

**[Report 1938] / Medical Officer of Health, Blackpool County Borough.**

**Contributors**

Blackpool (England). County Borough Council.

**Publication/Creation**

1938

**Persistent URL**

<https://wellcomecollection.org/works/z8d62ue4>

**License and attribution**

You have permission to make copies of this work under a Creative Commons, Attribution license.

This licence permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See the Legal Code for further information.

Image source should be attributed as specified in the full catalogue record. If no source is given the image should be attributed to Wellcome Collection.



Wellcome Collection  
183 Euston Road  
London NW1 2BE UK  
T +44 (0)20 7611 8722  
E [library@wellcomecollection.org](mailto:library@wellcomecollection.org)  
<https://wellcomecollection.org>

e.I  
44853

County Borough of Blackpool



# ANNUAL REPORT

*For the Year 1938*

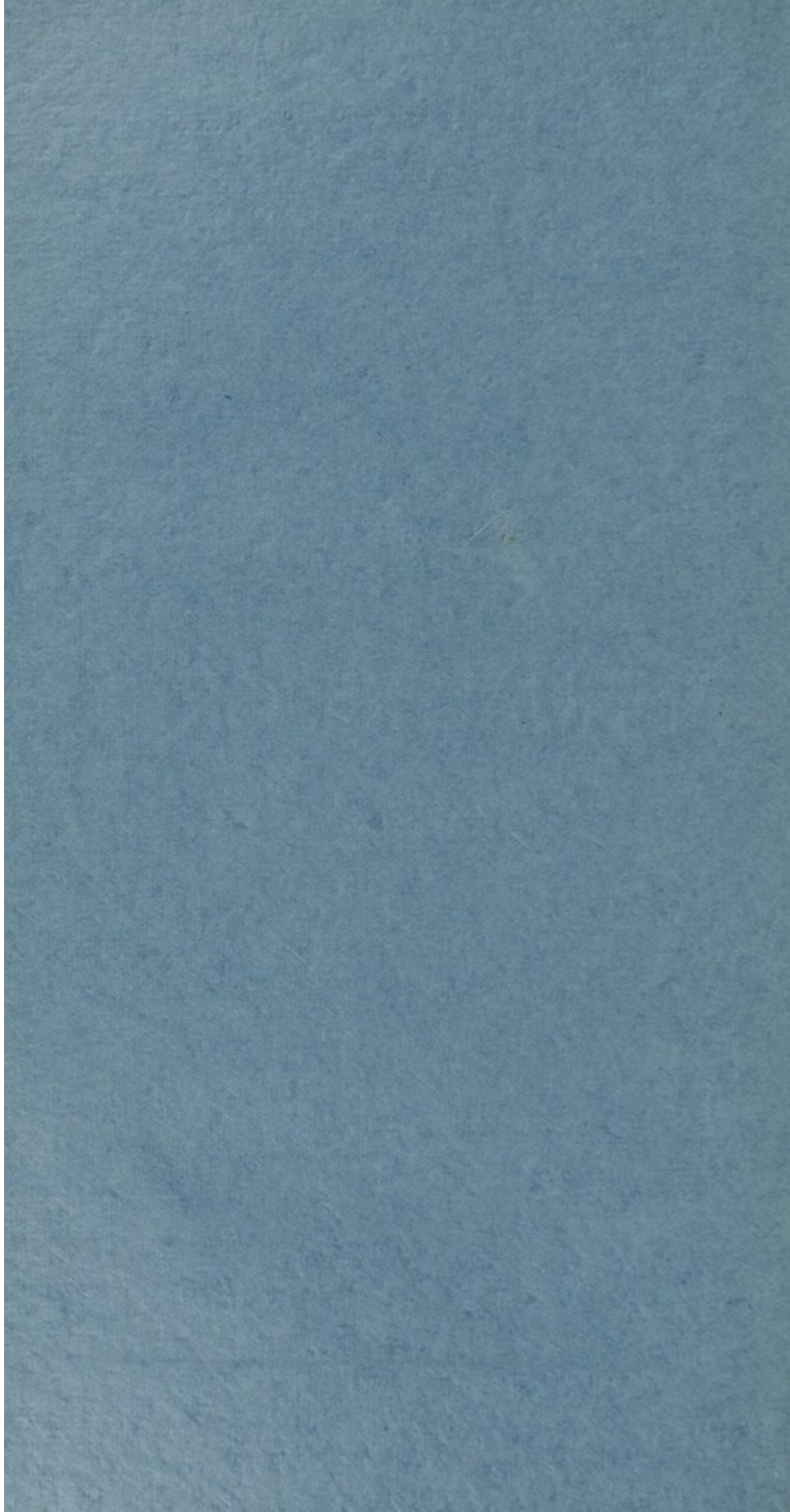
By

**E. W. REES-JONES**

**M.D., Ch.B., D.P.H.**

Medical Officer of Health, School Medical Officer,  
and Medical Superintendent of the  
Infectious Diseases Hospital





County Borough of Blackpool



# ANNUAL REPORT

*For the Year 1938*

By

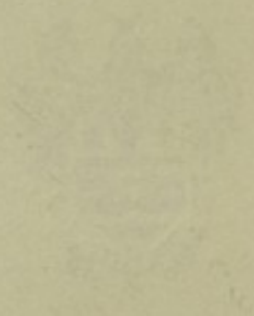
**E. W. REES-JONES**

**M.D., Ch.B., D.P.H.**

Medical Officer of Health, School Medical Officer,  
and Medical Superintendent of the  
Infectious Diseases Hospital



County Borough of Blackpool



# ANNUAL REPORT

for the year 1911

BY THE BOROUGH ENGINEER

W. R. JONES

Printed and Published by the Borough Engineer, Blackpool, and by the Borough Engineer, Blackpool, and by the Borough Engineer, Blackpool.

MUNICIPAL HEALTH CENTRE,  
WHITEGATE DRIVE,  
BLACKPOOL,

28th October, 1939.

*To the Chairman and Members of the Health Committee  
of the Blackpool Corporation.*

MR. MAYOR, MRS. QUAYLE AND GENTLEMEN,

Herewith I submit you my Annual Health Report for the year 1938. I have to apologise for its unusually late appearance, but the avalanche of work which has devolved upon the Department due to the War has prevented me from completing it until now.

As I have stated in previous reports, no true indication of the ramifications or the importance of the work of the Department can be given in these few introductory notes, and again I recommend to you a careful perusal of the whole report—including even the statistical tables.

It will be noted that the estimated population for the middle of the year was 125,800, the birth rate 10.9 and the death rate 13.35 per 1,000. The maternal mortality was 5 against 3 for England and Wales, whereas the infant mortality was the low figure of 47 per 1,000 births. The death rate for Cancer was 2.265—a mounting figure and the highest yet recorded, both for Blackpool and England and Wales generally.

The scheme of employment of whole time municipal midwives has been in operation throughout the year and has worked well and smoothly.

The new Municipal Infant Welfare Clinics at Bispham and Hawes Side Lane were opened in May, and have been greatly admired by many visitors from other towns.

A vast amount of work has been carried out by the Sanitary and Food Inspectorial Section of the staff relating to Housing, Shops Inspections, Disinfestation, Inspections of Food.

Again I refrain from specifying by name any individual member of the staff—for by doing so I should inadvertently omit some who should be included—but commend to you the willing and efficient work carried out by the Medical, Nursing—both indoor and outdoor—Inspectorial, Clerical and general labouring staffs, and we have been greatly encouraged by the support given to us by the Chairman and Members of the Health Committee.

I beg to remain,

Your faithful servant,

E. W. REES-JONES.

### HEALTH COMMITTEE.

---

Mr. Alderman	W. R. DUCKWORTH, J.P. (Mayor from November, 1938).
„	„ J. R. QUAYLE, J.P. (Mayor to November, 1938).
„	„ TOMLINSON, J.P.
„ Councillor	ANDERSON (Senior), J.P.
„	„ BAILEY, J.P. (Chairman).
„	„ Dr. BAIRD.
„	„ BOND.
„	„ FAIRHURST (Vice-Chairman).
„	„ FURNESS
„	„ HILL, JOS.
„	„ HOLT, J.P.
„	„ HUDDART.
„	„ MACHIN, J.P.
„	„ MOORE
„	„ OGDEN
„	„ PARKER (from November, 1938).
„	„ QUAYLE, MABEL A.
„	„ WHITTAKER, J. W.
„	„ WINSTANLEY

---

### HEALTH GENERAL ACCOUNTS AND SUB-COMMITTEE.

---

Mr. Alderman	W. R. DUCKWORTH, J.P. (Mayor from November, 1938).
„	„ J. R. QUAYLE, J.P. (Mayor to November, 1938).
„	„ TOMLINSON, J.P.
„ Councillor	BAILEY, J.P. (Chairman).
„	„ FAIRHURST (Vice-Chairman).
„	„ FURNESS
„	„ HILL, JOS.
„	„ HOLT, J.P.
„	„ OGDEN (to November, 1938).
„	„ WHITTAKER, J. W.
„	„ WINSTANLEY

### MATERNITY AND CHILD WELFARE SUB-COMMITTEE.

---

- Mr. Alderman W. R. DUCKWORTH, J.P. (Mayor from November, 1938).  
 „ „ J. R. QUAYLE, J.P. (Mayor to November, 1938).  
 „ „ TOMLINSON, J.P.  
 „ Councillor BAILEY, J.P.  
 „ „ Dr. BAIRD  
 „ „ FAIRHURST  
 „ „ FURNESS  
 „ „ HILL, Jos.  
 „ „ HOLT, J.P.  
 „ „ MACHIN, J.P.  
 „ „ OGDEN  
 „ „ MABEL A. QUAYLE (Chairman).  
 „ „ WINSTANLEY  
 Dr. JAMES LONGWORTH  
 Mrs. FARRELL.  
 Mrs. A. OLIVER  
 Mrs. OATES  
 Mrs. ROBINSON.  
 Miss O. WELLS

### TUBERCULOSIS SUB-COMMITTEE.

---

- Mr. Alderman W. R. DUCKWORTH, J.P. (Mayor from November, 1938).  
 „ „ J. R. QUAYLE, J.P. (Mayor to November, 1938).  
 „ „ TOMLINSON, J.P.  
 „ Councillor ANDERSON (Senior), J.P.  
 „ „ BAILEY, J.P. (Chairman).  
 „ „ FAIRHURST (Vice-Chairman).  
 „ „ FURNESS  
 „ „ HILL, JOS.  
 „ „ HOLT, J.P.  
 „ „ MACHIN, J.P.  
 „ „ OGDEN  
 „ „ M. A. QUAYLE  
 „ „ WINSTANLEY  
 Dr. H. T. BARTON (to November, 1938).  
 Dr. H. E. MARTIN (from November, 1938).  
 Mr. J. A. HURSTFIELD  
 Mrs. A. OLIVER (from November, 1938).



**INSTITUTIONAL MATERNITY ACCOMMODATION (JOINT)  
ADVISORY SUB-COMMITTEE.**

---

Mr. Alderman W. R. DUCKWORTH, J.P. (Mayor from November, 1938).  
 „ „ J. R. QUAYLE, J.P. (Mayor to November, 1938).  
 „ „ TOMLINSON, J.P.  
 Mr. Councillor BAILEY, J.P. (Chairman).  
 „ „ FAIRHURST (Vice-Chairman).  
 „ „ HILL, Jos.  
 „ „ MACHIN.  
 „ „ QUAYLE, M.A.  
 „ „ WINSTANLEY.  
 Mr. JOS. FIELDING.  
 Mr. T. STOPFORD.  
 Dr. J. HARRIS.  
 Dr. J. STEWART.

---

**PUBLIC HEALTH OFFICERS OF THE LOCAL AUTHORITY.**

---

Medical Officer of Health :

E. W. REES-JONES, M.D., Ch.B., D.P.H.

---

Assistant Medical Officers of Health :

G. W. MURRAY, M.B., Ch.B., D.P.H.  
 Tuberculosis and Venereal Diseases Medical Officer.

ISABELLA A. MILNE, M.B., Ch.B., M.M.S.A.  
 Maternity and Child Welfare and Venereal  
 Diseases Medical Officer.

J. E. RANKINE, M.D., Ch.B., D.P.H.  
 Assistant Medical Officer and Assistant School  
 Medical Officer (to 31st August, 1938).

D. O'BRIEN, L.R.C.S., L.M.R.C.S., D.P.H.  
 Assistant Medical Officer and Assistant School  
 Medical Officer (from 1st September, 1938).

Public Vaccinators :

H. E. COCKCROFT, M.R.C.S., L.R.C.P. (to February, 1938).  
 H. L. LUCAS, L.R.C.P., L.R.C.S. (from February, 1938).  
 J. G. LOUDEN, M.B., Ch.B.  
 A. C. MILLER, M.B., Ch.B.

Consultant Aural Surgeon :

E. MILNE EATON, M.D., Ch.B.

## Dental Surgeons (Part-time) :

J. B. ELTON, L.D.S.  
 T. B. PATTERSON, H.D.D., R.C.S., L.D.S.  
 Miss H. GARFORTH, L.D.S.

## Pathologists :

Pathological work is carried out by the Pathologists at the Manchester Public Health Laboratories, and the Victoria Hospital, Blackpool.

## Public Analyst :

T. R. HODGSON, M.A., F.I.C., F.C.S. (Part-time).

## Sanitary Inspectors :

\*H. PRIESTLEY, Senior Inspector.

## Assistants :—

*J. TOLMAER	*W. MOISTER
*A. E. FITTON	*C. H. WRIGHT
*E. SHUTTLEWORTH	*T. ROWORTH
*E. SMITH	T. W. LOMAX (Pupil)

## Meat and Foods Inspectors :

\*H. V. DIXON  
 \*W. RILEY

## Laboratory Technician :

\*G. A. COX.

## Abattoir Superintendent :

\*J. SHANKS

\*Holders of Certificates of the Royal Sanitary Institute.

## Matron, Infectious Diseases Hospital :

Miss H. M. WHITAKER

## Health Visitors :

xR. J. SAUVAIN	§†xF. E. AINSWORTH
†xJ. GIBSON	§†xD. LEA
†xC. HILL	§†xW. WALSH

## Municipal Midwives :

xG. DIXON	xM. HENCHER
†xL. HILL	xE. V. FISHER
†xA. G. JEFFREY	xF. H. C. SAVAGE
†xF. E. UMPLEBY	xA. PARKINSON
†xA. HAMBY	†xA. PEARSON
xB. STEPHENSON	†xM. E. WILLIAMS

## Infectious Diseases Nurse :

\*†B. McCORMACK

## Tuberculosis Nurses :

§†xM. PARKER  
 \*x†D. HARRISON

## Venereal Diseases Clinic Nurse :

†\*I. R. HARLEY

## District Nurses :

†xA. B. WHITE

†\*xM. PARTINGTON

†L. ROBINSON

†xF. STEVENS

†B. ENGLAND

†xM. JOHNSON

\*Fever Trained.    xCentral Midwives' Board Certificate.    §Royal  
 Sanitary Institute Certificate.    †General Trained.

---

 EDWARD SMITH, Chief Administrative Assistant.

## Clerical Staff :

G. E. FIELDING

R. DOWLING

W. G. DIGGLE

S. LUND

G. BOOTH

D. H. TAYLOR

H. OLDHAM

J. RICHARDSON

R. PRYAR

Miss N. BROWN

Miss D. OATES

Miss E. LONGDEN

## Meteorological Observers :

J. WILLIAMS

## Vaccination Officers :

E. W. REES-JONES, M.D., Ch.B., D.P.H., Northern Area.

J. A. JUMP, Southern Area.

## PUBLIC HEALTH SERVICES.

---

### MATERNITY AND CHILD WELFARE.

Medical Officer : Dr. ISABELLA A. MILNE

#### CLINICS :

- MONDAY, 9-30 a.m.—Birth Control (*by appointment only*) at Health Centre.
- MONDAY, 2- 0 p.m.—Infant Welfare Clinic, South Shore.  
Infant Welfare Clinic, Health Centre.
- TUESDAY, 9-30 a.m.—Ante Natal Clinic, Health Centre.  
Artificial Sunlight Clinic, Health Centre.  
2-30 p.m.—Artificial Sunlight Clinic, Health Centre.
- WEDNESDAY, 9-30 a.m.—Artificial Sunlight Clinic, Health Centre.  
2- 0 p.m.—Ante-Natal Clinic, Health Centre.  
Toddlers' Clinic, Health Centre.  
Artificial Sunlight Clinic, Health Centre.
- THURSDAY, 2- 0 p.m.—Infant Welfare Clinic, Health Centre.  
Infant Welfare Clinic, Bispham.  
2-30 p.m.—Post-Natal Clinic, Health Centre.
- FRIDAY, 9-30 a.m.—Artificial Sunlight Clinic, Health Centre.  
2- 0 p.m.—Ante Natal Clinic, South Shore.  
Ante Natal Clinic, Bispham (alternate Fridays).  
Artificial Sunlight Clinic, Health Centre.
- SATURDAY 9-0 to 10-30 a.m.—Diphtheria Immunization Clinic, Health Centre.
- 

### INFECTIOUS DISEASES HOSPITAL.

DEVONSHIRE ROAD.

Medical Superintendent : Dr. E. W. REES-JONES.  
Telephone No. Blackpool 173.

**TUBERCULOSIS.**

MUNICIPAL HEALTH CENTRE, WHITEGATE DRIVE.

Medical Officer : Dr. G. W. MURRAY.

## CLINICS :

MONDAY,	9-30 a.m.—Artificial Sunlight Clinic.
	2- 0 p.m.—Contact Cases ( <i>by appointment only</i> ).
TUESDAY,	2- 0 p.m.—Tuberculosis Clinic.
THURSDAY,	9-30 a.m.—Artificial Sunlight Clinic.
	2-30 p.m.—X-Ray Clinic.
FRIDAY,	2- 0 p.m.—Tuberculosis Clinic.

**VENEREAL DISEASES.**

MUNICIPAL HEALTH CENTRE, WHITEGATE DRIVE.

Medical Officers :

Females—Dr. ISABELLA A. MILNE.

Males—Dr. G. W. MURRAY

Dr. J. E. RANKINE (to 31st August, 1938)

Dr. D. O'BRIEN (from 1st September, 1938)

## CLINICS :

MONDAY,	4-45 p.m.	Males	} Irrigation Facilities are available throughout each week-day.
TUESDAY	5- 0 p.m.	Females	
WEDNESDAY,	11-0 a.m.	Males	
THURSDAY	4-45 p.m.	Males	
FRIDAY	11-0 a.m.	Females	
SATURDAY	11-0 a.m.	Males	

## GENERAL STATISTICS.

Area (exclusive of foreshore) ... ..	8,512 acres
Area of Foreshore and Crown Lands ... ..	2,068 acres
Number of inhabited houses ... ..	40,021
Number of empty houses ... ..	717

## POPULATION :

Census, 1931 ... ..	101,543
Corrected by Registrar General, 1931 ... ..	98,360
Do. do. 1932 ... ..	101,400
Do. do. 1933 ... ..	104,100
Do. do. 1934 ... ..	116,550
Do. do. 1935 ... ..	120,200
Do. do. 1936 ... ..	121,700
Do. do. 1937 ... ..	123,800
Do. do. 1938 ... ..	125,800
Rateable Value : Borough Rate ... ..	£1,645,117
Sum represented by a penny rate. Year to 31st March, 1938 ... ..	£6,336 14s. 10d.

The following is the density of the whole town, and of each Ward :

Blackpool ... ..	14.9 per acre
Bispham ... ..	6.8
Warbreck ... ..	19.8
Claremont ... ..	40.0
Talbot ... ..	34.4
Bank Hey ... ..	32.9
Brunswick ... ..	33.5
Foxhall ... ..	49.0
Tyldesley ... ..	34.8
Alexandra ... ..	39.6
Victoria ... ..	27.1
Waterloo ... ..	20.2
Layton ... ..	13.1
Marton ... ..	15.5
Stanley ... ..	7.1

The following table gives the actual land area and estimated (local) population of the town generally, and each of the Wards. These figures are based upon there being 3.24 persons per inhabited house with the exception of Bispham Ward North which is based upon 2.68, and Bispham South upon 2.81 persons per house :—

	Area in Acres.	Popu-lation.		Area in Acres.	Popu-lation.
Blackpool ...	8,512	127,089	Tyldesley ...	229	7,970
Bispham ...	2,123	14,465	Alexandra ...	168	6,664
Warbreck ...	388	7,698	Victoria ...	356	9,655
Claremont ...	135	5,404	Waterloo ...	652	14,224
Talbot ...	144	4,957	Layton ...	1,051	13,744
Bank Hey ...	94	3,091	Marton ...	786	12,212
Brunswick ...	144	4,824	Stanley ...	2,097	15,066
Foxhall ...	145	7,115			

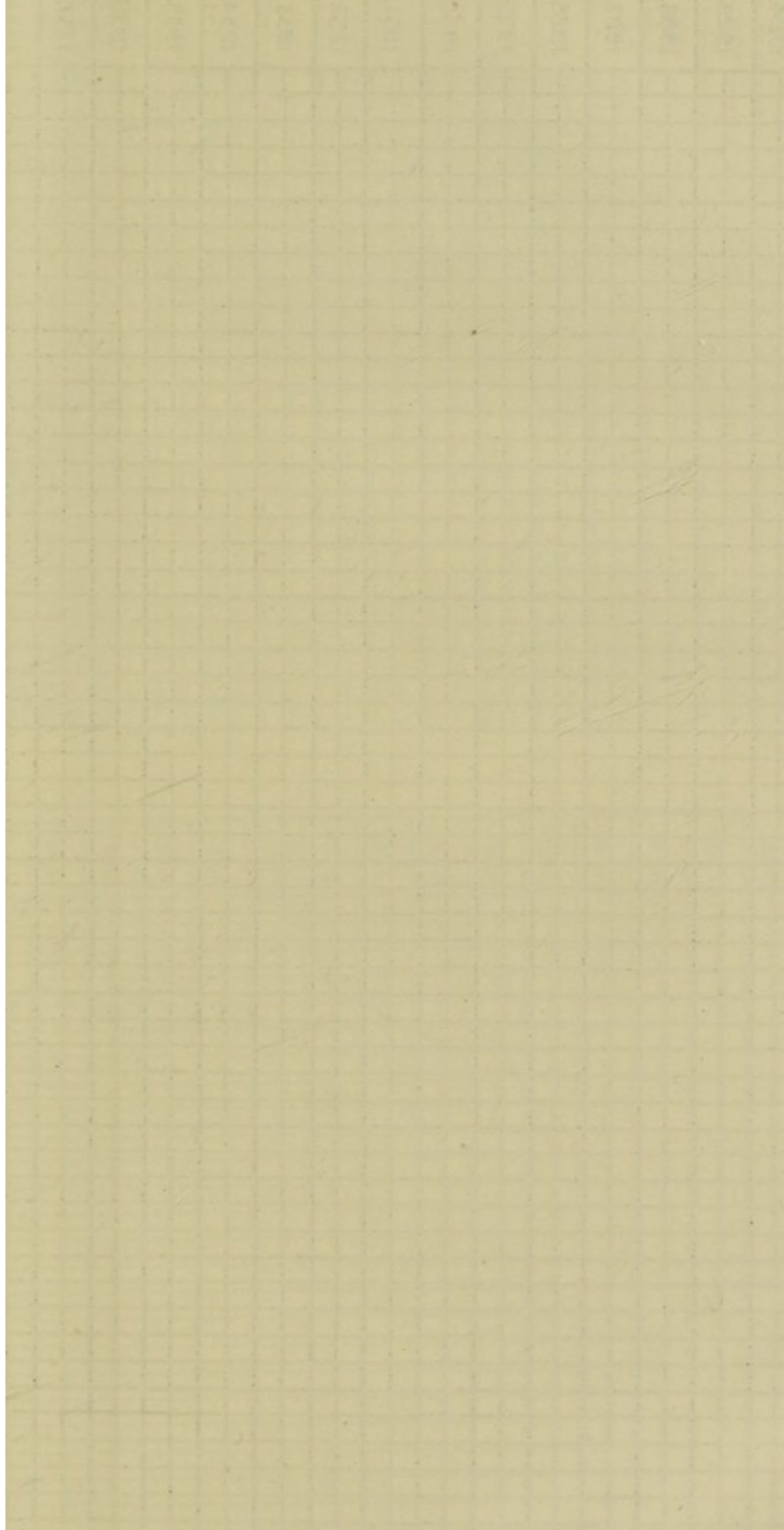
**SUMMARY OF VITAL STATISTICS OF THE COUNTY BOROUGHS  
IN LANCASHIRE FOR 1938.**

AUTHORITY	Estimated Civil Population.	Birth Rate	Ad-justed Death Rate	Infant Mortal-ity.	Maternal Mortal-ity.	Tuberculosis Death Rate (all forms) per 1,000 population.
		per 1,000 population.		per 1,000 births. (Live)		
Blackpool ... ..	125,800	10.9	13.3	47	5.08	59
Bolton ... ..	169,400	13.5	13.1	44	6.55	54
Burnley ... ..	88,650	11.7	14.0	72	3.84	81
Bury ... ..	59,380	12.8	13.7	67	2.48	51
Liverpool ... ..	864,000	18.7	12.3	73	2.4	89
Manchester ... ..	747,318	14.7	12.3	69	4.25	97
Southport ... ..	78,600	10.2	15.46	70	—	43
Wigan... ..	82,530	16.5	16.0	100	2.10	74

Of the 1,933 resident deaths in 1938 the causes of 1,726 or 89.3 per cent. were certified by medical practitioners. Inquests were held respecting 115 or 5.9 per cent., whilst the remaining 92 or 4.7 per cent. were uncertified.

The Ward statistics regard to death rates are as follows :—

Wards.	Death Rate, 1938.
Bispham ... ..	15.9
Warbreck ... ..	11.8
Claremont ... ..	15.5
Talbot ... ..	19.8
Bank Hey ... ..	15.7
Brunswick ... ..	16.5
Foxhall ... ..	16.0
Tyldesley ... ..	12.0
Alexandra ... ..	14.2
Victoria ... ..	14.9
Waterloo... ..	12.8
Layton ... ..	16.1
Marton ... ..	16.3
Stanley ... ..	10.2





### BIRTH-RATES FOR THE YEARS 1897-1938.



## EXTRACTS FROM VITAL STATISTICS

					Total.	M.	F.
Births : Legitimate...	...	...	...	...	1,296	693	603
Illegitimate	...	...	...	...	80	48	32
Birth Rate	...	...	...	...	10.9	per 1,000.	
Stillbirths	...	...	...	...	61	37	24
Do.	Rate per 1,000 Total (Live and Stillbirths)				42.5		
Deaths	...	...	...	...		1,833	
Death Rate	...	...	...	...		13.35	per 1,000
Number of women dying in or in consequence of child birth :—							
(a)	From Sepsis	...	...	...	...	...	3
(b)	From other causes	...	...	...	...	...	4

## Maternal Mortality Rate :—

			Puerperal Sepsis.	Others.	Total.
Blackpool :	per 1,000 Live Births	...	2.18	2.90	5.08
	per 1,000 Total Births	...	2.03	2.71	4.74
England and Wales :	per 1,000 Live Births	...	0.89	2.19	3.08
	per 1,000 Total Births	...	0.86	2.11	2.97
Infant Mortality per 1,000 births	...	...	...	...	47.2
Deaths from Measles (all ages)	...	...	...	...	3
Do.	Whooping Cough (all ages)	...	...	...	3
Do.	Diarrhoea (under 2 years)	...	...	...	—

(a) **Births.**—During the year 1,376 births were registered, including 1 in the Fylde Institution. These, divided into sexes for the four quarters of the year were as follows :—

	1st qtr.	2nd qtr.	3rd qtr.	4th qtr.	Total.
Males ... ..	186	183	193	179	741
Females ... ..	153	177	161	144	635
Total ... ..	339	360	354	323	1,376

The birth-rate was 10.9 per 1,000 of the population, and this figure was slightly in excess of that for 1937, viz., 10.3. I have in many previous reports commented upon our low birth-rate. It is low in comparison with the country as a whole (15.1) and also in comparison with many industrial towns (e.g., Liverpool) but appears to be on a par with some similar non-industrial towns (e.g., Southport).

I have offered some explanation in the fact that in towns of the nature of Blackpool, the percentage of married women of child-bearing age is comparatively small. Nevertheless, the present rate of 10.9 compares with 38.8 in 1878, and the Table on pages 14 and 15, and the chart facing this page will indicate the downward tendency. It must be hoped that the smaller number of children will mean improved prospects of their being reared well. If this is so, the lowered birth-rate will not be an unmixed evil.

Year.	Birth Rate Blackpool.	Birth Rate Blackpool compared with rate for 1878 taken as 100.	Birth Rate England and Wales.	Birth Rate England and Wales compared with rate for 1878, taken as 100.
1878	38.8	100	35.6	100
1879	36.6	94.3	34.7	97.5
1880	34.0	87.6	34.2	96.1
1881	30.6	78.9	33.9	95.2
1882	30.0	77.3	33.8	94.9
1883	30.0	77.3	33.5	94.1
1884	29.8	76.8	33.6	94.3
1885	27.4	70.6	32.9	92.4
1886	25.9	66.8	32.8	92.1
1887	25.3	65.2	31.9	89.6
1888	24.5	63.1	31.2	87.6
1889	26.5	68.3	31.1	87.4
1890	23.7	61.1	30.2	84.8
1891	22.3	57.5	31.4	88.2
1892	24.0	61.9	30.4	85.4
1893	22.4	57.7	30.7	86.2
1894	23.9	61.6	29.6	83.1
1895	26.7	68.8	30.3	85.1
1896	25.7	66.2	29.6	83.1
1897	26.25	67.7	29.6	83.1
1898	27.74	71.5	29.3	82.3
1899	27.34	70.5	29.1	81.7
1900	25.27	65.1	28.7	80.6
1901	22.90	59.0	28.5	80.1
1902	23.96	61.8	28.5	80.1
1903	22.97	59.2	28.4	79.8
1904	21.53	55.5	27.9	78.4
1905	20.30	52.3	27.2	76.6
1906	17.91	46.2	27.1	76.1
1907	18.09	46.6	26.3	73.9
1908	17.54	45.2	26.2	73.6
1909	16.70	43.0	25.6	71.9
1910	16.74	43.1	24.8	69.7
1911	15.97	41.2	24.4	68.5
1912	15.50	39.9	23.8	66.9
1913	16.25	41.9	23.9	67.1
1914	14.47	37.3	23.8	66.9
1915	15.54	40.0	21.8	61.2
1916	13.40	34.5	21.6	60.7
1917	10.64	27.4	17.8	50.0
1918	10.63	27.4	17.7	49.7
1919	11.84	30.5	18.5	52.0
1920	16.71	43.1	25.4	71.3
1921	15.61	40.2	22.4	62.9
1922	14.80	38.1	20.6	57.8

Year.	Birth Rate Blackpool.	Birth Rate Blackpool compared with rate for 1878 taken as 100.	Birth Rate England and Wales.	Birth Rate England and Wales compared with rate for 1878, taken as 100.
1923	14.76	38.0	19.7	55.3
1924	15.43	39.7	18.8	52.8
1925	14.36	37.0	18.3	51.4
1926	13.65	35.2	17.8	50.0
1927	11.85	30.5	16.7	46.9
1928	11.53	29.7	16.7	46.9
1929	10.94	27.1	16.3	45.7
1930	10.87	27.9	16.3	45.7
1931	10.85	27.5	15.8	44.3
1932	10.53	27.5	15.3	42.9
1933	9.97	26.8	14.4	40.4
1934	10.50	31.0	14.8	41.5
1935	10.42	32.3	14.7	41.3
1936	10.8	33.9	14.8	41.6
1937	10.3	33.1	14.9	36.0
1938	10.9	35.4	15.1	38.7

I made some references in previous Annual Reports to the subject of Contraception. As far as the present position is concerned, the Ministry of Health approve the giving of advice in contraceptive methods to married women on sufficient "medical grounds," but such advice should be limited to cases where further pregnancy would be detrimental to health. This is the policy adopted by us and the cases are selected with the most meticulous care. Cases have been treated under our Maternity and Child Welfare Scheme where it would be almost inhuman to allow a woman to go through the great risks of a further pregnancy or confinement.

There were 80 illegitimate children born during the year, including one at the Fylde Institution. This figure gives the following rates :—

- (1) 0.63 per 1,000 of the inhabitants.
- (2) 3.01 per 1,000 females of conceptive age.\*
- (3) 5.80 per cent. of the total live births.

\*Calculated on there being 29,147 females at child-bearing age—20 to 45.

