patients. Such cases, if requiring active or operative treatment, are usually referred to the special department at Brompton Hospital under the care of Mr. Ormerod, F.R.C.S.

The Tuberculosis Officer was officially appointed Consultant in Tuberculosis to the Fulham Hospital, Fulham Palace Road, on July 1st, 1933, by the London County Council.

By arrangement with the Medical Superintendent of the hospital, a weekly visit to the wards has been made (usually on Friday afternoon), and consultations between the Tuberculosis Officer and members of the Hospital Staff carried out.

Holiday duties in the Dispensary have been carried out by Dr. Miller Vine as in the preceding year.

Miss R. Bowen, Tuberculosis Health Visitor, left the Nursing Staff in February, 1933, following a long period of illness and indifferent health.

Miss E. M. Pretty (of the Women's Health Officers' Association) was appointed by the Borough Council following the usual advertisement of the vacant post.

Statistics for 1933.

During the year under consideration the number of new cases from all sources was five hundred and six, of which two hundred and thirty-nine were directly referred by Borough practitioners and one hundred and eleven by other medical authorities and public societies; the remainder, having no regular doctor, coming to the dispensary on their own initiative or on the advice of other patients.

The number of patients on the register at the end of the year totalled eight hundred and nine, a decrease of forty-nine on the previous total accounted for as usual by the numbers transferred to other areas, discharged as recovered, or died.

It is noticed that there is an increasing tendency for consumptives and their families to endeavour to leave town for the suburbs, or further afield, if possible. A certain number have moved into the new housing areas which have of recent years been developed by the London County Council and other

authorities in the south and east of the metropolis ; although the number from Fulham who have moved into the latter areas is of necessity very small, owing no doubt to the distance from their work.

All applications for housing on new estates are made through the Public Health Department at the Town Hall, the Tuberculosis Officer being willing in suitable cases to send up a special letter to the Medical Officer of Health to support the applications.

Dispensary attendances during the year 1933 have been rather more numerous than in the year before, the total being four thousand, two hundred and sixty-nine : of these, two thousand, nine hundred and eleven were for actual physical examination, the remainder comprising those attending for special tests, advice or "after care" purposes.

Notifications are slightly less in number, namely one hundred and eighty-three as against one hundred and ninety last year : but contact attendences have increased by one hundred and forty-eight, no doubt explained by those for the newly adopted system of Mantoux testing which has been carried out at the Dispensary since March, 1933.

Actually, taking all factors into consideration, there is very little change in the figures ; and what change there is indicates the slow decrease in the incidence and mortality of the disease which is practically universal throughout most of the areas in England.

Contacts.

Contact attendances are constantly advised by the Dispensary Staff ; and it is curious how families vary in their attitude towards this. In many cases it has been noticed that the relatives of a consumptive

are only too anxious to come up for examination, not only once but at repeated intervals, which of course is the ideal arrangement.

Other families are quite the reverse, and it is often very difficult to persuade them that it is a matter for their own interest. Probably in a certain number the "fear of being found consumptive" is sufficient to keep them away: a factor often found on taking case histories, as an excuse for not going to the doctor when first ill.

Great credit is due to the members of the nursing staff for their tact and success in getting so many to attend.

Special Treatments.

Patients who require various specialized treatments such as Artificial Pneumo-thorax, injections of Sanocrysin and other gold preparations, operative measures, and cauterisations for laryngeal tuberculosis, are referred to the Brompton Hospital, with which institution a very close touch is kept by the Tuberculosis Officer.

Of these special treatments, the most usual are Artificial Pneumo-thorax (or putting a diseased lung at rest by the periodical admission of air into the pleural space) and injections of gold preparations: these two treatments may be carried out at the same time in certain cases with considerable benefit.

The Borough Council pay for all such treatments at the rate of 10/6 per pneumo-thorax refill and 3/- for gold injection, a suitable sum being provided in the annual estimates.

In 1933, the total number of such treatments was 341. Finsen Light irradiation for Lupus is also carried out at the London Hospital, 212 applications having been given (at a cost of £24-9-0) during 1933.

X-ray Examinations.

As in previous years by arrangement between the Borough Council and the Brompton Hospital all such cases are referred to the latter institution, one hundred and sixty-nine being the total for the year under review.

These patients are screened, radiographed and a detailed report sent on each case to the Tuberculosis Officer by the radiologists, Dr. Stanley Melville and Dr. Rawlinson, together with the negative.

The latter is examined and the report noted on the case sheet, a further report being sent from the Dispensary to the private practitioner: and the film is numbered and filed for future use.

The cost to the Borough is 15/- per radiograph taken.

It will be readily appreciated that X-ray examinations are of the greatest value both in diagnosis and as a means of determining progress of disease, especially when it appears that the patient's condition and physical signs seem to be at variance. However, to be of any use whatever the negative must be good and the interpretation correct: and the Tuberculosis Officer feels that the Borough work carried out by the Brompton Hospital radiological staff in these important particulars is to be most highly commended.

Home Visits.

The total number of home visits made by the Dispensary Staff during 1933 amounted to 4,345, of which 409 were made by the Tuberculosis Officer either for consultations with doctors and hospital medical officers, or for supervision and home inspections in the area.

The Nursing Staff, in addition to their activities in regard to contacts, carry out extensive supervision of patients and their home conditions. During the course of their visiting it is inevitable that defects of sanitation and housing become known and all such cases are reported to the Medical Officer of Health.

Co-operation of Medical Practitioners.

The Tuberculosis Dispensary has always been a well-supported institution in the Borough: and it is a great pleasure to record that co-ordination between local doctors and the Tuberculosis Officer (as representing the Public Tuberculosis Scheme) continues to be on a very friendly footing, and well maintained.

Suspected cases are welcomed at the Dispensary where they can be put under special and prolonged observation, during which time repeated tests of sputum, X-rays, and "Mantoux" Tuberculin tests (specially in the case of children) can be carried out.

No new cases (having already a doctor in attendance) are seen without a communication from him either by visiting card and letter, or telephone: and the results of examinations are invariably communicated by letter.

This rule, the abeyance of which might lead to a great deal of friction and misunderstanding on all sides is most rigidly adhered to.

Dental Treatment.

It is found that a large number of those attending the Dispensary clinics suffer from defective teeth, ranging from slight cases of decay to very bad conditions of caries and pyorrhoea.

The importance of oral hygiene is always insisted upon—the teeth and pharynx being examined in every patient.

A large number of patients are referred by the Tuberculosis Officer for dental treatment through their own doctors, who are able in the majority of cases to see that it is carried out, especially in light and medium degrees of severity.

The Dispensary, however, is able to recommend certain necessitous cases through the Dental Scheme when the patient has been definitely notified as tuberculous — complete extractions and dentures being arranged for.

In 1933, nine such cases have been dealt with at a cost of £24 (including dentures), a certain number of extractions and fillings, etc., being also carried out under capitation fees.

Clerical Department.

The work in this department is carried on by Miss Sargent with the help of Miss Wright on a part-time basis. As in most other Public Health Services the work has increased a good deal during the present year on account of new regulations which are formulated from time to time by the Ministry of Health and the London County Council.

During 1933, the Tuberculosis Care Committee has been called upon to take over all assessments for tuberculous persons in the Borough, a procedure which was formerly partly carried out by the Public Assistance Committee; and this has necessitated more clerical work on the part of the Staff at the Dispensary.

The number of letters and reports written make up a total of 7,010 for the year; in addition to which there is of course a considerable amount of work

in keeping registers, and especially in tabulating statistics for the Ministry of Health.

Tuberculosis in Children.

A large number of children attend the Dispensary clinics, many of whom are contacts. Very few cases indeed are found to have a clinically recognisable tuberculosis of the lungs, and those with a positive sputum result are rare. (Possibly the fact that children almost invariably swallow their secretions instead of coughing them out may account to some extent for the latter fact : and it has very occasionally been found that an examination of the faeces or a "stomach wash" may reveal the tubercle bacillus).

The large majority of children become infected at some period with the organism : but this "tuberculization" gives rise to very few symptoms and practically no actual disability, unless perhaps when "massive" doses are acquired during early infancy —the factor which, no doubt, causes the high peak of infantile mortality (due to tuberculosis) before resistance is acquired.

Many doubtful cases of lung, gland or abdominal type are referred during the course of the year to the Dispensary ; and it is now the practice to do "Mantoux" Tuberculin tests on as many children as possible, up to the age of sixteen.

This test is sufficiently reliable to establish an evidence of "infection" with Tubercle Bacilli when carried out systematically, there being only a small percentage of error : and in a few doubtful cases, where the diagnosis may be "almost certain" clinically, the specific reaction is sufficient to clinch the matter and enable the Tuberculosis Officer to get the child away. The consent of parents or guardians is always obtained.

It should be clearly understood that "tuberculous infection" or "infection" with Tubercle Bacilli does not mean tuberculosis or consumption—the latter being definite clinical indication that the individual resistance has broken down and that actual disease is present.

It is probable also that the repeated small infections received in early life are responsible for the formation of an individual resistance—or acquired immunity — which is strongly protective in later years.

Many of these "slightly infected" children are kept under observation and supervision (may be lasting for some years) and make good progress without any special treatment. For those who require more active measures, institutional treatment is provided by the London County Council or the Public Assistance Committee (on recommendation from the Dispensary) in Sanatoria, Surgical Homes and Convalescent Homes.

This will in most cases be sufficient to bring about arrest of the disease : and many of these little patients are afterwards admitted to Special Schools according to their specific disability.

From Fulham and surrounding Boroughs notified children (and contacts) are referred to the Elizabethan Open Air School in Broomhouse Lane. These children are largely those with mild "gland" disease, and a few pulmonary cases of doubtful type where "fibrosis" or scarring of the lung is all that can be discovered by X-rays and after a period in Sanatorium.

The school accommodates sixty children, who attend daily, and amongst whom are many whose condition has never been sufficiently serious to necessitate sanatorium treatment, and who are really kept under open-air regime on general health principles.

The school children are under daily supervision by one of the Tuberculosis Nurses, and the Tuberculosis Officer for the Borough, who is also Medical Officer to the school, makes a weekly visit at which a number of children are examined in rotation, the whole school being seen about every five weeks.

Open-air classes are held in two specially constructed canvas shelters in the playground, whilst in severe weather the children have their lessons in the large school-hall in the main building.

The administration of the school from the educational standpoint is under the personal supervision of the Headmistress, Miss Clarke : suitable hours of work, rest and exercise being arranged in accordance with the medical needs of the children.

The Medical Officer and Headmistress endeavour to ensure that all children attending the school have a holiday of at least two weeks away from town, either with their parents or through the Educational School-journey scheme under the care of the Headmistress.

An excellent midday meal is served to all children both meals and kitchen being periodically inspected by the Medical Officer. Each child has, in addition, a glass of milk during the morning and special extra medicaments such as Cod Liver Oil and Malt, Emulsion, Extract of Malt, Radio-Malt, Virol, Haliverol and tonic medicines are ordered according to individual requirements.

As the writer has been frequently asked what the midday meals consist of, Miss Clarke has kindly given two actual weekly menus (for summer and winter) which are set forth below. The inclusion of fresh fruit in season and lemonade from fresh lemons will be noted.

MENU—WINTER.

Monday	Roast beef, greens, potatoes, bread. Milk pudding, rice and baked apples.
Tuesday	Boiled mutton, carrots, onions, dumplings, barley. Raw apple and dates.
Wednesday	Roast mutton, greens, potatoes, bread. Boiled suet sultana pudding.
Thursday	Meat pie, greens, potatoes, bread. Custard and orange.
Friday	Shepherd Pie or boiled fish, beans, potatoes. Treacle tart or suet pudding.

SUMMER.

Monday	Roast mutton, greens, potatoes, bread. Rice pudding and baked apples.
Tuesday	Shepherd Pie, greens, potatoes, bread. Macaroni and gooseberries.
Wednesday	Cold salt beef, salad (lettuce, watercress, tomatoes, etc.), potatoes. Boiled suet pudding and treacle.
Thursday	Meat pie, greens, potatoes, bread. Raw apple and dates.
Friday	Cold roast mutton, green salad, potatoes, bread. Treacle tart.

NOTE.—Lemonade made from fresh lemons served twice a week in summer.

Under this regime the children show decided and in many cases a very marked improvement.

Treatment by Artificial Sunlight (Ultra-Violet Rays) is not provided under the Borough scheme; but certain cases are recommended during the course of the year, the treatment usually being carried out in the Special Light Department at Tite Street Hospital under medical supervision.

BACTERIOLOGICAL AND OTHER PATHOLOGICAL EXAMINATIONS.

In addition to a large amount of other specialized investigation, both bacteriological and pathological in the Borough Laboratory, Miss Robinson has carried

out one thousand, eight hundred and two tests for Tubercle Bacilli in sputum, and fourteen special tests for the same organism in Excreta.

Out of one thousand, eight hundred and sixteen examinations, three hundred and eighty-seven have shewn a positive result : but it must not be assumed that these are all indications of new cases of the disease, a number being "repeat" specimens which are taken at intervals in already notified (and possibly old) cases of consumption.

I wish to express my great appreciation of Miss Robinson's excellent work in the bacteriological department ; and also for her great help in preparation of tuberculin dilutions, carrying out of Mantoux tests, and keeping of detailed records regarding them.

Institutional Treatment.

The London County Council is the authority responsible for the provision of Sanatorium and other kinds of institutional treatment for notified cases of tuberculosis—such patients being recommended either through the Dispensary, or from various Hospitals.

Adult patients requiring special institutional observation for the purpose of diagnosis in cases of doubt are admitted to Brompton Hospital : whilst children are usually sent to Highwood, Brentwood, Essex. The great majority of recommendations both for observation and treatment are accepted ; though it occasionally happens that a heavy waiting list at County Hall may defer or cause non-acceptance for some special institution.

In making recommendations for Sanatorium, due consideration has to be given in regard to age, type of disease and individual mentality in patients : and also whether there is reasonable prospect of benefit to be expected.

The earlier the stage of the disease, given a sensible attitude on the part of the patient together with a reasonable power of resistance, the more chance there is of recovery.

The advanced case of consumption still remains one of difficulty and a potential source of danger. Such cases are unsuitable for sanatoria as the prospects of return to working life are usually remote —and for a large number only temporary benefit could be hoped for.

A certain number of such patients are dealt with by admission to hospital beds and homes under the London County Council: but these usually have only temporary periods in hospital: in the meantime living at home, where proper segregation may be impossible and adequate nursing attention causes a strain on relatives and friends.

The Dispensary Staff do what they can to ensure a proper hygiene in these homes, but it is obviously impossible to carry on continual daily supervision in all cases.

The Tuberculosis Care Committee.

The meetings of this Committee are held once every fortnight at the Dispensary, and their activities cover a very wide field, chiefly being connected with the social welfare of patients and their dependents, and the assessment of contributions towards treatment.

Extra nourishment is authorised in all cases where the condition of the patient together with financial considerations justifies it: a special vote being granted in the estimates under the Tuberculosis scheme for the purpose.