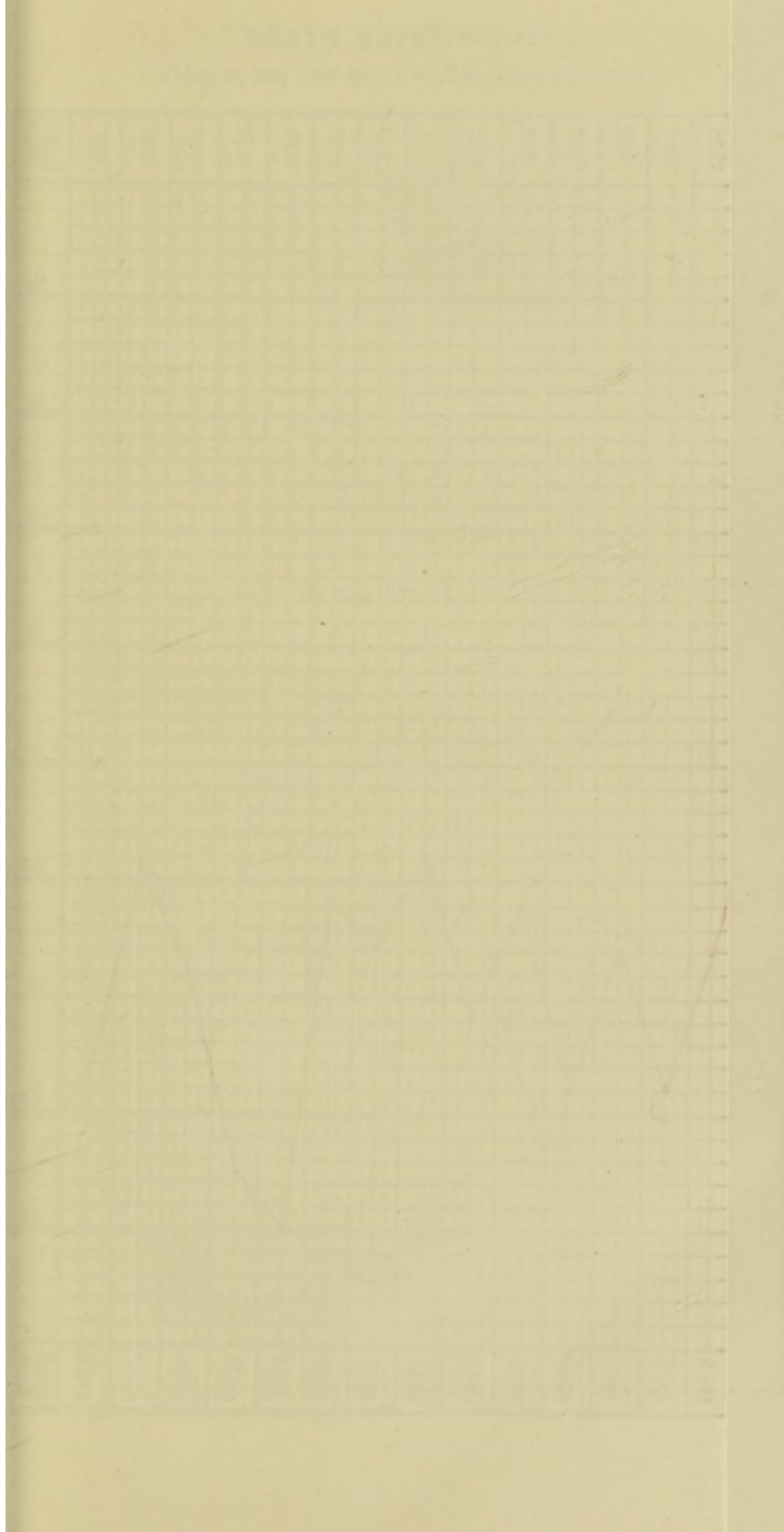
These figures for the past few years have been as follows :—

**ILLEGITIMATE RATES.**

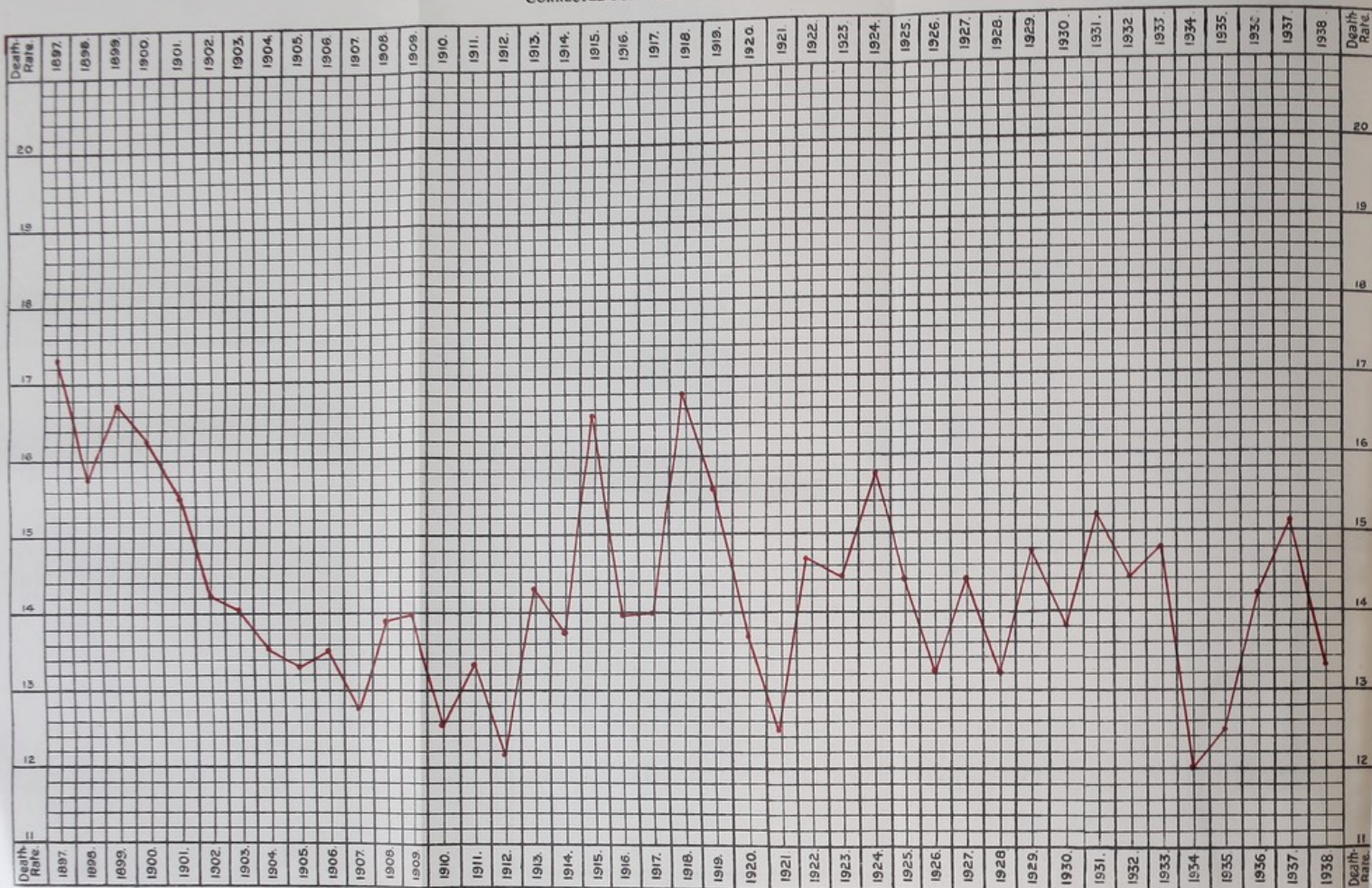
	1938	1937	1936	1935	1934	1933	1932	1931	1930	1929	1928	1927	1926	1925
Per 1,000 Inhabitants...	...	0.63	0.64	0.62	0.80	0.63	0.75	0.72	0.86	0.94	0.98	0.76	1.13	1.05
Per 1,000 Females of Conceptive Age ...	...	3.01	2.66	2.61	3.41	2.66	3.15	3.01	3.86	3.93	4.13	3.18	4.76	4.40
Per cent. Total Live Births ...	...	5.80	4.36	5.77	7.82	6.06	7.51	7.77	8.43	8.61	8.41	6.43	8.35	7.32

YEAR.	1924	1923	1922	1921	1920	1919	1918	1917	1916	1915	1914	1913	1912	1911	1910
Per 1,000 Inhabitants ...	1.46	1.18	1.17	1.44	1.39	1.78	1.18	1.23	1.18	1.18	1.03	1.31	1.45	1.29	1.13
Per 1,000 Females of Conceptive Ages ...	6.10	4.96	4.92	6.02	5.82	7.47	4.98	5.14	4.95	4.96	4.17	5.48	6.07	5.27	4.61
Per cent. Total Live Births ...	9.45	8.02	7.93	9.20	8.31	14.98	11.18	11.52	8.81	7.62	6.87	8.05	9.35	8.10	6.76



DEATH RATES 1897-1938.  
CORRECTED FOR AGE AND SEX DISTRIBUTION.



The second figure, i.e., the proportion of illegitimate births to women at conceptive ages, is the one which represents best the progress of illegitimacy in the country, and it shows a considerable and gratifying improvement on most of the previous years.

(b) **Deaths.**—The number of deaths of Blackpool residents which occurred during the year was 1,833. This figure includes the deaths of 149 persons in the Fylde Institution, and of 92 persons in areas outside Blackpool.

The deaths, divided into sexes for the four quarters of the year were as follows :—

	1st qtr.	2nd qtr.	3rd qtr.	4th qtr.	Total.
Males ... ..	250	215	216	228	909
Females ... ..	241	206	230	247	924
Total ... ..	491	421	446	475	1,833

The death rate for the year was 13.3 per 1,000 of the population and the progress of the rate year by year will be seen on reference to the chart facing this page. The comparison of this rate with other portions of the country is as follows :—

England and Wales	...	...	11.6 per 1,000
126 Great Towns	...	...	11.7 „
148 Smaller Towns	...	...	11.0 „
London	...	...	11.4 „
Blackpool	...	...	13.3 „

The Death Rate is calculated upon a population of 125,800 which shows a crude death rate of 14.6 per thousand of the population. The crude death rate thus arrived at has to be multiplied by a factor supplied by the Registrar General in order to make the rate comparable from a mortality point of view with the crude death rate of the country as a whole, or with the mortality of any other local area.



The percentage of the deaths in the various age groups, with similar figures for a series of previous years are as follows :—

Age Period.	1938	1937	1936	1935	1934	1933	1932	1931	1930	1929	1928
Under 12 months ...	3.5	3.6	4.3	3.4	4.7	4.5	5.5	5.1	5.2	4.2	6.2
1 and under 5 years ...	1.5	0.7	1.3	1.4	1.1	1.8	1.5	1.8	1.6	2.2	2.3
5 and under 65 years...	40.5	43.1	42.3	44.2	43.5	42.8	44.5	43.8	44.9	45.2	45.8
65 years and over ...	54.5	52.6	52.1	51.0	50.7	50.9	48.5	49.3	48.3	48.4	45.7

Age Period.	1927	1926	1925	1924	1923	1922	1921	1920	1919	1918	1917
Under 12 months ...	5.5	7.6	9.0	7.0	7.1	6.9	8.4	8.5	7.72	7.89	6.9
1 and under 5 years	3.2	1.7	3.2	3.9	1.7	2.6	2.9	2.6	2.86	5.29	3.0
5 and under 65 years	46.9	47.8	47.5	47.0	48.1	48.6	45.1	48.9	52.43	55.37	50.3
65 years and over ...	44.4	42.9	40.3	42.1	43.1	41.9	43.5	39.9	37.00	31.45	39.7

The percentage of deaths over 65 years is increasing, and it may be said that one-half our population lives to be 65 years or over. The percentage over 65 years is highest, and the percentage under 12 months is the lowest we have yet recorded. In other words, people are living longer, and the average age at death is higher. It may reasonably be anticipated that the supervision of children in their pre-school days, which is now an integral part of the work of the Health Department, will produce a still more marked effect in improving the health of these children and in reducing still further their adverse vital statistics.

I have received from the Registrar General's office a list of the causes of deaths divided into sexes and age periods. These numbers differ somewhat from the compilation kept in my office, owing to the fact that the Registrar General's figures cover the period of a calendar year whereas it is found more convenient locally to deal with 52 weekly returns, and the mode of classification differs greatly with the different persons allocating the causes and specifying which of the certified causes should be taken as the main one.

The list which I have received from the Registrar General is as follows :—

**CAUSES OF DEATH AT DIFFERENT PERIODS OF LIFE IN THE  
COUNTY BOROUGH OF BLACKPOOL, 1938.**

CAUSES OF DEATH	Sex	All Ages	0—	1—	2—	5—	15—	25—	35—	45—	55—	65—	75—
ALL CAUSES	M	908	41	2	12	16	15	14	53	90	210	276	179
	F	910	24	5	9	9	21	30	36	69	172	262	273
1 Typhoid and paratyphoid fevers	M	—	—	—	—	—	—	—	—	—	—	—	—
	F	1	—	—	—	—	—	1	—	—	—	—	—
2 Measles	M	1	1	—	—	—	—	—	—	—	—	—	—
	F	2	2	—	—	—	—	—	—	—	—	—	—
3 Scarlet fever	M	4	—	—	3	1	—	—	—	—	—	—	—
	F	—	—	—	—	—	—	—	—	—	—	—	—
4 Whooping cough	M	1	—	1	—	—	—	—	—	—	—	—	—
	F	2	1	1	—	—	—	—	—	—	—	—	—
5 Diphtheria	M	5	—	1	4	—	—	—	—	—	—	—	—
	F	8	—	—	2	5	1	—	—	—	—	—	—
6 Influenza	M	7	—	—	—	—	—	—	2	—	3	1	1
	F	5	—	—	—	—	—	—	—	1	1	2	1
7 Encephalitis lethargica	M	1	—	—	—	—	—	—	—	—	—	1	—
	F	2	—	—	—	—	—	—	—	—	1	1	—
8 Cerebro-spinal fever	M	—	—	—	—	—	—	—	—	—	—	—	—
	F	—	—	—	—	—	—	—	—	—	—	—	—
9 Tuberculosis of respiratory system	M	39	—	—	—	1	4	4	5	11	11	3	—
	F	25	—	—	—	—	7	6	4	6	1	—	1
10 Other tuberculous diseases	M	8	1	—	2	2	—	—	—	1	1	—	1
	F	3	—	1	—	—	2	—	—	—	—	—	—
11 Syphilis	M	2	—	—	—	—	—	—	—	1	1	—	—
	F	—	—	—	—	—	—	—	—	—	—	—	—
12 General Paralysis of the insane, tabes dorsalis	M	5	—	—	—	—	—	—	3	—	1	1	—
	F	2	—	—	—	—	—	—	—	1	—	1	—
13 Cancer, malignant disease	M	125	—	—	—	—	—	—	6	9	39	52	19
	F	159	—	—	—	—	—	5	9	23	59	38	25
14 Diabetes	M	10	—	—	—	—	1	—	—	—	4	4	1
	F	17	—	—	—	—	1	—	1	—	3	8	4
15 Cerebral hæmorrhage, etc.	M	58	—	—	—	—	—	—	1	6	14	27	10
	F	58	—	—	—	—	—	—	—	3	15	17	23
16 Heart Disease	M	260	—	—	—	2	1	—	10	24	64	91	68
	F	261	—	—	—	—	2	3	5	15	44	92	100
17 Aneurysm	M	4	—	—	—	—	—	—	—	1	3	—	—
	F	3	—	—	—	—	—	1	—	—	—	2	—
18 Other circulatory diseases	M	60	—	—	—	—	—	—	—	2	7	29	22
	F	71	—	—	—	—	—	—	—	1	9	26	35



Tuberculosis was stated to be the cause of death in 74 instances, viz. :—63 cases of Tuberculosis of the respiratory organs and 11 of Tuberculosis of other parts of the body. This figure is two less than that for the previous year, and when the increase in population is also taken into account, it will be noted that the death-rate from this disease shows a slight decrease. This is a very gratifying feature and gives us encouragement to prosecute the work under our Tuberculosis Scheme. Further reference is made to this subject in the section of the report dealing specifically with Tuberculosis.

Cancer has again made its large toll upon our resident population, 285 deaths having been caused by this disease and its allied condition—Sarcoma. This figure is more than one-sixth of the total deaths, and the death-rate is double what it was in 1912. It is disappointing that we are still in the dark as to the causation of cancer, and until some light is thrown upon it, little can be done in the way of prevention. I have not anything new to state upon the subject and there have not during the past year been any marked developments in elucidating the cause or finding a cure. Surgical operation, if diagnosis is effected early, still offers the best prospects in treatment. Research workers are struggling hard with the problem, and for the present all we can do is to await their findings. We may definitely dismiss the idea of any article of diet having an influence upon its cause or course.

There are not any special facilities available in the County Borough of Blackpool for the diagnosis and treatment of Cancer, with the following exceptions.

At the Victoria Hospital, a voluntary general hospital, a special Cancer Clinic is held under the direction of a visiting Radium Therapist. All the modern methods for the diagnosis and treatment of cancer by means of Radium, X-Ray therapy, etcetera, are available for patients from the County Borough and surrounding districts. Patients are admitted to the Blackpool Victoria Hospital on the recommendation of the local medical practitioner.

In cases where the patients or relatives are not in a position to meet the expenses of treatment at Manchester Cancer Hospital, a recommendation can be obtained from the Blackpool Corporation. The Corporation are contributors to the Manchester and Salford Medical Charities Fund, and under the Scheme provided by this Fund, local authority contributors are given the privilege of recommending deserving cases to any of the hospitals coming within the Manchester and Salford Medical Charities Fund.

On the instructions of the Health Committee the following advertisement appears periodically in our local press, and pamphlets similarly worded are freely issued :—

COUNTY BOROUGH OF BLACKPOOL.

MUNICIPAL HEALTH CENTRE.

C A N C E R .

Little is known of the "Cause of Cancer," and it is believed that it is not hereditary or infectious. There are no special "Cancer Houses," "Cancer Areas," or "Cancer Families."

One of the contributing causes of Cancer is prolonged irritation as for instance by broken teeth, short pipes, etc., causing Cancer of the tongue or lip. All sources of irritation of this or similar nature should, therefore, be avoided.

Cancer is usually painless in the early stages, and is sometimes painless throughout its course.

With regard to the treatment of Cancer, it cannot be too strongly emphasized that the success depends upon early recognition of the disease.

If diagnosed in its early stage and before the symptom of pain appears, complete cure can frequently be effected.

The following are some of the early signs of Cancer—and any person noting any of them should promptly place himself under medical treatment :—

1. A lump or swelling in a woman's breast after the age of 40 years.
2. Loss of blood other than at normal periods or after the change of life.
3. A wart, sore, or ulcer on the lower lip, tongue or inside of the mouth in a man over 45 years of age.
4. Persistent hoarseness.
5. Bleeding from the bowels after 45 years of age.

E. W. REES-JONES, M.D.,

Medical Officer of Health,

December, 1938.

BLACKPOOL.

The following table reveals the steady and continuous inroads made by the disease of CANCER :—

YEAR.	Number of Deaths.	Death Rate.	England and Wales.
1895 ... ..	16	0.486	0.753
1896 ... ..	17	0.464	0.762
1897 ... ..	30	0.746	0.785
1898 ... ..	22	0.484	0.799
1899 ... ..	34	0.705	0.826
1900 ... ..	47	0.937	0.820
1901 ... ..	54	1.064	0.842
1902 ... ..	47	0.901	0.844
1903 ... ..	52	0.981	0.872
1904 ... ..	41	0.755	0.877
1905 ... ..	54	0.969	0.885
1906 ... ..	54	0.946	0.917

YEAR.	Number of Deaths.	Death Rate.	England and Wales.
1907 ... ..	52	0.890	0.909
1908 ... ..	51	0.854	0.923
1909 ... ..	59	0.960	0.952
1910 ... ..	46	0.765	0.967
1911 ... ..	72	1.179	0.993
1912 ... ..	69	1.111	1.019
1913 ... ..	92	1.433	1.064
1914 ... ..	94	1.416	1.069
1915 ... ..	85	1.323	1.121
1916 ... ..	93	1.475	1.166
1917 ... ..	103	1.655	1.210
1918 ... ..	102	1.580	1.218
1919 ... ..	108	1.591	1.145
1920 ... ..	112	1.588	1.161
1921 ... ..	128	1.734	1.215
1922 ... ..	123	1.661	1.229
1923 ... ..	133	1.770	1.267
1924 ... ..	133	1.718	1.297
1925 ... ..	144	1.783	1.336
1926 ... ..	156	1.759	1.362
1927 ... ..	156	1.578	1.376
1928 ... ..	167	1.690	1.425
1929 ... ..	182	1.824	1.437
1930 ... ..	199	1.994	1.454
1931 ... ..	217	2.227	1.484
1932 ... ..	195	1.923	1.510
1933 ... ..	214	2.055	1.526
1934 ... ..	205	1.789	1.563
1935 ... ..	253	2.104	1.587
1936 ... ..	259	2.128	1.625
1937 ... ..	275	2.221	1.632
1938 ... ..	285	2.265	1.664

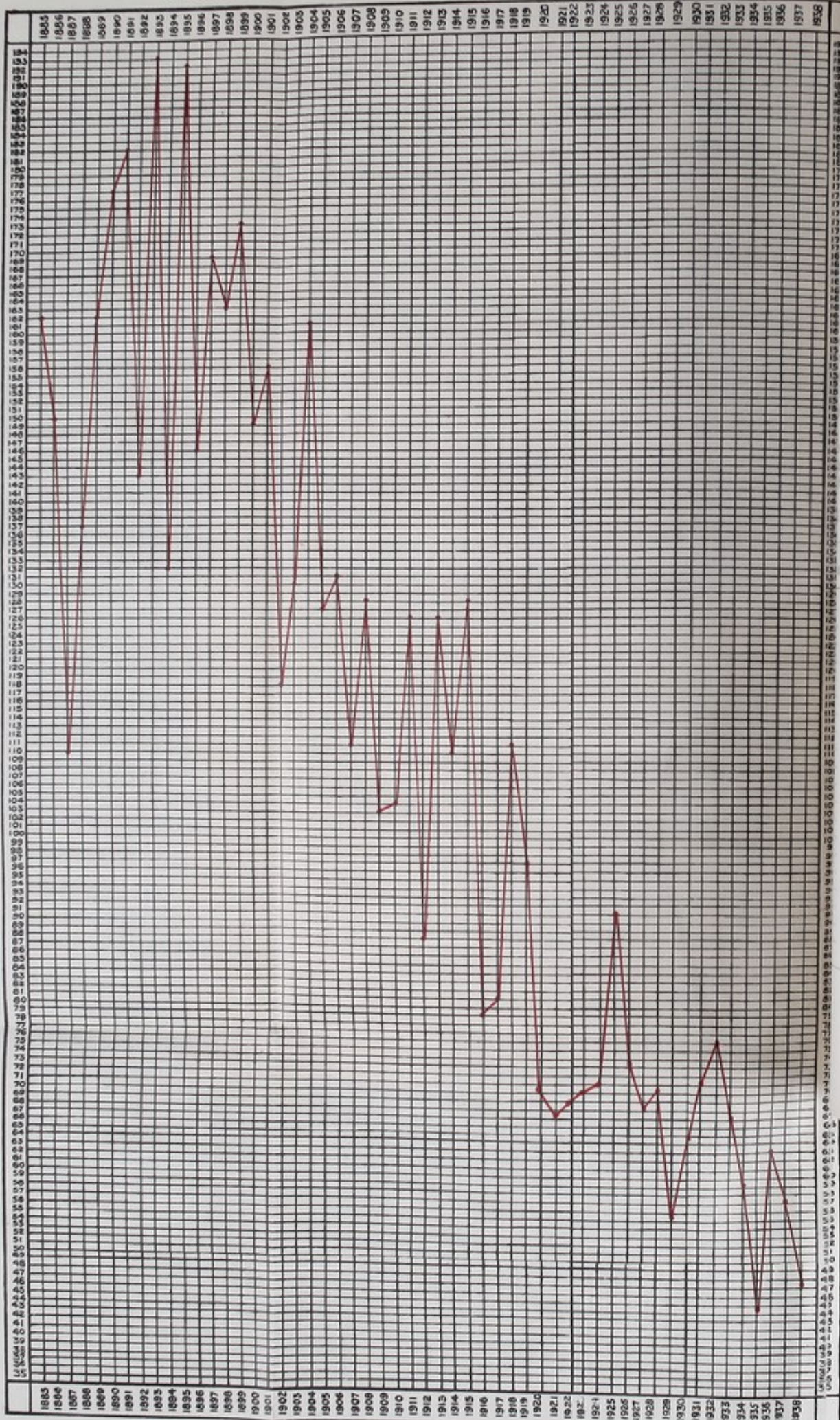
The number of deaths from Diseases of the Circulatory System, viz., 547, was high, but the Pneumonia and Bronchitis figures were much on a par with previous years. The number of deaths from Accidental causes, viz., 52, was high.



1883 1884 1885 1886 1887 1888 1889 1890 1891 1892 1893



CHART SHOWING INFANTILE MORTALITY from 1885 to 1938.



**Infantile Deaths.**—Sixty-five children under the age of twelve months died during 1938 and the Infant Mortality was at the rate of 47.2 per 1,000 births. The chart facing this page will reveal the fluctuations of the Infant Mortality figure for each of the years since 1885, and it will be seen that our present position is remarkably healthy as compared with some of the early years. Only on one occasion has the rate been lower than that for 1938, viz., in the year 1935, when it was 45. With a prosecution of all known methods of preserving infant life there is no reason why we should not keep our rate at 50 or under. The frequent cause of Infantile Deaths in past years, viz., Diarrhoea, has largely ceased to operate, and our attention is drawn more to respiratory diseases as a cause of death, and to the necessity for preaching the doctrine of "Sunlight and Fresh Air".

Premature Birth, Congenital Malformations, Debility, etc., account for the large number of 40 deaths. It is not possible to suggest any common or general causation for this class of cases, and, therefore, it is not possible to suggest any general precautionary measures. These cases require more personal and individual supervision, and it is in this respect I anticipate that our pre-natal clinic will prove of advantage. This clinic has been in operation for eight years, and further details are given of it in a later portion of this report.

It will be noted from the table that out of the 65 Infantile deaths, 51 occurred during the first three months of life, and of these 35 were classified to Premature Birth, Debility and allied conditions.

INFANTILE MORTALITY, 1880 TO 1938.—Rate per 1,000 Births.

Year.	Blackpool.	England and Wales.
1880 ... ..	206	153
1881 ... ..	126	130
1882 ... ..	221	141
1883 ... ..	123	137
1884 ... ..	140	147
1885 ... ..	162	138
1886 ... ..	150	149
1887 ... ..	110	145
1888 ... ..	137	137
1889 ... ..	162	144
1890 ... ..	177	151
1891 ... ..	182	149
1892 ... ..	143	148
1893 ... ..	193	159
1894 ... ..	132	137
1895 ... ..	192	161
1896 ... ..	146	148
1897 ... ..	169	156
1898 ... ..	163	160
1899 ... ..	173	163

INFANTILE MORTALITY (*continued*).

Year.	Blackpool.	England and Wales.
1900 ... ..	149	154
1901 ... ..	156	151
1902 ... ..	118	133
1903 ... ..	130	132
1904 ... ..	161	145
1905 ... ..	127	128
1906 ... ..	131	133
1907 ... ..	111	118
1908 ... ..	128	121
1909 ... ..	103	109
1910 ... ..	104	106
1911 ... ..	126	130
1912 ... ..	88	95
1913 ... ..	126	109
1914 ... ..	110	105
1915 ... ..	128	110
1916 ... ..	79	86
1917 ... ..	81	81
1918 ... ..	111	97
1919 ... ..	97	89
1920 ... ..	70	80
1921 ... ..	67	83
1922 ... ..	68	77
1923 ... ..	70	69
1924 ... ..	71	75
1925 ... ..	90	75
1926 ... ..	73	70
1927 ... ..	67	69
1928 ... ..	70	65
1929 ... ..	56	74
1930 ... ..	64	60
1931 ... ..	71	65
1932 ... ..	76	65
1933 ... ..	67	64
1934 ... ..	59	63
1935 ... ..	45	57
1936 ... ..	63	59
1937 ... ..	57	58
1938 ... ..	47	53

DEATHS UNDER ONE.—TOTAL.

CAUSES.	YEAR		QUARTERS								FEEDING			Mother employed away from home	No Information.	Illegitimate.
	Under 3 mths.	Total.	First		Second		Third		Fourth		Not Fed	Breast Fed	Hand Fed partly or entirely			
			Under 3 mths.	Total.	Under 3 mths.	Total.	Under 3 mths.	Total.	Under 3 mths.	Total.						
1—Common Infectious Diseases (Measles, Diphtheria and Whooping Cough) ...	1	4	—	1	1	1	1	—	1	—	—	1	3	—	—	—
2—Diarrhoeal Diseases :— Diarrhoea, Enteritis and Gastritis ...	1	1	—	—	—	—	1	1	—	—	—	1	—	—	—	1
3—Congenital Malformations ...	2	2	—	—	—	—	2	2	—	—	2	—	—	—	—	1
4—Premature Birth, Debility, Icterus, etc. ...	35	35	12	12	6	6	6	6	11	11	24	—	6	5	2	4
5—Tubercular Diseases... ...	—	1	—	1	—	—	—	—	—	—	—	—	—	1	—	—
6—Other Causes. { Convulsions ... Bronchitis ... Pneumonia ... Other causes ...	3	3	—	—	1	1	1	1	1	1	2	1	—	—	—	—
	—	6	—	3	—	1	—	—	—	—	—	—	1	—	—	—
	9	12	2	2	3	3	4	4	—	3	2	4	4	2	—	—
TOTALS ...	51	65	14	20	11	12	14	16	12	17	30	7	20	8	3	6

## DEATHS UNDER ONE—WARD INCIDENCE.

Cause of Death.	Number of Deaths.	Bispham	Warbreck	Claremont	Talbot	Bank Hey	Brunswick	Foxhall	Tyldesley	Alexandra	Victoria	Waterloo	Layton	Marton	Stanley
Common Infectious Diseases ...	4	—	—	—	—	—	—	1	—	—	—	1	—	1	1
Diarrhoeal Diseases ...	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—
Congenital Malformations ...	2	1	—	—	—	—	—	1	—	—	—	—	—	—	—
Premature Birth, Debility, Marasmus, Icterus, etc. ...	35	3	3	1	1	—	—	1	5	1	6	3	8	1	2
Tubercular Disease ...	1	—	—	—	—	—	—	—	—	1	—	—	—	—	—
Convulsions ...	3	—	—	—	—	—	—	—	1	1	—	—	—	—	1
Bronchitis ...	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Pneumonia ...	6	—	—	—	1	—	—	1	—	—	2	—	—	—	2
Other Causes ...	12	—	1	—	1	1	1	—	—	—	2	—	5	—	1
TOTAL ...	65	4	4	1	3	1	1	4	6	3	10	4	13	3	8



STATEMENT OF THE COMMISSIONER OF HEALTH, CONCERNING THE CONTROL OF INFECTIOUS DISEASES.

Showing the number of cases of the following diseases during the calendar years 1898-1908 (inclusive):

Disease	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908
Smallpox	1	0	0	0	0	0	0	0	0	0	0
Scarlet fever	12	15	18	20	22	25	28	30	32	35	38
Diphtheria	15	18	20	22	25	28	30	32	35	38	40
Whooping cough	18	20	22	25	28	30	32	35	38	40	42
Measles	20	22	25	28	30	32	35	38	40	42	45
Polio	22	25	28	30	32	35	38	40	42	45	48
Typhoid fever	25	28	30	32	35	38	40	42	45	48	50
Cholera	28	30	32	35	38	40	42	45	48	50	52
Typhus	30	32	35	38	40	42	45	48	50	52	55
Relapsing fever	32	35	38	40	42	45	48	50	52	55	58
Brucella	35	38	40	42	45	48	50	52	55	58	60
Leptospirosis	38	40	42	45	48	50	52	55	58	60	62
Septicemia	40	42	45	48	50	52	55	58	60	62	65
Septicemic cholera	42	45	48	50	52	55	58	60	62	65	68
Septicemic typhoid	45	48	50	52	55	58	60	62	65	68	70
Septicemic dysentery	48	50	52	55	58	60	62	65	68	70	72
Septicemic meningitis	50	52	55	58	60	62	65	68	70	72	75
Septicemic pneumonia	52	55	58	60	62	65	68	70	72	75	78
Septicemic endocarditis	55	58	60	62	65	68	70	72	75	78	80
Septicemic arthritis	58	60	62	65	68	70	72	75	78	80	82
Septicemic osteomyelitis	60	62	65	68	70	72	75	78	80	82	85
Septicemic abscess	62	65	68	70	72	75	78	80	82	85	88
Septicemic thrombophlebitis	65	68	70	72	75	78	80	82	85	88	90
Septicemic gangrene	68	70	72	75	78	80	82	85	88	90	92
Septicemic shock	70	72	75	78	80	82	85	88	90	92	95
Septicemic meningitis	72	75	78	80	82	85	88	90	92	95	98
Septicemic pneumonia	75	78	80	82	85	88	90	92	95	98	100
Septicemic endocarditis	78	80	82	85	88	90	92	95	98	100	102
Septicemic arthritis	80	82	85	88	90	92	95	98	100	102	105
Septicemic osteomyelitis	82	85	88	90	92	95	98	100	102	105	108
Septicemic abscess	85	88	90	92	95	98	100	102	105	108	110
Septicemic thrombophlebitis	88	90	92	95	98	100	102	105	108	110	112
Septicemic gangrene	90	92	95	98	100	102	105	108	110	112	115
Septicemic shock	92	95	98	100	102	105	108	110	112	115	118
Septicemic meningitis	95	98	100	102	105	108	110	112	115	118	120
Septicemic pneumonia	98	100	102	105	108	110	112	115	118	120	122
Septicemic endocarditis	100	102	105	108	110	112	115	118	120	122	125
Septicemic arthritis	102	105	108	110	112	115	118	120	122	125	128
Septicemic osteomyelitis	105	108	110	112	115	118	120	122	125	128	130
Septicemic abscess	108	110	112	115	118	120	122	125	128	130	132
Septicemic thrombophlebitis	110	112	115	118	120	122	125	128	130	132	135
Septicemic gangrene	112	115	118	120	122	125	128	130	132	135	138
Septicemic shock	115	118	120	122	125	128	130	132	135	138	140
Septicemic meningitis	118	120	122	125	128	130	132	135	138	140	142
Septicemic pneumonia	120	122	125	128	130	132	135	138	140	142	145
Septicemic endocarditis	122	125	128	130	132	135	138	140	142	145	148
Septicemic arthritis	125	128	130	132	135	138	140	142	145	148	150
Septicemic osteomyelitis	128	130	132	135	138	140	142	145	148	150	152
Septicemic abscess	130	132	135	138	140	142	145	148	150	152	155
Septicemic thrombophlebitis	132	135	138	140	142	145	148	150	152	155	158
Septicemic gangrene	135	138	140	142	145	148	150	152	155	158	160
Septicemic shock	138	140	142	145	148	150	152	155	158	160	162
Septicemic meningitis	140	142	145	148	150	152	155	158	160	162	165
Septicemic pneumonia	142	145	148	150	152	155	158	160	162	165	168
Septicemic endocarditis	145	148	150	152	155	158	160	162	165	168	170
Septicemic arthritis	148	150	152	155	158	160	162	165	168	170	172
Septicemic osteomyelitis	150	152	155	158	160	162	165	168	170	172	175
Septicemic abscess	152	155	158	160	162	165	168	170	172	175	178
Septicemic thrombophlebitis	155	158	160	162	165	168	170	172	175	178	180
Septicemic gangrene	158	160	162	165	168	170	172	175	178	180	182
Septicemic shock	160	162	165	168	170	172	175	178	180	182	185
Septicemic meningitis	162	165	168	170	172	175	178	180	182	185	188
Septicemic pneumonia	165	168	170	172	175	178	180	182	185	188	190
Septicemic endocarditis	168	170	172	175	178	180	182	185	188	190	192
Septicemic arthritis	170	172	175	178	180	182	185	188	190	192	195
Septicemic osteomyelitis	172	175	178	180	182	185	188	190	192	195	198
Septicemic abscess	175	178	180	182	185	188	190	192	195	198	200
Septicemic thrombophlebitis	178	180	182	185	188	190	192	195	198	200	202
Septicemic gangrene	180	182	185	188	190	192	195	198	200	202	205
Septicemic shock	182	185	188	190	192	195	198	200	202	205	208
Septicemic meningitis	185	188	190	192	195	198	200	202	205	208	210
Septicemic pneumonia	188	190	192	195	198	200	202	205	208	210	212
Septicemic endocarditis	190	192	195	198	200	202	205	208	210	212	215
Septicemic arthritis	192	195	198	200	202	205	208	210	212	215	218
Septicemic osteomyelitis	195	198	200	202	205	208	210	212	215	218	220
Septicemic abscess	198	200	202	205	208	210	212	215	218	220	222
Septicemic thrombophlebitis	200	202	205	208	210	212	215	218	220	222	225
Septicemic gangrene	202	205	208	210	212	215	218	220	222	225	228
Septicemic shock	205	208	210	212	215	218	220	222	225	228	230
Septicemic meningitis	208	210	212	215	218	220	222	225	228	230	232
Septicemic pneumonia	210	212	215	218	220	222	225	228	230	232	235
Septicemic endocarditis	212	215	218	220	222	225	228	230	232	235	238
Septicemic arthritis	215	218	220	222	225	228	230	232	235	238	240
Septicemic osteomyelitis	218	220	222	225	228	230	232	235	238	240	242
Septicemic abscess	220	222	225	228	230	232	235	238	240	242	245
Septicemic thrombophlebitis	222	225	228	230	232	235	238	240	242	245	248
Septicemic gangrene	225	228	230	232	235	238	240	242	245	248	250
Septicemic shock	228	230	232	235	238	240	242	245	248	250	252
Septicemic meningitis	230	232	235	238	240	242	245	248	250	252	255
Septicemic pneumonia	232	235	238	240	242	245	248	250	252	255	258
Septicemic endocarditis	235	238	240	242	245	248	250	252	255	258	260
Septicemic arthritis	238	240	242	245	248	250	252	255	258	260	262
Septicemic osteomyelitis	240	242	245	248	250	252	255	258	260	262	265
Septicemic abscess	242	245	248	250	252	255	258	260	262	265	268
Septicemic thrombophlebitis	245	248	250	252	255	258	260	262	265	268	270
Septicemic gangrene	248	250	252	255	258	260	262	265	268	270	272
Septicemic shock	250	252	255	258	260	262	265	268	270	272	275
Septicemic meningitis	252	255	258	260	262	265	268	270	272	275	278
Septicemic pneumonia	255	258	260	262	265	268	270	272	275	278	280
Septicemic endocarditis	258	260	262	265	268	270	272	275	278	280	282
Septicemic arthritis	260	262	265	268	270	272	275	278	280	282	285
Septicemic osteomyelitis	262	265	268	270	272	275	278	280	282	285	288
Septicemic abscess	265	268	270	272	275	278	280	282	285	288	290
Septicemic thrombophlebitis	268	270	272	275	278	280	282	285	288	290	292
Septicemic gangrene	270	272	275	278	280	282	285	288	290	292	295
Septicemic shock	272	275	278	280	282	285	288	290	292	295	298
Septicemic meningitis	275	278	280	282	285	288	290	292	295	298	300
Septicemic pneumonia	278	280	282	285	288	290	292	295	298	300	302
Septicemic endocarditis	280	282	285	288	290	292	295	298	300	302	305
Septicemic arthritis	282	285	288	290	292	295	298	300	302	305	308
Septicemic osteomyelitis	285	288	290	292	295	298	300	302	305	308	310
Septicemic abscess	288	290	292	295	298	300	302	305	308	310	312
Septicemic thrombophlebitis	290	292	295	298	300	302	305	308	310	312	315
Septicemic gangrene	292	295	298	300	302	305	308	310	312	315	318
Septicemic shock	295	298	300	302	305	308	310	312	315	318	320
Septicemic meningitis	298	300	302	305	308	310	312	315	318	320	322
Septicemic pneumonia	300	302	305	308	310	312	315	318	320	322	325
Septicemic endocarditis	302	305	308	310	312	315	318	320	322	325	328
Septicemic arthritis	305	308	310	312	315	318	320	322	325	328	330
Septicemic osteomyelitis	308	310	312	315	318	320	322	325	328	330	332
Septicemic abscess	310	312	315	318	320	322	325	328	330	332	335
Septicemic thrombophlebitis	312	315	318	320	322	325	328	330	332	335	338
Sept											

Date	Total number of birds	Age	Males		Females		Total		Total
			Immature	Adult	Immature	Adult	Immature	Adult	
1900	100	100	1	1	1	1	2	2	2
1901	100	100	1	1	1	1	2	2	2
1902	100	100	1	1	1	1	2	2	2
1903	100	100	1	1	1	1	2	2	2
1904	100	100	1	1	1	1	2	2	2
1905	100	100	1	1	1	1	2	2	2
1906	100	100	1	1	1	1	2	2	2
1907	100	100	1	1	1	1	2	2	2
1908	100	100	1	1	1	1	2	2	2
1909	100	100	1	1	1	1	2	2	2
1910	100	100	1	1	1	1	2	2	2
1911	100	100	1	1	1	1	2	2	2
1912	100	100	1	1	1	1	2	2	2
1913	100	100	1	1	1	1	2	2	2
1914	100	100	1	1	1	1	2	2	2
1915	100	100	1	1	1	1	2	2	2
1916	100	100	1	1	1	1	2	2	2
1917	100	100	1	1	1	1	2	2	2
1918	100	100	1	1	1	1	2	2	2
1919	100	100	1	1	1	1	2	2	2
1920	100	100	1	1	1	1	2	2	2
1921	100	100	1	1	1	1	2	2	2
1922	100	100	1	1	1	1	2	2	2
1923	100	100	1	1	1	1	2	2	2
1924	100	100	1	1	1	1	2	2	2
1925	100	100	1	1	1	1	2	2	2
1926	100	100	1	1	1	1	2	2	2
1927	100	100	1	1	1	1	2	2	2
1928	100	100	1	1	1	1	2	2	2
1929	100	100	1	1	1	1	2	2	2
1930	100	100	1	1	1	1	2	2	2
1931	100	100	1	1	1	1	2	2	2
1932	100	100	1	1	1	1	2	2	2
1933	100	100	1	1	1	1	2	2	2
1934	100	100	1	1	1	1	2	2	2
1935	100	100	1	1	1	1	2	2	2
1936	100	100	1	1	1	1	2	2	2
1937	100	100	1	1	1	1	2	2	2
1938	100	100	1	1	1	1	2	2	2
1939	100	100	1	1	1	1	2	2	2
1940	100	100	1	1	1	1	2	2	2
1941	100	100	1	1	1	1	2	2	2
1942	100	100	1	1	1	1	2	2	2
1943	100	100	1	1	1	1	2	2	2
1944	100	100	1	1	1	1	2	2	2
1945	100	100	1	1	1	1	2	2	2
1946	100	100	1	1	1	1	2	2	2
1947	100	100	1	1	1	1	2	2	2
1948	100	100	1	1	1	1	2	2	2
1949	100	100	1	1	1	1	2	2	2
1950	100	100	1	1	1	1	2	2	2



**INFECTIOUS DISEASES—WARD INCIDENCE.**

Disease.	Cases Notified.	Bispham	Warbreck	Claremont	Talbot	Bank Hey	Brunswick	Foxhall	Tyldesley	Alexandra	Victoria	Waterloo	Layton	Marton	Stanley
Diphtheria ...	169	9	9	5	13	3	5	12	10	4	17	16	34	13	19
Scarlet Fever ...	211	15	9	11	7	7	6	18	18	13	12	29	19	26	21
Enteric Fever ...	6	1	—	—	—	—	—	1	—	2	—	1	—	1	—
Erysipelas ...	44	4	—	1	1	2	3	2	4	3	4	4	10	3	3
Puerperal Fever and Pyrexia ...	28	—	—	2	1	—	—	—	2	2	3	3	8	4	3
Chickenpox ...	475	81	31	36	30	16	18	24	22	16	26	13	121	22	19
Measles ...	1430	39	52	70	77	41	51	77	81	63	114	190	155	188	232
Pneumonia ...	39	4	4	3	—	—	2	5	3	—	8	4	3	—	3
German Measles ...	35	2	1	5	—	—	—	3	1	2	3	1	—	10	7
Whooping Cough ...	127	39	3	4	11	3	—	1	3	—	—	5	28	11	19
Ophthalmia Neonatorum ...	9	—	—	—	—	—	—	—	1	2	1	1	3	—	1
Acute Poliomyelitis...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<b>TOTALS ...</b>	<b>2573</b>	<b>194</b>	<b>109</b>	<b>137</b>	<b>140</b>	<b>72</b>	<b>85</b>	<b>143</b>	<b>145</b>	<b>107</b>	<b>188</b>	<b>267</b>	<b>381</b>	<b>278</b>	<b>327</b>

### INFECTIOUS DISEASES.

The incidence of Infectious diseases in the town during 1938 has been on the whole satisfactory, though measles has again been prevalent. The details as applied to each disease will be found in the table on pages 28 to 32, and in the remarks which follow this paragraph. It has only been possible to keep these diseases within their present confines by a very large amount of work of visiting and supervision of contacts.

**Scarlet Fever.**—211 cases, three deaths. 188 of the cases, or 90.0 per cent. were isolated at the Sanatorium. The present tendency is to reduce the Hospital Isolation of Scarlet Fever, both as regards the number of cases and as regards the duration of stay of the individual cases. A Committee of Medical Officers of the Ministry of Health reported that for uncomplicated cases treated in Hospital there was no good reason to prescribe a routine period of detention of more than four weeks. The wholesale isolation of the disease has not had the anticipated or desired effect of reducing markedly the incidence. Scarlet Fever is probably not caused by a single specific type of organism but by various types of the germs called "streptococci," and immunity from one type does not confer immunity from the other. This explains partly the reason for so-called secondary rashes in Hospital, and where there is good isolation at home with sensible nursing and risk of infection of other children removed, as I stated at the commencement of this paragraph, Hospital Isolation is being replaced by home isolation. This, of course, is only practicable in private houses and not in company or boarding houses.

Serum treatment of Scarlet Fever has been practised widely at the Sanatorium during the past year. It is claimed that this form of treatment reduces the severity of the disease, reduces the risk of complications and also reduces the period of residence in Hospital.

**Diphtheria.**—169 cases, fourteen deaths. All of the notified cases were treated. An immunising clinic to deal mainly with pre-school children was opened in July, 1935. Saturday mornings between 9-30 and 10-30 are the hours devoted to the work, and the facilities which are offered and the advantages to be obtained are circulated through the Infant Welfare Clinics in accordance with the following circular :—

#### PUBLIC HEALTH DEPARTMENT.

PUBLIC HEALTH OFFICES,  
MUNICIPAL HEALTH CENTRE,  
BLACKPOOL,  
March, 1938.

#### PROTECTION AGAINST DIPHTHERIA.

Diphtheria is a dangerous Infectious Disease which mainly attacks children.

This incidence of Diphtheria is considerably in excess of the average and a great deal of the time of the Infectious Diseases outdoor staff was employed in swabbing contacts and searching for carriers. Immunisation was pushed, and during the year 327 cases were treated.

This number is obviously hopelessly insufficient to make any impression upon the incidence and during the present year an intensive drive amongst school children has been carried out. A full report upon this will be included in my next annual report.

There is now a safe and reliable means of preventing the disease, and in the cases of children between the ages of 3 and 5 years protection is obtained by a single injection.

I advise you in the interests of your children to have them protected, and for this purpose you should

- (a) take them to your own Doctor, or
- (b) bring them to the Public Health Offices on Saturday mornings between the hours of 9-30 and 10-30.

The protection conferred by the injection is not produced immediately but takes about two months to develop. It is then believed to be permanent.

For this reason, it is not desirable to wait until the disease reaches your neighbourhood or house, or until your children come in contact with cases, at school or otherwise, but to have them protected whilst they are not to your knowledge exposed to infection.

E. W. REES-JONES, M.D., D.P.H.,  
Medical Officer of Health, Blackpool.

**Small Pox.**—No cases occurred in the town. All the anxiety worry, work and expense associated with Small Pox is attributable to the neglect of vaccination. As I have stated in previous reports, Small Pox is the one disease above all others which could, within a short period, be wiped out of existence, viz., by vaccination or re-vaccination. Vaccination by a single lineal scar one quarter of an inch in length is now the accepted mode of vaccination, and has replaced the older method of four separate scars of varying sizes up to half-an-inch in diameter. It is hoped that the discontinuance of these unsightly marks will have an effect in subduing the objection to vaccination which is so rife.

**Measles.**—1,430 cases, three deaths. 39 cases were treated in Hospital.

In spite of the fact that measles is a notifiable disease in this town little if any impression is made upon its incidence by administrative measures, and we are one of the few towns, if not the only one, where the disease is notifiable. Measles in so far as it is controllable, must be dealt with by domestic rather than general administrative action, and parents should be impressed with the possible gravity of the disease and with the great desirability of

protecting their children from known infection—especially the younger children. Combined with this there could continue the existing amicable working arrangements with the Education Department and its staff of head teachers, the provision of nursing for necessitous cases or hospital treatment. It cannot be too often repeated that Measles is especially dangerous to young children. The younger the child, the greater is the danger, and for every year in a child's life that an attack of Measles can be postponed, the chances of complete recovery are enhanced.

**Puerperal Fever and Puerperal Pyrexia.**—Twenty-eight cases were notified to me. It is hoped that the pre-natal work carried out by us will have beneficial effect in anticipating and avoiding the dangers of parturition and that this will be revealed in the statistics of these diseases. Cases of Puerperal Pyrexia appear to be notified earlier and our assistance in their treatment sought. This naturally gives the patients a better chance of recovery.

**Ophthalmia Neonatorum.**—Nine cases were notified and treated at the Sanatorium. All the cases recovered with unimpaired vision.

475 cases of **Chicken Pox** and 127 of **Whooping Cough** were reported to me mainly by the School Attendance Officers.

## TUBERCULOSIS.

The following paragraphs reporting upon the subject of Tuberculosis, have been prepared by the Tuberculosis Officer, and incorporated in the report are extracts from the official tabular reports prepared for the Ministry of Health. Though on the first glance these Government reports appear somewhat uninteresting in that they are a compilation of statistics, a careful study of them is valuable, as they indicate the wide scope under this branch of the social service.

The following table gives the analysis of the cases and deaths with reference to age and sex:—

TABLE I.

Age Periods.	PULMONARY TUBERCULOSIS.				NON-PULMONARY TUBERCULOSIS.			
	Notifications. Males	Notifications. Females	Deaths. Males	Deaths. Females	Notifications. Males	Notifications. Females	Deaths. Males	Deaths. Females
0 to 1	—	1	—	1	1	—	—	—
1 to 5	—	—	—	—	7	1	3	—
5 to 10	2	1	—	—	12	6	1	—
10 to 15	1	1	—	—	5	7	2	—
15 to 20	4	4	3	3	2	2	—	1
20 to 25	4	6	2	4	1	1	—	1
25 to 35	20	16	8	7	3	6	—	1
35 to 45	19	8	4	7	1	1	—	—
45 to 55	15	10	11	5	2	—	1	—
55 to 65	11	3	12	1	2	—	3	—
65 and upwards	4	3	4	1	—	—	—	—
TOTALS	80	53	44	29	36	24	11	3

The number of deaths and the death rate from Tuberculosis since 1911 compared with those of England and Wales for the same period is shewn in the following table. It will be noted that the figures for the Borough compare favourably with the country as a whole. During the past year there has been a fairly considerable fall in the death rate from Tuberculosis, and taking the past two decades from 1915 it will be observed that the death rate is just about halved. These figures are very encouraging.

TABLE II.

Year	Number of Deaths	Death Rate, Black-pool	Death Rate, England and Wales	Year	Number of Deaths	Death Rate, Black-pool	Death Rate, England and Wales
1911	51	0.83	1.47	1924	71	0.92	1.06
1912	49	0.79	1.38	1925	80	0.99	1.03
1913	49	0.76	1.35	1926	69	0.78	0.96
1914	71	1.07	1.36	1927	73	0.78	0.97
1915	70	1.09	1.46	1928	73	0.74	0.93
1916	67	1.06	1.44	1929	75	0.75	0.96
1917	64	1.03	1.49	1930	66	0.66	0.90
1918	87	1.34	1.55	1931	83	0.84	0.90
1919	47	0.69	1.24	1932	76	0.75	0.84
1920	61	0.86	1.13	1933	77	0.72	0.82
1921	56	0.76	1.13	1934	81	0.70	0.76
1922	65	0.87	1.12	1935	71	0.59	0.71
1923	46	0.61	1.06	1936	79	0.65	0.68
				1937	81	0.65	1.11
				1938	74	0.59	0.63

**Notifications.**—During 1938, the total number of cases of Tuberculosis notified was 193—133 Pulmonary and 60 Non-Pulmonary. Of these, 131 (90 Pulmonary and 41 Non-Pulmonary) were primary notifications, and 62 (43 Pulmonary and 19 Non-Pulmonary) were supplementary notifications, *i.e.*, 13 from Death Returns; 2 posthumous notifications, 2 lost trace—returned, and 45 transfers from other areas. This last figure, which comprises 23.3 per cent. of the total notifications for the year is of interest as showing how the incidence of Tuberculosis in the Borough is inflated by such a large percentage of patients coming to live in Blackpool for health reasons. In 1934, this figure was 29.8 per cent., in 1935, 26 per cent., in 1936, 30.5 per cent., and in 1937, 22.4 per cent.

**Mortality.**—During the year the number of deaths registered as Tuberculosis was 74 (63 Pulmonary and 11 Non-Pulmonary). Of this total the number of deaths certified as due to Tuberculosis who had not previously been notified as suffering from the disease was 13 (7 Pulmonary and 6 Non-Pulmonary).

It was not found necessary during the year to take any action under The Public Health (Tuberculosis) Regulations or Section 62 of The Public Health Act, 1925, which deals with the compulsory isolation in cases of Tuberculosis.

**Notification Register.**—As in previous years a careful record of the movements of all patients has been kept. This assures that the Register at any time gives an accurate record of the known incidence of Tuberculosis in the Borough.

The routine laid down for the removal of cases from the Register is as follows:—Cases of non-respiratory tuberculosis cannot be removed from the Register unless complete arrest of the disease has been maintained for a period of three years, and cases of respiratory tuberculosis cannot be removed from the Register until five years have elapsed from the date of notification and three years from the disappearance of all symptoms.

The following table shows the number of cases of Tuberculosis on the Register at the end of 1938, the fluctuation of patients during the year, and the number remaining on at the end of the year under review. The number of deaths shewn in this table are the total number of deaths of persons on the Register and not those who actually died from Tuberculosis:—

TABLE III.

		Remaining on Register, 31/12/37.	Notifica-tions including Inward Transfers	Died	Recov-ered	Trans-fers, etc.	Remaining at 31/12/38.
Pulmonary Tuberculosis	{ Males	149	80	43	5	13	168
	{ Females	134	53	29	6	12	140
Non-Pulmonary Tuberculosis	{ Males	76	36	12	4	6	90
	{ Females	87	24	3*	15	5	87
TOTALS	... ..	446	193	87	30	36	485

**Home Visitation.**—Except in cases where a desire to the contrary is expressed, all notified cases are visited by the Tuberculosis Officer or Nurses. During the year, the two Tuberculosis Nurses have worked full time, and the following visits have been paid by them:—

	Pulmonary.	Non-Pulmonary.	Totals.
Primary... ..	111	51	162
Subsequent Visits ...	2,946	2,031	4,977
Contacts seen at home	...	...	3,111

In addition the Tuberculosis Officer visited 64 patients at their homes. Of these 51 were paid in consultation with the patient's family doctor, and the remainder were to patients unable to attend the Dispensary.

On the occasion of these visits opportunity is taken of enquiring into the home conditions of the patient, *i.e.*, number of rooms, sleeping accommodation for patient and other occupants of the house, lighting and ventilation, cleanly condition, previous cases of tuberculosis in family, history of contact with known cases of tuberculosis, and any other information which would be of value in assisting to help the patient and prevent the spread of the disease. In addition, enquiries are made into the financial circumstances of the patient, with a view of ascertaining whether sufficient nourishment can be obtained, the health of the other occupants of the house, and to arrange for the medical examination of contacts by the Tuberculosis Officer.

**The Dispensary.**—This is the central element of our Scheme, and carries out the following important functions : (1) sorting of cases and recommendation for treatment, *i.e.*, Sanatoria, Hospital, or Domiciliary with the patient's own medical practitioner ; (2) examination of suspected cases for medical practitioners ; (3) examination of contacts, and (4) treatment of certain cases.

The Tuberculosis Officer and a Tuberculosis Nurse are in regular attendance at the Dispensary which is held at the Municipal Health Centre each Tuesday and Friday afternoon. In addition, a special clinic is held every Monday afternoon for the examination of contacts and special cases by appointment.

During the year 645 cases, excluding contacts, were examined at the Dispensary, and there were 5,323 attendances. Of the 665 cases examined, 331 were new cases, and of these 115 were found to be definitely tuberculous and 216 non-tuberculous. 323, or 97.6 per cent., of the new cases, were referred to the Tuberculosis Officer by private medical practitioners as patients suspected of Tuberculosis. In each case a full investigation of the condition was made and a written, detailed report sent to the doctor giving the Tuberculosis Officer's diagnosis and suggestion for treatment. Early diagnosis of Tuberculosis is of vital necessity if the patient is to benefit materially or permanently by treatment, and this can only be obtained by close co-operation between Medical Practitioners and the Tuberculosis Officer. As shewn in the above figures this co-operation is extremely satisfactory and is definitely assisting towards that end.

The examination of contacts, especially children and adolescents, is of the most vital importance in a Tuberculosis Scheme, particularly with a view of preventing, if possible, the occurrence of tuberculosis, or, in the event of the disease being present, to make a diagnosis early when treatment may be expected to have most beneficial results.



During the year 135 contacts were examined and there were 442 attendances. Of these 140 were examined for the first time. Four patients, 1 male and 2 females, were found to be suffering from active Pulmonary Tuberculosis and 1 child with Non-Pulmonary disease. Several children, however, were found to be suffering from the effects of sub-nutrition, debility and generally poor physical resistance, though not definite tuberculosis. These cases were kept under close observation, supplied with malt and oil, and if necessary with extra nourishment, as this type of patient is undoubtedly more prone to develop the disease. In addition, a few were given sunlight treatment with considerable benefit.

Thirty cases were written off the Dispensary Register during the year as cured, 36 were transferred to other towns or were lost trace of, and 62 died.

Of the 485 cases on the Notification Register at the end of the year, 466, or 92 per cent., were attending the Dispensary, as compared with 92 per cent. in 1937, 90 per cent. in 1936, 93 per cent. in 1935, 90 per cent. in 1934, 88 per cent. in 1933, and 63 per cent. in 1932. These figures are very satisfactory shewing, as they do, an ever increasing tendency on the part of tuberculous patients to take advantage of the service under the Tuberculosis Scheme. It further enables the Tuberculosis Officer to keep a close watch on every case, to note any change of condition, and to take what steps may be necessary for the improvement of the patients' condition or for preventing the spread of infection. The small number of patients who do not attend the Dispensary are private patients who, although notified as suffering from Tuberculosis, are attended by their own doctors and if necessary go to private Sanatoria. Reports on these cases are received from the doctors from time to time.

**Sputum Examinations.**—Specimens of sputum are examined in our own laboratory at the Municipal Health Centre, and during the year 867 examinations were made as compared with 908 in 1937. Of these 209 were found Positive for Tuberculosis.

**X-ray Examinations.**—These are carried out by a local radiographer. The Tuberculosis Officer attends to do the screen examination and on the film being developed he interprets it. This type of examination is very essential and has been increasingly utilised to the extent that during the year 324 X-ray examinations were made as compared with 262 in 1937, 241 in 1936, 200 in 1935, and 190 in 1934.

**Sunlight Treatment.**—This form of treatment is very essential in certain forms of Tuberculosis, and together with general hygienic treatment and increased nourishment, is extremely useful in improving the general physique of contacts and possible suspects. During the past year Sunlight Clinics were held every Monday and Thursday forenoon. With the equipment and time at our disposal only a limited

number of cases can be dealt with. During the coming year, with the development of the Municipal Health Centre, it is hoped that the very much larger and fully modern equipped Sunlight Clinic to be established, will allow all patients requiring this type of treatment to be dealt with.

During the year 90 patients—6 male, 26 female, and 58 children have been treated, and 1,559 exposures given. The results have been most gratifying, practically all the cases shewing a decided improvement in their general condition as well as in the local lesion. The type of cases treated were Cervical Glands, 42; T.B. Abdomen, 20; T.B. Bones, 9; Lupus, 5; Debility in Contacts, 7; and others, 7.

**Artificial Pneumo-thorax Treatment.**—All cases considered as possible subjects for this form of treatment are admitted to Meathop Sanatorium, or Crossley Sanatorium. There, after observation, if they are found suitable, the treatment is given. During the year 3 patients were so treated and after discharge continued to attend at Meathop Sanatorium, along with 3 others from the borough, at stated intervals for refills. Eight other cases received treatment at the Elswick Sanatorium under an agreement with the Lancashire County Council.

**Necessitous Cases.**—Extra nourishment in the form of milk and eggs is supplied daily to suitable cases receiving domiciliary treatment, and the costs of surgical apparatus in non-pulmonary cases are met in whole or in part by the Health Committee according to the financial circumstances of the patient. During the year 90 patients received milk or milk and eggs daily.

**Sanatorium Treatment.**—The wards at the Sanatorium have continued in use throughout the year. In April, 1935, a further six beds were rented—making eighteen in all—from Meathop Sanatorium for use of patients from the Borough. These were kept occupied during the year. The following table shows the admission to various Sanatoria during the year :—

TABLE II.

	In Residence, 1st January, 1938	Ad- mitted during year	Discharged during year			Re- main- ing 31st Dec., 1938
			Im- proved	In Statu Quo	Died	
Blackpool Sanatorium ...	10	36	14	10	18	4
Liverpool Sanatorium ...	4	14	9	—	1	8
Crossley Sanatorium ...	8	9	12	1	—	4
Meathop ...	12	26	11	3	8	16
*Robert Jones and Agnes Hunt Orthopædic	3	4	3	—	2	2
Leasowe Children's Hospital ...	9	4	4	—	—	9
Elswick ...	—	—	—	—	—	—
Papworth Hall ...	1	1	—	—	—	2
Heswall Country Hospital ...	1	—	—	—	—	1
Schatzalp Sanator- ium, Switzerland	—	1	—	—	—	1
Manchester Hospi- tal for Skin Diseases ...	—	2	2	—	—	—
Manchester Royal Infirmery ...	—	1	1	—	—	—
Chestnuts Sanator- ium, Preston ...	—	3	—	—	—	3
	48	101	56	14	29	50

\*In addition to above, 3 cases were admitted for re-examination during the year and kept in a few days each. It will be noted that the totals above do not exactly correspond with those in Table IV (page 43) In certain cases the patient is transferred directly from one Institution to another. In Table IV these are shown as continuous treatment whereas above they have been duplicated.



TABLE III (continued).

1. Number of cases on Dispensary Register on January 1st ... ..	410
2. Number of cases transferred from other areas and cases returned after discharge under Head 3 in previous years ... ..	43
3. Number of cases transferred to other areas, cases not desiring further assistance under the scheme, and cases "lost sight of" ... ..	31
4. Cases written off during the year as Dead (all causes)...	62
5. Number of attendances at the Dispensary (including Contacts) ... ..	5,765
6. Number of Insured Persons under Domiciliary Treatment on the 31st December... ..	199
7. Number of consultations with medical practitioners :—	
(a) Personal ... ..	51
(b) Other ... ..	292
8. Number of visits by Tuberculosis Officers to homes (including personal consultations)... ..	64
9. Number of visits by Nurses or Health Visitors to homes for Dispensary purposes ... ..	4,823
10. Number of :—	
(a) Specimens of sputum, etc., examined ... ..	867
(b) X-ray examinations made ... ..	324
in connection with dispensary work.	
11. Number of "Recovered" cases restored to Dispensary Register, and included in A (a) and A (b) above...	Nil
12. Number of "T.B. plus" cases on Dispensary Register on December 31st ... ..	183
(B) NUMBER OF DISPENSARIES FOR THE TREATMENT OF TUBERCULOSIS (excluding centres used only for special forms of treatment).	
Provided by the Council... ..	One
Provided by Voluntary Bodies ... ..	Nil.

TABLE IV.  
 RETURN SHOWING THE EXTENT OF RESIDENTIAL TREATMENT AND OBSERVATION DURING THE YEAR IN INSTITUTIONS  
 (OTHER THAN POOR LAW INSTITUTIONS) APPROVED FOR THE TREATMENT OF TUBERCULOSIS.

	In Institu- tions on Jan. 1st. (1)	Admitted during the year. (2)	Discharged during the year. (3)	Died in the Institu- tions. (4)	In Institu- tion on Dec. 31st. (5)
No. of doubtfully tuberculous cases admitted for observa- tion	Adult Males ...	3	3	—	—
	Adult Females	2	2	—	—
	Children ...	1	2	—	—
	Total ...	6	7	—	—
No. of patients suffering from pulmonary tuberculosis	Adult Males ...	55	34	16	24
	Adult Females	25	17	10	13
	Children ...	1	—	—	1
	Total ...	81	51	26	38
No. of patients suffering from non-pulmonary tuberculosis	Adult Males ...	3	2	2	3
	Adult Females	4	5	1	—
	Children ...	3	1	—	8
	Total ...	10	8	3	11
GRAND TOTAL	47	97	66	29	49



TABLE VI.

RETURN SHOWING THE IMMEDIATE RESULTS OF TREATMENT OF DEFINITELY TUBERCULOUS PATIENTS DISCHARGED DURING THE YEAR FROM INSTITUTIONS APPROVED FOR THE TREATMENT OF TUBERCULOSIS.

Classification on admission to the Institution.	Condition at time of discharge.	Duration of Residential Treatment in the Institution												Grand Totals.	
		Under 3 months *			3-6 months.			6-12 months.			More than 12 months.				Totals.
		M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.		
Class T.B. minus	Quiescent ... Not Quiescent ... Died in Institution ...	2 2 —	— 1 —	— — —	1 1 2	1 — —	1 — —	3 — —	1 1 —	— — —	— — —	6 3 2	3 2 —	— — —	9 5 2
Class T.B. plus, Group I.	Quiescent ... Not Quiescent ... Died in Institution ...	— — —	— — —	— — —	1 — —	— — —	— — —	— 2 —	— — —	— — —	— — —	— 2 —	— 2 —	— — —	5 2 —
Class T.B. plus, Group II.	Quiescent ... Not Quiescent ... Died in Institution ...	— 4 3	1 1 3	— — —	— 4 4	— — —	— — —	1 4 1	— 2 —	— — —	— — —	1 14 9	2 5 7	— — —	3 19 16
Class T.B. plus, Group III.	Quiescent ... Not quiescent... Died in Institution ...	— 1 —	— — —	— — —	— — —	— — —	— — —	— 1 —	— — —	— — —	— — —	— 2 —	— — 1	— — —	— 2 1
TOTALS, PULMONARY ...		12	5	—	13	8	—	12	6	—	4	4	4	23	64

\* Exceeding 28 days.







TABLE VII.—PULMONARY TUBERCULOSIS (continued).