The Public Assistance Committee and the Dispensary work in close connection in regard to extra nourishment coming outside the jurisdiction

of the Tuberculosis Care Committee. Letters are sent to the District Medical Officers and Chief Area Officer recommending extra nourishment for tuberculous persons according to the scale which has been found adequate in the case of Dispensary patients.

The Charity Organisation Society carry out a great deal of work in connection with tuberculosis erpecially in regard to visiting and interviewing all adult cases recommended for Institutional Treatment under the London County Council ; and their work in this connection is to be recorded with great appreciation. The writer would like to add that from the beginning of April, 1933, the Charity Organisation Society have had to do a considerable amount of extra work in this respect owing to the fact that from this date, all cases of tuberculosis receiving institutional treatment are now assessed by the Care Committee.

In former times this was not the case, the Care Committee only dealing with those patients treated by the London County Council under their tuberculosis scheme. This has, of course, thrown a considerable amount of additional work on the Secretary, Miss Sargent, who has on very many occasions had to work overtime to complete the correspondence.

The Tuberculosis Officer wishes to express his sincere thanks to the Chairman, Secretary, and other members of the Care Committee for their valuable help during the past year : and also to other Societies, such as the British Legion, the United Services Fund, the Incorporated Soldiers and Sailors Help Society, the National Association for the Prevention of Tuberculosis, the Invalid Kitchens of London and the Public Assistance Committee, all of which have at various times given great assistance.

As an illustration of the work carried out by the Care Committee, Miss Sargent has kindly compiled the following cases :—

Specimen Cases :—

A. was a serving soldier when found to be suffering from pulmonary tuberculosis and was sent straight to Netley Hospital from the Barracks, while his wife and seven children settled down in one room in Fulham in the autumn of 1931. A. had prolonged institutional treatment during which time unsuccessful efforts were made to find better accommodation for the family. In the summer of 1932, the Public Assistance Committee placed three of the children in their Schools but the home was still overcrowded. A. was home for a short period and was then admitted to Fulham Hospital and from there to Preston Hall Colony. He returned home in September, 1933, as the family were obliged to move owing to the house in which they lived being sold. A bungalow, standing in a large garden in the country in Kent was found, and through the co-operation of the National Association for the Prevention of Tuberculosis, the British Legion and various Army Charities, furniture was procured and the whole family moved down to the new home in November.

A letter received from A. at Easter gave a glowing account of the health of his wife and children and the planting, etc. of the garden. He has his "ups and downs" but is keeping under medical supervision, and is extremely grateful for the help which enabled him to make a fresh start in suitable surroundings.

B. was a waitress who, on her discharge from sanatorium came to stay with a sister hoping to obtain work. She had arrears of insurance benefit which enabled her to carry on, but by the time she had found a post down at Clacton-on-Sea, these were exhausted and she had not the money to pay for her fare. The letter engaging her was seen, and as it seemed unwise to let her miss the chance of work under suitable conditions, the fare was advanced and she went off the same afternoon. She wrote after some weeks to say she had settled down in the place and had put herself in touch with the Public Health Authorities as advised, and her case has therefore been transferred to the Essex County Council.

C. came to live in Fulham on her discharge from Frimley. Her husband had died from tuberculosis and she had supported herself as a lady's maid until she fell ill. When we first knew her, her only income was her disablement benefit; but she was confident of being able to support herself by needlework if only she could get a connection together. Extra nourishment was given from the Town

Hall and efforts were made to find her work. The Charity Organisation Society was appealed to and guaranteed to bring her income up to a sufficient level for a certain length of time to give her a chance of making good: they also kept up her insurance payments for her. Unfortunately, her health broke down again and she was re-admitted to sanatorium at the end of September in the hope that later on employment might be found for her there as a sewing maid.

The Handicraft (Gloving) Class.

This class, which was started in February, 1932, has continued throughout 1933, the members meeting on Tuesdays at the Dispensary. Thirty-five lessons were given during the year, two hundred and eighteen attendances being made altogether. On the whole the class is slightly smaller than in the previous year as one member has returned to ordinary work, one has died and four are away in institutions and are not likely to return.

There has been, however, a marked improvement in the quality of the work; and the fact that gloves to the value of £51-19-2 were sold privately through the Care Committee, besides those which were disposed of by the Central Fund at Denison House, speaks for the efficiency of the work done.

At the present time, there is a membership of ten, with an average attendance of six.

The Secretary is only too glad to receive orders for gloves, both for men and women, in various leathers and styles, including motoring gauntlets and gardening gloves.

Convalescence through the Invalid Children's Aid Association.

This Association gives most valuable help in dealing with many children who, after a period of Dispensary observation, are not found to be suffering

from clinically recognisable disease, but being otherwise in debilitated health are in special need of a holiday away to recuperate.

Many of these children are convalescent after whooping cough, pneumonia, bronchitis and other ailments: and their home conditions may be unsatisfactory either from environmental or economic causes.

Naturally these conditions are more liable to be harmful where there is in the household some member of the family suffering from consumption.

The Tuberculosis Officer wishes to express his great appreciation and thanks to the Association for their aid in obtaining periods of convalescence for many Dispensary children; and also for much help on the preventive side, where their intimate knowledge of the district and economic conditions and personal acquaintance with families and their homes has been of the greatest value.

Conclusion.

I would like to place on record my sincere thanks to both the Clerical and Nursing Staffs and to Miss Robinson in the Bacteriological Laboratory, for the great assistance given at all times in their respective departments.

Summary of Statistics, 1933.

No. of New Patients:—	
Insured	261
Uninsured	245
Total	506
No. of Attendances:—	
Insured	1,312
Uninsured	1,916
Attendances of Contacts	507
Other attendances	534
Total	4,269

No. of patients who have attended, both old and new	1,237

No. of Notifications :—

Pulmonary	168	
Non-Pulmonary	15	
Total	183	

No. of Sputa examined	1,802
No. of Physical examinations	2,911
No. of Contacts examined	231
No. of Home Visits paid by Doctor	409
Bedside consultations included in above.....	172
Consultations otherwise	724
No. of Home Visits paid by Nurses	3,936
No. of Reports sent to Public Bodies	541
No. of Reports sent to Doctors	792
No. of Letters written	5,677
No. of Patients referred to Brompton Hospital	11
For X ray	169
No. of notified cases on Dispensary Books on 31-12-33	809
No. of Patients sent away into institutions or to the country in 1933	163

TABLE IX.

163 Patients were sent to residential institutions on the recommendation of the Dispensary Medical Officers.

(*a*) 121 *by the London County Council* :—

	65 to Sanatoria.	2 to Colonies.	1 to Convalescent Home.	57 to Hospitals.
Men	20	2	—	31
Women	32	—	—	17
Children	13	—	1	5

(*b*) 20 *by the Public Assistance Committee* :—

	12 to Hospitals.	8 to Sanatoria or Convalescent Homes.
Men	4	—
Women	6	1
Children	2	7

12 children were sent to Convalescent Homes by the Invalid Children's Aid Association.

1 woman was sent away by the Women's Holiday Fund.

1 man and 4 women were convalesced by the Charity Organisation Society and 1 baby placed so that the mother could accept sanatorium treatment.

1 man was convalesced by the United Services Fund.

2 children went away through the Children's Country Holiday Fund.

One family of 10 persons was removed permanently into the country.

Table X. Showing sources of New Cases.

239	were recommended by		private doctors.
19	,,	,,	the Medical Officer of Health.
4	,,	,,	the School Medical Authority.
50	,,	,,	Hospitals and Sanatoria.
17	,,	,,	other Dispensaries.
11	,,	,,	the London County Council.
96	,,	,,	the Dispensary Staff.
22	,,	,,	friends.
2	,,	,,	other patients.
36	,,	,,	the Door Plate.
3	,,	,,	the Invalid Children's Aid Association.
6	,,	,,	Public Assistance Authorities.
1	was	,,	the Ministry of Health
506			

Table XI.

New Cases.	Pulmonary Tuberculosis.	Other Forms.	Suspects.	Non-Tubercular.	Percentage Tuberculous.
247 Males	89	7	—	151	38.86
259 Females	72	7	—	180	30.50
506 both sexes.....	161	14	—	331	34.58

Table XII.

Sex and Age of the New Patients for 1933.

	Under 5 years.	5 to 10 yrs.	10 to 15 yrs.	15 to 25 yrs.	25 to 35 yrs.	35 to 45 yrs.	45 years and over.	All Ages.
Males	13	28	23	50	49	34	50	247
Females	16	29	26	70	57	29	32	259
Both Sexes	29	57	49	120	106	63	82	506

Table XIII.

Diagnosis at Various Age Periods. New Patients.

	Pulmonary Tuberculosis.	Other Forms.	Suspects.	Non-Tubercular.	Percentage Tuberculous
Under 5 years	—	—	—	29	—
Under 10 years	1	6	—	50	12.28
Under 15 years	—	1	—	48	2.04
Under 25 years	52	3	—	65	45.83
Under 35 years	43	2	—	61	42.45
Under 45 years	29	1	—	33	47.61
45 and over	36	1	—	45	45.12
All ages	161	14	—	331	34.58

Table XIV.

Housing Conditions.

Of 164 of the 175 tuberculous patients found in 1933:—

7 lived in the basement.
29 lived on the ground floor.
44 lived on the first floor.
7 lived on the second floor.
4 lived on the third floor.
1 lived on the fourth floor.
29 lived on the top floor.
17 lived on more than one floor.
26 lived in the whole house.

164

Table XV.

Housing Accommodation.

	Number of Families occupying					
	One room.	Two rooms.	Three rooms.	Four rooms.	Five rooms.	Six rooms or more.
Patient living alone	10	—	—	—	—	—
Patient living with						
1 other	5	14	16	—	—	—
2 others	—	10	21	12	3	1
3 ,, ...	—	4	14	4	3	4
4 ,, ...	—	—	10	12	1	6
5 ,, ...	—	—	4	—	2	2
6 ,, ...	—	—	—	2	—	—
7 ,, ...	—	—	—	—	—	1
8 ,, ...	—	—	—	—	1	1
9 ,, ...	—	—	—	1	—	—
	15	28	65	31	10	15

Table XVI.

Sleeping accommodation of 164 Tuberculosis Patients.

The patient slept :—	
In a separate room in	63 cases.
Alone in bed with one other in room in	8 cases.
,, ,, 2 others ,, ...	3 cases.
,, ,, 3 others ,, ...	2 cases.
In bed with 1 person and no others in room	60 cases.
,, ,, ,, 1 other ,,	20 cases.
,, ,, ,, 2 others ,,	6 cases.
In bed with 2 persons and no others in room in	2 cases.
	164 cases.

Table XVII.

Occupations of 93 Men (New Cases) in 1933.

1 Ambulance driver.
1 Barber.
1 Boiler maker.
1 Bricklayer.
1 Bus conductor.
1 Bus driver.
1 Cabinet maker.
1 Cable joiner.
2 Canvassers.
2 Carpenters.
1 Carrier.
1 Chauffeur.
2 Civil Servants.
10 Clerks.
1 Coal porter.
1 Commissionaire.
1 Dental mechanic.
1 Electrician's mate.
1 Engineer.
1 Errand boy.
1 Factory hand.
1 Fishmonger.
1 Footman
1 Garage hand.
1 Guard.
1 Handyman.
1 Hawker.
2 Hotel porters.
1 House painter.
1 Insurance agent.
1 Insurance manager.
1 Joiner.
1 Kitchen hand.
6 Labourers.
1 Leather finisher.
1 Machine operator.
1 Metal worker.
2 Messengers.
1 Milk roundsman.
2 Motor drivers.
1 Motor fitter.
1 Museum warder.
1 Off license manager.
1 Piano finisher.
1 Plumber.
1 Postman.
1 Potman.
1 Railway porter.
3 Salesmen.
3 Shop assistants.
3 Shop porters.
1 Stoker.
1 Tailor.
1 Telegraphist.
1 Telephonist.
1 Ticket collector.
1 Tiler.
1 Trade boy.
1 Unemployed.
2 Waiters.
1 Wireless repairer.
5 No occupation.

Occupations of 73 Women (New Cases) in 1933.

1 Barmaid.
1 Biscuit packer.
1 Box maker.
1 Calender hand.
5 Clerks.
1 Cook.
4 Domestics.
2 Draper's assistants.
2 Dressmakers.
33 Housewives.
1 Housekeeper.
3 Laundry packers.
1 Machinist.
1 Parlour maid.
1 Salvation Army Officer.
5 Shop assistants.
1 Stewardess.
2 Telephonists.
4 Typists.
2 Waitresses.
1 No occupation.

Under 15 years of age.

3 Boys. 5 Girls.

GENERAL SANITARY ADMINISTRATION.

Bacteriological Examinations.

Of the 3,358 specimens sent by doctors during the year, 3,024 were examined at the Council's Laboratory, 114, New King's Road. The remaining 334 specimens were examined by the Clinical Research Association, during week-ends, holidays and emergencies.

Bacteriological examinations were made during the year as follows :—

Material from cases of suspected Diphtheria :—		
Diphtheria isolated	83	
Negative result	1,235	
		1,318
Blood from cases of suspected Enteric Fever :—		
Agglutination reaction for Typhoid or Paratyphoid obtained	2	
Negative result	4	
		6
Pathological specimens for Enteric Organisms :—		
Positive result	—	
Negative result	5	
		5
Sputa and other pathological Specimens (Faeces, urine, and Throat and Ear swabs) from cases of suspected tuberculosis :—		
Tubercle Bacilli found	392	
Tubercle Bacilli not found	1,431	
		1,823
Cases of suspected Gonorrhoea :—		
Gonococcus found	3	
Gonococcus not found	54	
		57
Examinations of Urine		51
Blood counts		3
Other examinations		85
Special examinations of urine		10
Total number of examinations		3,358

Disinfection.

The following rooms were disinfected and cleansed after infectious disease, etc :—

Scarlet Fever	735
Diphtheria	169
Phthisis	219
Erysipelas	71
Scabies	49
Cerebro-Spinal Meningitis	7
Whooping cough	2
Cancer	25
Pneumonia	1
Measles	10
Puerperal Fever	6
Puerperal Pyrexia	7
Polio-Encephalitis	1
Paratyphoid	3
Influenza	2
Enteritis	1
Rooms fumigated for vermin	272
Rooms sprayed	89
Rooms fumigated by request	60
	1,729

The following articles were disinfected at the Council's Disinfecting Station :—

Articles.	From private houses.	From institutions.	Total.
Beds	714	1	715
Mattresses	1,399	99	1,498
Palliasses	23	—	23
Pillows	2,611	150	2,761
Cushions	278	—	278
Bolsters	717	4	721
Blankets	2,989	390	3,379
Sheets	1,914	255	2,169
Covers	367	7	374
Counterpanes	936	5	941
Curtains	27	—	27
Carpets	101	—	101
Hearth Rugs	708	3	711
Articles of clothing	4,615	1,168	5,783
Eiderdowns	373	—	373
Sundries	1,074	95	1,169
	18,846	2,177	21,023

PUBLIC MORTUARY.—One hundred and ten bodies were removed to the Mortuary during 1933, and were admitted as follows :—

By order of the Coroner	84
Brought by the Police	4
For convenience till funeral	22
	110

Sixty-six post-mortem examinations were made and inquests were held in 35 cases.

MODERNISATION OF THE COUNCIL'S MORTUARY.

Representations were received by the London County Council from the London County Coroners' Association early in 1932 on this subject. The

Association expressed the view that the modern mortuary should be so constructed as to fulfil efficiently the following essential requirements :—

1. Preservation of bodies in such a manner as to ensure correct identification, cold chambers for storage being provided for this purpose.

2. Post-Mortem rooms and adequate appliances to enable the cause of death to be ascertained.

3. The reverent display of bodies which have to be viewed by relations and friends.

The County Council conveyed the views of the Coroners' Association to the Metropolitan Borough Councils on 21st May, 1932, and the matter was also considered by the Metropolitan Boroughs Standing Joint Committee on 25th July of that year.

The Public Health Committee appointed a Sub-Committee consisting of Councillors Mr. Barham (Chairman), Dr. Bokenham, Mr. Dodimead and Sir Thomas Richardson to inquire into the whole question and to view the mortuary. I submitted a report at their meeting on 26th November, 1932, in which I recommended that the mortuary should be brought up to modern standards, and gave details of the necessary plant and a general outline of the structural alterations required in the building. My report was based on exhaustive inquiries on modern installations and visits to mortuaries in which modern plants were already installed.

The Sub-Committee of the Public Health Committee gave the matter the most careful consideration and the Committee unanimously resolved to recommend the Council to allocate a sum of £550 in the annual estimates for 1933-1934 for the purpose. At their meeting in October, 1933, the Council accepted tenders for the reconstruction (including the laying of Terrazzo flooring) of the viewing room ; the installation of a cold chamber and refrigeration

plant in the viewing room ; and for the provision and fixing of a draining slab and combined wash and slop sink in the post-mortem room. Certain alterations and additions to the electric lighting installation were also necessary. An all metal, enamelled trolley for the conveyance of the bodies between the post-mortem room and the viewing room was also provided.

The work was completed during the latter part of the financial year 1933-1934 and the plant is giving the most satisfactory results. The reconstructions and installations were carried out by British firms under the supervision of the Borough Surveyor, Mr. Holden, and his assistant, Mr. Austin, for whose assistance and co-operation I wish to express my most sincere thanks.

The apparatus consists of a refrigerating machine and a cooling chamber. The refrigerating machine consists of four parts ; a gas compressor driven by a 1 h.p. electric motor, an air cooled condenser, a direct expansion evaporator and a regulator for controlling the rate of flow of the refrigerant. These components form a closed unit containing an easily liquified gas, methyl chloride, which is placed on top of the cooling chamber. The defrosting apparatus consists of a thermostatic control fitted to the motor, so should the evaporator become frosted and so impair the efficiency of the cooling system, the motor automatically cuts out at 32 °F. and restarts when the temperature in the cooling chamber has reached 38 °F and all frost has disappeared. The temperature of the chamber is maintained at an average of 35 °F.

The cold chamber accommodates 8 bodies and has 4 compartments and 4 doors ; each of the compartments is for 2 bodies, one above the other, which are placed on trays supported by racks. The end compartment of the chamber is completely isolated from the general body of the chamber, so that 2

bodies of infectious cases can be accommodated separately from the 6 bodies in the other 3 compartments.

An exhaust fan is fitted to the cold chamber for the purpose of extracting foul air before the doors are opened. This is a very useful feature of the system.

The draining slab constructed of white glazed fireclay in one piece for the examinations of organs removed from the bodies and a combined wash and slop sink were installed in the post-mortem room, in which medical men carry out such examinations.

During March 1930, a new post-mortem table was installed in this room. The drainage of the Mortuary and Coroners' Court was reconstructed in 1933.

The Council now possesses a complete modern mortuary and Fulham residents who have to view the bodies of their relatives can do so in a reverent and seemly manner. Post-mortem examinations can be conducted by medical men with greatly increased efficiency and with the minimum of discomfort and risk to health.

SANITARY INSPECTION OF THE DISTRICT.

The ultimate object of sanitary inspection is to promote the health of the inhabitants of the district and to lower the death-rate.

The duties of a sanitary inspector are of a very varied character but are mainly in connection with inspection of nuisances, housing, drainage, inspection of food, food premises, workshops and work-places, and other places where work is done for profit. The inspection of factories is principally the duty of inspectors appointed by the Home Office, but local

authorities have also certain functions in factories which are carried out in co-operation with the Factory Inspector.

The following inspections of dwelling-houses were made during the year by the Sanitary Inspectors :

Cause.	*Inspections.*
In consequence of complaint	14,177
In consequence of infectious disease	2,728
House-to-house inspection	3,743
Verminous or aged persons	262
Other inspections of dwelling-houses	2,249

The following notices were served in respect of dwelling-houses during the year :—

Intimation Notices.		Statutory Notices.	
Number served.	Number complied with up to 31st December, 1933.	Number served.	Number complied with up to 31st December, 1933.
3,017	2,104	564	508

The following works were carried out and repairs effected as a result of the action of the Sanitary Inspectors —

Drainage.	Drains cleared	215
	Drains repaired	431
	Drains relaid	407
	Soil and ventilation pipes repaired	50
	Soil and ventilation pipes renewed	349
	Rain water gutters and pipes repaired or renewed	365
W.C.s.	Traps cleansed, repaired, etc.	123
	W.C. pans renewed	1,017
	W.C. seats repaired or renewed	95
	Flushing cisterns repaired	232
	Flushing cisterns renewed	34
	Additional W.C. accommodation provided	3

	Lobbies provided to W.C. apartments and lobbies ventilated	6
	Doors to W.C.'s repaired and fastenings provided	105
	W.C. apartments ventilated	3
Sinks, Baths and Lavatory Basins.	Sinks provided	114
	Sinks renewed	266
	Sinks repaired	42
	Sink waste pipes trapped	137
	New sink waste pipes provided	363
	Sink and bath wastes repaired	65
	New baths fitted	66
	Lavatory basins fixed	72
	New wastes from baths and lavatory basins	118
Water Supply.	Water cisterns cleansed, covered, etc.	170
	Water supplied from mains	55
	Occupied houses provided with separate water supply	10
	Water supply pipes and fittings repaired	49
	Water supply provided to separate floors	33
Cleansing and Internal work.	Rooms cleansed	4,831
	Verminous rooms cleansed	754
	Decorations and internal house repairs	8,016
	Fireplaces repaired (nuisance from smoke)	112
	Kitchen ranges repaired	251
	Washing coppers repaired	116
	Ventilation provided under floors	122
	Dampness remedied	1,073
	Staircases provided with adequate light and ventilation	29
	Ventilated food cupboards provided	61
External repairs and other nuisances.	Roofs repaired	710
	Other external repairs	1,136
	Accumulations of refuse removed	127
	Dustbins provided	400
	Yards and forecourts paved and drained	491
	Abatement of nuisance from animals	31
	Urinals of Public Houses cleansed	6
	Urinals of Public Houses repaired	4
	Urinals of Factories, etc., cleansed	9
	Other nuisances abated	21

DRAINAGE OF BUILDINGS.—The following drainage plans were submitted to and approved by the Public Health Committee during 1933 :—

Plans of drainage of new buildings :—

Electricity Sub-station	1	
Garage	1	
Lock-up shops (flats over)	1	
New Car Parks	2	
Offices and Store	1	
Public Convenience	1	
Wharf building	1	
	—	8

Additions to existing buildings :—

Conversion to flats	3	
Extension to warehouse	1	
Lavatory Accommodation	20	
	—	24

Conversion to flats of existing buildings	12	
Conversion to garage	1	
Conversion to dairy	1	
	—	14
Reconstruction of drains of existing buildings		165

The supervision of the work, with the exception of reconstruction, is in the hands of the Council's drainage inspector. In connection therewith he paid 1,217 visits during the year.

COMBINED DRAINAGE.—During the year under review the Council authorised the carrying out of work in connection with Combined Drainage in three cases.

INSPECTION OF FOOD AND FOOD PREMISES.

This is extremely important for the health of the inhabitants. The inspections are made for many reasons but principally (1) to ensure that articles of food or food animals are sound, wholesome, free from disease and fit for the food of man : (2) that the premises are in good sanitary condition and clean, and (3) that the persons engaged in food occupations are clean in their persons and free from disease and that they carry out their duties in a hygienic and wholesome manner.

The public can assist materially by encouraging clean food shops and discouraging any that are not obviously clean and hygienic.

The following table shows the number of inspections of the various types of food premises :—

Milk Shops and Dairies	515
Ice Cream Premises	171
Butchers' Shops	274
Fish Shops	40
Fried Fish Shops	98
Fish Curing Premises	25
Greengrocers' and Fruiterers' Premises	134
Cooked Meat Shops	159
Eel and Pie Shops	20
Dining Rooms and Eating Houses	269
Restaurants	81
Licensed Premises	162
Street Traders' Storage Premises	197
Slaughter Houses	89
Bakehouses	404
Bakers' Shops without bakehouses attached	47
Food Factories other than those included above	172
Other Food Premises	191
Total	3048

As will be seen on reading the following pages, the Food Inspector is not the only Inspector carrying out food inspections. The District Inspectors and the Female Sanitary Inspector also take a very active

part in this work. In addition two Inspectors are on duty on two evenings a week inspecting the North End Road Market, the Fulham Market and other street markets in addition to shops. All the male Inspectors take their turns on this duty.

Work of the Food and Drugs Inspector.

The duties of the Council's Food and Drugs Inspector (Mr. A. W. Gammack) are as follows :—

(1) Acting as Sampling Officer under the Food and Drugs (Adulteration) Act, 1928 and the Milk and Dairies (Consolidation) Act, 1915, the Public Health (Condensed) Milk Regulations, the Public Health (Dried Milk) Regulations and the Public Health (Preservatives etc. in Food) Regulations.

(2) The Inspection and Supervision of Dairies and Milkshops, mainly under the Milk and Dairies (Consolidation) Act, 1915; the Milk and Dairies Order, 1926 and the Public Health (London) Act, 1891.

(3) Duties in connection with Registration of Dairies and Dairymen by the Borough Council.

(4) The supervision of the sale of Designated Milks (Certified Milk, Grade A Milks, and Pasteurised Milks) under the Milk and Dairies (Amendment) Act, 1922 and the Milk (Special Designations) Order, 1923.

(5) The Hygienic and Sanitary Supervision of Bakehouses and Bakers' Shops.

Sampling of Food and Drugs under the Food and Drugs (Adulteration) Act, 1928 and the Milk and Dairies (Consolidation) Act, 1915.

One thousand samples of articles of food and drugs were purchased or taken during the year by Inspector Gammack in his capacity as sampling officer and were submitted to the Public Analyst for analysis. The samples were taken under the above-mentioned Acts.

Of these 35 or 3.5 per cent, were reported to be adulterated or not up to standard. Full details of the adulterated samples, together with particulars of action taken, will be found on page 102.

Every adulterated sample is reported to the Public Health Committee and when the offence does not warrant legal proceedings the vendor is warned by letter and further samples are purchased to ensure that the adulteration is not continued.

The following table gives details of the number and percentage of adulterated samples of all articles during the years 1928 to 1933 inclusive :—

SAMPLES OF ALL FOODS (INCLUDING MILK) REPORTED AS ADULTERATED ON CHEMICAL ANALYSIS.

Year	1928	1929	1930	1931	1932	1933
No. examined	1,000	1,000	1,000	1,000	1,001	1,000
No. adulterated	31	44	40	22	29	35
Percentage of adulteration	3.1	4.4	4.0	2.2	2.89	3.5

Milk :

During the year 641 samples of milk (including three of Machine-skimmed milk) were examined. Of these, 18 or 2.8 per cent. were certified by the Public Analyst to be adulterated. Two samples taken from the same vendor were found to contain preservative and legal proceedings were instituted. Nine samples taken from a farmer in course of delivery to a wholesale depot in Fulham were deficient in fat in amounts varying from 2 per cent. to 10 per cent. Legal proceedings were taken in respect of four of the samples, three of which were 7 per cent. and one 10 per cent. deficient in fat. The case was, however, dismissed, the Magistrate holding that the milk was as it came from the cows.

Particulars of the number and percentage of adulterated samples of milk for the years 1928 to 1933 inclusive are given in the following table :—

SAMPLES OF MILK REPORTED ADULTERATED.

Year	1928	1929	1930	1931	1932	1933
No. examined	591	565	548	540	543	641
No. adulterated	15	28	4	3	4	18
Percentage of adulteration	2.5	4.7	0.7	0.55	0.74	2.8

The following table gives the average monthly composition of samples of milk (excluding skimmed milk) taken in the Borough during 1933 :—

Months.	No. of samples examined.	Average Composition.		Remarks.
		Percentage of milk fat.	Percentage of Solids not fat.	
January	54	3.45	8.80	Including 2 adulterated samples
February	56	3.27	8.69	9 ,, ,,
March	58	3.28	8.74	1 ,, ,,
April	56	3.29	8.75	.....
May	53	3.35	8.81	2 ,, ,,
June	48	3.31	8.84	1 ,, ,,
July	51	3.73	8.71	.....
August	55	3.47	8.67	2 ,, ,,
September	51	3.56	9.03	.....
October	53	3.58	8.95	.....
November	52	3.62	9.01	1 ,, ,,
December	51	3.73	8.83	.....

It will be seen that the milk was of better quality during the second half of the year, as is usually the case.

The average percentage of milk fat in the 638 samples taken during the year was 3.46 and the average percentage of solids-not-fat was 8.70.

Under the Sale of Milk Regulations, 1901, made by the Board (now the Ministry) of Agriculture, genuine milk should contain not less than 3 per cent. milk fat and 8.5 per cent. solids-not-fat and it is satisfactory to note that the milk supplied in Fulham during each month of the year was well above the minimum standard.

As in previous years, samples of milk were taken in course of delivery to the Institutions, Hospitals and Schools in the Borough which are under the control of the London County Council.

The following samples were taken during 1933 and in all cases the milk was found to be genuine :

Institution.	Samples taken for— Chemical Analysis.	Bacteriological Examination.
Fulham Hospital	32	11
Fulham Institution	9	5
Western Hospital	26	14
Elizabethan Open-air School	3	—

Automatic Milk Machines :

During 1933 the three automatic milk machines were sampled and no adulterations were reported.

Public Health (Condensed Milk) Regulations, 1923 and 1927 and Public Health (Dried Milk) Regulations, 1923 and 1927.

Three samples of condensed milk and one of dried milk were purchased during 1933 and in all cases the labelling and the results of the analysis were in accordance with the Regulations.

Public Health (Preservatives etc. in Food) Regulations, 1925-1927.

During the year samples were examined for the presence of preservative and three contraventions were reported. In two cases preservative in the form of "formalin" had been added to milk and the other offence related to an informal sample of beef sausages which contained the recognised preserving agent in quantities permitted under the Regulations but the fact that the sausages contained preservative was not declared at the time of sale. When the formal sample was purchased, however, the necessary declaration regarding preservatives was clearly exhibited in the shop and the amount present did not exceed that allowed by the Regulations.