Condition at the time of the last record made during the year to which the return relates	1931				1932				1933				1934							
	Class T. B. plus				Class T. B. plus				Class T. B. plus				Class T. B. plus							
	Class T. B. minus	Group 1	Group 2	Group 3	Total (Class T. B. plus)	Class T. B. minus	Group 1	Group 2	Group 3	Total (Class T. B. plus)	Class T. B. minus	Group 1	Group 2	Group 3	Total (Class T. B. plus)	Class T. B. minus	Group 1	Group 2	Group 3	Total (Class T. B. plus)
Disease Arrested	Adults : M.	—	—	—	—	2	2	—	—	4	3	3	1	—	4	—	—	—	—	1
	F.	—	1	—	1	1	1	—	—	1	1	3	1	—	4	2	1	—	—	1
Disease not Arrested	Adults : M.	—	2	5	1	8	2	1	—	3	2	1	8	—	9	1	—	—	—	6
	F.	2	3	1	1	4	1	1	—	2	2	2	1	—	3	—	2	3	—	5
Condition not ascertained during the year	Adults : M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	F.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total on Dispensary Register at 31st December	3	5	6	2	13	5	6	4	—	10	9	9	12	—	21	3	5	10	—	15
(b) Not now on Dispensary Register and reasons for removal therefrom.	Discharged as recovered	1	2	1	—	—	2	1	—	2	2	1	—	—	—	—	—	—	—	—
	Children ...	—	—	—	—	—	1	—	—	—	1	—	—	—	—	—	—	—	—	—
Lost sight of, or otherwise removed from Dispensary Register	Adults : M.	3	5	4	2	11	2	7	4	1	6	4	9	2	15	4	6	7	—	13
	F.	3	4	11	15	30	2	4	9	5	18	3	6	20	6	32	5	1	15	7
Dead	Adults : M.	3	2	10	6	18	4	5	10	10	—	2	10	8	20	3	2	9	4	15
	F.	1	—	1	—	1	1	—	—	2	1	—	—	—	—	—	—	—	—	—
Total written off Dispensary Register	12	13	27	23	63	13	17	24	18	59	10	12	39	16	67	12	9	31	11	51
GRAND TOTALS ...	15	18	33	25	76	18	23	28	18	69	19	21	51	16	88	15	14	41	11	66

(a) Remaining on Dispensary Register at 31st December.

(b) Not now on Dispensary Register and reasons for removal therefrom.

TABLE VII.—PULMONARY TUBERCULOSIS (continued).

Condition at the time of the last record made during the year to which the return relates	1935				1936				1937				1938									
	Class T. B. plus				Class T. B. plus				Class T. B. plus				Class T. B. plus									
	Class T. B. minus	Group 1	Group 2	Group 3	Total (Class T. B. plus)	Class T. B. minus	Group 1	Group 2	Group 3	Total (Class T. B. plus)	Class T. B. minus	Group 1	Group 2	Group 3	Total (Class T. B. plus)							
(a) Remaining on Dispensary Register at 31st December.	Disease Arrested	Adults : M. F.	Children ...	1 1 1	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —							
	Disease not Arrested	Adults : M. F.	Children ...	7 2	1 5	11 5	4 4	2 6	7 4	9 11	3 6	10 5	1 6	1 6	17 6	18 13						
Condition not ascertained during the year	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
Total on Dispensary Register at 31st December	12	1	14	1	16	12	8	11	1	20	18	8	21	1	30	24	9	23	—	32		
(b) Not now on Dispensary Register and reasons for removal therefrom.	Discharged as recovered	Adults : M. F.	Children ...	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —		
		Lost sight of, or otherwise removed from Dispensary Register	7	7	—	7	3	1	5	1	7	5	4	—	—	4	—	—	—	—	3	
	Dead	Adults : M. F.	Children ...	5 1	8 5	14 11	5 2	6 10	7 —	— —	13 10	6 5	1 8	4 3	— —	12 11	4 1	— —	— —	— —	8 4	12 7
		Total written off Dispensary Register	13	1	20	12	33	11	1	21	8	30	16	1	19	7	27	5	—	—	—	22
GRAND TOTALS	...	...	...	...	49	23	9	32	9	50	34	9	40	8	57	29	9	33	12	—	54	



TABLE VIII (continued).

Condition at the time of the last record made during the year to which the return relates	1931				1932				1933				1934			
	Bones and Joints	Abdominal	Other Organs	Peripheral Glands	Total	Bones and Joints	Abdominal	Other Organs	Peripheral Glands	Total	Bones and Joints	Abdominal	Other Organs	Peripheral Glands	Total	
(a) Remaining on Dispensary Register at 31st December.	Disease Arrested	—	1	—	1	2	—	—	—	2	1	1	—	—	2	
	Children ...	—	—	—	—	—	1	—	1	—	—	2	—	1	—	
Disease not Arrested	Adults : M.	—	—	—	—	—	—	—	—	—	1	—	—	—	1	
	Children ...	1	1	—	2	—	—	—	3	3	—	1	—	3	6	
Condition not ascertained during the year	Adults : M.	—	—	—	—	—	1	—	—	1	1	—	—	—	1	
	Children ...	1	—	—	1	1	—	—	—	1	1	—	—	—	2	
Total on Dispensary Register at 31st December	2	1	1	—	4	4	1	1	4	10	5	4	—	6	15	
Transferred to Pulmonary ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
(b) Not now on Dispensary Register and reasons for removal therefrom.	Discharged as recovered	—	—	—	—	1	—	—	1	2	1	1	—	—	2	
	Children ...	2	3	1	6	3	2	—	4	9	1	2	—	—	3	
Lost sight of, or otherwise removed from Dispensary Register	Adults : M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Children ...	1	—	2	3	2	2	1	5	10	1	1	1	7	11	
Dead	Adults : M.	—	—	—	—	—	—	—	—	—	1	1	—	—	2	
	Children ...	—	—	—	—	1	—	—	—	1	—	—	—	—	1	
Total written off Dispensary Register	3	3	1	3	10	9	5	1	11	26	4	6	3	16	30	
GRAND TOTALS of (a) and (b) (excluding those transferred to Pulmonary) ...	5	4	2	3	14	13	6	2	15	36	10	10	3	22	45	
											7	4	5	10	26	



**School Closure.**—It was not necessary during the year to close any of the schools in order to prevent the spread of Infectious Disease.

**School exclusions.**—The following are the lines upon which we work with regard to the exclusion of infected children from schools :—

#### SCARLET FEVER.

- 1.—PATIENTS : (a) Hospital Cases. Two weeks after discharge.  
 (b) Home Cases. Two weeks after disinfection.  
 2.—CONTACTS : (a) Hospital Cases. One week after removal to Hospital.  
 (b) Home Cases. One week after disinfection.

#### DIPHTHERIA.

- 1.—PATIENTS : (a) Hospital Cases. Three weeks after discharge.  
 (b) Home Cases. Three weeks after disinfection.  
 2.—CONTACTS : (a) Hospital Cases. Two weeks after removal to Hospital.  
 (b) Home Cases. Two weeks after disinfection.

#### ENTERIC FEVER AND ERYSIPELAS.

CONTACTS need not be excluded from School.

#### MEASLES.

- 1.—PATIENTS : Three weeks from appearance of rash.  
 2.—CONTACTS : (a) Infant Scholars. Three weeks from onset of last case.  
 (b) Other Scholars :—  
 I.—If had Measles. Not to be excluded.  
 II.—If not had Measles.—Three weeks after onset of last case.

#### WHOOPIING COUGH.

- PATIENTS : Six weeks, or as long as cough continues.  
 CONTACTS : Infant Scholars. Same period as patient.

#### MUMPS.

- PATIENTS : One week after subsidence of swelling.  
 CONTACTS : Not to be excluded.

#### CHICKEN POX.

- PATIENTS : Three weeks, or until all Scabs have disappeared.  
 CONTACTS : (a) Infant Scholars. Same period as patient.  
 (b) Other Scholars.  
 I.—If had Chicken Pox. Not to be excluded.  
 II.—If not had Chicken Pox.—Same period as patient

The above periods are liable to alteration in individual cases on instructions from the Medical Officer of Health.



**Bacteriological Laboratory.**—The following specimens were examined at the Municipal Health Centre :—

Swabs for Diphtheria Bacilli	...	...	...	...	3,822
Sputum for Tubercle Bacilli	...	...	...	...	878
Smears, etc., for Gonococci	...	...	...	...	361
Urine for Tubercle Bacilli, etc.	...	...	...	...	133
TOTAL...	...	...	...	...	5,194

**The Sanatorium.**—The number of cases of various diseases treated at the Sanatorium during the year will be seen in the following table :—

			Remaining in at end of 1937.	Admitted during 1938.	Discharged during 1938.	Died during 1938.	Average stay of non-fatal cases.	Average stay of fatal cases.	Remaining in at end of 1938.
Scarlet Fever	...	M.	5	74	70	2	34	5	7
		F.	12	114	118	—	30	—	8
Diphtheria	...	M.	1	79	60	6	32	19	14
		F.	5	90	79	9	34	5	7
Enteric Fever	...	M.	—	—	—	—	—	—	—
		F.	—	4	2	1	22	17	1
Measles	...	M.	—	16	16	—	11	—	—
	...	F.	—	23	23	—	12	—	—
Puerperal Fever and Pyrexia	...	F.	3	21	22	2	23	7	—
Erysipelas...	...	M.	—	8	8	—	19	—	—
		F.	—	13	12	1	10	3	—
Phthisis	...	M.	3	25	18	10	79	65	—
	...	F.	6	10	4	8	222	79	4
Other Diseases	...	M.	7	58	49	10	18	4	6
		F.	8	150	145	6	14	2	7
TOTALS	...	...	50	685	626	55	—	—	54

The total number of cases admitted compares with previous years as follows:—

1938 ... 685			
1937 ... 521	1926 ... 257	1915 ... 663	
1936 ... 651	1925 ... 486	1914 ... 297	
1935 ... 493	1924 ... 456	1913 ... 263	
1934 ... 548	1923 ... 389	1912 ... 217	
1933 ... 394	1922 ... 461	1911 ... 213	
1932 ... 385	1921 ... 365	1910 ... 303	
1931 ... 325	1920 ... 532	1909 ... 477	
1930 ... 445	1919 ... 411	1908 ... 402	
1929 ... 354	1918 ... 537	1907 ... 312	
1928 ... 349	1917 ... 544	1906 ... 306	
1927 ... 444	1916 ... 596	1905 ... 270	

The maintenance costs at the Sanatorium for feeding only (groceries, greengroceries, milk, fish, bread and meat), is at the rate of 7s. 9d. per head per week.

On the discharge of patients from the Sanatorium the following leaflets are handed to them or their parents or guardians:—

# BLACKPOOL CORPORATION.

---

THE SANATORIUM,  
BLACKPOOL.

## To Parents, Guardians and Others.

As complications of Scarlet Fever, particularly ear-ache or a running ear, sometimes occur in children after release from Isolation, you are recommended to keep your child under medical observation for a further period of one month.

For this purpose you should :—

- (a) Consult your own medical attendant, or
- (b) If your child attends an Elementary School, take him or her to the School Clinic, Bennett Avenue, Palatine Road, on each of the next four Saturday mornings at 10 o'clock, and take this note with you, or
- (c) If your child does not attend school, take him or her to the Municipal Health Centre, Whitegate Drive, Blackpool, on each of the next four Saturday mornings at 9-30 o'clock, and take this note with you.

E. W. REES-JONES, M.D., D.P.H.,

Medical Superintendent. \*

# BLACKPOOL CORPORATION.

THE SANATORIUM,  
BLACKPOOL.

## To Parents, Guardians and Others.

Although every care is exercised to prevent the carriage of infection by persons discharged from the Sanatorium, it is impossible in all instances to ensure against such an accident, owing to the fact that in these cases infection lurks about the body for some considerable time.

In order to prevent this as far as possible, it is recommended that, for a period of at least a fortnight, patients discharged from the Sanatorium should :

- (a) Have a bed, and if possible, a bedroom to themselves.
- (b) Not enter shops, tramcars, places of amusement, or other places where they come into close contact with people.
- (c) Have the exclusive use of such articles as towels, spoons, cups, etc., and these articles should not be used by any other member of the family.
- (d) Not to be allowed to mix unnecessarily with other children, or to attend school.

Any recently discharged person who complains of sore throat, nose, or ears, should be isolated and placed under the care of a Doctor.

The Corporation do not accept any liability or responsibility for the extension of infectious disease from any patients who have been in their Hospital.

E. W. REES-JONES, M.D., D.P.H.,

Medical Superintendent.

The Hospitals provided or subsidised by the Corporation are as follows :—

- 1.—One Hospital for general Infectious Diseases, Tuberculosis Cases and Maternity Cases, with an accommodation of 82 beds.
- 2.—One Hospital for Small Pox Cases, situated at Elswick, and used jointly by the Corporations of Blackpool, Preston, Lytham St. Annes, and the Councils of the Fylde Districts.

The Ambulance facilities of the District are as follows :—

For Infectious Cases. One Motor Ambulance kept at the Infectious Diseases Hospital, together with one convertible Ambulance Van.

For Maternity Cases. One Motor Ambulance kept at the Infectious Diseases Hospital.

For Non-infectious Cases. Three Motor Ambulances kept at the Fire Station.

One whole-time General and Fever-trained Nurse is employed by the Health Department, who carries out nursing of cases of Infectious Disease under the direct supervision of the Medical Officer of Health.

### DISINFECTING DEPARTMENT.

Articles removed from 912 Houses to Sanatorium for Disinfection :—

Sheets, quilts, blankets, etc. ... ..	5,102
Articles of clothing ... ..	1,966
Pillows and Bolsters ... ..	4,120
Beds ... ..	1,469
Mattresses ... ..	670
Carpets ... ..	218
Rugs and mats ... ..	86
Curtains... ..	52
Cushions... ..	414
Tablecloths ... ..	19
Books ... ..	2,334
Miscellaneous articles ... ..	1,066
Articles from Sanatorium ... ..	4,010
TOTAL... ..	21,526

The practice of routine disinfection of premises after an infectious disease is of doubtful value. On perusing the Annual Health Reports of other districts, I find that in some of them the procedure is entirely discarded. This has occurred in districts where the incidents of Infectious Diseases is of vital importance, and the discontinuance has not been decided upon without very careful deliberation, and has not been followed by any increased incidence.

### INFECTIOUS DISEASES.

Inquiries into cases of infectious diseases and subsequent visits by Nurses or Inspectors ... ..	3,779
Houses disinfected after cases of infectious diseases ...	543
Houses disinfected after cases of Tuberculosis ... ..	64
Other premises disinfected ... ..	95
Isolation notices served upon householders ... ..	2,638
Isolation notices served upon School Managers ... ..	2,046
Isolation notices served upon School Attendance Officers ...	2,046
Other notices to School Managers with regard to infectious diseases ... ..	1,906
Other notices to householders with regard to infectious diseases ... ..	1,906
Other notices to School Attendance Officers...	1,906
Notices to Free Library with regard to infectious diseases...	2,258

**General Hospital Provision.**—There is one Voluntary Hospital named The Victoria Hospital within the Borough, the number of beds available being 174. A nominal allocation of these beds is as follows :—

Nature.	Males.	Females.	Total.
General Medical (Adults) ...	14	18	32
„ Surgical (Adult) ...	35	39	74
Obstetrical ... ..	—	18	18
Children (Medical, Surgical, Eye, Ear, Nose and Throat) .		28	28
Venereal ... ..	1	1	2
Ear, Nose and Throat (Adult) ...	3	3	6
Ophthalmic (Adult) ... ..	3	2	5
Private ... ..		9	9
<b>TOTALS ... ..</b>	<b>...</b>	<b>...</b>	<b>174</b>

The General Superintendent of the Hospital has been good enough to supply me with the following tabular statements of the numbers of in- and out-patients during the year :—

Nature.	Males.	Females.	Total.
General Medical (Adult) ...	251	255	506
General Surgical ... ..	751	1,016	1,767
Obstetric... ..	—	254	254
Children (Medical, Surgical, Eye, Ear, Nose and Throat)...	333	286	619
Venereal ... ..	6	5	11
Ear, Nose and Throat (Adult) ...	105	125	230
Ophthalmic (Adult) ... ..	22	33	55
<b>TOTALS ... ..</b>	<b>1,468</b>	<b>1,974</b>	<b>3,442</b>

	Medical	Surgical	Totals
*In-patients ...	579	2,852	3,431
*Out-patients ...	888	9,195	10,043
<b>TOTALS ...</b>	<b>1,467</b>	<b>12,007</b>	<b>13,474</b>

\*Excluding Venereal Diseases Department.

The Blackpool Corporation make an annual grant of £500 to the Victoria Hospital.

**Medical Relief by Public Assistance Committee.**—Under the provisions of the Local Government Act, 1929, this work was taken over by the Corporation, and for the purposes of brief description it may be referred to under the categories of outdoor and indoor medical relief. The Borough is divided into three districts, the Northern, Central and Southern, the populations being 39,000, 43,000 and 38,000 respectively. Drs. Lucas, Miller and Loudon are the Medical Officers of the Districts.

For the purposes of indoor medical relief under the provisions of the Local Government Act, the Corporation entered into a ten years agreement with the Lancashire County Council for the Infirmary at Kirkham to continue to be used for the treatment of Blackpool cases. The Institution is under the management and control of the County Council, and the area served by it comprises Blackpool, Lytham St. Annes, Kirkham, Poulton, Thornton, Fleetwood and the Fylde Rural District, with a combined area of 67,509 acres and a population of 170,625 (1921 census). The available accommodation in this Infirmary is as follows :—for men, 68 beds ; women, 69 beds ; children, 3 beds ; total, 140 ; and the following beds were occupied during the year : men, 61 ; women, 67 ; children, 3. In addition there is accommodation for 6 maternity cases.



NUMBER OF PERSONS IN RECEIPT OF OUT-RELIEF (NON-MEDICAL) ON  
THE 31ST MARCH, 30TH JUNE, 30TH SEPTEMBER, AND 31ST  
DECEMBER, 1938.

Quarter ended.	Men.	Women.	Children.	No. of families.
<b>31st March, 1938 :</b>				
North ... ..	125	163	81	236
Central ... ..	135	166	108	256
South ... ..	128	215	146	260
Total ... ..	388	544	335	752
<b>30th June, 1938 :</b>				
North ... ..	91	109	53	174
Central ... ..	91	124	60	192
South ... ..	108	183	107	221
Total ... ..	290	416	220	587
<b>30th September, 1938 :</b>				
North ... ..	93	111	70	172
Central... ..	86	101	44	159
South ... ..	89	149	88	187
Total ... ..	268	361	202	518
<b>31st December, 1938 :</b>				
North ... ..	136	182	96	262
Central ... ..	120	153	74	232
South ... ..	124	198	95	245
Total ... ..	380	533	265	739

FOXTON DISPENSARY, 1938.

	Surgical.		Medical.		Total.
	Males.	Females.	Males.	Females.	
Out-Patients ... ..	7	18	577	805	1,407

**District Nurses.**—Six district nurses are now employed by the Health Department of the Corporation and their whole time is occupied in district nursing amongst the sick poor of the town. During the year it was necessary to employ an additional nurse temporarily owing to pressure of work. As far as possible they act under the instructions of the medical practitioners in attendance upon the cases, but in many instances, such as those of chronic bedridden cases, doctors are not in attendance, under which circumstances the nurses have to receive their instructions from me or to act according to their own judgment. Their services have been much utilised, and in carrying out their valuable work the large total of 17,300 visits were paid by them.

**Ladies' Sick Poor Association.**—About 2,155 cases were visited and relieved by the ladies of this Association during the year. The help takes the form of meat, eggs, groceries, clothes, boots, loan of bath chairs, etc., £1,084 0s. 1d. being expended for this purpose during the year. In addition, the Association expended the sum of £49 19s. 11d. for the maintenance of nine cases in Convalescent Homes.

### PUBLIC VACCINATION

In accordance with Clause (b) of Section 2 of The Local Government Act, 1929, the functions relating to Vaccination were transferred to the Town Council to be discharged by the Public Health Department.

Your Medical Officer of Health is the Chief Public Vaccination Officer. The services of Drs. Cockcroft and Thursz, who carried out the duties of Public Vaccinators under the Poor Law Authority prior to the Act of 1929 becoming operative, were retained, as also were the services of the two Vaccination Officers—Messrs. Jump and Rees. As and from the 1st April, 1932, the Medical Officer of Health took over the duties of Vaccination Officer for the Northern Section of the town on the retirement of Mr. Rees. Drs. Lucas, Louden and Miller are now the three Public Vaccinators.

The following are details extracted from the Annual Return which I have forwarded to the Registrar-General, and relate to the year 1st January to 31st December, 1937 :—

Number of live births returned in Birth List Sheets as registered from 1st January to 31st December, 1937...	1286
Number successfully vaccinated ... ..	177
Number insusceptible of Vaccination ... ..	8
Number in respect of whom Statutory Declarations of Conscientious Objection have been received ... ..	843
Number who died unvaccinated ... ..	66
Number postponed by Medical Certificate ... ..	4
Removals to other Districts the Vaccination Officers of whom have been apprised ... ..	31
Removal to places unknown ... ..	87
Number of these births remaining on 31st January, 1939, neither duly entered in Vaccination Register nor temporarily accounted for in Report Book ... ..	70

From the above figures it will be observed that only 13.8 per cent. of the total number of live births returned during the year 1936 were successfully vaccinated, whilst no less than 65.5 per cent. made statutory declaration of conscientious objection.

Of the 177 successfully vaccinated during the year, 111 are of children in the Northern Area of the Borough of which your Medical Officer of Health is the Vaccination Officer. Every opportunity is taken of impressing upon mothers attending the Clinics the necessity of having their children vaccinated and I hope that by continued propaganda by my Assistant Medical Officer, we shall continue year by year to increase the number of those vaccinated successfully.

In so far as Infantile Vaccination is regarded as a preventive measure against Small Pox, these figures cannot be considered as anything but a farce. What object can be served in vaccinating one child out of every eight ?

## MATERNITY AND CHILD WELFARE

The work carried out under this branch of our Social Service is of a varied nature, and it may be reported on under various headings as follows :—

**1 — Inspection of Registered Midwives.** There are on the Register 39 midwives. They are visited at least four times annually, one of these occasions being by the Maternity and Child Welfare Medical Officer, and their bags, appliances, registers, etc., supervised. A total of 190 visits have been paid throughout the year, and the midwives have all been kept posted up in any new requirements of the Central Midwives' Board. The Midwives' Association, to which reference has been made in previous reports, is now defunct.

It is very gratifying to report that the relationship and co-operation between the Midwives and the Officers of the various Clinics is of the happiest. Arrangements are in operation whereby Midwives are compensated in cases where they are temporarily suspended for the purposes of disinfection, or where their patients are taken into the Maternity Home.

## MIDWIVES ACT, 1936.

This Act came into force on the 31st July, 1936, and its principal object is to secure the organisation throughout the country of a domiciliary service of salaried midwives, under the control of the Local Supervising Authority as an important step in the improvement of Maternity Services, and in the campaign for reducing maternal mortality.

The following is the scheme approved by the Blackpool Health Committee, Ministry of Health, representatives of the local organisations concerned and which came into operation on the 1st August, 1937 :—

**Scheme for the appointment of Salaried Midwives in the County  
Borough of Blackpool.**

**Number of Midwives to be appointed.**—It is proposed to appoint, in the first instance, twelve practising midwives. It is estimated that there will be approximately 1,000 births in the Borough where the services of the appointed midwives will be required, and it is proposed that each midwife may attend 80 cases per annum. The cases dealt with would come within the following categories :—

- (a) Cases without a Doctor.
- (b) Cases with a Doctor.
- (c) Hospital cases for Ante or Post Natal Care.

**Salaries and Terms of Service.**—The Midwives appointed will be whole time officers of the Corporation, appointed to the Staff of the Medical Officer of Health. They will not be permitted to engage in any other work of a private or remunerative nature, but may be required, if time should allow, to perform other appropriate duties in the Health Department.

The salary proposed in the case of Midwives possessing only the Central Midwives Board Certificate is £180 per annum, rising by increments of £10 per annum to a maximum of £200 per annum, less Health and Unemployment Insurance contributions. In the case of Midwives on appointment, being in possession of the General Nursing Council State Certificate in addition to the Central Midwives Board Certificate, the salary will commence at £200, rising to £220.

**Superannuation.**—The Midwives appointed will occupy designated posts under the Local Government and Other Officers Superannuation Act, 1922, and will, therefore, be subject to a Medical Examination as to fitness, and a deduction of 5 per cent. per annum from salary for contribution towards the Superannuation Scheme.

**Uniforms.**—A Uniform allowance of £10 per annum will be allowed for the purchase of an approved uniform.

**Laundry.**—Owing to the excessive amount of laundry required in the performance of the normal duties of the Midwives, an allowance of £10 per annum will be made to each Midwife for this purpose.

**Travelling Expenses.**—Each Salaried Midwife will be furnished with a Pass on the Municipal Trams and Buses.

**Equipment, Appliances, etc.**—Each Midwife will be furnished with the requisite equipment necessary for the purpose of satisfactorily performing her duties, viz. :—Fully equipped Midwifery Bag, Ante-Natal Treatment equipment, together with the provision of drugs, etc., as required.

**Telephone Installation.**—The residence of each Midwife will be equipped with a telephone. This is essential in cases of emergency, and for the purpose of keeping in close contact with the Medical Officer of Health and his staff.

**Post Certificate Courses.**—In accordance with the requirements of the Act, arrangements will be made for the periodical attendance at these courses for all the midwives appointed.

**Income from Patients.**—Each patient will be required to contribute towards the services rendered by the Midwife. The financial circumstances of each patient will be enquired into, and the amount to be contributed by the patient will, as near as possible, be decided upon in accordance with the Scale. Scales do not at all times cover the whole of the cases which require assistance, and therefore, those cases which do not come within the terms of the scale will receive special consideration.

### **Working Arrangements of the Scheme.**

**Residence and Choice of Midwife.**—As far as is practicable, the town will be divided into twelve districts in order that each Midwife will have a prescribed area, but as far as possible, every facility will be provided for the patient to have her free choice of the Midwife she desires. Where this is not possible owing to illness or pressure of work of the Midwife concerned, the patient will be given the opportunity of making a further selection from the list of remaining Salaried Midwives.

**Choice and Booking of Medical Practitioner.**—The patient will have free choice of Doctor. When the patient books the Midwife, she will be requested by the Midwife to inform her of the name and address of her medical practitioner. This practitioner will then be notified of the case and will be given an opportunity of indicating his willingness to attend the patient should his services be required, or should the patient desire to consult him. It will also give him an opportunity of notifying whether or not he will probably be available at the anticipated time of confinement should his services be required, or should the patient desire to have him in attendance. In cases where a Medical Practitioner has not been notified of the pregnancy or booked for the confinement, and the services of a Medical Practitioner are required in emergency, the patient will be required to make her selection from the panel of local practitioners who have agreed to act in such emergency.

With regard to the actual booking of the Midwife, it is proposed that this should be done at the Municipal Health Centre, or as an alternative, directly as between the patient and the Midwife of her choice. If the latter course is adopted, the Midwife will be required to notify promptly the Health Centre of this provisional booking. This will ensure that (a) all financial arrangements can be made by responsible officials of the Department, (b) a Midwife would not be booked who would be on leave at the time of confinement, (c) enable a complete and up-to-date record to be kept of all the cases to be attended by each Midwife, (d) ensure a reasonable allocation of cases in each area, and (e) enable the department to keep a check on the employment of each Midwife.

**Nursing-in Cases.**—It will not be permissible for any of the Midwives appointed to take on "Nursing-in" cases, viz. :—cases where the patient requires a Midwife to be in residence at the home of the patient prior to, during, and after the confinement.

#### **Duties to be performed by the Midwives Appointed.**

- (1) The periodical visitation of cases booked under the Scheme, and the giving of the necessary Ante-Natal advice as required under the rules of the Central Midwives Board.
- (2) To recommend the patient to place herself for Ante-Natal treatment under the care of her own Medical Practitioner, or in the event of the patient not having her own Doctor, to suggest her attendance at the Municipal Ante-Natal Clinics. In any event, the Midwife should take steps where necessary, for appointments to be made definitely for this treatment, either with the patient's own Doctor or with the Doctor in attendance at the Clinic.
- (3) In the event of any abnormality in the progress of pregnancy, labour or the puerperium being discovered by the Midwife, she must, in accordance with the rules and procedure of the Central Midwives Board take the requisite steps for securing the services of the patient's usual medical practitioner, or failing this, a doctor selected by the patient from the panel of doctors who have notified their willingness to undertake the work. A list of these doctors, kept up-to-date as far as is practicable, will be supplied to each Midwife. Unless, in cases of emergency, the Midwife should act in consultation with the Maternity and Child Welfare Medical Officer.
- (4) The Midwife to be in actual attendance at the confinement, and for a period of fourteen days afterwards,

- (5) To enter and record in the prescribed Case Register, full details of all visits to patients, brief outlines of advice given on each occasion, the result of the confinement, and the condition of the patient and child on the termination of the case. These records to be forwarded to the Medical Officer of Health immediately on completion of each case.
- (6) The Midwife will not collect any fees from the patients. An account will be rendered to each patient by the Department.
- (7) Fourteen working days annual leave will be allowed.
- (8) In extremely urgent cases during the night, and when the public service vehicles are not available, the cost of engaging a special conveyance in such urgent emergency, will be borne by the Corporation.
- (9) All Midwives will report, by telephone, to the Municipal Health Centre each day.
- (10) In the event of any Midwife not being well enough to attend to her duties, she must immediately report to the Central Office by telephone, so that arrangements may be made for her work to be carried on. In the event of a Midwife not being able, through sickness, to resume duty on the fourth day, a Medical Certificate to that effect must be sent on that day to the Medical Officer of Health.
- (11) In cases where, in the opinion of the Midwife attending, the patient is in need of additional nourishment, and whose financial circumstances prevent the provision of such nourishment, the patient shall be recommended to make application to the Maternity and Child Welfare Medical Officer for such a supply.
- (12) When not attending cases in the district, the Midwife may be required to assist in the various Ante-Natal or Infant Welfare Clinics, and to perform any other appropriate duties in the Health Department.
- (13) To act in all respects under the direction and supervision of the Health Committee, the Maternity and Child Welfare Sub-Committee, the Medical Officer of Health, the Maternity and Child Welfare Medical Officer, or other officer appointed for the purpose, and to carry out the Rules and Regulations of the Central Midwives Board.

From the Scheme coming into operation on the 1st August 1937, to the end of the year under review, the Municipal Midwives booked 559 cases. The financial circumstances of each expectant mother are investigated and charges made for the services of the Midwife or Maternity Nurse in accordance with the scale. In very few instances has it been found necessary to charge less than the prescribed scale, but these cases have been such that a reduction was essential.

Where the Midwives are not fully employed upon their own cases, their services have been utilised in assisting the Health Visitors at the various Ante-Natal and Infant Welfare Clinics where considerable experience has been gained by them which will be of much value to them in the performance of their ordinary duties. In addition the Midwives have acted as reliefs to the District Nurses by taking over from them the nursing of cases of the sick poor of the town where no possible chance of infection could arise.

The Midwives have also assisted the Health Visitors by visiting the children between the ages of two and five years. This is a particular section of the Maternity and Child Welfare Scheme which the Ministry of Health considers of great importance, as any defects which may arise after the age of two years can be detected, and steps taken to have them rectified without delay, thus ensuring as far as possible, that the children on attaining school age can be handed over to the Education Authority in a sound and healthy condition.

It is hoped that when the various clinics have been completed at the New Health Centre that arrangements can be made for the holding of "Toddlers' Clinics" when a closer supervision by the medical staff can obtain.

**Retirement of Midwives and Surrender of Certificates.**—In accordance with the provisions of Section 5 (2) of the Act, one local practising Midwife has retired owing to inability to continue to practice through indifferent health, whilst three Midwives surrendered voluntarily their Certificates of the Central Midwives Board.

With regard to these Midwives, opportunity is now taken of expressing appreciation of the services which they rendered in the past. Some of them were in practice in Blackpool prior to the Midwives Act, 1902, coming into operation, and undoubtedly gave most excellent and self-sacrificing service, especially to some of the poorer mothers in the town, and on their retirement I am pleased to place on record the appreciation of the Department for the efficient manner in which they, at all times, performed their duties.



**SCALE OF FEES TO BE PAID FOR SERVICES OF MUNICIPAL MIDWIFE.**

Nett Weekly Income per Family, after deducting Rent	If entitled to Maternity Benefit									
	Total Members in Family									
	3	4	5	6	7	8	9	10		
20/- to 25/-	£ s. d. 2 2 0	£ s. d. 2 0 0	£ s. d. 1 17 6	£ s. d. 1 15 0	£ s. d. 1 5 0	£ s. d. 0 17 6	£ s. d. 0 15 0	£ s. d. 0 15 0	£ s. d. 0 5 0	£ s. d. 0 5 0
25/- to 35/-	2 2 0	2 2 0	2 0 0	1 17 6	1 10 0	1 5 0	0 17 6	0 17 6	0 5 0	0 5 0
35/- to 40/-	2 2 0	2 2 0	2 2 0	2 0 0	1 15 0	1 10 0	1 10 0	1 5 0	1 0 0	1 0 0
40/- to 45/-	2 2 0	2 2 0	2 2 0	2 2 0	1 17 6	1 15 0	1 15 0	1 10 0	1 5 0	1 5 0
45/- to 55/-	2 2 0	2 2 0	2 2 0	2 2 0	2 2 0	2 2 0	2 2 0	2 2 0	2 0 0	1 17 6
55/- to 65/-	2 10 0	2 7 6	2 5 0	2 2 0	2 2 0	2 2 0	2 2 0	2 2 0	2 2 0	2 0 0

In cases where the patient or her husband is not entitled to Maternity Benefit, the special circumstances in each case will be taken into account when fixing the amount to be paid for the services of the Midwife.