For a detailed report on the results of the analysis of articles of food and drugs see the report of the Council's Public Analyst on page 152 et seq.

Particulars of all Samples Reported to be Adulterated or not in Accordance with Legal Standards.

Sample No.	Article.	Result of Analysis.	Action Taken.
8	Milk	20 parts of dirt per million.	Cause fully investigated. Further sample satisfactory.
22	Milk	12 % deficient in fat.	Prosecution. Convicted and fined £2.
67	Butter	0.5 % excess moisture.	Informal sample. Formal sample (No. 99) purchased.
99	Butter	0.4 % ,,	Vendor warned by letter.
112	Margarine	0.7 % ,,	Informal sample. Formal sample unobtainable. Stock exhausted.
148	Milk	2 % deficient in fat.	Taken from one farmer.
151	,, ...	5 % ,,	Legal proceedings
155	,, ...	4 % ,,	taken in respect of samples
156	,, ...	3 % ,,	157, 160, 161 and 164.
157	,, ...	7 % ,,	All summonses dismissed,
158	,, ...	5 % ,,	the Magistrate holding
160	,, ...	7 % ,,	that the milk was as it
161	,, ...	10 % ,,	came from the cows.
164	,, ...	7 % ,,	
212	,, ...	3 % ,,	Vendor warned by letter.
280	Butter	0.8 % excess moisture.	Informal sample. Formal sample genuine.
320	Flowers of Sulphur	0.2 % excess from Sulphuric acid.	do.
341	Butter	0.2 % excess moisture.	do.
374	Milk	6 % added water.	Vendor warned by letter.
375	,, ...	5 % deficient in fat.	do.
391	Magnesium Oxide	3.2 % excess moisture and carbon dioxide.	Informal sample. Formal sample genuine.
408	Gin	7 % extraneous liquid.	do.
427	Milk	4 % deficient in fat.	Vendor warned by letter.
473	Margarine	0.4 % excess moisture.	Informal sample. Formal sample genuine.
475	,, ...	0.6 % excess moisture.	do.
632	Milk	0.008 % formaldehyde.	Prosecution. Dismissed on payment of one guinea costs.
644	,, ...	0.004 % ,,	do.
637	Rice	0.04 % Stone.	Remainder of stock inspected and vendor advised to examine future consignments.
718	Sausages	170 parts per million of Sulphur.	Informal sample. Formal sample purchased and necessary declaration *re* preservative exhibited in shop.
750	Butter	0.5 % excess moisture.	Informal sample. Formal sample genuine.
837	Milk	4 % deficient in fat	Vendor warned by letter.
886	Butter	0.2 % excess moisture.	do.
889	Dripping	3 % excess free fatty acids.	do.
896	Dried Fruit (Sultanas)	Seedless raisins supplied.	Matter investigated and fruit described as "Produce of California," which is in order.
909	Rum	4 % deficient in proof spirit.	Informal sample. Formal sample genuine.

The Milk and Dairies (Consolidation) Act, 1915, the Milk and Dairies Order, 1926 and the Public Health (London) Act, 1891 and the Inspection and Supervision of Dairies and Milkshops.

The question of the type of building used for storing and bottling milk has been given special attention and in 14 cases wooden or similar structures have been replaced by brick buildings with smooth impervious internal walls and various improvements have been carried out in eleven other dairies.

Other premises are being re-conditioned and the dairies generally may be regarded as satisfactory.

The Food and Drugs Inspector made 515 visits to dairies and milkshops during 1933 and served 6 notices, mostly relating to cleansing and repair of premises.

Article 31 (2) of the Milk and Dairies Order, 1926, requires milk bottles to be filled and closed in registered premises only. Careful watch is therefore kept for any infringement of this article and during the year two milk roundsmen were warned by letter for filling bottles in the street.

There were no prosecutions.

All the milk sold in Fulham is pasteurised except the Certified and Grade A milks, and it was not necessary to take action under section 4 of the Milk and Dairies (Consolidation) Act, 1915, relating to milk causing, or likely to cause, tuberculosis.

Similarly there was no evidence that milk sold in the borough was infected by persons suffering from infectious diseases so that no action was taken under section 18 of the Milk and Dairies Order, 1926.

Registration of Dairies and Dairymen.

Dairies and dairymen are registered by the Borough Council under Article 6 of the Milk and Dairies Order, 1926 and section 2 of the Milk and Dairies (Amendment) Act, 1922. Under this Act the Local Authority have power to refuse to register persons or the premises at which the trade of dairymen is to be carried on. Power is also given to remove persons or premises from the register if the public health is or is likely to be endangered by some act or default of the person seeking registration in relation to the quality, storage or distribution of the milk.

There were on the Register at the end of the year 112 dairymen occupying 110 premises situated within the Borough; in some cases several dairymen occupy the same premises. In addition there were 24 dairymen selling milk in Fulham from premises situated and registered in adjoining districts.

The following are details of changes which took place during 1933:—

No. of Dairymen on the Register:

No. on Register at 31st December, 1932	109	
No. who transferred their businesses or discontinued selling milk during the year 1933	22	
		87
No. of Registrations granted during the year	25	
No. on Register at 31st December, 1933	112	

In addition to the above, registration was granted during the year to 34 persons entitling them to sell fresh milk only "in the properly closed and unopened receptacles in which it is delivered to the premises." Such registration relates to the person only and not to the premises.

There were at the end of 1933, 89 names of such persons on the Register.

An application for registration as a retail purveyor of milk in the Borough was received from a man whose past record was not considered to be satisfactory. The applicant appeared before the Public Health Committee to show cause why his application should not be refused and after a period of "probation" registration was granted.

There are no cowsheds in the Borough.

Supervision of the Sale of Special or Designated Milks.

This is done under the provisions of the Milk and Dairies (Amendment) Act, 1922 and the Milk (Special Designations) Order, 1923. Memo. 77/Foods of the Ministry of Health explains in non-legal language the purport of the Act and the Order and Memo. 139/Foods describes the method of carrying out the bacteriological tests and the standard media suggested by the Ministry.

The designated milks are as follows:—

1. Certified milk.
2. Grade A (Tuberculin Tested) Milk.
3. Grade A milk.
4. Grade A Milk Pasteurised, and
5. Pasteurised Milk.

The Act of 1922, section 3, provides that no person shall sell any of these milks, except under and in accordance with a licence from the licensing authority and the Order lays down stringent conditions with which applicants and licencees must comply.

The licences must expire on 31st December of each year.

Producers of Certified and Grade A milks and their premises must be licensed and the same applies to bottlers of the Grade A milks. Pasteurising establishments must also be licensed.

The licences granted by the Borough Council during 1933 were as follows :—

Number of Licences to sell Certified milk	5
Number of supplementary Licences to sell Certified milk	1
Number of Licences to sell Grade "A" (Tuberculin Tested) Milk	26
Number of supplementary Licences to sell Grade "A" (Tuberculin Tested) Milk	1
Number of Licences to sell Grade "A" milk	3
Number of supplementary Licences to sell Grade "A" milk.....	1
Number of Licences to sell Pasteurised milk	13
Number of supplementary Licences to sell Pasteurised milk	4
Number of Licences to Pasteurise milk	1
Number of samples taken in accordance with the instructions of the Ministry of Health	—

Bacteriological Examination of Milk.

As in former years, samples of milk were taken for bacteriological examination under the above Order with the view to ascertaining the degree of cleanliness to which the milk attained.

Duplicate copies of the bacteriological reports are obtained and are sent or handed to the vendors from whom the samples are taken. The results are explained to the vendors if this is considered necessary, and in cases in which the reports are unsatisfactory special inspections are made of the premises, apparatus and utensils and of the personnel and methods employed in the cleansing, bottling and general routine. If necessary the Medical Officers of Health of districts from which the milk is obtained are communicated with.

The bacteriological examinations are extremely helpful in promoting improvement in the methods in certain cases as they provide the basis for an object lesson to the dairy staffs and assist the Public Health Department in establishing more intimate contact with the dairy trade which is to the benefit of all concerned.

During the year under review 68 samples were examined bacteriologically, twenty-four of the number being in addition specially examined by animal inoculation for the presence of tubercle bacilli. In no cases were tubercle bacilli found.

The following table gives the number of samples of the various kinds of milk examined, including designated milks :—

Type of Milk.	Examinations made.	
	Bacteriological count only.	Bacteriological count and animal inoculation for tubercle bacilli.
Certified	1	1
Grade "A" (T.T.)	10	6
Grade "A" Pasteurised	2	1
Pasteurised	39	11
Ordinary	13	3
Raw	2	2
Homogenised	1	—
Totals	68	24

Complete particulars of each sample examined will be found in the table on page 111.

Certified Milk: The one sample examined complied with the legal standards for bacteria, etc.

Grade A (T.T.) Milk: The reports received on three of the ten samples examined showed that the number of bacteria present in the milk exceeded the number permitted. The details were as as follows :—

Date.	Legal Standards.		Result of Samples.	
	No. of bacteria permitted per c.c.	B. Coli.	No. of bacteria present per c.c.	B. Coli
July 27th	200,000	Absent in 1/100th c.c.	590,000	Positive in 1/100th c.c.
July 27th	,,	,,	870,000	,,
Aug. 18th	,,	,,	370,000	,,

The Fulham dairymen who supplied the milk were asked to give an explanation and the facts were communicated to the Medical Officers of Health for the districts in which the milk was bottled.

The explanations received were to the effect that the extremely hot weather (July and August) was responsible for the rapid increase in the number of bacteria

Subsequent samples proved to be satisfactory.

Grade A Milk Pasteurised. Two samples were examined one of which was reported to contain 86,000 bacteria per c.c., and B.Coli in 1/10th c.c , whereas the legal standard lays down not more than 30,000 bacteria per c.c. and no B.Coli in 1/10th c.c.

Careful enquiries were made and a second sample was reported to be within the prescribed limits.

Pasteurised, Homogenised and Raw Milk. Satisfactory reports were received in all cases.

During the year attention was focussed on the possibility of danger from tubercle in milk transported in glass-lined road tanks. These road tanks which consist of two compartments and hold about 1,750 gallons, collect milk from various farms, and bring it to London.

A series of samples for bacteriological examination and animal inoculation for the presence of tubercle bacilli was therefore taken from a road tank on its arrival in Fulham with the following results:

RAW MILK.

Samples taken from:	Bacteria per c.c.	B. Coli.	Tubercle Bacilli.
Front compartment of Road Tank	198,666	Positive in 1/10th c.c.	Negative
Rear do.	178,000	"	"

The milk was then strained, clarified and pasteurised in accordance with the conditions set out in the Milk (Special Designations) Order, i.e., held at a temperature of 145° F. for 30 minutes and cooled to 40° F, and further samples taken as follows:—

PASTUERISED MILK.

Sample taken from:	Bacteria per c.c.	B. Coli.	Tubercle Bacilli.
Cooler end of Pasteurising Plant	660	Negative	Negative
do.	12,666	"	"
Exit of Glass-lined storage tank	8,733	"	"
do.	7,866	"	"

The reduction in the number of bacteria per c.c. after Pasteurisation goes to prove that the process, when properly carried out, is a safeguard against infected milk.

"Ordinary" Milk: Vendors of milk can legally sell milk which has been pasteurised, without labelling the bottles and receptacles with the description "Pasteurised Milk." The only raw milk sold in Fulham is that sold under licence in accordance with the Milk (Special Designations) Order, 1923, as "Certified," "Grade A (Tuberculin Tested)" or "Grade A."

The milk sold in the Borough with no special designation on the receptacles is really pasteurised milk although not labelled as such.

There are 201 vendors of fresh cows' milk (not including sterlized milk) and all of them sell milk which has been pasteurised. In only 17 cases, however, are the vendors licensed under the Order for the sale of Pasteurised Milk.

The milk described as "ordinary" milk in these tables of bacteriological examinations is therefore milk which has been pasteurised. In my opinion, although pasteurised milk is safer than raw milk under existing circumstances, the law should be amended so that milk which has been pasteurised or treated by heat should not be sold without the fact being disclosed by means of a label on the receptacle, otherwise the public do not realise that they are buying milk which has been heated, and which should not be subject to further heat if the vitamin content is to be preserved.

No bacteriological standards can be insisted upon unless the milk is sold as "Pasteurised Milk" under licence in accordance with the Order.

Thirteen samples of "ordinary" milk were examined bacteriologically and the results will be seen on referring to the table (pages 111 and 112).

My Annual Report for 1932 gives the results of the bacteriological examination of Grade A and sterilised milks, samples of which were not examined bacteriologically during 1933.

BACTERIOLOGICAL EXAMINATIONS OF MILK SOLD IN BOTTLES.