**SCALE OF FEES TO BE PAID FOR SERVICES OF MUNICIPAL MATERNITY NURSE.**

Nett Weekly Income per Family, after deducting Rent	If entitled to Maternity Benefit									
	Total Members in Family									
	3	4	5	6	7	8	9	10		
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
20/- to 25/- ...	1 12 0	1 10 0	1 7 6	1 5 0	0 15 0	0 7 6	0 5 0	—	—	—
25/- to 35/- ...	1 12 0	1 12 0	1 10 0	1 10 0	1 0 0	0 15 0	0 7 6	—	—	—
35/- to 40/- ...	1 12 0	1 12 0	1 12 0	1 10 0	1 5 0	1 0 0	0 15 0	0 10 0	0 10 0	0 10 0
40/- to 45/- ...	1 12 0	1 12 0	1 12 0	1 12 0	1 7 6	1 5 0	1 0 0	0 15 0	0 15 0	0 15 0
45/- to 55/- ...	1 12 0	1 12 0	1 12 0	1 12 0	1 12 0	1 12 0	1 10 0	1 10 0	1 10 0	1 7 6
55/- to 65/- ...	2 0 0	1 17 6	1 15 0	1 12 0	1 12 0	1 12 0	1 12 0	1 12 0	1 12 0	1 10 0

In cases where the patient or her husband is not entitled to Maternity Benefit, the special circumstances in each case will be taken into account when fixing the amount to be paid for the services of the Maternity Nurse.

## NEW WELFARE CENTRES.

The year 1938 marked the completion and official opening of two new Permanent Welfare Clinics.

The opening ceremonies took place on Wednesday, the 11th May, 1938.

The Clinic at the junction of Devonshire Road and Bispham Road was opened by the Chairman of the Health Committee, Councillor D. J. Bailey, J.P.

This building consists of a spacious waiting hall, examination, weighing and records rooms, toddlers' room, Nurses' and visitors' rooms, together with undressing cubicles, kitchen, stores and food issue rooms.

The Clinic at Hawes Side Lane, erected on land kindly given by Miss M. Millington, daughter of the late Alderman Fred W. Millington, J.P., was opened by Mrs. Councillor Mabel A. Quayle, Mayoress, and Chairman of the Maternity and Child Welfare Sub-Committee.

The accommodation of this Centre provides facilities similar to those at the northern end of the borough.

Though these new premises are in every way better adapted and more commodious than the old ones, I cannot let this opportunity pass of acknowledging the value of the work carried out by your staff in the old premises and my indebtedness to the owners for allowing us the use of them.

Purely for historical interest, copies of the programme of the Official Opening Ceremonies are here reproduced :—

COUNTY BOROUGH OF BLACKPOOL.

---

HEALTH COMMITTEE.

---

OFFICIAL OPENING CEREMONIES

of the

BISPHAM MATERNITY AND CHILD WELFARE CLINIC,

by

Councillor D. J. BAILEY, J.P., M.P.S.,  
(Chairman of the Health Committee)

and of the

HAWES SIDE MATERNITY AND CHILD WELFARE CLINIC,

by

THE MAYORESS, Councillor MABEL A. QUAYLE,  
(Chairman of the Maternity and Child Welfare Sub-Committee),

on

WEDNESDAY, THE 11TH MAY, 1938,  
at 2-30 p.m. and 3-45 p.m., respectively.

---

PROGRAMME

---

OFFICIAL OPENING OF THE BISPHAM MATERNITY AND CHILD WELFARE CLINIC, at 2-30 p.m.

The Worshipful the Mayor (Alderman John R. Quayle, J.P.) will preside

---

1.—The Mayor will invite Councillor D. J. Bailey, J.P., M.P.S. (Chairman of the Health Committee) to open the Clinic, and will present to him the Key.

2.—Councillor Bailey will open the door of the Clinic and declare the Clinic officially open.

3.—Photographs will be taken.

4.—Councillor Bailey will then propose a vote of thanks to the Mayor for presiding, and Councillor P. Fairhurst (Vice-Chairman of the Health Committee) will second the vote of thanks.

5.—The Mayor will reply.

6.—Councillor J. Anderson (Senr.), J.P., will propose a vote of thanks to Councillor Bailey for opening the Clinic, and Councillor W. Ogden will second the vote of thanks.

7.—Councillor Bailey will reply.

8.—The Clinic will then be open for inspection.

---

*Transport will leave the Bispham Clinic for Hawes Side Lane  
at 3-20 p.m.*

\* \* \* \* \*

OFFICIAL OPENING OF THE HAWES SIDE MATERNITY AND CHILD  
WELFARE CLINIC, at 3-45 p.m.

The Worshipful the Mayor (Alderman John R. Quayle, J.P.) will preside

---

1.—Councillor D. J. Bailey, J.P., M.P.S. (Chairman of the Health Committee) will invite the Mayoress, Councillor Mabel A. Quayle (Chairman of the Maternity and Child Welfare Sub-Committee) to open the Clinic, and will present to her the Key.

2.—The Mayoress will open the door of the Clinic and declare the Clinic officially open.

3.—Photographs will be taken.

4.—Councillor P. Fairhurst (Vice-Chairman of the Health Committee) will then propose a vote of thanks to the Mayor for presiding, and Alderman P. J. Tomlinson, J.P., will second the vote of thanks.

5.—The Mayor will reply.

6.—Councillor Joseph Hill will propose a vote of thanks to the Mayoress for opening the Clinic, and Councillor E. A. Machin, J.P., will second the vote of thanks.

7.—The Mayoress will reply.

8.—The Clinic will then be open for inspection.

---

*At the conclusion of the ceremony at Hawes Side Lane transport will  
proceed to the Infectious Diseases Hospital, Devonshire Road,  
where Afternoon Tea will be served.*

2.—**Ante-Natal Supervision.**—This comprises visitation by the Maternity and Child Welfare Medical Officer or the District Health Visitors, and the Clinics held on Tuesday mornings and Wednesday and Friday afternoons. Dr. Isabella Milne has prepared a statement on this work which will indicate the efforts which are being made to ensure all possible success in the supervision of the expectant mother. Her observations are as follows :—

The attendances at the Ante-Natal Clinics during 1938 were :  
First Visits, 466 ; Re-visits, 2,318.

**SANATORIUM.** This Clinic is held on Tuesday and Wednesday afternoons and deals with those patients who have arranged to have their confinement in the maternity ward. The average number of attendances per week is 46.5. Total attendances for 1938 were : First Visits, 362 ; Re-visits, 2,276. In November, this Clinic was transferred to the Municipal Health Centre.

If more convenient for a mother to attend one of the other Clinics, this is arranged, and the full report of the case is sent to the Sanatorium.

The Ante-natal Clinics are operated on the following lines :—  
Each patient is seen for the first time by the Medical Officer in charge, is thoroughly examined, given the necessary advice with regard to hygiene and diet, and an appointment is made for her return visit. The ideal aimed at is that during the first six months of pregnancy the patient should visit the Clinic monthly, from six to eight months fortnightly, and for the remainder of the period weekly.

Any necessitous patient attending the Clinic, or sent by her own doctor, can be X-rayed free of charge. In cases where the patient is sent by her own medical practitioner the X-ray plate is forwarded to him. Special efforts are made to secure the co-operation and the goodwill of the general medical practitioners in this important branch of public work, and it is gratifying to record that an increasing number of patients are being sent to the Clinics by their own doctors.

The " follow-up " system is now operated. Should the patient fail to attend on two successive weeks, the Health Visitor of the District is informed, and the patient is visited at her home in order to ascertain if she is well. If not, her family doctor is notified immediately.

Should any abnormalities be found in the patient at the Ante-natal Clinic, she is advised to report to her own doctor and midwife, and a note is sent to the doctor and midwife by the Medical Officer in charge, giving details of the conditions found. The Health Visitor is also asked to call and ascertain if the patient has carried out the instructions.

Towards the end of the pregnancy, the patient is invited, after the satisfactory conclusion of her confinement, to bring her baby to the Infant Welfare Clinic, and to attend for post-natal examination herself.

It is found that a great number of these patients suffer from anæmia and other minor ailments, which can usually be rectified and much done to improve the general health and outlook of the patient.

The artificial sunlight treatment is now in operation, and especially in cases of post-natal debility, proves invaluable.

The Health Visitors visit the homes of both Clinic and non-clinic patients, and report anything of note each morning, and encourage those patients who are not already attending the Clinic to do so. The aim and object is that every pregnant woman should see a doctor.

The midwives in the town are encouraged to attend the ante-natal Clinics with their patients, when opportunities are taken by the Maternity and Child Welfare Medical Officer to instruct them in the various modes of examination which could be conducted by them, e.g., external measurements of pelvis, and examination of urine.

**POST NATAL CLINIC.**—A special Clinic for post natal cases previously held at the Sanatorium, has now been transferred to the Municipal Health Centre.

**3.—Provision of Extra Nourishment for Expectant Mothers.** It has been the custom since the Maternity and Child Welfare Scheme came into operation to provide extra nourishment for expectant mothers. This has taken the form of a supply of milk daily. During the year 1937, the Health Committee authorised an extension of this scheme by the provision, where necessary and convenient for the mother, of a good mid-day dinner. The authority for these dinners is issued, after due investigation by the Maternity and Child Welfare Medical Officer, and arrangements are made whereby these dinners can be consumed in comfort and at leisure. The provision of this additional facility will, it is hoped, render the mother more physically fit when the time comes for her confinement.

**4.—Dental Treatment.** A scheme is in operation whereby the Medical Officer in charge of the Ante-natal Clinics, may send patients to one of three dentists, appointed by the Health Committee, for dental treatment, which the patient could not otherwise have afforded.

The following work has been carried out by the part-time Dental Surgeons employed by the Health Committee in the cases of expectant mothers during 1938 ;—

Two	extractions	...	...	...	...	4
Three	do.	...	...	...	...	3
Five	do.	...	...	...	...	1
Seven	do.	...	...	...	...	1
Nine	do.	...	...	...	...	1
Eleven	do.	...	...	...	...	2
Thirteen	do.	...	...	...	...	2
Fourteen	do.	...	...	...	...	3
Fifteen	do.	...	...	...	...	2
Seventeen	do.	...	...	...	...	2
Twenty-one	do.	...	...	...	...	2
Twenty-three	do.	...	...	...	...	1
Twenty-four	do.	...	...	...	...	1
Twenty-five	do.	...	...	...	...	1
Twenty-six	do.	...	...	...	...	2
Twenty-eight	do.	...	...	...	...	1
Complete Double Dentures Supplied					...	19
Partial Dentures Supplied					...	7
Fillings and Dressings					...	10

Full enquiries are made into the financial circumstances of each case in order that a reasonable decision may be arrived at as to whether the patient or parents are in a position to contribute something towards the cost of their treatment. In some instances the full amount is paid, in others a proportion, and in the remainder no charge is made. The actual cost to the Corporation for this service during 1938 was £129 17s. 0d.

**5.—Provision of Home Helps.** A further extension of the Maternity and Child Welfare Scheme has been the provision of Home Helps. A panel is kept in the Department of women suitable and willing to attend daily the home of a mother after confinement, when there is a family to be cared for, where the husband is following his daily employment, and where the financial circumstances preclude the provision of such assistance. The provision of these helps in the home, will, it is felt, do much to relieve the mind of the mother as regards the care of her family and home, and enhance the chances of her complete recovery. The following is a list of duties to be performed by the Home Helps :—



**COUNTY BOROUGH OF BLACKPOOL.**

---

**MUNICIPAL HEALTH CENTRE.**

---

**Duties of a Home Help and Conditions of Employment.**

---

The Home Help must be prepared to be called out any morning up to 12 o'clock noon.

She must attend daily at the home between the hours of 8 a.m. and 6 p.m. (Sundays excepted).

She must (a) keep the home in a clean and orderly condition; (b) do the necessary cooking for the family; (c) see that the children are properly looked after during the time she is in attendance; (d) do two weeks' washing for not more than two adults and six children, if attending for a fortnight.

She must not interfere with the instructions of the doctor or midwife. She is not allowed to wash the patient, nor make her bed, nor undertake the duty of a nurse.

She must supply her own food, and is strictly forbidden to have any intoxicating drink whilst on duty.

The Home Help must be clean and tidy in appearance, and wear overalls or pinafores whilst on duty. She should be very particular about her nails.

Where a case of infectious disease occurs in the house of a Home Help, she must stop work, and report the case to the Health Office.

If the Home Help is not well, or for any other reason is unable to work, she must report to the Health Office **before 9-30 a.m.**, the same morning, so that no case will be sent to her.

Any conduct on the part of the Home Help detrimental to the service will be reported to the Public Health Committee, who may, as a result, cease to employ the Home Help.

Payment at an agreed rate (less National Health Insurance Contribution) for each full day's service, will be made by the Public Health Department, as soon as proof is obtained of satisfactory service for twelve days. No charge must be made to the patient.

A written order will be sent to her whenever she is required stating name and address. Without such written order, payment cannot be guaranteed. In emergency, a telegram may be sent, but the written order will be forwarded later.

E. W. REES-JONES,  
Medical Officer of Health.

Municipal Health Centre,  
Blackpool.

During the year under review, home-helps were provided in nineteen cases, at a cost to the Corporation of £126 8s. 0d.

**6.—Provision of Medical Assistance or Attendance of Midwife at Confinement.** Financial help is given by the Health Committee in appropriate cases and during 1938, in 6 cases the Midwife's fee has been paid in full, and in 20 cases in part. Where medical assistance is requisitioned by a midwife, the doctor's account is sent to the Corporation in accordance with a scale of fees issued by the Ministry of Health and the Corporation have powers to reclaim the amount from the patient. In 70 cases the doctors' fees have been paid in full. Midwives are encouraged to call in a doctor where there appears to be the slightest difficulty.

**7.—Provision of Maternity Outfits.** During the year 1937 the Health Committee authorised the supply of Steriliser Drums. These drums, fully equipped and sterilized, are for the use of those expectant mothers, who are not able, through adverse circumstances, to provide the appliances necessary for their confinement. The equipment is loaned to the midwife booked for the confinement, and she is held responsible for the return of the drum, etc., on completion of the case. This very valuable service is not being fully used and steps are being taken to bring again to the notice of the midwives the desirability of utilising it.

**8.—Provision of Residential Accommodation for Maternity Cases.** There were a total of 343 patients admitted to the Maternity Wards during 1938. As will be seen by the following list, abnormal cases are given special attention thereby utilising the accommodation available to the best possible advantage. This is extremely important, as it is much easier to correct an abnormality before labour commences than afterwards. As far as possible, one ward is reserved for ante-natal abnormalities.

Cæsarean Section	...	...	...	...	...	5
Forceps	...	...	...	...	...	25
Ante-partum Hæmorrhage	...	...	...	...	...	11
Post-partum Hæmorrhage	...	...	...	...	...	8
Albumenuria	...	...	...	...	...	25
Cardiac	...	...	...	...	...	7
Ruptured Perineum...	...	...	...	...	...	84
Retained Placenta	...	...	...	...	...	6
Breech Delivery	...	...	...	...	...	15
Gonorrhœa	...	...	...	...	...	2
Mastitis	...	...	...	...	...	1
Delayed Labour	...	...	...	...	...	12
Induction	...	...	...	...	...	4
Pyelitis	...	...	...	...	...	8
Twin Pregnancy	...	...	...	...	...	6
Cracked Nipples	...	...	...	...	...	13
Puerperal Pyrexia	...	...	...	...	...	10
Version	...	...	...	...	...	5
Ante-natal Rest	...	...	...	...	...	27
Tubercular Patients	...	...	...	...	...	1

In addition to the above 64 cases of Abortion were admitted to the Isolation Wards for treatment, and 71 cases were admitted to the Annexe, Whitegate Drive.

The requests for admission to the Maternity Ward are in excess of the accommodation, and in cases which cannot be accommodated, a reliable midwife or Nursing Home is recommended.

It is interesting to note that since the commencement of this special work in 1920, 4,745 cases have been dealt with to the end of 1938. There is no definite allocation of beds for special cases but those mainly dealt with are (1) those without suitable accommodation at their homes and (2) those where complications are experienced or anticipated. There is no differentiation made between legitimate and illegitimate cases. The charges for admission vary up to £4 per week in accordance with the financial circumstances of the patients, and arrangements exist with the Lancashire County Council to admit cases for them from their administrative area if accommodation is available. Full details of the work at the Maternity Wards and of the complications are supplied to the Ministry of Health, of which the following are the main items :—

RETURN RELATING TO MATERNITY HOSPITALS AND HOMES MAINTAINED  
OR SUBSIDISED BY THE COUNCIL DURING THE YEAR 1938.

1	Name and address of Institution—The Sanatorium, Devonshire Road, Blackpool.	
2	Number of maternity beds in the Institution (exclusive of isolation and labour beds) ... ..	12
	In addition, 8 Ante Natal Beds have been used at the Annexe, Whitegate Drive.	
3	Number of maternity cases admitted during the year ... ..	343
4	Average duration of stay ... ..	13
5	Number of cases delivered by—	
	(a) Midwives ... ..	293
	(b) Doctors ... ..	49
6	Number of cases in which medical assistance was sought by a midwife in emergency ... ..	52
7	Number of cases notified as—	
	(a) Puerperal fever ... ..	—
	(b) Puerperal pyrexia ... ..	11
8	Number of cases of pemphigus neonatorum ... ..	—
9	Number of infants not entirely breast-fed while in the Institution ... ..	31
10	Number of cases notified as ophthalmia neonatorum ... ..	—
11	(a) Number of maternal deaths ... ..	2
	(b) Cause of death in each case—	
	(a) Eclampsia ... ..	1
	(b) Puerperal Fever and Cerebral Embolism ... ..	1
12	Number of infant deaths—	
	(i) Stillborn ... ..	22
	(ii) Within 10 days of Birth ... ..	9

**9.—Post-natal Clinic.** Thursday afternoon each week is set aside for this clinic, and patients are recommended to attend the Clinic to be examined after confinement. This arrangement is of value, as every post-natal patient is a potential ante-natal patient of the future, and any known disability should be corrected as soon after the birth of the baby as possible. Two hundred and sixty-three post-natal cases were dealt with at the Clinic during 1938.

**10.—Convalescent Home Accommodation.** The Health Committee has authorised the extending of Convalescent Home treatment to necessitous cases who could not afford to provide such facilities for themselves, and who, in the opinion of the Maternity and Child Welfare Medical Officer, would derive benefit from such care and attention.

Officer, sent to the Orthopædic Clinic at Fleetwood when Specialist Surgeons and Nurses of the staff of the Lancashire County Council are in attendance and where facilities for massage, etc., are available. If, on the advice of the Medical Officer in charge of the Clinic, a patient requires residential institutional treatment, arrangements are made for admission into the Royal Liverpool Children's Hospital and Heswall Country Hospital at a rate of £85 12s. 0d. per annum where the requisite treatment is administered by specialists in this branch of Public Health work. X-ray examinations and treatment are also obtainable at the Myrtle Street Hospital, Liverpool, for cases requiring such services.

Where requisite and recommended at the Clinic or Hospital, bandages, splints, surgical boots, etc., are provided for the patients.

Reports regarding the progress of the patients are received on discharge from the Hospital or Clinic, or periodically if required.

With regard to the cost of treatment under the scheme, the parents are expected to contribute the full amount, but in many cases the financial circumstances of the parents prevent their being able to contribute anything towards the cost of treatment, whilst in other cases, small contributions are made. Each case is determined on its merits, full enquiries being made into the financial circumstances.

During 1938, the following cases have been under treatment :—

Congenital Dislocation of Hip	...	...	...	4
Spastic Paralysis	...	...	...	1
Curvature of Tibiæ	...	...	...	1
Bow Legs (bi-lateral)	...	...	...	2
Talipes	...	...	...	2
Rickets	...	...	...	4
Flat Foot	...	...	...	3
Aducted Forefeet	...	...	...	2
Knock Knee and Flat Feet...	...	...	...	2
Spina-bifida	...	...	...	1
Knee (left) Dislocation	...	...	...	1
Hare Lip and Cleft Palate	...	...	...	1
				131
			Total attendances	...

Children receiving treatment under the Scheme, on attaining the age of five years, are transferred to the Education Authorities for continued treatment.

**11.—Infant Welfare Clinics.** These have been in operation on Monday, Wednesday and Thursday afternoons throughout the year. Medical and nursing advice has been given to the mothers, milk has been provided in suitable cases free or at cost price, the babies have been weighed and examined, and records kept of their progress. 5,234 packets of dried milk have been dispensed at the Clinics, and owing to social conditions it was necessary that 976 should be supplied free and 2,976 at less than cost price. In addition, 28,535 gallons of pasteurised milk were supplied to 537 homes. Of this quantity about 26.7 per cent. was supplied free, and the remainder at cost or less than cost price.

Full enquiries are made into the financial circumstances in each case when application is made for a supply of milk and a document signed giving a statement of the size of the family, total income from all sources, rent, etc. When a supply of milk has been approved and allowed, the applicant is supplied with a copy of regulations governing the supply, which include the attendance of the children at the Clinic once every three weeks, and the sending of a receipt at the end of every month certifying the quantity of milk secured under the Scheme. The actual cost to the Corporation of the milk—whether dried or pasteurised—during the year was £2,022.

The total attendances at the Clinics during 1938 was 16,974, and of these 947 were "first" visits.

In addition to the supervision of the children at the Clinics, home visiting by the Health Visitors has been carried out and work performed similar in nature to that at the Clinic. Home visiting has one definite advantage over Clinic attendance in that it gives the visitor an opportunity of observing home conditions and advising such items as ventilation and sleeping accommodation.

During 1938, 1,204 first visits and 16,746 subsequent visits were paid by the Nursing staff.

It will be observed that the total number of visits to children between the ages of 1 and 5 years is considerably higher than in previous years. The Ministry of Health desire that the children in this age group should be kept under regular observation.

**12.—Orthopædic Scheme.** The Health Committee became participants in the Orthopædic Scheme of the Lancashire County Council towards the end of 1928.

The organization is briefly as follows: Non-tuberculous crippled children under the age of five years who are suffering from Rickets, Anterior Poliomyelitis, Spina Bifida, Talipes, Flat Foot, etc., are on the recommendation of the Maternity and Child Welfare Medical

In addition to the various items mentioned above, children between the ages of 1 and 5 are kept under supervision by the Health Visitors, and thus there is a continuous supervision by us from the time of birth to the commencement of school attendance, where supervision by the School Medical Department is exercised. In this respect 10,905 visits were paid.

**13.—Registration of Nursing Homes.** The Nursing Homes Registration Act, 1927, was repealed and its enactments were embodied in the Public Health Act, 1936, and required Nursing and Maternity Homes to be registered by the Corporation. They have all been visited and inspected by the Maternity and Child Welfare Medical Officer, who reports satisfactorily upon them. Nineteen Institutions were on the register at the end of 1938, consisting of seventeen Homes for Maternity Nursing and ten Homes for General Nursing. No orders have been made refusing registration.

The following is the list of the Registered Homes together with the number of beds available :—

NAME OF HOME.	BEDS		
	Maternity	Others	
150, Marton Drive	1	—	10 beds allocated as required.
22, Moore Street	5	4	
46, Sherbourne Road	3	8	
230, Hornby Road	3	7	
22, Severn Road	2	—	
160, Reads Avenue, and Annexe ..	4	3	
244, Park Road	2	—	
412, Lytham Road	2	6	
45, Sherbourne Road	1	1	
36, Montpelier Avenue ...	3	—	
36, Morston Avenue ..	2	—	
486, Lytham Road	2	3	
12, Grasmere Road	2	—	
333, Lytham Road	—	1	
16, Dorchester Road	2	—	
27, Clovelly Avenue	1	—	
35, Fenton Road	2	—	
254, Waterloo Road	—	8	
128, Red Bank Road ...	6	5	
TOTAL HOMES ON REGISTER ... 19	43	46	

**14.—Nursed-out Children.** Children and Young Persons Act, 1932-1936. Infant Life Protection. The first visits are in all cases made by the Maternity and Child Welfare Medical Officer and her recommendations as to suitability submitted to the Health Committee, and subsequent visits are made by each of the Health Visitors in her own district. These visits were made at least quarterly, and up to the end of the year, 355 visits were paid, and Dr. Milne reports a considerable improvement in the conditions existing in the homes where these children are cared for.

The provisions of this part of the Act are briefly as follows and are embodied in a pamphlet entitled "Advice to Foster Parents" and issued by the Medical Officer of Health:—

1. Every person who undertakes for the first time to keep for payment a child under the age of nine years, either apart from its parents or having no parents must give notice in writing at least seven days before receiving the child, to

THE MEDICAL OFFICER OF HEALTH,  
SEFTON STREET,  
BLACKPOOL,

either personally or by registered letter. This notice must state :

- (i) the name of the child ;
- (ii) its sex ;
- (iii) the date of its birth ;
- (iv) the place of its birth ;
- (v) the name and address of the person from whom it is to be received ;
- (vi) the name of the person who is to keep it ;
- (vii) the premises in which it is to be kept.

2. Every person who is keeping for payment a child who will be under the age of nine years must give a similar notice unless notice has already been given.

3. Every person who undertakes to keep an additional child for payment must give a similar notice to the Authority at least 48 hours before receiving that child.

4. If a child is received in an emergency which makes it impossible for so long a notice to be given the Authority must be notified at the earliest possible moment, not later than 12 hours after the emergency.

5. Every person who is keeping a child without payment and then enters into an undertaking to keep it for payment must give a similar notice not later than 48 hours after entering into the undertaking.



6. Every person keeping a child for payment who intends to move to another house must give notice of the intended removal to the Authority at least seven days before removing. On removing to a district administered by another Maternity and Child Welfare Authority notice must also be given to that Authority at least seven days before the removal, giving the information set out in paragraph 1. (The Visitor will be able to give the address of the new Authority if the postal address of the new house is given to her.) If an emergency makes it impossible to give these notices before removal, they must be sent, with an explanation of the circumstances, not later than 48 hours after the emergency.

7. If a child kept for payment is handed over to another person, notices giving the name and address of the person to whom it is given must be sent within 24 hours (a) to the Authority and (b) to the person at his last known address from whom the child was received.

8. On the death of a child kept for payment, notices must be sent within 24 hours (a) to the Authority, (b) to the person from whom the child was received, and (c) to the Coroner of the district within which the body of the child lies,

The name of the Coroner for this district was

COLONEL HAROLD PARKER, Deceased.

Deputy Coroner :

MR. WILLIAM BLACKHURST,

and notices addressed to him should be sent to

9, CANNON STREET, PRESTON.

9. Every person keeping a child for payment, must, unless exempted by the Authority allow the Infant Protection Visitor or other person duly authorised by the Authority to visit or examine the child and the premises where it is kept, in order to satisfy the Authority as to the proper nursing and maintenance and general health and well-being of the child and to give any necessary advice or directions.

10. The Authority may fix the total number of children under the age of nine years who may be kept in any one house. They may also lay down conditions which must be observed if more than a fixed number of such children are kept. It is a punishable offence to keep more children than the number fixed by the Authority or to fail to observe any such conditions.

11. It is a punishable offence for a child to be received for payment without the written sanction of the Authority :—

(a) by a person from whose care any child has been removed  
or

(b) If it is being kept in any home from which any child has been removed under those Acts by reason of the premises being dangerous or insanitary or so unfit as to endanger the child's health ; or

(c) If the foster parent has been convicted of any offence of cruelty under the Acts relating to the prevention of cruelty to children and young persons.

12. No advertisement which indicates that a person or society will undertake or arrange for the nursing and maintenance of children under the age of nine years may be published unless the name and address of the person or society are truly stated in the advertisement.

13. No person may directly or indirectly insure the life of a child received for payment, or may claim payment of insurance on its death.

14. These requirements do not apply to persons keeping children for payment if the children are :—

- (a) under their legal guardianship, or are related to them as grandchildren, brothers, sisters, nephews or nieces ; or
- (b) received under the Poor Law ; or
- (c) certified mental defectives under guardianship ; or
- (d) in certain hospitals, convalescent homes or institutions.  
(Details may, if required, be had from the Visitor.)

15. Payment means any payment, either in money, gifts or money's worth, or any promise to pay or give money or money's worth, whether there is any intention of making a profit or not. This includes therefore the receipt of lump sums as well as of payments at intervals.

16. Persons who fail to carry out the above requirements or who wilfully make, or cause to be made, false statements in the notices required to be given are liable to be punished by imprisonment for six months, or by a fine of £25. Persons who do not notify are committing a continuing offence, which may be punished at any time during which the child is in their care or within six months after.

E. W. REES-JONES,  
Medical Officer of Health.

Number of Children on Register, end of 1937	...	...	...	55
Number of applications received during 1938	...	...	...	55
Number of applications granted by Health Committee...	...	...	...	55
Number of applications not granted	...	...	...	—
Number of children returned to parents during year	...	...	...	37
Number of children adopted legally during the year	...	...	...	3
Number of children who died during the year	...	...	...	—
Number of children who attained the age of nine years	...	...	...	2
Transferred to other towns and Institutions	...	...	...	18
Number of children remaining on Register at the end of 1938...	...	...	...	50

**15.—Ophthalmia Neonatorum.** This disease of the newly-born which is so frequently a cause of blindness, resulted in nine cases being notified during the year. All the cases were removed to the Sanatorium for treatment, and all recovered without any impairment of the sight, with the exception of one child which died.

In order to keep this disease freshly in the minds of the midwives in the area, their attention is periodically called to the duties they are called upon to perform under the requirements of the Central Midwives Board, and the following is a copy of a circular which has recently been sent to each midwife practising in the town :—

To the REGISTERED MIDWIVES,  
BLACKPOOL.

In order to check the occurrence of OPTHALMIA NEONATORUM which is unduly prevalent, you are reminded of the following requirements of the **Central Midwives Board** :

- (a) " Eye drops must be carried in a bottle of special shape, distinguishable by touch as well as sight."
- (b) " Duties to child. As soon as the head is born, and if possible before the eyes are opened, its eyelids must be carefully cleansed."
- (c) " Inflammation of, or discharge from the eyes, however slight, call in a registered medical practitioner."

It is important to wash out the eyes of ALL BABIES IMMEDIATELY AFTER BIRTH with a solution of Boracic Acid, and afterwards drop in two drops of a solution of Silver Nitrate.

The solution of Boracic Acid is made by dissolving a heaped teaspoonful of Boracic Powder in a tumblerful of hot water, allowing it to cool, and then keeping it in a clean bottle.

The solution of Silver Nitrate will be obtained from my office on application without charge. In the first instance it is supplied in a drop-bottle, and this bottle will be re-filled at the office as often as required. Please call for this solution and keep both bottles always in your bag. Do not fail to use the two lotions in all cases. If they are properly used according to the directions given below, Ophthalmia Neonatorum will probably not occur.

#### DIRECTIONS FOR USE.

FIRST—WASH YOUR HANDS THOROUGHLY.

Then wash the baby's eyes with some CLEAN COTTON WOOL or CLEAN RAG soaked in the Boracic Solution. You should keep a small supply of clean cotton wool or clean rag (boiled and dried) in a small linen bag inside your own bag.

Then dry the eyelids well with some more of the cotton wool or clean rag. Throw all the pieces of wool or rag on the fire as soon as used. Do not use a second time.

Then draw down the inner corners of the lower lids of baby's eyes and drop two drops only of the Silver Nitrate solution into each eye. Then leave them alone. Wash the baby's eyes every day with the Boracic Solution. It will not be necessary to use the Silver Nitrate after the first time.

E. W. REES-JONES,  
Medical Officer of Health.

I. A. MILNE,  
Maternity and Child Welfare  
Medical Officer.

**16.—Prevention of Deafness.** I reproduce here the observations upon this subject made in previous reports. The following circular was issued in May, 1933, by the Ministry of Health on this subject:—

Sir,

#### **PREVENTION OF DEAFNESS.**

I am directed by the Minister of Health to request you to draw the attention of the Authority to the report made by the late Dr. Eichholz, entitled "A Study of the Deaf," which was presented to the Minister and the President of the Board of Education and has recently been published by H.M. Stationery Office, price 3s. 0d. net. The Minister has under consideration the suggestion in the report that further research is needed into the causes of deafness, and in the meantime he wishes to bring to the notice of the Authority what is said in the report on the prevention of deafness.

The report points out that the vital factor in dealing with deafness lies along the lines of prevention, and that, although much is already being achieved through the public health services to arrest child deafness and post-natal deaf-mutism, more could be done by pursuing the methods at present available. The Minister endorses the suggestion that Maternity and Child Welfare Authorities should give close attention to the early and continuous treatment of infants suffering from ear defects, with a view to preventing the deafness and deaf-mutism which are otherwise likely to ensue, and he desires to draw the attention of the Authority to the particular measures recommended in the report. These comprise:—

(a) The early and effective treatment of ear disease resulting from infectious diseases such as measles, scarlatina, diphtheria and meningitis; and

(b) The particular observation and treatment of nose and throat defects.

The Minister trusts that the Authority will take into consideration at an early date (i) what use can be made of existing facilities (e.g., infant welfare centres and health visiting) and what additional measures are necessary in their area to ensure the early detection of these defects and diseases

in infants ; and (ii) what arrangements can best be made for providing the necessary treatment. Wherever practicable it is of course desirable that the treatment of ear diseases should be entrusted to a medical practitioner who has special experience of this work, and in areas where such a specialist is engaged for the School Medical Service arrangements could no doubt be made for his services to be available to the Maternity and Child Welfare Authority.

A copy of this Circular is being sent to the Medical Officer of Health, and further copies may be obtained from His Majesty's Stationery Office at the addresses shown below.

I am, Sir,

Your obedient Servant,

A. K. MACLACHLAN,

Assist. Secretary, Ministry of Health.

To the Town Clerk.

This circular was submitted to and considered by the Health Committee, and on their instructions I submitted the following report which was adopted :—

TO THE HEALTH COMMITTEE OF THE  
BLACKPOOL CORPORATION.

In accordance with your instructions I have to report that I have conferred with Drs. Milne, Dickinson and Eaton upon the above circular of the Ministry of Health.