Date taken.	Temperature on arrival at Laboratory. Degrees Centigrade.	Number of Bacteria per c.c.	B. Coli Test.					
			48 Hours.			Three Days.		
			1/100th.	1/1,000th.	1/10,000th.	1/100th.	1/1,000th.	1/10,000th.
Certified Milk—								
July 27th	14	90	Negative	Negative	Negative	Negative	Negative	Negative
Grade A (T.T)—								
May 17th	19	4,766	,,	,,	,,	,,	,,	,,
,, 17th	19	78 500	,,	,,	,,	,,	,,	,,
July 27th	14	3,800	,,	,,	,,	,,	,,	,,
,, 27th	14	590,000	Positive	Positive	Positive	Positive	Positive	Positive
,, 27th	14	870,000	,,	,,	,,	,,	,,	,,
Aug. 18th	16	370,000	,,	,,	,,	,,	,,	,,
,, 18th	16	25,000	Negative	Negative	Negative	Negative	Negative	Negative
,, 18th	16	370,000	Positive	Positive	Positive	Positive	Positive	Positive
Sep. 18th	19	14,966	Negative	Negative	Negative	Negative	Negative	Negative
Oct. 20th	15	3,600	,,	,,	,,	,,	,,	,,
,, 20th	15	916	,,	,,	,,	,,	,,	,,
Grade A Pasteurised—								
July 27th	14	86,000	Positive	Positive	Positive	Positive	Positive	Positive
Aug. 18th	16	3,700	Negative	Negative	Negative	Negative	Negative	Negative
Pasteurised Milk—								
Feb. 27th	12	53,500	Negative	Negative	Negative	Negative	Negative	Negative
,, 27th	12	44,000	,,	,,	,,	,,	,,	,,
,, 27th	12	17,733	,,	,,	,,	,,	,,	,,
Mar. 24th	12	26,000	,,	,,	,,	,,	,,	,,
,, 24th	12	36,333	,,	,,	,,	,,	,,	,,
,, 24th	12	55,000	,,	,,	,,	,,	,,	,,
,, 24th	12	15,866	,,	,,	,,	,,	,,	,,
,, 31st	13	9,566	,,	,,	,,	,,	,,	,,
,, 31st	13	5,666	,,	,,	,,	,,	,,	,,
,, 31st	13	76,000	Positive	Positive	Negative	Positive	Positive	Negative
June 2nd	21	22,000	Negative	Negative	,,	Negative	Negative	,,
,, 2nd	21	18,500	,,	,,	,,	,,	,,	,,
,, 9th	20	7,766	,,	,,	,,	,,	,,	,,
,, 9th	20	25,500	,,	,,	,,	,,	,,	,,
,, 9th	20	7,733	,,	,,	,,	,,	,,	,,
,, 9th	20	3,866	,,	,,	,,	,,	,,	,,
Aug. 31st	15	2 833	,,	,,	,,	,,	,,	,,
,, 31st	15	35,500	,,	,,	,,	,,	,,	,,
,, 31st	15	7,866	,,	,,	,,	,,	,,	,,
Sep. 14th	13	42,000	,,	,,	,,	,,	,,	,,
,, 14th	13	34,000	,,	,,	,,	,,	,,	,,
,, 14th	13	20,400	,,	,,	,,	,,	,,	,,
Oct. 11th	15	25,000	,,	,,	,,	,,	,,	,,
,, 11th	15	8,733	,,	,,	,,	,,	,,	,,
,, 20th	15	17,800	,,	,,	,,	,,	,,	,,
Nov. 10th	14	7,866	,,	,,	,,	,,	,,	,,
,, 10th	14	8,733	,,	,,	,,	,,	,,	,,
,, 10th	14	12,666	,,	,,	,,	,,	,,	,,
,, 10th	14	660	,,	,,	,,	,,	,,	,,
,, 23rd	16	4,800	,,	,,	,,	,,	,,	,,
,, 23rd	16	18,733	,,	,,	,,	,,	,,	,,
,, 23rd	16	1,600	,,	,,	,,	,,	,,	,,
,, 23rd	16	2,000	,,	,,	,,	,,	,,	,,
,, 23rd	16	8,666	,,	,,	,,	,,	,,	,,
Dec. 13th	9	6,000	Positive	,,	,,	Positive	Positive	,,
,, 13th	9	5,700	,,	,,	,,	,,	Negative	,,
,, 13th	9	8,600	,,	,,	,,	,,	,,	,,
,, 13th	9	4.833	,,	,,	,,	,,	,,	,,
,, 13th	9	3,800	Negative	,,	,,	Negative	,,	,,
Homogenised Milk—								
Oct. 20th	15	170	,,	,,	,,	,,	,,	,,
Ordinary Milk—								
Jan. 26th	9	15,666	,,	,,	,,	,,	,,	,,
,, 26th	9	27,000	,,	,,	,,	,,	,,	,,
,, 26th	9	15,933	,,	,,	,,	,,	,,	,,
,, 26th	9	14,833	,,	,,	,,	,,	,,	,,
Feb. 27th	12	380,000	,,	,,	,,	,,	,,	,,
July 19th	20	330,000	Positive	,,	,,	Positive	,,	,,
,, 19th	20	158,666	,,	Positive	,,	,,	Positive	,,
Oct. 11th	15	15,666	Negative	Negative	,,	Negative	Negative	,,
,, 11th	15	9,166	,,	,,	,,	,,	,,	,,
,, 20th	15	7,600	,,	,,	,,	,,	,,	,,
Nov. 8th	14	137,333	,,	,,	,,	,,	,,	,,
,, 8th	14	48,666	,,	,,	,,	,,	,,	,,
,, 8th	14	18,000	,,	,,	,,	,,	,,	,,
,, 10th	14	198,666	Positive	Positive	,,	Positive	Positive	,,
,, 10th	14	178,000	,,	,,	,,	,,	,,	,,

Inspection and Sanitary and Hygienic Supervision of Bakehouses and Bakers' Shops.

There are 67 registered bakehouses in the Borough, 39 of which are underground. Of the 67 bakehouses, 52 are factories and 15 are workshops; in addition there are 11 retail bakers' shops in the Borough without bakehouses attached.

During the year under review 440 visits were made and 56 notices served, principally for the cleansing of the interiors of bakehouses. A large amount of cleansing etc. is carried out as the result of verbal notices to the occupiers.

As already stated, bakehouses and bakers' shops are supervised mainly by the Council's Food and Drugs Inspector.

The Sale of Food Order, 1921.

This Order remained in force in virtue of the Expiring Laws Continuance Act, 1933.

The duty of enforcing this Order is placed on Metropolitan Borough Councils by the Local Authorities (Food) Order, 1921.

The greater part of the order has been revoked except section 7(a) and (c) of Part III and sections 18(a) and (c) and 23 of Part VI.

Part III enforces the labelling of imported meat as "Imported" or alternatively with a word or words disclosing the country of origin of the meat.

"Meat" includes beef, mutton, lamb, pork and veal but the Order does not apply to bacon, ham or lard, nor to cooked, canned or potted meat, sausages or offals, nor does the Order apply to imported rabbits.

Verbal warnings have been given during 1933 for neglect to exhibit the notices conspicuously but no prosecutions were necessary.

Inspections and necessary action under this Order is taken in Fulham by the District Sanitary Inspectors.

Merchandise Marks Act, 1926.

This Act and the Orders in Council made under it provide that an "Indication of origin" must be marked on certain imported articles, e.g., honey, fresh apples, imported currants, sultanas, raisins, eggs, oat products, raw tomatoes, malt products, frozen or chilled salmon or sea trout and butter

Strict observation was kept on all vendors during 1933 and no warning letters or prosecutions were necessary

Necessary action may be taken under this Act and the Orders by any of the Council's inspectors.

Public Health (Meat) Regulations, 1924.

These regulations deal with notices to be given to the Sanitary Authority of the intended slaughtering of animals (cattle, swine, sheep and goats). They also deal with cleanliness and sanitary conditions to be observed in shops, stores and stalls and the transport and handling of meat. The term "meat" means the flesh of cattle, swine, sheep and goats including bacon and ham and edible offal and fat.

All meat shops, stores, stalls and the Fulham Market were kept under supervision during the year by the Inspectors and no contraventions of the regulations were noted.

Inspections and necessary action under these regulations is the duty of the District Sanitary Inspectors in Fulham.

Slaughter-Houses.

There are two private slaughter-houses in Fulham.

Licensing of slaughter-houses. The functions of the London County Council in connection with the licensing of slaughter-houses in Metropolitan Boroughs were transferred to Borough Councils on 1st April, 1933, by the Transfer of Powers (London) Order, 1933, made under section 64 of the Local Government Act, 1929. Licences are granted and renewed under section 20 of the Public Health (London) Act, 1891, and the licences granted by the County Council expired annually on 31st October.

Applications were received during 1933 by the Borough Council for the renewal of the licences for the two slaughter-houses in the Borough and were granted in both cases for the year expiring on 31st October, 1934. The fee chargeable by the Local Authority for the licence is not more than 5s. per annum.

Slaughter of Animals Act, 1933 (and Circular 1349 of the Ministry of Health). This Act, the object of which is to prevent cruelty to animals in slaughter-houses and knackers' yards and to prohibit slaughtering by any person who is not licenced under section 3 of the Act by the Local Authority, came into force on 1st January, 1934. The animals to which it applies are defined in section 9 and include the horse, donkey, ass, mule cattle, sheep, pigs and goats. The fee to be charged for the licensing of slaughter-men is to be not more than 2s. for the initial licence and not more than 1s. for the renewal of the licence. Licences were granted to two slaughter-men at the

Council meeting on 29th November, 1933, for the twelve months commencing 1st January, 1934 (fee charged 2s.).

Section 1 of the Act requires that animals in slaughter-houses or knackers' yards are to be instantaneously slaughtered or by stunning to be instantaneously rendered insensible to pain until death supervenes, and that such slaughtering shall be effected by means of a mechanically operated instrument in proper repair

Section 2 states that sheep, ewes, wethers, rams and lambs do not come within section 1 of the Act, unless a resolution is passed by the Council to that effect.

Such a resolution was passed by the Borough Council on 27th September, 1933, but was rescinded during the following month as the matter was then under consideration for the whole of London by the Metropolitan Boroughs Standing Joint Committee. The intention of the Council was to reconsider the matter before the expiry of twelve months dating from the passing of the Act on 28th July, 1933.

Circular 1349 gives a description of the objects and provisions of the Act.

Byelaws respecting Slaughter-houses for Cattle made by the London County Council in 1891 are in operation in the County of London and are enforced by Borough Councils. ("Cattle" includes sheep, goats and swine).

The Byelaws regulate the conduct of the business of a slaughterer of cattle including the following :—

The prevention of cruelty while the animals are in the slaughter-house and during slaughtering, water to be supplied to animals kept in lairs, water supply to be kept in proper order

and to be sufficient in amount, cleansing, drainage to be kept in proper order, the prevention of nuisances, the removal within twenty-four hours of offal, hides, garbage, manure, blood and refuse and the right of entry of inspectors.

They also deal with the structure of the premises.

Byelaws made in 1923 by the London County Council, and enforced by Borough Councils, deal with the prevention of cruelty during slaughtering. Paragraph 4 of Circular 1349 states :—

"The Act (the Slaughter of Animals Act, 1933) impliedly supersedes byelaws covering the same ground, but existing byelaws dealing with matters not covered by the Act are not affected, nor is the power (and duty) to make byelaws for the licensing and registering of slaughter-houses and for securing their sanitary condition. The model byelaws are being revised in the light of the Act."

The Town Clerk prepared a useful report on the Act which has been reproduced in the Council's Minutes of 27th September, 1933, page 556.

The Public Health (Meat) Regulations, 1924, require that the Sanitary Authority must be given notice of the day and time and place of the intended slaughter of animals, except in cases of emergency or when animals are slaughtered at fixed times on fixed days and written notice has been given.

The two slaughter-houses in the borough are situated in the district of Inspector Hutchinson, who inspects the premises, the act of slaughtering the animals and the meat after slaughter of the animals.

The following is a summary of Mr. Hutchinson's work under this heading :—

Visits to slaughterhouses	89	
Animals inspected	267	sheep
Meat condemned	67	pairs of lungs.
	1	Liver.

Registration of premises under section 5 of Part II of the London County Council (General Powers) Act, 1932.

Ice Cream. All premises used for the Manufacture, Storage or Sale of ice cream must be registered under section 5 of Part II of the London County Council (General Powers) Act, 1932, but the provision does not apply to premises registered as a factory or workshop or to an hotel, restaurant or club. Any premises previously registered under the Act of 1928 do not require to be re-registered so long as they remain in the same occupation.

At the end of 1932, 155 premises were on the register.

The registrations were as follows:—

Premises registered for the manufacture, storage and sale of ice cream	73
Premises registered for the storage and sale of ice cream	69
Premises registered for the manufacture and storage of ice cream	8
Premises registered only for the manufacture of ice cream	3
Premises registered only for the storage of ice cream	2
	155

Registration of Premises for the sale of Preserved Food. Under section 5 of Part II of the London County Council (General Powers) Act, 1932: "Any premises in the district of any sanitary authority used or proposed to be used (ii) for the preparation or manufacture of sausages or potted pressed pickled or preserved meat, fish or other food intended for sale, shall be registered by the owner or occupier or intending occupier thereof with the sanitary authority."

This section does not apply to any premises used as a club, hotel or restaurant.

At the end of the year there were 86 premises on the Register.

Unsound Food. The undermentioned articles of food, examined at the request of the owners, were condemned and destroyed during the year:

12 lbs. corned beef.
80 boxes Apples.
25 stone Whiting.
21 lbs. Rabbits.
¾ cwt. Peas.

Food Poisoning.

Under section 7 of the London County Council (General Powers) Act, 1932, medical practitioners are required to notify all cases of food poisoning, whether suspected or definite cases, to the Medical Officer of Health of the Metropolitan Borough in which the patient resides. At one time ptomaines (substances produced by the decomposition of the protein in the food through the agency of bacillus coli and other putrefactive organisms) were supposed to cause food poisoning but there is no evidence that this is the case, and it is now known that food poisoning is most commonly caused by the Salmonella group of bacteria and their toxins, which produce an acute inflamation of the stomach and intestines. The illness commences several hours after food and is usually characterised by vomiting, purging, colicky pains in the abdomen and other symptoms.

In order to verify the diagnosis either bacteriological examination of the intestinal evacuations or vomited matter, or examination of the blood is necessary. In mild cases the diagnosis is often made on clinical evidence but this cannot be relied on unless supported by laboratory examination. A difficulty with which doctors have to

contend is that the agglutination test does not usually become positive until at least seven days after the onset of the illness and by that time the patient may have recovered and the doctor may have ceased his attendance.

The actual source of food poisoning cannot be determined unless some of the food which has been consumed remains for examination and unless this is so the cause can only be presumed.

Facilities are available for medical practitioners in the Borough for bacteriological and serological examinations and full investigations are made by the Public Health Department regarding the source of infection.

Four cases of food poisoning were notified during 1933 (on 18th January, 5th April, 6th April and 31st May respectively). By a remarkable co-incidence they were all notified by the same doctor.

All were of a very mild character. Two of the cases occurred in a brother and sister aged 3 years 11 months and 7 years respectively. In the case of the boy the faeces were sent to the laboratory for examination but the report which was as follows did not substantiate the diagnosis of food poisoning :—

"This is a loose faeces of dark colour. Gram films show the usual coliform bacilli, anaerobes and micrococci.

Cultures gave a good growth of B.Coli, a few intestinal streptococci and exceedingly small numbers of a non-lactose fermenting bacillus. This last organism simulates more closely a member of the Dysentry group than any one of the food-poisoning (Salmonella) organisms.

The bio-chemical reactions are those of B.Dysentery (Flexner) Y., and a positive reaction is obtained with a specific standard agglutinating serum of this type.

Other pathogenic organisms are not found."

No bacteriological or serum examination was made in the other cases so that although the clinical evidence was suggestive of food poisoning the diagnosis could not be definitely confirmed. One of them was in a man aged 20 and the other in a man of 39; both of these cases were notified as ptomaine poisoning.

In accordance with an arrangement with the London County Council reports on all the cases were sent to the Public Health Department of the L.C.C.

Public Health (Imported Food) Regulations, 1925.

The Fulham Borough Council do not constitute a Sanitary Authority under these Regulations or the corresponding Public Health (Imported Milk) Regulations, 1926, as Fulham is not a Customs Port.

The London Port Sanitary Authority sent notices regarding:—

3 casks of tallow and 30 barrels of Lard Oil which were released under suitable guarantees for the making of lubricating oil in Fulham.

43 bags of sugar sweepings which were subjected to a special refining process by a Fulham firm before use.

Artificial Cream Act, 1929.

There are no premises in the borough subject to the provisions of this Act.

Work of the Female Sanitary Inspector.

During 1933 Miss E. H. Sexton, the Council's Woman Sanitary Inspector carried out the work summarised in the following table. Her duties are mainly in connection with factories, workshops, and workplaces where women are employed, outworkers' premises, the inspection and supervision of dining rooms, eating houses and restaurants (except of restaurants attached to public houses) and the supervision of aged and infirm tenants; duties for which a woman of intelligence, specially trained and experienced in such matters is well adapted. Miss Sexton also carries out a large number of infectious disease enquiries requiring the expert knowledge of a trained nurse.

	Visits.	*Notices Served.*
*Factory Bakehouses	6	—
Food Factory	1	—
Other Factories	159	19
Workshops	136	18
Workplaces	224	41
Outworkers' Premises	191	11
Restaurants	79	—
Dining Rooms and Eating Houses	255	34
Eel and Pie shops	14	—
Cooked Meat shops	119	—
Other food premises	1	—
Public Conveniences for women	32	—
‡Premises occupied by Foster-Mothers	13	—
Common Lodging Houses	12	—
After complaint	12	12
Infectious disease enquiries	294	21
Infirm and dirty tenants	161	1
Verminous school-children	41	—
Other inspections of dwelling-houses	196	—
Drains tested	2	—

* The inspection and supervision of bakehouses are normally carried out by the Council's Food Inspector. The six visits mentioned were for special purposes.

‡Foster-mothers and foster-children are normally supervised by the Council's Infant Life Protection Visitor.

Factories, Workshops and Workplaces.

The duty of inspecting factories is mainly carried out by Factory Inspectors appointed by the Home Office, who act in accordance with the provisions of the Factory and Workshop Acts, 1901 and 1907 and the various Orders made by the Home Secretary from time to time with regard to factories. Questions relating to safety from accident, hours of employment, dangerous and unhealthy industries and other important matters influencing the health of the workers, are supervised by Factory Inspectors and not by the Borough Council. The duties of the staff of the Public Health Department of the Borough Council in factories are limited to such questions as drainage, sanitary accommodation, the provision of dustbins, smoke nuisances and effluvia; subject to special exceptions in the case of food factories and bakehouses with which the Borough Council are more closely concerned as in these cases the local authority possesses wider powers under other legislation which need not be detailed.

In the case of Workshops and Workplaces, however, although the Factory Inspector has certain duties to perform, sanitary and health matters are mainly the province of the Medical Officer of Health and the Sanitary Inspectors of the Borough Council. Regarding Workshops, the Public Health Department not only deal with the same questions as are mentioned under factories (drainage, sanitary accommodation, dustbins, smoke nuisances and effluvia, etc.) but also have a wide range of other duties including the supervision of cleanliness, ventilation, air-space and overcrowding. These duties are prescribed in the Factory and Workshop Act, 1901 and the Public Health Acts and the Public Health (London) Act, 1891 and are enforced in London under the last mentioned Act.

Special duties relating to Outworkers are carried out by the Borough Council under the Factory and Workshop Act, 1901 and in Fulham they form part of the duty of the Woman Sanitary Inspector.

In dealing with factories and workshops, co-operation is carried out between the Factory Inspector and the Borough Council staff as prescribed in the Factory and Workshop Act, 1901.

Safety from fire in factories and workshops is supervised in London by the London County Council, who also deal with the construction of buildings and other important matters.

INSPECTION OF FACTORIES, WORKSHOPS AND WORKPLACES.

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS OR INSPECTORS OF NUISANCES.

Premises.	Number of		
	Inspections	Written Notices.	Occupiers prosecuted.
FACTORIES .... (Including Factory Laundries)	744	82	—
WORKSHOPS .... (Including Workshop Laundries)	347	42	—
WORKPLACES .... (Other than Outworkers' premises)	494	72	—
TOTAL	1585	196	—

DEFECTS FOUND IN FACTORIES, WORKSHOPS AND WORKPLACES.

Particulars.	Number of Defects.			Number of offences in respect to which Prosecutions were instituted.
	Found.	Remedied.	Referred to H.M. Inspector.	
Nuisances under the Public Health Acts —				
Want of cleanliness	135	135	—	—
Want of ventilation	7	6	1	—
Overcrowding	3	3	—	—
Want of drainage of floors	—	—	—	—
Other nuisances	93	91	2	—
Sanitary accommodation :—				
insufficient	1	1	—	—
unsuitable or defective	119	119	—	—
not separate for sexes	2	2	—	—
Offences under the Factory and Workshop Acts :—				
Illegal occupation of underground bakehouse (s.101)	—	—	—	—
Other offences .... (Excluding offences relating to outwork and offences under the Sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops Transfer of Powers) Order, 1921)	—	—	—	—
Total	360	357	3	—

Home Work done by Outworkers.

In certain industries specified in the Home Work Orders of 1911, 1912, 1913 and 1929, made by the Home Secretary, if work is given out by employers or contractors to be done in private houses, the workers are known as Outworkers and the premises in which they work are subject to inspection by the sanitary inspectors of the Borough Council. In Fulham this is carried out by the Woman Sanitary Inspector. The object of the inspections is to prevent such work from being done in unwholesome premises or in houses in which infectious diseases are present.

The following table gives the number of outworkers' premises in the Borough, the nature of the work carried on, and the classification of the outworkers' premises into factories, workshops and workplaces.

Nature of Work.	Nature of Premises.			Total.
	Factories.	Workshops.	Workplaces.	
Wearing Apparel	5	10	81	96
Bootmaking	—	—	34	34
Stuffed Toys	—	—	6	6
Miscellaneous	1	—	3	4
Totals	6	10	124	140

In accordance with the provisions of the Factory and Workshop Act, 1901, sec. 107, lists known as Outworkers' Lists giving the names of the workers and the addresses of the premises in which they work, must be sent by the employers and contractors to the Borough Council on 1st February and 1st August. The following table shows the lists received from Employers and Contractors in accordance with the section :—

Nature of Work.	No. of Lists.	No. of Contractors.	No. of Outworkers.
Wearing Apparel	36	19	101
Bootmaking	5	—	13
Stuffed Toys	1	—	2
Miscellaneous	4	1	4
Totals	46	20	120

Outwork in Unwholesome Premises, Section 108.

Nature of Work.	Instances.	Notices served.	Prosecutions.
Wearing Apparel :— Making, etc.	13	13	—

Other Matters.

Class.	Number.
Matters notified to H.M. Inspector of Factories —	
Failure to affix Abstract of the Factory and Workshop Act (sec. 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 (sec. 5) —	
Notified by H.M. Inspector	9
Reports (of action taken) sent to H.M. Inspector	9
Other matters (ventilation and disrepair)	3
Underground Bakehouses (sec. 101) —	
Certificates granted during the year	—
In use at the end of the year	39

Total Inspections.

Premises.	Male Inspectors.	Woman Inspector.	Total
Factories	579	165	744
Workshops	211	136	347
Workplaces	270	224	494
Outworkers' Premises	2	191	193
Totals	1,062	716	1,778

Housing.

The routine housing work of the Public Health Department has been carried on as in former years. This consists mainly of the inspection of houses on complaint or other information being received, on the occurrence of infectious diseases and house to house inspection; as the result of the inspections notices are served on the responsible person to carry out the work and legal steps are taken where necessary. In many cases advice is given by the inspectors on housing and other questions.

Co-operation between the staff, owners and occupiers has improved as the result of the efforts of the inspectors and the various parties concerned often carry out much more than their legal requirements. Freeholders have had a good deal of work done also. Statistics of the housing work of the inspectors will be found in this report under the appropriate headings (See "Sanitary Inspection of the District," page 92).

In Fulham all drainage work is dealt with by the Public Health Department, including inspections, drain testing and supervision of construction, reconstruction and repair of drainage. Extensive conversions of houses into flats are being done and voluntary work is supervised.

Rat infestation is investigated by the Council's Rat Officer (full time), who refers cases of defective drains to the inspectors. Under the Rats and Mice (Destruction) Act the primary responsibility for destroying rats on land and buildings rests with the occupier, but the Rat Officer investigates all rat complaints and destroys rats in private houses free of charge.

The supervision of dirty tenants is also an important feature of the work of the staff. The

Borough Council have continued the efforts they have made to deal with housing difficulties in the Borough and all the Council's flats were occupied during 1933. One of the duties of the Medical Officer of Health was to organise the procedure for the selection of tenants and to consider in detail the applications for tenancies (over 2,000 since the first applications were received) and also the reports of the referencer. The Borough Treasurer also investigated and reported on the applications from the financial point of view. All applications were afterwards considered in detail by the Lettings Sub-Committee, who were responsible for the decisions.

Slum Clearance. Circular 1331 (6th April, 1933), gave a great impetus to the housing work of Local Authorities. A general review of the situation in Fulham was conducted and the houses in all the poorest districts were inspected by the staff and subsequently by the Permanent Sub-Committee of the Public Health Committee. Since the issue of the above circular a considerable increase in the housing work of the Council has been organised and three areas, comprising 33 houses, accommodating 32 families and 160 persons, were represented and declared as clearance areas early in 1934. The housing question is a fluid one and as the houses deteriorate other areas will come under consideration to be dealt with by appropriate measures including clearance and other methods.

House to House Inspection. This is done mainly by the Housing Inspector, who made 3,153 inspections during the year.

House to house inspection has been carried out as in previous years in accordance with the provisions of the Public Health and Housing Acts. When houses come within the definition of "Lodging Houses" in the "London County Council Byelaws with respect to Houses Divided into Separate

Tenements" they are recorded on the Register. Owners are given a fortnight in which they may state any valid reason why the house should not be registered. Copies of the byelaws are sent to the owners of all registered houses and printed leaflets are sent or handed to owners, tenants and lodgers explaining the responsibilities of each party. Registered houses are inspected annually and notices are served on owners, tenants or lodgers according to the necessities of the cases. Some owners have reduced the number of families so as to place the houses outside the scope of the byelaws and the Council have de-registered many houses for this reason. A few owners have welcomed registration because the annual inspections have done so much good in promoting the co-operation of the occupiers and encouraging them to maintain good housing conditions.

Where houses are infested with bugs the mutual co-operation of the Council, owner and occupiers is necessary to cure the evil.

Overcrowding discovered during annual inspection is dealt with for the benefit of all parties. Annual cleansing is needed in most of the registered houses and the majority of the occupiers have reacted favourably to the inspections by doing more for themselves than before. Constant attention is required in the cases of houses occupied by several families to prevent them from deteriorating through over use. The ideal—one family per house or flat—will be difficult to attain in London as the poorer working classes require to live within easy reach of their work on account of the expense of travelling and tend to crowd into already congested areas.

Overcrowding. Overcrowding exists in Fulham as in other boroughs, and one of the objects of the Council in building the flats at Fulham Court and Wyfold Buildings was to mitigate these conditions.

Bad cases of overcrowding are decidedly less common than they were some years ago. The lowest wage earners suffer the greatest hardship in this respect, especially those with large families of young children.

The population of Fulham at the 1931 Census was 150,928, which was 7,010 less than the figure for 1921, but the number of private families or separate occupiers was 43,153, which was 2,717 families more than at the previous census. The families are of course smaller. The number of private families per dwelling was 1.64 in 1931 compared with 1.56 in 1921. The number of persons per room has decreased. The Registrar General's standard for overcrowding is that a house is overcrowded if there are more than two persons per room but this standard, although useful as a general guide to the conditions, cannot be enforced in law. The legal standards are based on the number of persons for a certain cubic air space.

The Council's officers are dealing with cases of overcrowding in so far as the available housing accommodation, the means of the overcrowded families and the existing legal powers will permit.

Underground Rooms. The unsatisfactory state of the law regarding underground rooms hampers progress in dealing with them. In the opinion of many medical officers, including myself, if a room is unfit for sleeping purposes it is also, from the health point of view, unfit for living purposes.

There is a considerable number of underground rooms in Fulham but they have in the large majority of cases fairly large areas and even those with less satisfactory areas, still comply with the law. With a few exceptions the underground rooms in Fulham which do not comply with the legal standard have been closed, either voluntarily by the owners on the

advice of the staff or on closing orders being made by the Council. Closing orders were made during 1933 regarding two basement premises comprising three rooms and this matter is receiving the attention of the Public Health Committee in the remaining cases.

The following table gives the housing statistics in the form desired by the Minister of Health :—

1. *Inspection of Dwelling-houses during the year* :—	
(1) (*a*) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	4,591
(*b*) Number of inspections made for the purpose.....	23,159
(2) (*a*) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925	619
(*b*) Number of inspections made for the purpose.....	3,743
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	—
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	3,017
2. *Remedy of Defects during the year without Service of formal Notices* :—	
Number of dwelling houses rendered fit in consequence of informal action by the Local Authority or their officers	2,202
3. *Action under Statutory Powers during the year* :—	
(*a*) Proceedings under sections 17, 18 and 23 of the Housing Act, 1930 :—	
(1) Number of dwelling-houses in respect of which notices were served requiring repairs	14
(2) Number of dwelling-houses which were rendered fit after service of formal notices :—	
(*a*) By owners	*39
(*b*) By Local Authority in default of owners	—

(*b*) Proceedings under Public Health Acts:—

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied 550

(2) Number of dwelling-houses in which defects were remedied after service of formal notices:

(*a*) By owners 469

(*b*) By Local Authority in default of owners 4

(*c*) Proceedings under sections 19 and 21 of the Housing Act, 1930:—

(1) Number of dwelling-houses in respect of which Demolition Orders were made .... —

(2) Number of dwelling-houses demolished in pursuance of Demolition Orders .... —

(*d*) Proceedings under section 20 of the Housing Act, 1930:—

(1) Number of separate tenements or underground rooms in respect of which Closing Orders were made. —

(2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or rooms having been rendered fit .... —

*This figure includes houses regarding which notices were served during the previous year.

London County Council Estates.

Since October, 1924, fifteen houses out of every thousand erected on London County Council Estates have been allocated to Fulham residents recommended by the Medical Officer of Health of the borough.

Families are accommodated on these estates both on the recommendation of the Medical Officers of Health of the various boroughs and on application direct to the County Council.

The following table shows the number of families accommodated on the various estates since October, 1924 :—

Estate.	Accommodated on recommendation by the Fulham Borough Council.	Accommodated on applying direct to the London County Council.	Total Fulham families accommodated.
EAST HILL, Wandsworth	12	35	47
WATLING, Middlesex	137	83	220
DOWNHAM, Kent	54	20	74
BECONTREE, Essex	104	409	513
ST. HELIER, Morden	84	166	250
BROXHOLME HOUSE, Fulham	1	39	40
ROEHAMPTON, CASTELNAU, CENTRAL LONDON, Etc.	131	403	534
TOTALS :	523	1155	1678

During the year 1933, 92 applications were made to the Public Health Department of the Borough Council for accommodation on the London County Council Estates and were dealt with as follows :—

60 families were recommended to the County Council for preferential treatment ;

4 cases upon enquiry proved unsuitable for recommendation, and,

28 applicants decided that the estates available were not suitable for them on account of the distance from their places of employment.

During 1933, 43 families were successful in securing accommodation as a result of recommendations from the Public Health Department. In six cases the applicant refused accommodation when it was offered by the London County Council.

In addition to the 92 applications made for other housing accommodation, 23 applicants who had already applied direct to the London County Council asked the Public Health Department to support their applications. The circumstances were investigated and a letter supporting the application was sent to the London County Council in each case.

Common Lodging Houses.

The functions of Local Authorities with respect to common lodging houses, except the making of byelaws, previously exercised by the London County Council, were transferred to Metropolitan Borough Councils and the Common Council of the City of London for their respective areas as from 1st April, 1933, by the Transfer of Powers (London) Order, 1933; these functions include the administration and enforcement of certain Acts and byelaws relating thereto.