DR. ISABELLA MILNE, MATERNITY AND CHILD WELFARE MEDICAL OFFICER: Dr. Milne, while acting as Resident Medical Officer at Booth Hall Hospital, Manchester, had charge of a Ward of 20 beds (0-14) for ear, nose, and throat diseases, and thus gained considerable experience in dealing with cases of this class. She will, in her M. and C. W. Clinics, give special attention to the early detection of defects in children up to the age of 5 years. She will also supervise convalescent Scarlet Fever cases in pre-school children for a period of one month following release from isolation.

DR. ELSIE DICKINSON, ASSISTANT SCHOOL MEDICAL OFFICER: Dr. Dickinson, while acting as anæsthetist to the Ear, Nose and Throat Hospital, Glasgow, had special opportunities of observing cases of this class. She will, in her School Medical work, whether in the schools or the School Clinics, pay special attention to the detection of the removable causes of deafness. She will also supervise convalescent Scarlet Fever cases in school children for a period of one month following release from isolation.

MR. E. MILNE EATON : Mr. Eaton is engaged solely in ear, nose, and throat practice, and is Honorary Aural Surgeon to the Blackpool Victoria Hospital and Consulting Aural Surgeon to the Fleetwood and Lytham Hospitals. He has kindly undertaken to act as Oto-laryngologist to the Health Department for cases now under consideration, and will examine, report upon, and give general advice on cases referred to him by Drs. Milne and Dickinson.

DR. G. W. MURRAY, ASSISTANT MEDICAL OFFICER OF HEALTH : has not had any special experience in this work, and therefore his assistance is not available for purposes other than administration of anæsthetics.

E. W. REES-JONES.

**17.—Dental Work for Children.** A scheme has now been organised and put into operation for dental treatment for all cases requiring it in children under five years of age. The children are examined at the Infant Welfare Clinic by the Maternity and Child Welfare Medical Officer, and an official order is issued upon the Dental Surgeon appointed by the Health Committee for the area in which the patient resides. Three Dental Surgeons have been appointed as part-time officials of the Department, one each for the North, Central, and South sections of the Town. The treatment, which covers the following items, is administered at the Surgeon's business premises :—

- (a) (1) Extractions and Dressings.
- (2) Extractions with local anæsthetics.
- (3) Extractions with gas.
- (b) Fillings where necessary.

In cases where the financial circumstances of the patients are such that they will not permit of the payment for this treatment, the expenses are borne by the Health Committee. Full enquiries are made into the financial circumstances in each case and where possible, a contribution towards the cost is paid by the parents or guardians of the child.

The following work was performed during the year :—

1 Extraction	...	...	...	...	...	13
2 Extractions	...	...	...	...	...	2
3 do.	...	...	...	...	...	2
4 do.	...	...	...	...	...	8
8 do.	...	...	...	...	...	2
9 do.	...	...	...	...	...	2
12 do.	...	...	...	...	...	1
14 do.	...	...	...	...	...	2

The actual cost to the Corporation was £13 16s. 0d.

**18.—Birth Control Clinic.** This Clinic is now organised and working satisfactorily. Patients attending this Clinic are those suffering ailments of a major nature, which make a further confinement a danger to their lives. Advice is not given on purely economic reasons. The patients have been, so far, mostly those who have had their previous confinements in the Maternity Wards. The average number of attendances is necessarily small. There were 31 first visits and 80 re-visits paid to the Clinic. At the request of the Medical Officer of Health for Lytham St. Annes arrangements have been made for cases selected by him to be dealt with at the Blackpool Clinic and it is gratifying to be able to render this assistance to a neighbouring Authority.

**19.—Investigation of Maternal Deaths.** These investigations have been carried out by the Maternity and Child Welfare Medical Officer, in consultation with private practitioners, nurses or midwives and the relatives, and the reports forwarded to the Ministry of Health. These reports are of a confidential nature and therefore I am at liberty to give you only a general statement upon them. The Registrar-General has allocated seven maternal deaths to Blackpool: three due to sepsis, and four to other conditions. As there were 1,476 births during the year (including live and still births) this gives a maternal mortality rate of 4.74.

No effort on the part of your medical and nursing staff shall be spared to attain a reduction in this rate.

A few notes on the seven deaths will be of interest. They were as follows:—

1. Staphylococcal Septicæmia supervening on Abortion.
2. Cerebral Embolism. Puerperal Fever.
3. Puerperal Sepsis. Pneumonia.
4. Eclampsia.
5. Accidental Uterine Hæmorrhage. Stillbirth.
6. Albumenuria. Toxæmia of Pregnancy.
7. Hæmorrhage and Acute Pulmonary Oedema as result of Miscarriage.

The preceding notes upon our maternal deaths will indicate the diversity of the subject, the various conditions which may cause death, and some of the avenues by which the problem may be attacked.

One of the maternal deaths was that of a patient from Scotland who was in Blackpool on holiday. Had she been from any place in England the death would be transferred to the district of her residence, but this system of transfer does not operate as between England and Scotland.

**20.—Sunlight Clinics.** There are four sessions weekly. The total number of new cases during 1938 was 190 and the total number of attendances was 3,103. This Clinic is supplying a much felt need. Under-developed and backward children begin to thrive from the first day they are brought to the Clinic. Our results have been very satisfactory.

Expectant and nursing mothers are also treated at this Clinic. It is found that this treatment is most beneficial in such cases, it acts as a stimulant and tonic, and is excellent for the various forms of muscular pains experienced both before and after childbirth.

There is a lengthy waiting list of these cases, but it is hoped at an early date to obtain further facilities in this section of the department.

**21.—Weakly Babies.** During the year, and in so far as accommodation was available, a number of infants have been admitted to the Sanatorium for such conditions as feeding and nutritional disorders, and the following is a list of such cases during 1938 :—

Ophthalmia	...	...	...	...	...	8
Circumcision	...	...	...	...	...	1
Marasmus	...	...	...	...	...	9
Pneumonia	...	...	...	...	...	8
Prematurity	...	...	...	...	...	13
Bronchitis	...	...	...	...	...	2
Other conditions	...	...	...	...	...	32
						<hr/>
TOTAL	...	...	...	...	...	73
						<hr/> <hr/>

This service has been of much value and has been highly appreciated by the parents of the children.



Table Shewing Visits, Attendances at Clinics, Milk Supply, etc.

(A) VISITS BY HEALTH VISITORS.

	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
<i>Births</i> : First Visits	1049	1113	1147	1109	1075	1126	994	1314	1188	1294	1261	1204
Subsequent Visits	4671	4308	4319	4499	3749	3152	2760	4656	5966	5355	5648	5841
<i>Expectant Mothers</i> : First Visits	256	335	317	275	310	293	330	518	652	652	696	728
Subsequent Visits	1509	1939	2175	1855	1941	1882	954	1831	2129	2216	2148	2417
Stillbirths	48	35	57	48	41	35	39	63	50	57	44	60
Deaths	55	55	48	49	32	39	30	65	49	53	60	39
Puerperal Fever	1	1	6	5	11	15	26	14	8	14	4	5
Ophthalmia Neonatorum	140	129	72	58	6	—	21	9	17	63	16	4
Midwives	186	162	179	145	229	158	148	177	184	194	224	190
Female Outworkers	1	—	—	4	—	—	—	—	2	—	—	—
Children other than newly-born	1395	931	1796	2057	1606	2471	4062	8461	10380	10386	10567	10905
TOTALS	9311	9008	10116	10104	9000	9171	9364	17108	20625	20284	20668	21393
(b) ATTENDANCES AT CLINIC.												
<i>Expectant Mothers</i> : First Visits	21	37	45	49	187	418	462	608	694	1064	871	828
Subsequent Visits	135	190	216	241	117	2248	2040	2952	3066	3930	3820	4594
<i>Children</i> : First Visits	553	558	666	726	647	705	642	762	1044	982	714	947
Subsequent Visits	13400	12834	14191	16706	7635	8528	8906	11095	13682	16327	14889	16027
TOTALS	14109	13619	15118	17722	8586	11899	12050	15417	18486	22303	20294	22396
(c) SUPPLY OF DRIED MILK, PACKETS.												
Supplied Free	7380	6425	6957	9425	2848	438	2472	1631	3824	5633	1368	976
At reduced charge	2666	2372	3251	5602	2302	767	2550	2229	5054	7262	3317	2976
At nett actual cost	3678	3122	3679	1631	327	380	1163	672	1242	2289	997	1282
TOTALS	13724	11919	13887	16658	5477	1585	6185	4532	10120	15184	5682	5234
(d) PROVISION OF MIDWIVES AND DOCTORS.												
Full Midwife's fee granted	24	15	13	6	7	12	15	40	56	68	44	6
Half midwife's fee granted	10	31	27	25	27	37	14	40	48	43	25	20
Full doctor's fee granted	8	6	8	16	7	16	30	24	83	31	60	70
Half doctor's fee granted	6	—	—	3	5	7	15	20	30	63	60	37

## **MEDICAL EXAMINATION OF ENTRANTS INTO THE MUNICIPAL SERVICE.**

In accordance with the instructions of the Town Council, the duty of carrying out the medical examination of all entrants into the Service of the Corporation, whether temporary or permanent, was placed upon the Health Committee and its staff and owing to the continued and rapid growth of the medical work of the Health Department, on the above duties being undertaken by the staff it was found necessary to appoint an additional Assistant Medical Officer of Health in 1937.

During the year 2,423 examinations were carried out, an increase upon 1937 of 852.

## **PREVENTION OF BLINDNESS.**

In December, 1938, the Town Council, in the exercise of their powers under and by virtue of Section 66 of the Public Health Act, 1925, made the following arrangements for assisting in the prevention of Blindness, and in particular for the treatment of persons ordinarily resident within the area of the Council suffering from any disease of or injury to the eyes.

A copy of the Scheme was forwarded by the Medical Officer of Health to all members of the Local Medical Profession.

### **Scheme.**

(1) To arrange for the ascertainment, through a system of voluntary notification to the Council by medical practitioners or otherwise, of persons threatened with blindness, and in respect of each such notification to pay the sum of 2s. 6d., or such other sum as it may from time to time determine. Provided that only one payment is made in respect of any one person and provided also that no payment shall be made to any person or body who is required by any statutory enactment or regulations for the time being in force or by any terms of service or otherwise to give the notification.

(2) To arrange for the systematic visiting of persons ascertained to be threatened with blindness to secure that they avail themselves of the facilities provided for expert treatment and supervision.

(3) To provide for the provision of treatment for the prevention of blindness to persons ordinarily resident within the County Borough, either as in-patients or out-patients at hospitals, dispensaries, clinics, or other approved places or otherwise.

(4) To provide means to enable suitable cases to take advantage of facilities for treatment, including the provision of financial assistance for that purpose.

(5) To arrange for any person to contribute the whole or part of the cost of any treatment given under this scheme.

(6) To arrange for the dissemination of information regarding the prevention of blindness, including the issue and distribution of literature having this object.

In the carrying out of this scheme, and without restricting the generality of the foregoing clauses, the Council may do all such other acts and things as are incidental or conducive to the attainment of the objects of such scheme.

### **POST OFFICE PUBLICITY FACILITIES.**

With regard to the requirements of the Ministry of Health as laid down in Circular No. 1643, dated the 30th August, 1937, the following arrangements were made in accordance with the desires of the Health Committee.

Cards were displayed in the General Post Office and Branch Post Offices giving details of the various local Public Health Services.

In addition, a brochure was prepared giving full but brief details of the various activities of the Department, including Infectious Diseases, Immunisation, Bacteriological Service, Disinfection, Tuberculosis Scheme, Dispensary days and times, Residential Institutional Treatment, Maternity and Child Welfare Scheme giving details of Clinics, held, etc., the Municipal Midwifery Services, Home Helps, Venereal Diseases Scheme, Vaccination, Prevention of Blindness, Sanitary and Food Inspection, Public Abattoirs, and also the Medical Staff operating the Schemes, and the Official Telephone Numbers. The information was prepared in a handy sized booklet which could be carried in the pocket, and should be a valuable reference for the public. There has been a considerable demand for this Booklet and a reprint at an early date will be necessary.

Copies of the publication will be obtainable in future at all Post Offices, various Departments of the Corporation, and the Municipal Health Centre. Copies were also distributed by the Nursing and Inspectorial Staffs.

### VENEREAL DISEASES SCHEME.

Clinics are held each day of the week—four Clinics for Males and two clinics for Females—at special Wards at the Municipal Health Centre. Dr. G. W. Murray, Dr. J. E. Rankine (to 31st August, 1938) and Dr. D. O'Brien (from 1st September, 1938) attend at the Male Sessions and Dr. I. A. Milne at the Female Sessions.

To bring the facilities to the notice of the public generally, small posters are placed in all the Public Lavatories in the town, informing the public that treatment is provided for them with the utmost privacy, free of cost, and appealing to them to take advantage of the Scheme. The situation of the Clinic and the hours of attendance are specified on these posters.

Patients may attend at the Clinic at any hour for irrigation, a member of the staff of the Hospital being in attendance to supervise such irrigations. The existing arrangements in this respect would appear to meet the needs of the patients.

The Local Medical Practitioners are fully aware of the facilities available at the Clinic, and of the fact that the services of the Medical Officers of the Treatment Centre are available at any time for the purpose of consultation free of charge. An increasing use has been made of this feature.

There are 31 Medical Practitioners in the area who are qualified to receive free supplies of Arsenobenzol compounds, all of whom have been supplied.

During the year advantage was taken of the facilities for pathological examinations by Medical Practitioners in 229 cases.

The hours of the Clinic are as follows :—

#### MALES :

Mondays	...	4-45 p.m. to 6-30 p.m.
Wednesdays	...	11-0 a.m. to 12-30 p.m.
Thursdays	...	4-45 p.m. to 6-30 p.m.
Saturdays	...	11-0 a.m. to 12-30 p.m.

#### FEMALES :

Tuesdays	...	5-0 p.m. to 6-30 p.m.
Fridays	...	11-0 a.m. to 12-30 p.m.

The following Salvarsan substitutes are kept at the Municipal Health Centre for distribution to Medical Practitioners who are qualified to receive them: Neo-Kharsivan, Neo-Salvarsan, Metarsenobillon, Novarsenobillon and Stabilarsan.

The following is a brief outline of the Venereal Diseases Scheme as organised in Blackpool, and as embodied in a special report to the Health Committee by Dr. G. W. Murray :—

**Publicity.**—To bring the facilities to the notice of the public generally, small posters are placed in all the Public Lavatories in the town, informing the public that treatment is provided with the utmost privacy and free of cost, and urging them to apply for treatment early. A similar notice has appeared in the local press. No further propaganda has been carried out.

**Treatment.**—Appended is a Table shewing the new cases treated during the past seven years. It will be noted that the tendency is for a slight fall in the number since the beginning of the Scheme.

**Cures.**—Stringent precautions are taken to ensure that the disease is finally eradicated, and when there is any suspicion that patients are not absolutely cured they are kept under observation for further and varying lengths of time.

In the case of Syphilis, after all active treatment has ceased the patient must report at intervals over a period of 2—3 years for Blood Tests before it can be definitely averred that he is cured.

With Gonorrhœa patients, certain tests as laid down by the Ministry of Health must be carried out at intervals before a final decision can be given.

In either case if the patient appears early for treatment the prospect of cure is definite, though treatment may be prolonged. The longer the delay, however, before treatment is applied for, the more likely for complications to occur and for permanent damage to the system takes place. In long standing cases the prospect of absolute cure is doubtful.

### **Outline of Treatment.**

**SYPHILIS.**—In early, primary, or secondary cases direct microscopical examination for the germ causing the condition is made at the Clinic, and blood tests done. The diagnosis of Syphilis being confirmed, one, two, or more courses of injections (Arsenobenzol and Bismuth) are given. Each course lasts about 16—18 weeks, and between each course a blood test is done. Local and general symptoms rapidly subside, but treatment is necessarily prolonged. After two consecutive blood tests are Negative, active treatment is stopped and tests done at intervals over at least 2 years.

GONORRHŒA.—Microscopical examination is made at once of early discharge and a diagnosis come to. Treatment, local and medicinal, is carried out daily and at weekly intervals urine and other examinations are made in order to ascertain the progress of the condition. If treatment is commenced early symptoms subside fairly rapidly and the patient may be ready for tests of cure in about 6—8 weeks, but all tests must be negative before the patient can be discharged as cured. With Gonorrhœa cases, however, there is a decided tendency for complications to arise, and for the condition to become more chronic. In this case treatment may be very prolonged, and with the large Clinics and the time at our disposal it becomes very difficult to give anything like the individual attention to patients they merit.

**Defaulters.**—On the whole the attendances at the Clinic are very satisfactory, but quite a large number of patients cease attending before treatment is finally completed, as will be seen in the appended Table. The figure is higher than one would like to see, but is explainable in various ways :—

- (1) A number transfer to other areas and are given a transfer card, so that presumably treatment is completed elsewhere.
- (2) In Blackpool with its great influx of workers and visitors during the Season, a large number attend the Clinics here while in the Borough, but leave the district without giving notice and therefore get no transfer card. These cases must of course be reckoned as having defaulted although they may continue treatment in their own home district.
- (3) A number are to all intents and purposes "cured," but fail to attend for the final tests. Many of them return later for completion of tests, but during any year may have been put down as defaulters.
- (4) A certain number through laziness and lack of interest in their own health cease attending after the acute symptoms subside, and only return if complications arise. It is often extremely difficult to convince these patients of the dangers to themselves and others they are incurring.

A full statistical report upon the work carried out during the year has been prepared and forwarded to the Ministry of Health. A summary of the work for each of the twenty years during which the Scheme has been in operation is given in the following table :—

	Totals, 1938	Totals, 1937	Totals, 1936	Totals, 1935	Totals, 1934	Totals, 1933	Totals, 1932	Totals, 1931	Totals, 1930	Totals, 1929	Totals, 1928	Totals, 1927	Totals, 1926	Totals, 1925	Totals, 1924	Totals, 1923	Totals, 1922	Totals, 1921	Totals, 1920	Totals, 1919	Totals, 1918
1. Number of patients under treatment 1st January, 1937 ... ..	247	312	317	341	373	307	271	223	225	252	226	257	279	194	182	280	227	315	181	35	16
2. New out-patients ... ..	465	401	482	440	476	583	811	760	896	903	691	551	498	569	515	493	486	499	519	333	141
3. Total attendances of out-patients (including attendances for irrigation) ... ..	24257	19414	23679	21375	21792	24353	15614	17542	20965	22494	21321	15521	13521	11735	7190	6440	7404	8180	6839	3092	1574
4. Aggregate number of In-patient days ... ..	296	247	394	95	210	234	168	Nil	Nil	90	75	100	67	161	62	140	117	38	273	520	219
5. Specimens examined for Wasserman reaction ... ..	396	814	858	743	745	586	255	428	259	252	412	353	280	207	175	172	143	91	77	36	95

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
NEW CASES	SYPHILIS ...	82	48	56	60	41	39	44	35	36
	Female	24	24	21	52	18	20	36	33	23
	GONORRHOEA ...	320	272	198	209	195	189	191	154	192
	Female	45	31	34	30	41	58	48	29	39
CURED	Male	125	149	116	88	116	113	98	104	126
	Female	23	36	30	24	7	48	65	46	41
	TOTALS ...	600	619	450	428	503	440	482	401	465
	Female	15	24	12	17	12	19	5	10	7
CEASED ATTENDING BEFORE COMPLETION OF TREATMENT, AND CASES TRANSFERRED	Male	8	12	8	6	1	1	6	8	3
	Female	177	155	105	126	65	69	85	48	84
	Male	16	20	13	18	4	6	16	9	10
	Female	4	9	111	88	76	136	99	105	124
NON-RESIDENTS INCLUDED IN ABOVE	Male	—	—	35	23	6	53	63	46	48
	Female	220	220	284	278	164	253	279	223	273
	TOTALS ...	63	83	46	62	95	43	43	70	61
	Female	22	38	35	27	44	27	36	37	29
ATTENDANCES	Male	187	130	111	118	211	230	200	203	176
	Female	38	19	12	19	47	39	36	46	21
	Male	1	1	1	—	3	4	2	—	—
	Female	—	—	—	—	—	—	—	—	—
NON-RESIDENTS INCLUDED IN ABOVE	TOTALS ...	311	271	205	226	400	331	317	356	287
	SYPHILIS ...	31	51	30	43	36	23	16	33	31
	GONORRHOEA ...	143	104	103	94	136	121	62	85	115
	OTHERS ...	—	—	—	—	—	—	—	—	—
ATTENDANCES	TOTALS ...	174	155	133	137	172	144	78	118	146
	To Medical Officers ...	7286	7269	5791	5437	7059	6900	7028	6076	6397
	Irrigations, etc. ...	15208	13696	11751	10177	17294	14746	16651	13338	17860
	TOTALS ...	22494	20965	17542	15614	24353	21792	23679	19414	24257



## II.—SANITARY CIRCUMSTANCES OF THE BOROUGH.

**Water Supply.**—This is under the jurisdiction of the Fylde Water Board. The water is an upland surface water of a soft nature. The gathering ground is a good one, and is thoroughly safeguarded from all risk of animal pollution, and the water is now laid on to every inhabited part of the Borough.

Samples are taken for bacteriological analysis, and the Engineer to the Board has been good enough to furnish me with the reports received during the year.

BACTERIOLOGICAL EXAMINATION OF SAMPLES OF FYLDE WATER BOARD SUPPLY TAKEN DURING 1938.

Report Number	Aerobic Micro-organisms growing in Yeastal Agar.		Coli-Aerogenes.		Probable number of Coli-aerogenes bacteria per 100 m.l. of Water. From McCrady's Tables, Ministry of Health.
	No. of Colonies per c.c. of Water.		Found.	Not found.	
	In 3 days at 22° C.	In 2 days at 37° C.			
1	30	2	—	100 m.l.	0
2	32	1	—	do.	0
3	33	2	—	do.	0
4	18	0	—	do.	0
5	7	1	—	do.	0
6	65	1	—	do.	1
7	6	1	—	do.	0
8	27	3	50 m.l.	Less than 50	3
9	13	3	—	100 m.l.	0
10	6	5	—	100 m.l.	0
11	9	0	—	100 m.l.	0

## SEWERAGE OF THE BOROUGH.

### Northern Area.

The new Anchorsholme Pumping Station has now been in operation for eighteen months, and the reinforced concrete sewer culverts have been completed almost to Greenlands, whilst the Red Bank Road and Warbreck Drive subsidiary sewer has also been completed. Since the time when these were put into operation, the Anchorsholme District has been entirely free from flooding caused by rainfall, and fields which were usually waterlogged practically the whole of the winter have been quite dry. The new outfall sewer to the sea has been completed and placed in operation, and it is hoped that the whole scheme will be completed by Autumn.

Loan Sanction has been sought for further subsidiary sewers for the drainage of the Layton Flashings and work will be commenced as early as possible.

### Central Area.

The installation of the second drum screen at the Manchester Square Pumping Station has been completed and the station is now in full operation.

### Southern Area.

The construction of the R.C. culverts and the pipe sewers extending from Harrowside to Preston Old Road is nearing completion and the work of extending the pipe sewers to Little Marton is proceeding steadily. A further contract consisting of the laying of pipe sewers in Lindale Gardens and Preston Old Road is on the point of being commenced.

Lennox Gate Pumping Station as far as the structure is concerned is practically completed, and rapid progress is being made with the installation of the pumping and screening plant.

The sea outfall at Harrowside is proceeding steadily, about 300 lineal yards of outfall pipe having been laid.

A new concrete pipe sewer is being constructed to connect Harrowside Bridge Pumping Station to Harrowside Slade Pumping Station, the work being carried out by direct labour.

The Storage Tank at Queen Victoria Road has been in operation about 18 months.

### Gynn Area.

The sewerage works in this area have been completed. There still remains to be constructed a new Screening Station for which Loan sanction has to be obtained, and a new overflow.

### Eastern Area.

Plans and Specifications have been prepared, and tenders invited for the first section of this work, and it is anticipated that a tender will be accepted in March.

---

In the Borough there are 57,002 water closets and 361 pail closets. There are only 3 cesspools emptied regularly by the Cleansing Department, but in outlying parts of the districts a large number of unsatisfactory Septic Tanks exist. These have overflows into watercourses which give rise to insanitary conditions. During the year 16 of these were abolished and the drainage of the houses connected to the public sewers. The rate of progress in this connection with further conversions is dependent upon the construction of the new sewers in the northern and southern portions of the Borough.

**Scavenging.**—This is carried out by the Cleansing Department of the Corporation. As all the inhabited portions of the town are on the water carriage system the collection and disposal of excreta other than by this system is small in quantity. The cesspools and privies, where they exist, are emptied and cleaned at least once a week.

With regard to household refuse, galvanized iron bins with tight-fitting covers are the most satisfactory of all forms of receptacles and under Section 26 of the Blackpool Improvement Act, 1928, the Corporation are empowered to prescribe the size and material of such receptacles required in substitution of any ashpit or other fixed or movable receptacle for refuse. In the exercise of this power, the Corporation, on the recommendation of the Health Committee adopted the following specification: "Body to be of 20 B.W.G. before galvanising, and of a capacity of not less than three cubic feet, or not more than 3.5 cubic feet. The materials, workmanship and construction to be of best quality throughout."

I am informed by the Director of Public Cleansing that refuse was removed from all premises weekly, whilst during the season a daily collection was carried out from hotels, hydros, Restaurants, and larger boarding-houses, and from the ordinary company-houses the refuse is removed from two to three times a week. With a modification requisite for meeting the reduced demand in connection with company-houses, this system is maintained during the winter months. The refuse collected is dealt with at the Refuse Disposal Works, and during the year this amounted to 40,273 tons, whilst in addition 1644 tons were tipped away, and 1006 tons of nightsoil were removed.

The Refuse Disposal Works at Bispham have operated efficiently and without nuisance or annoyance. A fairly complete description of these works was given in my report for 1931, and it is not necessary to repeat it here.

Further modernisation is contemplated in order to deal with the ever-increasing tonnage of the Town's refuse, and steps are also being taken to secure a site in the Southern Area of the Borough for the erection of an additional Disposal Works.

With regard to the **inspection of ash-receptacles** by the Health Department, the following work has been carried out :—

TOTAL NUMBER OF VISITS MADE	...	...	...	...	1,584
Satisfactory ash receptacles	...	...	...	...	96
Unsatisfactory ash receptacles	...	...	...	...	540
Re-inspections of houses under notice	...	...	...	...	948
TOTAL NUMBER OF NOTICES SERVED :		Preliminary		Statutory	
To provide galvanised ashbins	...	...	509	...	38
Total number of ashpits abolished	...	...	—	...	1
„ informations laid	...	...	—	...	429
„ galvanised ashbins provided	...	...	—	...	828

**Sanitary Inspection of the District.**—This is under the supervision of the Chief Sanitary Inspector, who has submitted to me the following statistical statement of the work carried out by him and his assistants

COMPLAINTS RECEIVED	...	...	...	...	...	601
VISITS AND INSPECTIONS (TOTAL)	...	...	...	...	...	27,692
Number of houses fully inspected :—						
(a) New houses...	...	...	...	...	...	1,190
(b) Old houses	...	...	...	...	...	458
(c) Basement tenements	...	...	...	...	...	—
(d) Temporary structures	...	...	...	...	...	45
Number of inspections of works in progress	...	...	...	...	...	3,371
Visits to houses and other premises	...	...	...	...	...	5,122
Visits by Inspectors <i>re</i> Housing Survey	...	...	...	...	...	156
Re-inspections in relation to nuisances under notice	...	...	...	...	...	8,449
Inspections of basements	...	...	...	...	...	270
Inspections of manure heaps	...	...	...	...	...	663
Sands inspections	...	...	...	...	...	9
Enquiries into deaths	...	...	...	...	...	31
Smoke observations (half-hour duration each)	...	...	...	...	...	38
Visits to temporary structures	...	...	...	...	...	415
Inspections of back passages	...	...	...	...	...	74
Offensive trades	...	...	...	...	...	161
Inspections under Rats and Mice Destruction Order	...	...	...	...	...	636

Inspections of Common Lodging Houses	...	...	557		
„ „ Factory and Workshops	...	...	972		
„ „ Bakehouses	...	...	843		
Visits by Inspectors in relation to Infectious Diseases	...	...	523		
NOTICES SERVED FOR THE ABATEMENT OF NUISANCES :—					
Statutory	...	...	265		
Preliminary	...	...	619		
Verbal	...	...	288		
HOUSE DRAINS TESTED—Total number of tests made	...	...	2,345		
NEW HOUSES EXAMINED :—					
Drains	{	satisfactory	...	...	1,091
		unsatisfactory on first test	...	...	59
		rendered satisfactory after first test	...	...	40
OTHER HOUSES (1st test) satisfactory	...	...	50		
Drains unsatisfactory	...	...	285		
House drains re-tested during re-laying	...	...	548		
Final Test Satisfactory	...	...	272		
NUMBER OF HOUSES WHERE SANITARY DEFECTS WERE FOUND	...	...	926		
NUMBER OF HOUSES WHERE SANITARY DEFECTS WERE REMEDIED	...	...	839		
NUMBER OF SANITARY DEFECTS REMEDIED	...	...	3,678		
DRAINS :—					
Drains laid, re-laid, disconnected, and ventilated	...	...	63		
Drains repaired and cleaned out	...	...	786		
New Gullies fixed	...	...	22		
New w.c.'s fixed in lieu of privies, pail closets, and defective w.c.'s	...	...	72		
Water closets repaired	...	...	72		
Water closets unblocked	...	...	10		
Fittings and water provided for w.c.'s	...	...	50		
W.C. soil pipes repaired and ventilated	...	...	24		
Cesspools abolished	...	...	—		
Pail Closets provided	...	...	1		
Privies abolished	...	...	—		
Privies reconstructed into Pail Closets	...	...	—		
Pail Closets abolished	...	...	20		
WASTE PIPES :—					
New slopstone waste pipes fixed	...	...	35		
New rainwater pipes fixed	...	...	26		
Rainwater pipes and roof gutters repaired	...	...	94		
Slopstone waste pipes repaired	...	...	29		

## MISCELLANEOUS :—

Houses cleansed and lime-washed... .. .	12
Houses disinfested (Hydrogen Cyanide gas, 182 ; Special Methods, 245 ; Sulphur, 5 ; Other Methods, 45) ...	477
Floors laid or repaired ... .. .	126
Back yards repaired... .. .	111
Back yards flagged, concreted or asphalted ... .. .	44
Accumulations removed ... .. .	65
Animals removed from improper situations ... .. .	3
Roofs repaired ... .. .	127
Rooms ventilated ... .. .	127
Yards cleansed ... .. .	6
Watercourses cleansed ... .. .	31
Manure Receptacles Abolished ... .. .	4
Do. Provided ... .. .	1
Sundry minor defects remedied ... .. .	1,240
Number of manholes, gullies, etc., reported to Director of Cleansing ... .. .	17
Back streets requiring forming reported ... .. .	51
Erections in yards, etc., reported ... .. .	18

**Factory and Workshops Act, 1901.**—There are 836 Factories in the Borough, and through the courtesy of the Inspector of Factories I am able to give the following classification :—

Building and Furnishing Trades ... .. .	144
Preparation of Food and Drink ... .. .	272
Manufacture of Wearing Apparel ... .. .	167
Printing and Bookbinding ... .. .	62
Engineering ... .. .	130
Lighting ... .. .	8
Laundries and Cleaning Works ... .. .	20
Miscellaneous ... .. .	33
TOTAL ... .. .	836

There are 843 workshops in the Borough, and their classification is given in Table 4, on page 108.

## 1.—INSPECTION OF FACTORIES, WORKSHOPS AND WORKPLACES

PREMISES.	Number of		
	Inspect-ions	Written Notices.	Prosecu-tions
FACTORIES ... .. (including Factory Laundries)	228	20	—
Without Mechanical Power. } FACTORIES ... .. (including Laundries)	545	24	—
Without Mechanical Power. } OTHER PREMISES ... .. (Other than Outworkers' Premises included in Part 3 of this Report.)	843	—	—
TOTAL ... ..	1616	44	—

## 2.—DEFECTS FOUND IN FACTORIES, WORKSHOPS AND WORKPLACES

PARTICULARS	Number of Defects.					Number of Prosecutions.
	Not Reme-died 1937.	Found.	Remedied 1938.	Not Reme-died 1938.	Referred to H.M. Insp'r.	
NUISANCES UNDER THE FACTORIES ACTS, 1937 (Secs. 1 to 7) :—						
Want of cleanliness ... ..	14	292	294	12	—	—
Want of ventilation ... ..	1	1	—	2	—	—
Overcrowding ... ..	—	2	2	—	—	—
Defective drains ... ..	—	4	4	—	—	—
Other nuisances... ..	4	26	13	17	—	—
Sanitary } insufficient ... ..	2	12	7	7	—	—
Accommo- } unsuitable or defective... ..	1	26	23	4	—	—
dation } not separate for sexes ... ..	2	4	2	4	—	—
OFFENCES UNDER THE FACTORY AND WORKSHOP ACT :—						
Illegal occupation of underground bakehouse (s. 101) ... ..	—	—	—	—	—	—
Breach of special sanitary require-ments for bakehouses (ss. 97 to 100)	—	—	—	—	—	—
Other Offences ... .. (Excluding offences relating to outwork, which are included in Part 3 of this Report.)	—	5	2	3	—	—
TOTAL ... ..	24	372	347	49	—	—

## 3.—HOMEWORK.

NATURE OF WORK.		OUTWORKERS' LISTS. SECTION 107.					
		Lists received from Employers.					
		Twice in the year.			Once in the year.		
		Lists (2)	Outworkers		Lists. (5)	Outworkers	
Contractors. (3)	Workmen. (4)		Contractors. (6)	Workmen. (7)			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
Wearing Apparel :—							
Making, etc. ... ..	5	5	—	—	—	—	
Umbrellas, etc. ... ..	—	—	—	—	—	—	
TOTAL ... ..	5	5	—	—	—	—	

Inspections of Outworkers' premises ... .. 5

Addresses of Outworkers received from other authorities 1

Do. do. forwarded to other authorities —

## 4.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year.						Number
Important class of workshops, such as workshop bakehouses, may be enumerated here.	Making of wearing apparel ... ..	...	...	...	...	159
	Workshop bakehouses ... ..	...	...	...	...	222
	Preparation of other foods ... ..	...	...	...	...	4
	Building Trades ... ..	...	...	...	...	55
	Furniture making, etc. ... ..	...	...	...	...	26
	Conveyances ... ..	...	...	...	...	27
	Other Trades ... ..	...	...	...	...	89
	Laundry Workshops ... ..	...	...	...	...	—
Total number of workshops on Register ... ..						582



## 5.—OTHER MATTERS.

CLASS.	Number
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshops Acts, Sec. 133 ... ..	6
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5).      }	Notified by H.M. Inspector ... Reports (of action taken) sent to H.M. Inspector
Other ... ..	
Underground bakehouses (s. 101) :—	
In use at the end of the year ... ..	—

It will be observed from the preceding tables that 1,616 visits were paid by the Inspectors during the year, and the sanitary conditions have been kept under close supervision. This total includes 843 visits to workplaces, but not the visits to slaughter-houses. 372 defects were detected, 24 were still requiring attention at the commencement of the year, and of these 347 were remedied, leaving 49 still requiring attention at the commencement of 1939. Circular letters were sent out at the beginning of February and August, asking for lists of outworkers. The premises of the outworkers were visited during the year, and were found in a satisfactory condition. There are not any premises within the Borough where Rag Flock is manufactured.