The principal Acts are:—

London County Council (General Powers) Act, 1902, mainly Sections 46-57 (licensing and making of byelaws), also Sections 1 and 3.

London County Council (General Powers) Act, 1904, Section 47 (licences), also Section 1.

London County Council (General Powers) Act, 1907, Sections 37—40 (cleansing of verminous persons), Section 79 (keeper or deputy to reside on the premises between 9 p.m. and 6 a.m. daily) and also Sections 3 and 80.

Public Health (London) Act, 1891, Sections 114 and 182—186 (byelaws).

Local Government Act, 1929, mainly Section 64 under which the Transfer of Powers (London) Order, 1933, was made.

Registration (now superseded by licensing) is dealt with in certain Acts of more ancient date.

The London County Council Byelaws with respect to Common Lodging Houses within the County of London were made under Section 53 of the London County Council (General Powers) Act, 1902, and deal with inspection, magagement, accommodation, sanitary accommodation, cleanliness and biennial cleansing, the exhibition of the byelaws on the premises, underground rooms used as sleeping rooms, precautions against infectious disease, separation of the sexes, W.C.s, urinals, the removal of refuse and filth and other matters.

A useful booklet on the Acts and Byelaws relating to common lodging houses in London is published by the London County Council.

Reference has already been made under the Transfer of Powers (London) Order, 1933, to the rules and regulations of procedure in connection with licensing made by the Borough Council during 1933.

There are two Common Lodging Houses in Fulham, one capable of accommodating 36 men and the other 48 women.

Thirty-six visits were made by the District Sanitary Inspector (Mr. Drake) to the Men's Lodging House during the 9 months ended 31st Dec., 1933, and the premises were kept in clean condition and good order.

In the case of the Women's Lodging House 12 visits were made by the Council's Woman Sanitary Inspector (Miss Sexton) and the premises were maintained in a satisfactory state. Very few of the beds were occupied in this house.

Increase of Rent and Mortgage Interest Restrictions Acts.

Fourteen applications for certificates that the houses occupied were not in all respects reasonably fit for human habitation or were otherwise not in a reasonable state of repair were made during 1932.

Certificates were granted in eleven cases and three applications were withdrawn.

Two applications for "Clearance" Certificates were made by owners and granted.

Rat Destruction.

The Borough Council employ a Rat Officer who is a whole time employee of the Public Health Department. He attends to complaints regarding rat infestation in the Borough and takes steps necessary for their destruction. He also traces the source of the rats and gives advice regarding the methods necessary to prevent a recurrence of the infestation.

One hundred and forty-nine formal complaints regarding infestation by rats were received during the year.

Poison baits were laid in the following positions :

Private houses	195
Other premises	58
Sewers	929

In every case of rat infestation the Rat Officer makes a thorough investigation in order to ascertain

the source from which the rats gain admission to the premises. In all cases the Rat Officer works in association with the Sanitary Inspectors so that the defects are remedied as the result of notices served by the Inspectors.

Out of the 149 rat complaints investigated, in 63 instances (42.2 per cent.) the rats gained admission to the premises on account of defective drains. The type of drainage defect is shown in the following table :—

Defective Drains under premises	20
Broken connection under footway	24
Disused gulley broken under footway	13
Broken interceptors	3
Cesspools	3
	63

In one case the infestation was due to a defective sewer.

Rats were caught as follows :—

In dustbin traps in sewers	124
In cage traps	336
By ferrets and break-back traps	354
	814

The amount received by the Council from property owners for the services of the Rat Officer was, during the year ended 31st March, 1933, £26 : 5 : 0, and in addition £5 was credited to the Department for the services of the Rat Officer to other Departments of the Council.

During Rat Week in November an intensive effort was made to exterminate rats in sewers and on lands and buildings known to be infested.

London County Council (General Powers) Act, 1928, Section 28.

Aged or Infirm or Physically Incapacitated Persons living under Insanitary Conditions. Two persons were removed to the Fulham Institution during the year 1933 under a Magistrate's Order, which was obtained by the Medical Officer of Health at the West London Police Court. Nine persons were removed voluntarily to hospitals or institutions and twenty-eight were kept under observation or supervision during the year. The inspections of premises occupied by persons coming under Section 28 and allied cases are carried out, as a rule, by the Woman Sanitary Inspector, and special cases are dealt with in addition by the Medical Officer of Health.

The duties in connection with the supervision of these persons demand much tact and sympathetic handling.

Legal Proceedings. Proceedings were instituted in the following cases during the year :—

Offence.	Result.	Penalty. £ s. d.	Costs. £ s. d.
Failing to indicate country of origin of imported fresh apples	Dismissed under P.O. Act	—	2 0
Ditto	Ditto	—	2 0
Ditto	Fined	10 0	—
Ditto	Fined	10 0	—
Failing to indicate country of origin of imported tomatoes	Fined	5 0	—
Selling milk without being registered	Dismissed under P.O. Act	—	10 6
Ditto	Ditto	—	10 6
Selling milk from vehicle without having name and address of owner thereon	Ditto	—	—
Depositing for sale unsound food (oatmeal)	Fined	3 3 0	2 2 0
Failing to give notice of drainage alterations —			
222, North End Road	Dismissed under P.O.Act	—	10 6
210, Lillie Road	Ditto	—	1 1 0
Normand Lodge, Greyhound Road	Ditto	—	1 1 0
30a, Barons Court Road	Fined	2 0 0	—
190, Lillie Road	Fined	1 0 0	—
30, Homestead Road	Fined	1 0 0	—
67, Marville Road	Fined	1 0 0	—
Unlawfully making a drain —			
210, Lillie Road	Fined	4 0 0	—
Improperly carrying out drainage alterations —			
210, Lillie Road	Dismissed under P.O. Act	—	2 2 0
Unlawfully carrying out drainage work —			
30a, Barons Court Road	Fined	2 0 0	—
Nuisance —	Adjourned *sine die*	—	5 0
17, Ismalia Road	work in hand		
Nuisance —			
24, Hilmer Street	Ditto	—	5 0
Nuisance —			
18, Stanley Road	Ditto	—	—
Nuisance —			
Normand Lodge, Greyhound Road	Ditto	—	—
Nuisance —	Adjourned *sine die*—		
2, Edith Row	work in hand	—	—
Nuisance —	Order to abate within		
198, Munster Road	28 days	—	—
Nuisance —			
Failing to comply with above order	Fined	2 0 0	—
Nuisance —	Adjourned *sine die*—		
34, Darlan Road	work in hand	—	5 0
Nuisance caused by emission of black smoke from factory chimney	Fined	5 0 0	—
Nuisance —	Adjourned *sine die*—		
13a, Comeragh Road	work in hand	—	—
Overcrowding —	Adjourned *sine die*—		
103, Claybrooke Road	nuisance abated	—	—
Overcrowding —	Order to abate within		
24, Rock Avenue	28 days	—	—

In addition to the above cases, proceedings were instituted during the year under the Food and Drugs (Adulteration) Act, 1928, particulars of which will be found on page 102.

Canal Boats.

Outside the Port Sanitary Authority's Area, London, Borough Councils are Sanitary Authorities for the purposes of the Canal Boats Act, Order and Regulations.

No Canal Boats are registered by the Fulham Borough Council.

Rag Flock Acts, 1911 and 1928 and Rag Flock Regulations, 1912 and 1925.

No samples were taken during 1933.

The premises where rag flock is used were kept in a clean condition.

Public Cleansing.

There has been no alteration in the arrangements for the collection and disposal of refuse since 1932.

Public Conveniences.

The accommodation detailed in my report of 1930 and the general arrangements for the control of the conveniences in the borough have remained unchanged.

The building of the new convenience (for males and females) at Putney Bridge was commenced towards the end of 1933 and was not completed by the end of the year.

Health Propaganda.

The work of the Medical Officers and Health Visitors of the Maternity and Child Welfare Department is largely concerned with giving advice on the promotion of health and fitness. The same principles are adopted by the Tuberculosis Officer and the Dispensary Nurses in the course of their duties. The Sanitary Inspectors also give advice on sanitary questions, which are of importance in the prevention of illness.

The following Borough Council leaflets are available for the public free of cost and are in considerable demand :—

"How to keep Fit (including the choice of a rational diet)"

"Some useful hints on household hygiene."

"The Prevention and treatment of Tuberculosis."

"The Prevention and treatment of Bronchitis.'

"The Ante-Natal Clinics for Expectant Mothers."

"The Care and Feeding of Infants."

"Cancer."

"Measles."

"The Prevention and Treatment of Influenza."

"Summer Diarrhoea in Infants."

"Summer Time and Tired Children."

"Rat Destruction."

Leaflets on other subjects published by various organisations are also available, e.g., leaflets on the destruction of flies, lice, etc.

The British Social Hygiene Council, as in former years, continued their propaganda against Venereal Diseases and for the education of young people in sex matters. A useful part of the Council's work consists in giving Cinema Lectures to parents containing suggestions as to the best methods of passing on to their children instruction on reproduction.

The following list shows the number of lectures and cinema displays given by the Council in this Borough during the year:

SINGLE LECTURES.

Date.	*Organisation or Place.*	*Type of Audience.*	*Film.*	*Speaker.*	*Attendance.*
Jan. 25	St. John's Church	Women	Gift of Life	Miss Dugdale	80
Mar. 9	Langford Hall	Unemployed Men	—	Capt. Buckler	150
,, 13	Church of Christ	Girls	Growing Up	Miss Dugdale	25
,, 14	Langford Hall	Unemployed Men	Deferred Payment	Capt. Buckler	350
May 3	Walham Grove	Open Air	—	Capt. Buckler	
				Mr. Harris	200
June 2	Walham Grove	Open Air	—	,,	300
,, 7	Walham Grove	Open Air	—	,,	100
July 5	Walham Grove	Open Air	—	,,	250
Sept. 11	Beaufort House School	Parents	How to Tell	Dr. Dancy	60
,, 13	Walham Grove	Open Air	—	Mr. Harris	250
Oct. 18	Dawes Road Co-op Guild	Women	—	Miss Dugdale	30
					1795

COURSES OF LECTURES.

Jan. 9	Church of Christ	Young Women	Gift of Life		20
,, 16			Our Minds	Miss Dugdale	20
Feb. 13			Our Bodies		20
					60

ANALYSIS.

Total number of Lectures	14
Total attendance	1,855

Legislation enacted during 1933.

*Pharmacy and Poisons Act, 1933.	
Housing (Financial Provisions) Act, 1933.	
Rent and Mortgage Interest Restrictions (Amendment) Act, 1933	
‡Slaughter of Animals Act, 1933.	
*Transfer of Powers (London) Order, 1933.	
*Memo. 171/Med. re Antimony poisoning	Feb. 1933
Circular 1326 with Memo. explaining duties of Local Authorities in connection with Infant Life Protection	24 Feb. 1933
Circular 1331 regarding Slum Clearance	6 Apl. 1933
Local Government (Qualifications of Medical Officers and Health Visitors (Amendment) Regulations, 1933, together with Circular 1336. Regarding examinations of Health Visitors trained in Scotland.....	8 May, 1933
*Circular 1337 together with a report on Deafness	22 May, 1933
Children and Young Persons Act, 1932 came came into force on	1 Jan. 1933

*Notes regarding these Acts and Circulars will be found in the following pages.

‡Notes regarding this Act will be found on page 115.

Pharmacy and Poisons Act, 1933.

On 20th November, 1933, I submitted a report to the Public Health Committee which will be found in the Council's Minutes of 29th November, 1933.

The Act received the Royal Assent on 28th June, 1933, and will come into operation on a date to be fixed by Order in Council.

It is divided into three parts:

Part I. deals with the Control of Pharmacy.
Part II. deals with the Control of Poisons, and
Part III. contains miscellaneous provisions necessary for the enforcement of the first two parts of the Act.

Part I. Sections 1—14—*Pharmacy.*

This part is to be enforced by the Pharmaceutical Society of Great Britain.

Every person registered as a Pharmacist by virtue of being so registered will become a member of the Pharmaceutical Society which will cease to be a voluntary body and will be invested with important statutory powers. It will be the duty of the Society to control the practice of pharmacy including the registration of pharmacists, the removal of pharmacists from the register, the forgery of certificates and the titles which a pharmacist may use.

Under the Act no person may be an "Authorised Seller of Poisons" unless he is a registered pharmacist and is engaged in the retail sale of drugs. Conditions are laid down which must be fulfilled by a pharmacist before he can be an authorised seller of poisons.

A body corporate may be an authorised seller of poisons and must also comply with the specified conditions.

Part II. Sections 15—22—*The Control of Poisons.*
This part of the Act is of special importance to Metropoiltan Borough Councils as well as to pharmacists. Section 15 repeals the Arsenic Act, 1851 and the provisions of the Pharmacy Act relating to the sale and supply of poisons and substitutes for them provisions in this part of this Act.

An advisory committee called *The Poisons Board* has been established under section 16 of the Act.

Under section 17 the Poisons Board has the duty of preparing a list of substances which are to be treated as poisons under the Act—the "Poisons List." The list will be divided into two parts.

The poisons in Part 1 of the list will include those used for medicinal purposes while Part 2 of the list will comprise articles in common use or

likely to be in common use for purposes other than the treatment of human ailments, e.g., disinfectants (section 17).

Regulations are laid down in section 18 for the sale of poisons and this part of the Act defines the persons who may legally sell poisons in Parts 1 and 2 respectively of the Poisons List and the premises on which they may be sold.

Subject to certain exemptions only authorised sellers of poisons may sell poisons in Part 1 of the list and the actual sale must be effected either by a registered pharmacist or under his supervision on premises duly registered under Part I of the Act. (The Local Authority has nothing to do with poisons in Part 1 of the list as will be seen later on in the Act; they are, however, very much concerned with poisons in Part 2 of the list).

Section 18 also states that poisons in Part 2 of the Poisons List may be sold either by Authorised Sellers of Poisons or by certain other persons whose names and premises are on the "Local Authority's List."

Regulations are laid down as to the labelling of poisons in both parts of the Poisons List.

Under section 19 medicines supplied by medical practitioners, dentists and veterinary surgeons for treatment in the course of their professional work and poisons dispensed by an authorised seller of poisons on his premises or on premises registered under Part I of the Act, are exempt from the provisions of section 18 regarding the sale of poisons but are subject to modified rules.

Section 20 also exempts the sale of poisons wholesale, the sale of poisons to be exported and

the sale of poisons to qualified medical practitioners, registered dentists and registered veterinary surgeons for professional use from the requirements of section 18.

Section 21 requires the local authority to keep lists of persons, other than authorised sellers of poisons, who are entitled to sell poisons in Part 2 of the Poisons List which is to be prepared by the Poisons Board. The lists must be in the form to be prescribed by rules made by the Secretary of State and must contain the addresses of the premises and other details. Fees are payable to the local authorities initially and annually by persons whose names are on the lists. Persons aggrieved by the refusal of the local authority to place their names on the list or by the removal of their names from the list may appeal to the Court of Quarter Sessions.