**Offensive Trades.**—The following exist in the Borough :—

Blood Drier at Public Slaughter house ... ..	1
Tripe Boilers      "      "      ... ..	2
Gut Scraper      "      "      ... ..	1
Hide, Skin and Fat Depots      "      ... ..	2
Rag and Bone Depots      ... ..	4
Fried Fish Shops      ... ..	151

It is satisfactory to note that all the offensive trades, with the exception of Rag and Bone, and Fried Fish businesses, are at the Abattoirs, where the effluvia emitted by them is not detected by any large body of people. They are also under daily observation by the Superintendent of the Abattoirs and the Meat Inspectors,

The business of a "fish fryer" was scheduled as an offensive trade under a Declaratory Order which came into operation on the 13th March, 1914, when licences were granted without limit of time. Under the Blackpool Improvement Act, 1925, licences were granted for the establishment of the business for a period of 12 months only. In 1930, a Declaratory Order was made, and from the 26th April of that year "Chip Potato" Frying was scheduled as an offensive trade.

The number of business in each category was as follows :—

Pre-1914.	Already established ...	...	79
1914-1925.	Without limit of time ...	...	39
1925-1938.	Subject to yearly renewal ...	...	33
TOTAL ...			151

In view of the provisions of Section 107 of the Public Health Act, 1936, the Local Authority, having adopted Town Planning Schemes, decided during the year, that the Town Planning Committee of the Corporation would deal with all future applications. Before these are considered, the Public Health Department is consulted as to suitability of premises and apparatus.

During the year 4 new applications were dealt with and all were disapproved; consent was given to 33 renewals of existing licences. The nett increase in the number of licences was nil, the total now being 151.

**Common Lodging-houses.**—Under the Blackpool Improvement Act, 1901, sec. 47, the common lodging-houses, previously existing were re-registered. These houses, with their accommodation, are as follows :—

Eden Street : 160 adults and 1 child.

Seed Street : 56 adults and 1 child.

557 visits of inspection were paid, and it was found on the whole that the lodging-houses were kept in a clean condition, and managed satisfactorily.

**Sands Inspections.**—During the year 1938, 9 inspections of the foreshore were made by the Sanitary Inspectors and in 3 instances there was evidence of pollution by means of solid excreta.

At the Anchorsholme Lane outfall and the storm overflow at Harrowside there is no screening apparatus, but the Local Authority is at present carrying out extensive sewerage works which include the installation of suitable plant.

The western seaboard is the town's greatest asset and no expenditure of money is too great to prevent its pollution.

**Rents Restriction Act, 1920-1923.**—No applications were received from occupiers of dwellinghouses for certificates under this Act.

**Rats and Mice (Destruction) Act, 1919.**—Consistent and regular action has been taken in dealing with all complaints of rat-infested premises, and the method of extermination has been principally by poisoning, use of traps, dogs and ferrets, and gassing.

The poison principally used where suitable was Phosphorus, and this poison has been found to be more efficient than any other previously used.

Repeated visits have been made to piggeries, poultry farms, allotments and farm buildings, and advice and assistance given.

No. of premises dealt with	...	...	...	...	218
No. of rats caught by dogs, ferrets and traps				...	110

It is impossible to estimate the number of rats which were destroyed as a result of laying poison baits.

During National Rat Week, advertisements and articles in the local press contributed to the success of that effort.

No proceedings were instituted under the Rats and Mice (Destruction) Act.

**Verminous Premises.**—During the past year there has been a decrease in the number of houses treated for vermin infestation, *i.e.*, 477 houses disinfested.

The fumigation of verminous properties has been the subject of three special reports to the Health Committee, and in view of the extent of the problem, considerable experiments have been carried out in order to check the spread of bugs.

Prior to the year 1924, it was the accepted practice for disinfestation to be carried out by means of sulphur dioxide gas generated by the burning of sulphur in iron containers, surrounded by a water bath to minimise the risk of fire. This diffusion of gas killed a proportion of the bugs, but seldom was a permanent cure. Being heavier than air (specific gravity 2.23) the gas does not linger in the upper reaches of the rooms where bugs are mainly found, and it has the added disadvantage of driving the insects into adjacent houses. Customs die hard, and it is remarkable how poorer occupants of houses continue to use this method of "burning sulphur candles."

Supplementing this method, the spraying of liquid insecticides was resorted to, but experience has proved that even by repeated spraying by experts, bugs are difficult to exterminate by this method.

About eleven years ago it was decided to enlarge and combine both these methods, and a system was instituted of removing skirting boards, architraves, etc., and exposing the surfaces to the flame of a plumber's blow-lamp; a liquid insecticide was then sprayed into

all crevices, and fumigation with sulphur dioxide later took place. In bad cases, further spraying with liquid and gassing with sulphur dioxide was resorted to, the quantity of sulphur per 1,000 cubic feet of air being about 3 lbs.

This new method met with a fair measure of success, but although it was a great advance on the old systems, it was most difficult to effect a permanent remedy. To improve the efficiency of gaseous fumigation, repeated experiments have been carried out with the additions of varying proportions of sugar and saltpetre to powdered sulphur, and thus by the creation of additional oxygen, it was found possible to burn 5 lbs. of sulphur per 1,000 cubic feet of air.

In July, 1934, fumigation by HCN was commenced and the two methods of fumigation by this gas have been from (a) a cylinder containing a defined quantity of liquid HCN (Hydro-cyanide acid gas) and (b) discs in sealed tins each disc containing one ounce of liquid cyanide.

The undermentioned table shows the number of houses which have been fumigated:—

	1934	1935	1936	1937	1938
Occupied... ..	53	247	242	140	117
Unoccupied ...	29	108	104	122	65
TOTAL	82	355	346	262	182

of these 17 belong to the Local Authority, and the remainder, 165, to private individuals.

Our experiences have covered all seasons of the year, and all types of houses have been fumigated from large boarding-houses to the ordinary small working-class dwellings. Out of the 182 houses fumigated during 1938 re-infestation occurred in 3 cases only. This proportion shows an efficiency of over 98 per cent., and considering the difficulties encountered in sealing effectively ordinary dwelling-houses and preventing a leakage of gas, such results testify as to the efficiency of HCN gas.

From the commencement of this method of fumigation it has been realised that owing to the toxic state of the gas, special precautions are necessary, and bedding from occupied premises has always been removed for steam disinfection, and not returned until the house has been declared clear. In addition, the premises while

under gas are guarded by a member of the staff of the department, and in the event of adjacent premises being occupied, arrangements have been made in every case for the vacation of the house during the whole period of the gassing. From July, 1934, to October of that year, it was the custom to allow the house to be re-occupied the same night, but owing to the difficulty in clearing the house during the cold damp period of the year, instructions were issued that the property which was disinfested must not be re-occupied until after a period of 24 hours. Thus it will be observed that the precautions mentioned in Circular 1497 of the Ministry of Health, dated 17th September, 1935, were being carried out by this department prior to the receipt of that circular.

The number of houses reported upon last year as verminous showed a slight increase on the previous period, and consequently only a bold, continuous, and efficacious policy of bug destruction will suffice to keep a reasonable standard of cleanliness in a popular health resort. Owing to the influx of populations from industrial areas the risk of infestation of properties is perpetual, but the efforts made by the department during the past two years are such as to offer good grounds for believing that the infestation has at least been checked.

As mentioned in previous Annual Reports, it has been decided that one of the conditions of the acceptance of the tenancy of a municipal house is an inspection of the furniture for vermin, by the Public Health Department prior to removal, and this procedure has already proved satisfactory in preventing municipal houses becoming infested with bugs. It will be noted on page 115 that the number of municipal houses fumigated with HCN was 17 compared with 14 the previous year.

One of the greatest difficulties confronting the checking of the spread of infestation is the mobility of certain tenants who are constantly changing their habitat, leaving a trail of bugs in the houses vacated. In many instances these houses are of good class type, and it is very disconcerting both to the owner of the property and the Local Authority to find new dwelling-houses infested with these pests. To assist owners, the department has instituted a scheme similar to the one described above relating to prospective municipal tenants, whereby the furniture of the incoming family is examined before removal, and a report submitted to the owner concerned. In all cases where a vacated house is found to be verminous, efforts are made to trace the outgoing tenants in order to prevent re-infestation of other properties. This departure is being increasingly appreciated by many owners of properties, and it is expected that it will become an accepted practice in the matter of approved tenants, as is the general established custom now for a tenant applying for a municipal house.

Another factor of importance is the transference of ownership of bedsteads and mattresses; these domestic necessities being the primary cause in the spreading of bugs. During 1935, the Local Authority obtained powers under the Blackpool Improvement Act of that year regarding the sale of verminous furniture—Section 48 of which reads as follows:—

- “(1) No person shall sell or expose for sale any second-hand furniture mattresses bed linen or similar articles if the same are to his knowledge infested with bed bugs or if by taking reasonable precautions he could have known the same to be so infested.
- “(2) Any person offending against the provisions of this section shall be liable to a penalty not exceeding five pounds.
- “(3) (a) Any officer of or other person duly authorised by the Corporation in that behalf may enter any premises in which second-hand furniture mattresses bed linen or similar articles are sold or exposed for sale for the purpose of examining whether there be any contravention of the provisions of this section.
- “(b) Every person who refuses to permit any officer or authorised representative of the Corporation to enter any premises or to make any inspection which such officer or authorised representative is authorised under the provisions of this section to enter or make or obstructs any such officer or representative in the execution of his duty under such provisions shall be liable to a penalty not exceeding five pounds.

**Sanitary Conditions of Theatres and Music Halls, etc.**—There are within the Borough the following places of Public Entertainments :

Cinemas...	...	...	...	...	...	...	12
Cinemas (also used for Variety, etc.)...	...	...	...	...	...	...	5
Variety, etc.	...	...	...	...	...	...	6
Ballrooms	...	...	...	...	...	...	5
Ice Drome	...	...	...	...	...	...	1

and in accordance with the requirements of the Ministry of Health (Circular No. 120 of 1920) all the premises have been inspected during the year.

Blackpool, being a premier health and pleasure resort, is particularly favoured in the class of building used for public entertainment, and of recent years a considerable amount of money has been spent voluntarily by the proprietors in the improvement of dressing-room accommodation, installation of new ventilating machinery, and reconstruction of sanitary conveniences.

From the point of view of Public Health the standard in this class of building is quite satisfactory.

#### **The Shops Act, 1934.**

In Blackpool, as in other health resorts, there is a much larger proportion of shops than in industrial areas, with the result that the coming into operation of this much-overdue legislation has added considerably to the responsibilities of the Public Health Department.

The number of shops exceeds 3,000, and to prevent overlapping in official action, the Watch Committee, who are the responsible body for the administration of the Shops Acts, 1912-1934, appointed the Chief Sanitary Inspector and the six District Inspectors to carry out the provisions of Section 10 of the Act of 1934, relating to the lighting of shops and the provisions of washing facilities. Ventilation, temperature and sanitary conveniences in shops are the responsibility of the Health Committee, and consequently the carrying out of all these duties by the same officers, has prevented duplication, and increased efficiency.

During 1938 693 shops were inspected and of these 379 were found satisfactory, and 314 contravened Section 10 in the manner specified in the undermentioned table :—

Classified Defects.

	None.	Defective or unsatisfactory.
Sanitary Accommodation	120	47
Washing facilities ... ..	160	11
Lighting ... ..	—	—
Ventilation ... ..	50	16
Temperature ... ..	8	8

These figures clearly demonstrate the justification for this special legislation promoted for the welfare of shop assistants.

In consequence of the action of the Department, 265 notices were served with the approval of the Health Committee, during the year, and 218 notices were complied with by the owners or occupiers, during the same period. Legal proceedings were necessary in 2 cases to enforce the notices.

**Milk Supply.**

The following is a list of the Milk Purveyors in the Borough :—

Milk Stores ... ..	3
Milk Shops selling by retail ... ..	29
Dairymen's Premises, not including farmers ...	108
Purveyors of Milk ... ..	413
„ Ice Cream ... ..	385
„ Cream ... ..	43
No. of Producers in the Borough ... ..	41
Milk Bars ... ..	11

At the present time 126 farmers are sending milk into the Borough by means of carriers, wholesale dealers and retailers.

It will be noticed that the number of shops retailing loose milk continues to decrease.

During the year 15 dairymen, 85 purveyors of milk, and 55 purveyors of ice cream applied for registration.

Legal proceedings were instituted against a dairyman for distributing milk from a vehicle in a dirty condition.

### Milk (Special Designations) Orders, 1923 and 1936.

The following licences were in operation at the end of the year 1936 :—

(a) PRODUCERS' LICENCES.

Tuberculin Tested (Certified)	...	...	...	...	...	...	1
Accredited	...	...	...	...	...	...	11

(b) LICENSED BOTTLING ESTABLISHMENT.

Tuberculin Tested.	At farms	...	...	...	...	...	1
Accredited	do.	...	...	...	...	...	6
Do.	Other premises	...	...	...	...	...	1
Pasteurised	...	...	...	...	...	...	3

(c) DEALERS' LICENCES.

Tuberculin Tested and Tuberculin Tested (Certified)	...	...	...	...	...	...	15
Accredited	...	...	...	...	...	...	15
Pasteurised	...	...	...	...	...	...	6

(d) SUPPLEMENTARY LICENCES.

Tuberculin Tested and Tuberculin Tested (Certified)	...	...	...	...	...	...	2
Pasteurised	...	...	...	...	...	...	2

**Milk and Ice Cream Analysis.**—The following statistics relate to the chemical and bacteriological examination of milk and ice-cream.

#### CHEMICAL ANALYSIS OF MILK.

The number of samples taken was 176, of which 15 were below the limits prescribed by the Sale of Milk Regulations, 1901.

All samples were examined for preservatives and colouring matter and in all cases these were found to be absent.

The average composition of the milk for the year was :—

Milk Fat.	Non-fatty Solids.	Water.
3.58%	8.85%	87.57%



The following tables show the variation :—

Monthly—

Month.	No. of Samples.	Milk Fat.	Solids, Non-fatty.
January ... ..	12	3.63%	8.81%
February ... ..	15	3.52%	8.84%
March ... ..	19	3.52%	8.86%
April ... ..	17	3.38%	8.75%
May ... ..	17	3.32%	8.88%
June ... ..	13	3.51%	8.96%
July ... ..	13	3.39%	8.79%
August ... ..	41	3.61%	8.79%
September ... ..	16	3.69%	8.98%
October ... ..	13	3.86%	8.98%
November ... ..	12	3.86%	8.80%
December ... ..	10	3.74%	8.82%

Quarterly—

1st Quarter ... ..	46	3.55%	8.84%
2nd Quarter ... ..	47	3.40%	8.85%
3rd Quarter ... ..	70	3.59%	8.86%
4th Quarter ... ..	35	3.82%	8.87%

Half-yearly—

The 1st Half-year... ..	93	3.47%	8.85%
The 2nd Half-year... ..	105	3.67%	8.86%

Yearly—

Year ... ..	198	3.58%	8.85%
-------------	-----	-------	-------

BACTERIOLOGICAL ANALYSIS.

ORDINARY MILK.—139 samples of ordinary milk brought from outside the Borough for sale or consumption within the Borough and 26 Primary samples from farms within the Borough were submitted for examination for the presence of Tubercle Bacilli, and 21 were found to be positive.

Of these, 15 were from farms outside the Borough and 6 from producers in Blackpool.

In addition 117 samples of ordinary milk were examined for the Methylene Blue Reduction Test, and 63 samples failed to pass the Test.

Comparing with the Accredited standard, it will be observed that 63, or 53.8 per cent., contained bacteria below that standard.

In addition, 165 Primary samples were examined for the presence of Tubercle Bacilli and 21 were found to be positive.

The details are as follows :—

	No. of Samples.	Found to contain T.B.
Produced outside the Borough ...	139	15
Produced inside the Borough ...	26	6

SEDIMENT TESTS.—During the year 65 samples of Milk were tested for dirt by means of the "Minit" Sediment Tester, with the following results :—

	Good.	Fair.	Bad.
From farms outside Borough	33	3	29

In all cases where the result was unsatisfactory, the Local Authorities and the farmers or wholesalers were communicated with and further samples taken in every case proved satisfactory.

These results show a most gratifying improvement on any previous year and undoubtedly the increase in the number of accredited producers is largely responsible for these satisfactory figures.

#### GRADED MILKS.

The following table shows the results of samples taken under the Milk (Special Designations) Order 1923 and 1936 :—

GRADE OF MILK.	Outside the Borough.		Inside the Borough.	
	Satisfactory.	Unsatisfactory.	Satisfactory.	Unsatisfactory.
Tuberculin Tested (Certified) or Tuberculin Tested ...	17	—	9	—
Accredited ...	*10	3	52	2
Pasteurised ...	†12	3	2	5

\*Six of these samples were produced outside the Borough, but were bottled at a licensed bottling establishment inside the Borough.

†In addition, 18 samples were examined for the presence of Tubercle Bacilli and all were reported, Tubercle Bacilli not found. Five samples of Sterilised Milk were examined for Bacteriological examination and all were found to be satisfactory. Four samples were examined for presence of Tubercle Bacilli and all were reported "Tubercle Bacilli not found".

In addition 24 samples of Tuberculin Tested (Certified) and 91 samples of Accredited Milk were examined for the presence of Tubercle Bacilli and 11 samples (9 primary and 2 follow-on) of Accredited Milk were found to be positive.

Of the 9 primary samples found to be positive, 7 were from producers inside the Borough, and 2 were from producers outside the Borough.

**Tuberculosis Order, 1925.**—This order came into operation on the 1st September, 1925, Mr. Tom Walker, M.R.C.V.S., and Inspector Dixon were appointed Veterinary Officer and Inspector respectively. This Order was revoked April 1st, 1938, and replaced by Tuberculosis Order, 1938.

During the year 118 cows in milk, 55 other cows or heifers, and 28 other bovine animals were examined under the Order. One cow was found to be affected with Chronic Cough, and showing definite clinical signs of Tuberculosis, and three cows were found to be giving Tuberculous Milk.

These animals were slaughtered and the carcasses destroyed.

The following table shows the results of samples taken under the 1925 (Special Designation) Order 1925 and 1938:—

Grade of Milk	Outside the Borough		Inside the Borough	
	Satisfactory	Unsatisfactory	Satisfactory	Unsatisfactory
Grade A	102	3	102	3
Grade B	102	3	102	3
Grade C	102	3	102	3
Grade D	102	3	102	3
Grade E	102	3	102	3
Grade F	102	3	102	3
Grade G	102	3	102	3
Grade H	102	3	102	3
Grade I	102	3	102	3
Grade J	102	3	102	3
Grade K	102	3	102	3
Grade L	102	3	102	3
Grade M	102	3	102	3
Grade N	102	3	102	3
Grade O	102	3	102	3
Grade P	102	3	102	3
Grade Q	102	3	102	3
Grade R	102	3	102	3
Grade S	102	3	102	3
Grade T	102	3	102	3
Grade U	102	3	102	3
Grade V	102	3	102	3
Grade W	102	3	102	3
Grade X	102	3	102	3
Grade Y	102	3	102	3
Grade Z	102	3	102	3

\*Six of these samples were produced outside the Borough, but were bottled at places situated within the Borough.

†All samples of milk were found to be satisfactory and satisfactory.

‡In addition 18 samples were examined for the presence of Tubercle Bacilli and were reported as satisfactory. Tubercle Bacilli were not found in any of the 18 samples.

§The following table shows the results of samples taken under the 1925 (Special Designation) Order 1925 and 1938:—

**Ice Cream.**—The number of Ice Cream premises on the Register at the end of the year was 431. These premises are kept under rigid supervision by Inspectors Dixon and Cox and during the year visits were paid to them.

Fifty samples were sent to the Public Health Laboratory, Manchester, for bacteriological analysis, and the following is a synopsis of the reports received upon them:—

**ABSTRACT OF THE RESULTS OF THE BACTERIOLOGICAL EXAMINATION OF ICE-CREAM.**

BACTERIAL COUNT PER C.C.	NO. OF SAMPLES.	PRESENCE OF B. COLI.	NO. OF SAMPLES.	PRESENCE OF ENTEROCOCCUS (S. F. C.).	NO. OF SAMPLES.
0—30,000 ...	14	Minus 1 c.c.	11	Minus 1 c.c.	12
30,000—100,000 ...	9	Positive 1 c.c.	8	Positive 1 c.c.	8
100,000—200,000 ...	7	" 1/10 c.c.	8	" 1/10 c.c.	11
200,000—500,000 ...	10	" 1/100 c.c.	10	" 1/100 c.c.	9
500,000—1,000,000 ...	1	" 1/1,000 c.c.	9	" 1/1,000 c.c.	8
1,000,000—2,000,000 ...	—	" 1/10,000 c.c.	4	" 1/10,000 c.c.	2
Over 2,000,000 ...	9	"		"	
TOTAL ...	50		50		50

**Other Foods.**—The following is a list of shops in the Borough where food is exposed for sale :—

Where Butchers' Meat is sold	...	...	...	285
Meat Stalls	...	...	...	15
Fish Shops	...	...	...	80
Grocery and Provisions	...	...	...	487
Confectioners' Shops	...	...	...	230
Restaurants, Cafes and Tea-rooms	...	...	...	210
Fruit Shops	...	...	...	120
Tripe Shops	...	...	...	120
Oyster Stalls	...	...	...	20
Fish and Chip Shops	...	...	...	160

**Slaughter-houses.**—There exist in the Borough the Corporation abattoirs and 3 private slaughterhouses. Daily visits are made by Meat Inspectors for inspection of meat.

**Public Slaughter-houses.**—The Management of the Public Abattoirs is carried out by a fully qualified Superintendent under the immediate direction and supervision of the Medical Officer of Health.

The premises consist of one Public Slaughter-house used by Butchers in a small way of business, several Private Slaughter-houses, and special premises for the purposes of Triperies, Hide and Skin Depots, Gut Scraping, Offal Disposal, etc. Special premises have been erected and are used by the Jewish Community for their slaughtering of Poultry.

All animals slaughtered at the Abattoirs are examined, either by the Superintendent or one of the Meat Inspectors, and no meat leaves the premises which has not been examined and passed as fit for human consumption.

Meat condemned is dealt with by a firm occupying premises at the Public Abattoirs, who manufacture such By-products as Meat Meal, Fats, and this firm collects the blood at the abattoirs, which goes through a process of drying, and is then placed on the market as a Manure.

TABLE SHEWING NUMBER OF ANIMALS SLAUGHTERED AT THE PUBLIC ABATTOIRS.

	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Cows ...	174	148	127	180	181	223	250	187	206	143	260	552	569
Heifers .	3652	2490	3399	4302	5110	3930	4061	4047	4534	5141	5979	5985	5423
Bullocks	1965	2117	2774	2459	1979	2249	2091	2329	2162	2405	2608	2710	2444
Bulls ...	46	33	52	67	49	78	58	29	29	12	46	108	67
Calves ...	1472	1331	1514	1486	1436	1002	1011	1354	1404	1203	1216	1111	1045
Sheep ...	56943	61980	61653	63110	63143	52871	61484	70014	70897	67706	71920	67878	69579
Pigs ...	946	1497	2239	2137	2496	2863	3880	3529	3894	4199	4695	5528	4639
Total...	65198	69596	71758	73741	74394	63216	72835	81490	83126	80809	86724	83872	83766

### MILK AND DAIRIES ORDER, 1926.

RETURN OF WORK CARRIED OUT UNDER THIS ORDER.

Floor surfaces of Cowsheds Re-formed.	Floor surfaces of Cowsheds Repaired.	Further lighting of Cowsheds inefficiently Lighted.	Under-drawing of Roofs of Cowsheds.	New Cowsheds provided.	Cowsheds abolished.	New Dairy Premises Provided.
4	5	2	1	3	4	3
Dairy Premises Abolished.	Sterilisation Equipment Provided.	Yard Surfaces re-paired and re-formed about Farm Buildings.	Re-draining of Farm Buildings.	Minor Repairs to Cowsheds.		
2	1	2	4	2		
New Wooden Bostins Provided.	New Cement Bostins Provided.	Walls of Cowsheds Rendered with Cement.	New Coolers Provided to Dairies.	Milk Coolers Repaired.		
2	30	2	2	1		

**HOUSING.****Caravans and Wooden Structures.**

It is intended to take action against most of these structures as a result of the coming into operation of Sections 23 and 26 (8) of the Housing Act, 1936, and during the year 150 were included in representations under Part III of the Housing Act, 1936.

NUMBER OF TENTS, VANS AND SHEDS, 31ST DECEMBER, 1937.

Number	Occupied	Unoccupied	Number of Adults	Children over 10 years	Children under 10 yrs.
248	195	53	296	49	61

During the year 1 occupied van arrived in Blackpool containing 2 adults.

The rate at which further progress can be made in this direction, is entirely dependent upon the adequate re-housing accommodation being provided by the Local authority. The large number of smaller dwelling-houses erected during the past year by private enterprise both in the old Borough and the recently added area, must have eased the housing situation to some extent, but a large number of the occupants of wooden structures owing to economic circumstances will have to be rehoused in municipal houses. (*See page 131 for particulars of municipal houses.*)

**Number of Houses.**

I am indebted to the Borough Treasurer for furnishing me with information as to the number of houses inhabited and uninhabited at the time of the yearly enumeration, and for the sake of comparison I give the corresponding figures for the years since 1903.

The figures for 1938 were obtained by an enumeration held during December, 1937.

	Empty.	Inhabited.	TOTAL.
1903 ... ..	309	11,181	11,490
1904 ... ..	272	11,494	11,766
1905 ... ..	188	11,789	11,977
1906 ... ..	191	12,053	12,244
1907 ... ..	153	12,334	12,487
1908 ... ..	171	12,607	12,778
1909 ... ..	200	12,994	13,194
1910 ... ..	207	13,361	13,568
1911 ... ..	298	13,714	14,012
1912 ... ..	282	14,209	14,491
1913 ... ..	121	14,784	14,905
1914 ... ..	130	15,096	15,226
1915 ... ..	105	15,682	15,787
1916 ... ..	77	15,963	16,040

	Empty	Inhabited	TOTAL
1917 ... ..	27	16,016	16,043
1918 ... ..	34	16,877	16,911
1919 ... ..	144	16,848	16,992
1920 ... ..	403	17,085	17,488
1921 ... ..	375	17,708	18,083
1922 ... ..	270	18,392	18,662
1923 ... ..	619	19,288	19,907
1924 ... ..	784	20,844	21,628
1925 ... ..	895	22,060	22,955
1926 ... ..	849	23,189	24,038
1927 ... ..	744	24,386	25,130
1928 ... ..	809	25,853	26,662
1929 ... ..	643	26,585	27,228
1930 ... ..	759	27,174	27,933
1931 ... ..	973	27,916	28,889
1932 ... ..	1,042	28,846	29,888
1933 ... ..	960	30,301	31,261
*1934 ... ..	744	35,233	35,977
1935 ... ..	1,098	36,041	37,139
1936 ... ..	980	37,550	38,530
1937 ... ..	712	39,044	39,756
1938 ... ..	717	40,021	40,738

\* Marton, and portions of Hardhorn and Carleton included for the first time.

### Housing Statistics.

#### 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) ... .. 1,693
- (b) Number of inspections made for the purpose ... 1,909
- (2) (a) Number of dwelling-houses (included under Sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925 503
- (b) Number of inspections made for the purpose ... 719
- (3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation (including clearance areas) ... 156
- (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 217

#### 2.—REMEDY OF DEFECTS DURING THE YEAR WITHOUT SERVICE OF FORMAL NOTICES—

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers ... .. 177



## 3.—ACTION UNDER STATUTORY POWERS DURING THE YEAR—

## A.—Proceedings under Sections 9, 10 and 16 of the Housing Act, 1936 :

(1) Number of dwelling-houses in respect of which notices were served requiring repairs ... ..	57
(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 ... ..	29
(2) Number of dwelling-houses in which defects were remedied after service of formal notices :—	
(a) By owners ... ..	20
(b) By Local Authority in default of owners...	1

## C.—Proceedings under Sections 11 and 13 of the Housing Act, 1936 :

(1) Number of dwelling-houses in respect of which Demolition Orders were made ... ..	6
(2) Number of dwelling-houses demolished in pursuance of Demolition Orders ... ..	1

## D.—Proceedings under Section 12 of the Housing Act, 1936 :

(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 room having been rendered fit ... ..	—

The present position with reference to these areas is as follows :—

Area	No. of Structures	No. of persons displaced	Date of Representation	
Vicarage Lane No. 1 ...	3	5	8-3-37	Structures demolished
Hawes Side Lane No. 1 ...	32	76	do.	do.
Hawes Side Lane No. 2 ...	6	13	do.	do.
Waterloo Road No. 1 ...	14	20	do.	Being dealt with by
Linfield Terrace No. 1 ...	7	10	(C.P.O.)	Estates Dept.
Margate Avenue No. 1 ...	3	4	8-3-37	Structures demolished
Stanley Road No. 1 ...	5	9	do.	do.
			7-2-38	Public Enquiry been held. Awaiting confirmation of Min. of H.
Common Edge Road No. 1	2	—	do.	do.
Common Edge Road No. 2	9	10	do.	do.
Common Edge Road No. 3	9	26	do.	do.
Daggers Hall Lane No. 1...	9	13	do.	do.
Vicarage Lane No. 2 ...	11	16	do.	do.
Abbey Road No. 1 ...	4	—	do.	do.
Abbey Road No. 2 ...	2	4	do.	do.
Eccleston Road No. 1 ...	3	5	do.	do.
Waterloo Road No. 2 ...	5	4	do.	do.
Sedburgh Avenue No. 1	3	2	do.	do.
Bloomfield Road No. 1 ...	13	24	do.	do.
Field Street No. 1 ...	6	8	do.	do.
Harcourt Road No. 1 ...	7	2	do.	do.
Layton Road No. 1 ...	12	20	8-6-38	do.
Little Layton No. 1 ...	45	74	24-12-38	Awaiting confirmation of Min. of Health.
Little Layton No. 2 ...	5	9	do.	do.
	215	354		

It is expected that when the present housing schemes at St. Annes Road and St. Walburgas Road are ready, action can be taken by the department to have the whole of these structures demolished.

**Overcrowding.**

The undermentioned tabulated statement is submitted in accordance with the requirements of the Ministry of Health :—

## HOUSING ACT, 1936—PART IV.—OVERCROWDING.

(a)	(i)	Number of dwellings overcrowded at the end of the year... ..	159*
	(ii)	Number of families dwelling therein ... ..	159*
	(iii)	Number of persons dwelling therein... ..	699
(b)		Number of new cases of overcrowding reported during the year ... ..	22 (families) 102 (persons)
(c)	(i)	Number of cases of overcrowding relieved during the year ... .. (6 by Local Authority. 57 by private action.)	63
	(ii)	Number of persons concerned in such cases..	278½
(d)		Particulars of any cases in which dwelling houses have again become overcrowded after the Local Authority have taken steps for the abatement of overcrowding ... ..	—
(e)		Any other particulars with respect to overcrowding conditions upon which the Medical Officer of Health may consider it desirable to report ... ..	—

The progress which has been made in abating overcrowding since the Housing Act of 1936 came into operation may be judged from the following figures :—

Date	Outstanding cases.	
	Families.	Persons.
6/ 4/1936 ...	426	1,904
31/12/1936 ...	271	1,269
31/12/1937 ...	200 (inc. 36 new cases)	875½ (inc. 180 new cases)
31/12/1938 ...	*159 (inc. 22 new cases)	699 (inc. 102 new cases)

\*68 in Clearance Areas.

Most of these houses have been decrowded as a result of private action, the Local Authority having provided accommodation in 27 cases.

It is expected that accelerated progress in decrowding will take place on completion of the St. Annes Road and St. Walburgas Road Housing Schemes.

Filtration into existing Municipal Houses has been the policy adopted by the Local Authority to secure abatement of overcrowding, and during the year 6 families were rehoused in this manner. In 57 cases the families were decrowded by private action such as removal to larger private houses, departure from the town, etc.