Section 22 states that it is not lawful for a poison to be exposed for sale or to be offered for sale by means of an automatic machine.

Part III. *Sections* 23-31—*Miscellaneous.*

Under section 3 the Secretary of State may make rules regarding certain matters.

Penalties are laid down for contraventions of the Acts in section 24, also in section 21 and 8.

Under section 25 the duty of appointing inspectors for enforcing Part I of the Act and securing compliance by registered pharmacists and authorised sellers of poisons with Part II of the Act and of the rules rests with the Pharmaceutical Society whose inspectors must be registered pharmacists.

On the other hand the local authority must appoint inspectors to secure compliance with the

provisions of Part II of the Act by persons who are not authorised sellers of poisons but who are on the "Local Authority's List."

The local authority may appoint one of the Pharmaceutical Society's inspectors for this purpose or they may appoint inspectors of their own. On the 29th November, 1933, the Medical Officer of Health and each member of the Sanitary Inspecting Staff were appointed as Inspectors by the Borough Council for the enforcement of Part II. of the Pharmacy and Poisons Act, 1933, and the rules to be made thereunder as from the date on which the Act and the Rules become operative.

The power of entry into premises is given to Inspectors under section 25 and they are also given the powers of taking samples.

Section 26 requires that all orders and rules made by the Secretary of State must be laid before both Houses of Parliament and section 27 states that the expenses of Metropolitan Borough Councils under the Act are to be defrayed out of the general rate.

Certain sections of this Act came into operation on 1st October, 1933, and others became operative on 31st December, 1933, by virtue of the Pharmacy and Poisons Act, 1933 (Date of Commencement) Order (No. 1) 1933.

Those sections of the Act, however, with which the Borough Council are more directly concerned are not yet in force as no Order in Council has been made to that effect, moreover, the Poisons Board have not yet prepared the Poisons List.

Transfer of Powers (London) Order, 1933.

Certain functions of the London County Council were transferred to the Common Council of the Corporation of the City of London and Metropolitan Borough Councils as from 1st April, 1933, by the above-mentioned Order, made by the Minister of Health under Section 64 of the Local Government Act, 1929.

Of the functions included in the Order, the following are administered by the Borough Council through the Public Health Committee and the Public Health Department :—

Common Lodging Houses.
Seamen's Lodging Houses.
Slaughter-houses and Knackers' Yards.
Offensive Businesses.

There are two common lodging houses and two slaughter-houses in Fulham, but no knackers' yards and no "offensive businesses" in the Borough.

The Borough Council made Rules and Regulations relating to the above matters during 1933, which replaced, as far as Fulham is concerned, the Rules and Regulations previously made by the Public Health Committee of the London County Council. The rules deal with applications for licences, objections to licences and procedure, (see the section of this report on slaughter-houses and common lodging houses).

The Order also transferred the duties of Infant Life Protection to the Borough Council, and this work is discussed in the section of the annual report relating to maternity and child welfare.

Antimony Poisoning due to the Use of Enamelled Vessels.

In February, 1933, a Memorandum was issued by the Ministry of Health on antimony poisoning. This Memorandum described three outbreaks of antimony poisoning which occurred in Newcastle, Folkestone and London respectively and were due to the storage or preparation of lemonade in enamelled vessels not intended or suitable for the purpose.

All the persons affected recovered but the symptoms were those of irritant poisoning and were very acute and painful. In the Newcastle outbreak, which occurred in 1928, 70 employees of a local firm drank lemonade made and stored overnight in white enamelled buckets; practically all became ill with an acute burning sensation in the stomach, colicky pains, vomiting and collapse and 58 were so ill that they had to go to the infirmary. The lemonade was made of lemonade crystals, consisting of sugar, tartaric acid and bicarbonate of soda.

In the Folkestone outbreak in 1929, 30 persons became ill half an hour after taking lemonade made from fresh lemons prepared in large white enamelled iron jugs.

The London outbreak occurred in 1932 at the Nurses' Christmas dinner in a large hospital, and the lemonade was prepared from fresh lemons; 65 persons became ill. The lemonade in this case was prepared in white enamelled iron jugs.

The enamel contains oxide of antimony which is dissolved by the citric acid of the lemons or the tartaric acid of the lemonade crystals. Similarly vinegar or acetic acid will dissolve out antimony.

The public should be warned of the danger of using enamelled ware for making or storing lemonade. Apparently it is possible to manufacture enamelled ware in such a way that the antimony will not be dissolved out, but the safest procedure is not to use enamelled ware for the purpose of storing or preparing these drinks.

Prevention of Deafness.

Circular 1337a of the Ministry of Health drew the attention of the Borough Council to a report by the late Dr. Eichholz entitled "A Study of the Deaf" and stated that much more could be done by pursuing the methods at present available and endorsed the suggestion that Maternity and Child Welfare authorities should give close attention to the matter with the view to preventing deafness and deaf-mutism.

The Medical and Health Visiting Staff were requested to take appropriate measures on the lines indicated by the report.

Report of the Temporary Public Analyst, Mr. Thomas McLachlan, A.C.G.F.C., F.I.C.

Before making any comments on the samples examined during the past year I should like to express my sympathy with the Council in the death of Mr. William Partridge, so soon after his appointment and following shortly after that of the late Mr. C. H. Cribb. Mr. Partridge was well-known in his profession as a most careful analyst, who was ever willing to place his long experience at the disposal of his colleagues, and will be remembered for many years as the author of two most useful little books "Aids to the Analysis of Foods and Drugs" and "Aids to Bacteriology."

During the year under review the percentage of adulteration is very similar to that recorded in previous years, a point which is of interest seeing that the work has been carried out by different analysts in different laboratories. It is sometimes thought that the higher percentage of samples reported as adulterated in one district as compared with another is due to the personal idiosyncracies of analysts, but it is usually found that a change of analysts causes little alteration to the total percentage of samples reported against, though it will be noticed that individual analysts may stress particular types of adulteration.

One sample of milk was thought to contain dried milk powder made up with water but was reported genuine, as it is difficult to state with certainty whether dried milk has been added when it has been mixed with fresh milk, and when the milk powder has been prepared by the spray process which does not destroy the natural chemical properties of the milk. Two samples of milk were found to have been treated with formaldehyde, though vendors appreciate that it is illegal

to add any presevative to milk and it is very rarely indeed that a preservative is found nowadays. One sample of sterilised milk was submitted for examination owing to several other bottles from the same source being unfit for consumption. This particular sample was satisfactory when purchased, but it contained among other bacteria Bacillus subtilis and Streptococci faecalis and pneumococcus. The process employed for sterilising milk is not one which will necessarily kill all bacteria, though all except thermophilic and spore-forming ones should be destroyed. The average fat of all milks examined was 3.46 per cent. and the average solids-not-fat was 8.70 per cent.

A sample of butter submitted for suspected poisoning was found to be genuine dairy butter.

Two samples of fresh cream examined during the year contained over 50 per cent. of fat, and, in my opinion, the public should be protected from the misleading descriptions of inferior, and usually imported, tinned goods.

There is a common tendency among vendors of tinned cream to label their goods as "Rich Thick Cream" or with words to that effect, although the actual butter-fat content is only about 20—23 per cent. In such cases the thickness is obtained by homogenisation, a process to which cream is submitted before sterilisation in order to avoid separation, but the housewife is unable to detect the difference between the effect obtained by this means and that due to the high fat content of ordinary cream, which usually contains from 45 to 50 per cent. of fat.

A sample of so-called dried "humanised" milk examined during the year contained only 23 per cent. of fat, whereas the Dried Milk Regulations stipulate that dried milk must contain 26 per

cent. of fat. Dried humanised milk should contain as high a percentage of fat as any other dried milk and it is a pity that the law allows manufacturers to employ descriptions such as "humanised" without disclosing the fact that the product contains less milk fat than a dried human milk would.

Both samples of ice cream were found to contain zinc (0.10 and 0.11 grains per pound respectively). This is due to the use of galvanised iron containers for its storage, and when ice cream is stored, as it frequently is, for periods as long as three months, care should be taken to see that the containers are in good condition, or cream scraped from the sides may be given to children and cause sickness.

One sample of preserved sausages contained no preservative. It is possible, but most unlikely, that a small amount of preservative had been added originally but that the sulphur dioxide had been oxidised. Vendors should realise that strictly speaking such a sample is adulterated, since the purchaser may justly claim that he expects "preserved" articles to keep for longer periods than those without preservatives. A sample submitted as sausages was preserved, but it was found that the notice to this effect had been removed from the shop when the inspector made the purchase. Two samples of meat pie contained moulds and, whilst they were reported as genuine, it shows that vigilance is required in the supervision of cooked meats and meat products.

One sample of beef dripping contained an excessive amount of free fatty acids (3.8 per cent.), but the acidity failed to increase in quantity on keeping, and prosecution was therefore not recommended. The probable explanation of this is that the original fat employed in its preparation was stale and that it had been sterilised and clarified during manufacture.

The sample of dried fruit which was reported as adulterated was sold as Sultanas, though I have always understood that the product supplied should be called Seedless Raisins. The report stated that the adulteration was merely technical and not to the prejudice of the purchaser, but the vendor is of the opinion that he is correct. After making fairly extensive enquiries, I find that this fruit is shipped to this country from California as Sultanas, that in America it is sold exclusively as Thompson's Seedless Raisins and that a considerable body of trade opinion holds that it should be given this designation in this country. There is a difference in the texture of the skin and of the meat in a sultana and a raisin, and it would be well, if this were more fully appreciated in the retail trade in this country.

One sample of gin and one of rum, both purchased informally, were found to be adulterated with an excess of water, but formal samples obtained later were found to be satisfactory. Publicans are allowed by law to dilute their spirits to the legal strength of 35 per cent. U.P. on their own premises, but it will be appreciated that the methods at their disposal are on the whole crude and that they are liable to make mistakes. The fact that the formal samples have been genuine in each case shows that there was probably no intentional adulteration, but it would be advisable for the follow-up samples to be taken as quickly as possible in these cases.

Drugs.

It is satisfactory to note that pharmacists in the Borough appear to have appreciated the requirements of the 1932 Pharmacopoeia rapidly and that samples purchased have responded to the tests for the new preparations. In certain

parts of the country difficulty was evidently experienced in disposing of old stocks, and articles manufactured according to the requirements of the 1914 Pharmacopoeia have been sold till well on in the year.

One sample of flowers of sulphur contained an excess (0.45 per cent.) of free sulphuric acid, whereas the limit allowed by the Pharmacopoeia is 0.25 per cent., but the formal sample proved to be genuine. One sample of magnesium oxide (No. 391) reported against lost an excessive proportion of its weight on heating (8.9 per cent.), but other samples were satisfactory. It should not be difficult for chemists to supply magnesium oxide complying with the requirements of the present Pharmacopoeia, as they are advised to keep it in well-closed containers, and the permitted loss on heating is 5.0 per cent., whereas the 1914 Pharmacopoeia contained no instructions as to storage and only allowed a loss of 1.0 per cent. on heating.

SAMPLES PURCHASED FOR ANALYSIS DURING 1933.

Article.	Number of Samples.				Total Samples Analysed.	Total Samples Adulterated.	Percentage of Adulteration.
	Taken officially.	Adulterated.	Taken unofficially.	Adulterated.			
Milk	633	18	5	—	638	18	2.82
Machine-Skimmed Milk	3	—	—	—	3	—	—
Condensed Machine-Skimmed Milk	—	—	3	—	3	—	—
Dried Milk	—	—	1	—	1	—	—
Cream	1	—	15	—	16	—	—
Butter	14	2	63	4	77	6	7.79
Margarine	6	—	16	3	22	3	13.64
Cheese	—	—	9	—	9	—	—
Lard	—	—	9	—	9	—	—
Beef Dripping	1	1	5	—	6	1	16.66
Shredded Suet	—	—	3	—	3	—	—
Olive Oil	—	—	3	—	3	—	—
Tea	—	—	3	—	3	—	—
Green Tea	—	—	2	—	2	—	—
Coffee	—	—	5	—	5	—	—
Cocoa	—	—	6	—	6	—	—
Chocolates	—	—	2	—	2	—	—
Ice Cream	—	—	2	—	2	—	—
Mustard	—	—	2	—	2	—	—
Pepper	—	—	2	—	2	—	—
Cayenne Pepper	—	—	2	—	2	—	—
Ground Ginger	—	—	2	—	2	—	—
Demerara Sugar	3	—	2	—	5	—	—
Jam	—	—	6	—	6	—	—
Marmalade	—	—	6	—	6	—	—
Lemon Curd	—	—	3	—	3	—	—
Mincemeat	1	—	2	—	3	—	—
Fruit Wines	—	—	3	—	3	—	—
Lime Juice Cordial	—	—	2	—	2	—	—
Lemon Squash	—	—	1	—	1	—	—
Flour	1	—	4	—	5	—	—
Self-raising Flour	—	—	4	—	4	—	—
Bread	3	—	—	—	3	—	—
Arrowroot	—	—	2	—	2	—	—
Cornflour	—	—	2	—	2	—	—
Custard Powder	—	—	5	—	5	—	—
Egg Substitute Powder	—	—	5	—	5	—	—
Oatmeal	3	—	3	—	6	—	—
Rice	1	—	3	1	4	1	25.0
Sago	—	—	6	—	6	—	—
Tapioca	—	—	3	—	3	—	—
Sponge Cakes	—	—	3	—	3	—	—
Meat Pies	1	—	2	—	3	—	—
Sausages	2	—	4	1	6	1	16.66
Preserved Sausages	2	—	4	—	6	—	—
Meat Paste	—	—	3	—	3	—	—
Fish Paste	—	—	3	—	3	—	—
Canned Beans	—	—	3	—	3	—	—
Canned Peas	—	—	3	—	3	—	—
Canned Fruit	—	—	3	—	3	—	—
Dried Fruits	7	1	3	—	10	1	10.0
Ground Almonds	—	—	3	—	3	—	—
Malt Vinegar	—	—	8	—	8	—	—
Mint Sauce	—	—	3	—	3	—	—
Brandy	—	—	3	—	3	—	—
Gin	1	—	3	1	4	1	25.0
Rum	1	—	3	1	4	1	25.0
Whisky	—	—	6	—	6	—	—
Edible Seeds (Marrow)	1	—	1	—	2	—	—
Bicarbonate of Soda	—	—	2	—	2	—	—
Black Draught	—	—	2	—	2	—	—
Camphorated Oil	—	—	2	—	2	—	—
Compound Tincture of Cardamoms	—	—	3	—	3	—	—
Castor Oil	—	—	3	—	3	—	—
Epsom Salts	—	—	3	—	3	—	—
Glauber's Salt	—	—	6	—	6	—	—
Compound Liquorice Powder	—	—	2	—	2	—	—
Magnesium Oxide	—	—	4	1	4	1	25.0
Sulphur, Flowers of	1	—	2	1	3	1	33.33
Turpentine Liniment	—	—	2	—	2	—	—
Totals	686	22	314	13	1000	35	3.5

CONTENTS.