When the slum clearance proposals of the local authority are completed there will be a substantial reduction in the number of persons living in overcrowded conditions.

We are indebted to the Borough Treasurer for the following information :—

“HOUSES ERECTED UNDER THE HOUSING ACT :

1919	...	...	666
1923	...	...	346
1924	...	...	98
1925	...	...	6
1930	...	...	46
*1936	...	...	158 (In course of erection at St. Annes Road and St. Walburgas Road.)

\*The contracts for these houses have been let, the streets and sewers are at present in the course of construction, and the first houses are expected to be ready for occupation by September, 1939.

At the moment there is a waiting list of 1,100 applicants. This number includes all the families to be rehoused from Slum Clearance areas ; those families to be rehoused as a result of decrowding action by the local authority, and also includes an estimated number of 450 families which cannot be considered as urgent cases, having registered chiefly as a precaution should the Rent Restrictions Act be repealed or through insecurity of tenure of their present tenancies.

The Estates and Housing Committee have already purchased land at Layton for the erection of a further 100 houses ; at Eccleston Road for a further 19 houses ; at Clifton Road, Marton, for a further 110 houses, and at St. Annes Road for the erection of a further 56 houses. Additional schemes are contemplated at Bispham for the erection of 64 houses.

It must be noted that none of these proposals include the rehousing in connection with the Central Station site”.

#### Temporary Overcrowding Licences.

In pursuance of Section 61 of the Housing Act, 1936, 35 licences were granted by the Local Authority permitting temporary overcrowding within the periods 1st July to 25th October in accordance with the “Blackpool” Scale.

This scale is somewhat similar to that laid down in Table II of the Fifth Schedule of the Housing Act, 1936, except that one-half a person is allowed for every 20 square feet of floor space in a room in excess of 110 square feet, e.g. :—

Under 50 sq. feet ...	...	...	...	...	Nil.
50 sq. ft. or more, but less than 70 sq. ft.	...	...	...	...	$\frac{1}{2}$
70 " " " " " 90 " "	...	...	...	...	1
90 " " " " " 110 " "	...	...	...	...	$1\frac{1}{2}$
110 " " " " " 130 " "	...	...	...	...	2
130 " " " " " 150 " "	...	...	...	...	$2\frac{1}{2}$
etc.					

In calculating the excess allowance, the scale under the Housing Act, 1936, is applied rigidly to the main livingroom in the house, and although the floor area may exceed 130 square feet, the number of persons for the purpose of calculation must not exceed 2.

The "Blackpool" scale is such that a reasonable standard of comfort is assured to the visitors and at the same time it prevents conditions arising which would be prejudicial to the health of the residents in houses where visitors are accommodated.

Owing to the difficulty of defining "a house of the working classes" the Health Committee have decided that normally, premises where the number of bedrooms exceeds 6 are outside the scope of the Housing Act, 1936.

During the summer 12 cases of temporary overcrowding (where no licences were in force) were discovered by the Sanitary Inspectors, and the Health Committee decided to deal with these cases by means of warning letters, but in future stronger action will be taken.

### Housing Act, Measurements.

The total number of houses measured by the Sanitary Inspectors and Enumerators to the year end of 1938 in order to ascertain the number of persons permitted to sleep therein, under the Housing Act of 1936, was 23,958.

**General Food Supply.**—The following visits were paid during the year :—

Milkshops and dairies ...	...	...	...	...	1,121
Cowsheds in the Borough ...	...	...	...	...	650
Cowsheds out of the Borough...	...	...	...	...	22
Ice Cream stalls ...	...	...	...	...	488
Ice Cream workshops ...	...	...	...	...	242
Public slaughter-houses	...	...	...	...	48
Other slaughter-houses	...	...	...	...	821
Butchers' shops ...	...	...	...	...	5,244
Other shops ...	...	...	...	...	7,139

In all cases where vendors of food have any doubt as to the quality of any article they are invited to send to the Health Office when the Medical Officer of Health or Food Inspector will at once call and pass an opinion on the article. This arrangement continues to be largely taken advantage of.

It is very desirable that the Corporation should have powers to require the registration of all premises where human food is prepared, stored, or sold. The necessity also of clearing houses for meat brought in from outside districts has already been commented upon.

#### **The Agricultural Produce (Grading and Marking) Act, 1928.—**

The above Act provides for the Grading and Marking of Agricultural produce produced in England and Wales and for purposes connected with the Order.

**EGGS.**—Regulations governing Eggs were made during 1928. Three grades were made each for Hen and Duck Eggs. These grades designated the quality of the eggs. Subsequently further regulations were made whereby there are now four grades of Hen and Duck eggs. These regulations also govern the marking of British eggs which have been "Preserved," "Chilled," and "Cold Stored." Blackpool depends for her fresh egg supply on the local farmers and no grading is carried out, the farmers generally mixing their eggs (all sizes) and selling at a slightly less price. Considerable quantities of Northern and Southern Ireland graded eggs are sold in Blackpool. The regulations governing "Preserved," "Chilled," and "Cold Stored" British eggs are carried out without the slightest trouble.

**BEEF.**—Regulations governing British Beef and prescribing grades do not apply locally being confined chiefly to Birmingham and Smithfield.

**WHEAT FLOUR, MALT FLOUR, MALT EXTRACT, BROCOLI, APPLES AND PEARS, POTATOES, TOMATOES AND CUCUMBERS.**—Regulations governing the above British products have been made. The grading of these products is not compulsory.

#### **BLACKPOOL AERODROME.**

The municipal aerodrome is situated adjoining Stanley Park near the easterly boundary of the Borough.

At present the aerodrome is leased by the Corporation to a private company who maintain frequent services to Liverpool and the Isle of Man, with extensions to Belfast, Carlisle and Glasgow.

Blackpool is an air-port, and on the suggestion of the Ministry of Health, that in order that the municipal air-port may be designated as a sanitary air-port the Medical Officer of Health was appointed Medical Officer of the air-port and placed in a general control of the medical and sanitary arrangements.

The arrangements for the conveniences of passengers are satisfactory.

**CREMATION.**

The new Crematorium at Carleton was opened in September, 1935, and in accordance with Statutory Rules and Orders, M.1016, your Medical Officer of Health was appointed Medical Referee, and your Tuberculosis Officer was appointed Deputy Medical Referee.

Briefly, the duties of the Medical Referee are as follows :—

1. He shall not allow any cremation to take place if it appears that the deceased left a written direction to the contrary.
2. He shall not (except where a post-mortem examination has been made, or an inquest held and a Certificate given by the Coroner) allow any cremation to take place unless he is satisfied
  - (a) by the production of a certificate that the death of the deceased has been duly registered.
  - (b) by the production of a certificate that the death of the deceased is not required by law to be registered in England.
3. He shall examine the application and certificates before allowing the cremation.
4. He shall not allow the cremation until satisfied that the application is made by an executor or nearest surviving relative of the deceased, or that the person making the application is a proper person to do so.
5. He shall not allow the cremation unless satisfied that the fact and cause of death have been definitely ascertained.
6. If it appears that death was due to poison, violence, illegal operation, privation or neglect, or any other suspicious circumstance, he must obtain a Certificate from the Coroner before giving the necessary certificate.
7. He shall make such reports to the Secretary of State as may from time to time be requested.
8. He may in any case decline to allow the cremation without stating any reason.

The first cremation at the new Crematorium took place on the 25th September, 1935, and from that date to the end of 1938 the number of Certificates issued was 597.

## The Food and Drugs (Adulteration) Act, 1928.

Informal Samples		Nature of Sample.	Formal Samples	
Taken	Not Genuine		Taken	Not Genuine
2	—	Almonds, Ground ...	—	—
1	—	Arrowroot...	—	—
1	—	Bacon ...	—	—
1	—	Beef, Minced ...	1	—
1	—	Beer ...	—	—
—	—	Brawn ...	2	—
4	—	Bread and Butter ...	—	—
7	—	Butter ...	25	—
—	—	Cherries, Glaze ...	1	—
—	—	Cheese, Cream ...	1	—
—	—	Chicken and Ham ...	1	—
1	—	Chutney ...	—	—
—	—	Coffee ...	12	—
—	—	Cocoa ...	1	—
—	—	Cream ...	6	—
—	—	Cream, Devonshire ...	1	1
2	1	Cream of Tartar ...	1	1
2	—	Currants ...	—	—
2	—	Flour, Self Raising ...	—	—
2	—	Fruit, Dried ...	—	—
2	—	Ginger, Ground ...	—	—
1	—	Glycerine and Borax ...	—	—
1	—	Iodine, Tinct. of ...	—	—
1	—	Jam, Blackcurrant ...	—	—
1	—	Jam, Strawberry ...	—	—
2	—	Lard ...	11	—
—	—	Lemonade...	1	—
1	—	Lime Juice ...	—	—
2	—	Liver, Lamb's ...	—	—
1	—	Margarine ...	2	—
—	—	Meat, Potted ...	3	—
6	2	Milk ...	185	23
—	—	Milk, Tuberculin Tested...	3	1
—	—	Milk, Hot ...	5	1
2	—	Milk, Condensed Sweetened Machine Skimmed ...	—	—
1	—	Milk, Full Cream Unsweetened ...	—	—
3	—	Mincemeat ...	—	—
1	—	Oatmeal ...	—	—
1	—	Ointment, Boracic ...	—	—
1	—	Ointment, Sulphur ...	—	—
2	—	Olive Oil ...	—	—
—	—	Paste, Salmon ...	2	—
2	—	Pepper ...	1	—
1	—	Powder, Gregory ...	—	—
1	—	Powder, Junket ...	—	—
3	—	Prunes ...	—	—
2	—	Raisins ...	—	—
1	—	Rice ...	—	—
1	—	Rum ...	—	—
—	—	Sauce, Tomato ...	1	—
1	—	Sausages ...	11	—
67	3	Carried forward ...	277	27



Informal Samples		Nature of Samples.	Formal Samples	
Taken	Not Genuine		Taken	Not Genuine
67	3	Brought forward ... ..	277	27
2	—	Shrimps, Picked ... ..	4	—
1	—	Shrimps, Potted ... ..	—	—
1	—	Soda Water ... ..	—	—
—	—	Steak, Minced ... ..	1	—
—	—	Suet, Shredded ... ..	1	1
2	—	Sugar, Demarara ... ..	—	—
1	—	Sultanas ... ..	—	—
1	—	Tartaric Acid ... ..	—	—
2	—	Tea ... ..	—	—
—	—	Vinegar, Malt ... ..	16	3
1	—	Walnuts, Pickled ... ..	—	—
1	—	Whiskey ... ..	—	—
1	—	Zinc Ointment ... ..	—	—
80	3		299	31

## REMARKS.

**Cream Devonshire. Formal Sample No. 4.**—Deficient of 51 per cent. of its Fat. Reported to Health Committee. Warning letter to vendor.

**Cream of Tartar. Formal Sample No. 312.**—Entirely devoid of Potassium Acid Tartrate. Reported to Health Committee. Legal proceedings instituted. Defendant fined 20s. and 13s. 3d. costs.

**Cream of Tartar. Informal Sample No. 304.**—Adulterated with Sodium Acid Phosphate and Starch. Reported to Health Committee. Formal sample as above was taken.

**Milk. Formal Sample No. 17.**—Deficient of 7 per cent. of its Fat. Reported to Health Committee. Warning letter. to Vendor.

**Milk. Informal Sample No. 56.**—Deficient of 6 per cent. of its Fat. Reported to Health Committee. No action taken.

**Milk. Formal Sample No. 82.**—Deficient of 2 per cent. of its Fat. Reported to Health Committee. Warning letter sent to Vendor.

**Milk. Formal Sample No. 101.**—Added Water—10 per cent. Reported to Health Committee. Legal proceedings instituted. Defendant fined £5 and 13s. 6d. costs.

**Milk. Formal Sample No. 115.**—Deficient of 4 per cent. of its Fat. Reported to Health Committee. Warning letter sent to Vendor.

**Milk. Informal Sample No. 124.**—Deficient of 12 per cent. of its Fat. Reported to Health Committee. Follow on sample No. 126.

**Milk. Formal Sample No. 126.**—Deficient of 5 per cent. of its Fat. Reported to Health Committee. Warning letter sent to Vendor.

**Milk. Formal Sample No. 144.**—Deficient of 2 per cent. of its Fat. Reported to Health Committee. Warning letter sent to Vendor.

**Milk. Formal Sample No. 152.**—Deficient of 3 per cent. of its Fat. Reported to Health Committee. Warning letter to Vendor.

**Milk. Formal Sample No. 177.** Deficient of 5 per cent. of its Fat. Reported to Health Committee. Warning letter sent to Vendor.

**Milk. Formal Sample No. 192.**—Deficient of 4 per cent. of its Fat. Reported to Health Committee. Warning letter sent to Vendor.

**Milk. Formal Sample No. 193.**—Deficient of 3 per cent. of its Fat. Reported to Health Committee. Warning letter sent to Vendor.

**Milk. Formal Sample No. 194.**—Deficient of 3 per cent. of its Fat. Reported to Health Committee. Warning letter sent to Vendor.

**Milk. Formal Sample No. 197.**—Deficient of 5 per cent. of its Fat. Reported to Health Committee. Warning letter sent to Vendor.

**Milk. Formal Sample No. 217.**—Deficient of 7 per cent. of its Fat. Reported to Health Committee. Warning letter sent to Vendor.

**Milk. Formal Sample No. 223.**—Added Water 9 per cent. Reported to Health Committee. Follow on samples Nos. 240 and 241 taken. (Warning letter sent to Vendor.)

**Milk. Formal Sample No. 224.**—Deficient of 2 per cent. of its Fat. Reported to the Health Committee. Warning letter sent to Vendor.

**Milk. Formal Sample No. 240.**—Added Water 6 per cent. Reported to Health Committee. No action taken. Milk adulterated before being received by Vendor. Reported to the County Authorities.

**Milk. Formal Sample No. 241.**—Added Water 2 per cent. Reported to Health Committee. No action taken. Milk adulterated before being received by Vendor. Reported to County Authorities.

**Milk. Formal Sample No. 272.**—Deficient of 9 per cent. of its Fat. Reported to Health Committee. Warning letter sent to Vendor.

**Milk. Formal Sample No. 278.**—Deficient of 6 per cent. of its Fat. Reported to Health Committee. Warning letter sent to Vendor.

**Milk. Formal Sample No. 279.**—Deficient of 3 per cent. of its Fat. Reported to Health Committee. Warning letter sent to Vendor.

**Milk. Formal Sample No. 280.**—Added Water 5 per cent. Reported to Health Committee. Legal proceedings instituted. Case dismissed.

**Milk. Formal Sample No. 294.**—Deficient of 14 per cent. of its Fat. Reported to Health Committee. No further action has been taken.

**Milk. Formal Sample No. 310.**—Deficient of 4 per cent. of its Fat. Reported to Health Committee. No action taken.

**Milk. Formal Sample No. 337.** (Tuberculin Tested Milk).—Deficient of 3 per cent. of its Fat. Reported to Health Committee. Warning letter sent to Vendor.

**Milk, Hot. Formal Sample No. 97.**—Added Water 16 per cent. Reported to Health Committee. Legal proceedings instituted. Defendant fined £5 and 13s. 6d. costs.

**Suet, Shredded. Formal Sample No. 164.**—Contained foreign ingredients Rice flour 10 per cent. Reported to Health Committee. Warning letter sent to Vendor.

**Vinegar, Malt. Formal Sample No. 60.**—Artificial Vinegar. Reported to Health Committee. Legal proceedings instituted. Defendant fined 10s. and 13s. costs.

**Vinegar, Malt. Formal Sample No. 64.**—Artificial Vinegar. Reported to Health Committee. Legal proceedings instituted. Defendant fined 10s. and 13s. costs.

**Vinegar, Malt. Formal Sample No. 249.**—Artificial Vinegar. Reported to Health Committee. Legal proceedings instituted. Defendant fined 10s.

PROSECUTIONS IN 1938.

MONTH	ACT	DETAILS OF OFFENCE	RESULT
May ...	Food and Drugs (Adulteration) Act, 1928	Malt Vinegar not of quality demanded ...	Fined 10s. and 13s. costs
May ...	do.	do.	do.
May ...	Housing Act, 1936, Section 168...	Refusal to furnish information ...	Withdrawn on payment of 5s. costs
May ...	Merchandise Marks Act, 1926 ...	Non-labelling of Imported Butter ...	Dismissed on payment of 4s. costs
May ...	do.	do.	do.
May ...	Public Health Act, 1936, Section 154	Exchange of Toys, etc., for Rags ...	Fined 40s. and 5s. costs
May ...	Food and Drugs (Adulteration) Act, 1928	Added Water to Milk 10 per cent. ...	Fined £5 and 13s. 6d. costs
May ...	do.	do. 16 per cent ...	do.
June ...	Public Health Act, 1936, Section 91	Non-compliance in order to abate nuisance	Withdrawn on payment of 3s. 6d. costs
October ...	Food and Drugs (Adulteration) Act, 1928	Malt Vinegar not of quality demanded ...	Fined 10s.
October ...	do.	Added Water to Milk 5 per cent. ...	Case dismissed
October ...	Blackpool Improvement Act, 1925, S. 87	Camping Ground, no Roads, Sewers, etc.	Fined 40s.

PROSECUTIONS IN 1938.—*continued.*

MONTH	ACT	DETAILS OF OFFENCE	RESULT
October ...	do. ...	do.	Fined 20s.
October ...	do. ...	do.	Fined 40s.
October ...	do. ...	do.	Fined 20s.
October ...	do. ...	Insufficiency of Roads, etc., for Camping Ground	Fined 20s.
October ...	Public Health Act, 1936, Section 91	Non-compliance in order to abate nuisance	Order to abate and costs
October ...	Blackpool Improvement Act, 1925, Section 87	Camping Ground, Insufficiency of Roads, etc.	Fined 40s.
November	Shops Act, 1934, Section 10 (4) ...	Non-provision of Washing Facilities	Dismissed on payment of costs
December	Food and Drugs (Adulteration) Act, 1928	Cream of Tartar entirely devoid of Potassium Acid Tartrate	Fined 20s. and 13s. 3d.
December	Shops Act, 1934, Section 10 ...	Non-provision of ventilation ...	Fined 20s.

## Meteorology.

---

The New Meteorological Observatory which has been erected by the Health Committee in Stanley Park was opened officially on the 4th May, 1937, by Mr. Councillor D. J. Bailey, J.P., M.P.S., Chairman of the Health Committee.

The following is a brief history and report upon the work of the Public Health Department in connection with Meteorology :—

From the year 1889 to 1894, the following instruments were in use, and the readings were taken by the staff of the Borough Surveyor. :

Wind Direction,  
Rainfall,  
Temperature.

In 1894, the taking of Meteorological Observations was transferred to the Health Department. At the Sanatorium we had a Barometer, Maximum and Minimum Thermometers, and Rainguage, whilst on the pavilion of the North Pier we had a Wind Direction and Velocity Vane, together with a Sunshine Recorder.

In 1904, the whole of the instruments were transferred to the newly erected Meteorological Observatory in the grounds of the Cemetery, Talbot Road. Additional instruments were obtained, and the Observatory fully equipped and recognised by the Meteorological Office, London, as a Second Order, Government Meteorological Station.

At this time, the readings were taken at 9-0 a.m., 6-0 p.m. and 9-0 p.m. Telegrams were sent daily at 9-0 a.m. and 6-0 p.m. to the Meteorological Office, giving details of the state of the weather, and similar information was sent to the Press Bureau, London, for Publication throughout the Country. In addition, the Sunshine Recording Card is always changed after sunset each day.

On the opening of the newly erected Observatory in Stanley Park, all the instruments were transferred from the Old Observatory at the Cemetery. They now consist of :—

Barometer,  
Barograph,  
Micro-barograph,  
Pressure Tube Anemometer,  
Sunshine Recorder,  
Stevenson's Screen :—  
Dry Bulb Thermometer,  
Wet Bulb Thermometer,  
Maximum Thermometer,  
Minimum Thermometer,

- Rain Gauge,
- Rainfall Recording Instrument,
- Earth Thermometers :
  - One Foot,
  - Four Feet,
- Radiation Thermometers :
  - Black Bulb,
  - Bright Bulb,
- Grass Thermometer.

In June, 1937, at the request of the Air Ministry, additional readings were taken at 7-45 a.m., 11-0 a.m., 1-0 p.m. and 4-0 p.m., making a total of seven readings per day, Sundays inclusive. On completion of each of these observations, telegrams, giving the necessary information in code are telephoned to Barton Aerodrome for the information of the Air Ministry, whilst the 9-0 a.m. and 6-0 p.m. Observations were transmitted by telephone to the Meteorological Office at the Air Ministry.

The information thus obtained by the Meteorological Office is transmitted to the leading newspapers in the country each day, and provides a very extensive and important advertising medium.

On completion of the 9 o'clock a.m. readings, and after the conditions of the weather have been sent to the Air Ministry, the records are entered up at the Observatory, the Observer then proceeds to the North Pier, the Information Bureau on the Promenade to display the various charts for the information of the residents of and visitors to the Town.

Again at the request of the Air Ministry, arrangements have been made to take readings each hour of the day, commencing at 7-0 a.m., and terminating at 6-0 p.m. After each observation, the results are telephoned to Barton Aerodrome, whilst the 9-0 a.m. and 6-0 p.m. readings are still telegraphed to the Meteorological Office of the Air Ministry. This means full time occupation at the Observatory for the Observer.

SUNSHINE.—Bright sunshine amounted to 1,486.7 hours, or 17.8 hours below the average for the 35 years 1904-1938. The daily mean value was 4.07 hours, as compared with 3.86 in 1937. Sunshine was recorded on 303 days, and the sunniest days were 13th June with 14.1 hours, and 4th May with 14.0 hours respectively. The brightest months were April, 214.6 hours, and May, 214.1 hours.

RAIN.—The rainfall for the year was 38.32 inches, or 3.63 above the average for the 35 years 1904—1938. Rain fell on 206 days, and the months with heaviest fall were October, 7.19 inches, December, 5.04 inches, and June, 4.06 inches. The heaviest fall of rain in one day was 1.29 on the 1st June.

The following is a comparative Table showing Sunshine and Rainfall at other Stations :—

	Sunshine.	Rainfall.
Manchester ...	985.0 hours ...	35.9
Bolton ...	1111.5 ,, ...	53.1
Bradford ...	1196.5 ,, ...	37.9
Huddersfield ...	1048.5 ,, ...	36.9
Harrogate ...	1408.5 ,, ...	35.5
Lancaster ...	1137.4 ,, ...	47.4
Liverpool ...	1481.2 ,, ...	33.2
Southport ...	1475.3 ,, ...	38.2

GALES.—Five gales occurred during the year, viz., on 29th January, 1st February, 2nd October and two on the 4th October. In gusts, the highest wind velocity was 88 miles per hour, W.N.W. on 4th October.

SNOW fell on five days, viz., 13th and 14th January, 19th, 20th and 25th December. THUNDERSTORMS occurred on eight occasions, viz., 16th May, 1st June, 25th July, 6th, 8th and 19th August, 7th October and 23rd November.

BAROMETRIC PRESSURE.—The mean pressure for the year was 1015.4 mb. The highest observed reading being 1043.1 on 11th April., and the lowest 964.6 on 23rd November. The greatest monthly range of pressure occurred in October, 60.2 mb. and the smallest in July, 17.6 mb.

TEMPERATURE.—The mean shade temperature for the year was 52.1°. The highest temperature recorded in the shade was 76° F. on the 9th of August, and the lowest was 23° F. on the 19th December. The highest temperature recorded by the black bulb solar radiation thermometer was 135° F. on the 19th June, and the lowest temperature recorded on the grass was 18° F. on 19th December.

MIST at 9 a.m. occurred on 21 days.

FOG at 9-0 a.m. occurred on 17 days.

HUMIDITY.—The mean relative humidity throughout the year was 82.4% of saturation. The lowest record was 70.1% for the month of April, and the highest was 88.0% for the month of March.

UNDERGROUND TEMPERATURE. — The highest temperature recorded at a depth of one foot was 66° F. on the 12th August, and the lowest was 35.2° F. on the 24th, 25th and 26th December. At a depth of four feet the highest record was 60.4° on 14th August, and the lowest was 42.1° F. on the 24th, 25th and 26th February.

WIND.—From daily observation made at 9 a.m., the following direction was recorded :—N. 25 ; N.E. 18 ; E. 29 ; S.E. 45 ; S. 43 ; S.W. 47 ; W. 96 ; N.W. 48 ; Calm 14.

1938	TEMPERATURE OF THE AIR				1938	RAINFALL		
	Mean Temp.	Difference from Average	Absolute Extreme Max.	Absolute Extreme Min.		Inches	Difference from Average	Number of Days with Rain
JAN.	42.6	+1.5	51	31	JAN.	3.77	+ .60	23
FEB.	41.8	+0.7	56	30	FEB.	1.13	-1.19	11
MAR.	47.1	+3.6	61	32	MAR.	1.37	- .77	10
APRIL	45.3	+0.8	59	25	APRIL	0.24	-1.66	3
MAY	50.8	-1.0	64	28	MAY	2.79	+ .45	17
JUNE	55.4	-1.8	71	44	JUNE	4.06	+1.66	16
JULY	57.7	-3.1	69	45	JULY	3.61	+ .71	17
AUG.	60.8	+0.2	76	42	AUG.	3.90	+ .17	18
SEPT.	57.1	-0.3	70	39	SEPT.	1.53	-1.50	20
OCT.	51.8	+0.5	62	33	OCT.	7.19	+3.39	26
NOV.	49.1	+4.1	60	35	NOV.	5.04	+1.57	24
DEC.	45.6	+3.5	52	23	DEC.	3.69	+ .13	21
<b>YEAR</b>	<b>52.1</b>	<b>+3.2</b>	<b>76</b>	<b>23</b>	<b>YEAR</b>	<b>38.32</b>	<b>+3.63</b>	<b>206</b>

1938	BRIGHT SUNSHINE				1938	WIND VELOCITY (Miles)		
	Total Hours	Difference from Average	Number of Sunless Days	Average Daily Sunshine		Mean Daily Movement	Difference from Average	Highest Gust
JAN.	40.6	-4.2	9	1.3	JAN.	357	+22	77
FEB.	73.7	+4.5	9	2.6	FEB.	316	-30	80
MAR.	102.3	-17.0	6	3.3	MAR.	280	-37	52
APRIL	214.6	+47.7	Nil.	7.6	APRIL	222	-58	52
MAY	214.1	+17.6	4	6.9	MAY	273	+ 5	57
JUNE	197.4	-12.2	2	6.6	JUNE	337	+75	62
JULY	153.5	-38.3	3	4.9	JULY	253	+ 8	51
AUG.	188.6	+17.5	1	6.1	AUG.	214	+ 5	56
SEPT.	99.1	-38.6	7	3.3	SEPT.	204	-69	42
OCT.	90.8	- 7.7	2	2.9	OCT.	377	- 9	88
NOV.	58.4	+ 0.3	4	1.9	NOV.	369	+52	65
DEC.	53.6	+16.2	12	1.7	DEC.	323	+ 5	81
<b>YEAR</b>	<b>1486.7</b>	<b>-17.8</b>	<b>59</b>	<b>4.1</b>	<b>YEAR</b>	<b>294</b>	<b>- 2</b>	<b>—</b>



**MAIN FEATURES OF THE MONTHS OF 1938.**

**JANUARY.**—Barometric pressure was 5.3 mb. below the average.

The mean temperature, 42.6°, was 2.5° above the average.

The highest shade temperature recorded was 51° on the 14th, 20th, 24th and 31st, and the lowest 31° on the 11th.

The lowest grass temperature, 23° occurred on the 11th. Ground frost occurred on 8 nights.

Sunshine 40.6 hours, was 3.9 hours below the average. The average daily amount for the month was 1.30 hours. The sunniest day recorded 5.1 hours on the 21st. There were 10 sunless days.

Rainfall, 3.77 inches, was .57 inch above the average. The average daily amount was .12 inches. The wettest day was the 14th, with .46 inches. There were 23 rain days.

The daily average wind movement was 357 miles, the total movement being 11,075 miles. The greatest movement in one day occurred on the 31st (737 miles). The highest gust, 77 miles, W.N.W., occurred between 8 and 9 a.m. on the 29th. Gale force 8 was recorded during the same hour. The prevailing wind at 9 a.m. was West.

Hail occurred on the 7th.

Fog was recorded on 3 days, and mist on 12 days.

The Aurora was observed 6-15 p.m. to 9-45 p.m. on the 25th.

One gale occurred on the 30th.

**FEBRUARY.**—Barometric pressure was 12.2 mb. above the average.

The mean temperature 41.8° was 1.9° above the average. The highest shade temperature, 56°, was recorded on the 26th, and the lowest, 30°, on the 21st. The lowest grass temperature, 21°, occurred on the 21st. Ground frost occurred on 10 nights.

Sunshine, 73.7 hours, was 3.6 hours above the average. The sunniest day, 8.3 hours occurred on the 19th. The average daily sunshine for the month was 2.63 hours. There were 9 sunless days, six occurring on the 4th, 5th, 6th, 7th, 8th and 9th.

Rainfall, 1.13 inches, was 2.18 inches below the average. The average daily fall amounted to .04 inches. A dry period occurred from the 12th to 23rd inclusive. The greatest fall in one day, .39 inches, occurred on the 26th.

The movement of wind for the month was 9,722 miles. The daily mean "run" was 312 miles. The greatest movement in one day, 663 miles, occurred on the 1st. The highest gust, 80 miles, from W.S.W. occurred at 5-30 a.m. on the 1st. An average of 42 miles per hour was recorded on the same day between 6 and 7 a.m. The prevailing wind at 9 a.m. was North.

Slight snow showers occurred on the 13th and 14th.

Fog was recorded on 3 days, and mist on 8 days.

One gale occurred on the 1st.

MARCH—Barometric pressure for the month was 10.7 mb. above the average. The highest pressure at Mean Sea Level was 1039.1 and the lowest 1004.7 mb.

The mean temperature, 47.1° was 5.1° above the average. The highest shade temperature, 61°, was recorded on the 13th and the lowest 32° on the 23rd.

The lowest grass minimum, 25°, occurred on the 3rd and 23rd. Ground frost was recorded on 5 nights.

Sunshine during the month, 102.3 hours, was 21.3 hours below the average. The sunniest days, 9.6 hours, occurred on the 13th and 14th. The mean daily sunshine for the month was 3.30 hours. There were 5 sunless days.

Rainfall, 1.37 inches, was .88 inches below the average. The mean daily fall amounted to .04 inches. The greatest fall in one day, .47 inches, was recorded on the 20th.

Wind movement for the month was 9,236 miles. The daily mean "run" was 280 miles. The greatest movement in one day, 481 miles, occurred on the 18th. The highest gust recorded 47 miles, W.S.W., occurred at 11-15 a.m. on the 19th. The prevailing wind at 9 a.m. was West.

Fog was recorded on 7 days, and mist on 6 days.

APRIL.—Barometric pressure for the month was 15.4 mb. above the average. The highest pressure recorded at 9 a.m. was 1043.1 mb. and the lowest 1016.9.

The mean temperature was 45.3° F. was about normal. The highest shade temperature, 59°, was recorded on the 28th, and the lowest minimum, 25°, on the 18th. The lowest grass minimum, 19°, was recorded on the 18th. Ground frost occurred on 14 nights.

Sunshine for the month was 214.6 hours, being 49.3 hours above the average. The sunniest day, 12.1 hours, occurred on the 18th. There were no sunless days.

The month was very dry, rainfall amounting to only .24 inches, which is 1.69 inches below the average. An absolute drought commenced on the 5th and continued to the end of the month. It is the driest April on record.

Wind movement for the month was 6,661 miles. The mean daily "run" was 222 miles. The greatest movement in one day, 556 miles, occurred on the 2nd. The highest gust recorded, 52 miles, N.N.W., occurred at 3.20 a.m. on the 2nd. The prevailing wind at 9 a.m. was N.W.

Fog was recorded on 3 days.

MAY.—Barometric pressure for the month was about normal. The highest pressure recorded at 9 a.m. was 1028.2 mb. and the lowest 997.1 mb.

The mean temperature,  $50.8^{\circ}$ , was  $0.7^{\circ}$  above the average. The highest shade temperature,  $64^{\circ}$ , on the 5th and 15th, and the lowest minimum,  $28^{\circ}$ , on the 8th. The lowest grass minimum,  $22^{\circ}$ , occurred on the 6th. Ground frost occurred on 8 nights.

Sunshine, 214.1 hours, was 17.6 hours above the average. The sunniest day, 14.0 hours, occurred on the 5th. There were 3 sunless days.

Rainfall, 2.79 inches, was 0.39 inches above the average. The absolute drought commencing 5th April, continued until 11th May. The wettest day, 0.82 inches, occurred on the 29th.

Wind movement for the month was 8,448 miles. The mean daily "run" was 112 miles. The greatest movement in one day, 474 miles, occurred on the 3rd. The highest gust, 57 miles, W.S.W., occurred on the 31st. The prevailing wind at 9 a.m. was South.

Thunder was recorded on the 16th.

A brilliant rainbow was observed at 9-10 p.m. on the 27th.

Solar halo was observed at 3-10 p.m. to 3-20 p.m. on the 30th.

JUNE.—Barometric pressure was slightly below the average. The highest recorded at 9 a.m. was 1028.9 mb. on the 13th, and the lowest 995.4 on the 27th.

The mean temperature,  $55.4^{\circ}$ , was  $0.9^{\circ}$  below the average. The highest shade temperature,  $70^{\circ}$ , was recorded on the 18th, and the lowest minimum,  $44^{\circ}$ , on 23rd. The lowest grass minimum,  $38^{\circ}$ , occurred on the 23rd.

Sunshine for the month, 197.4 hours, was 13.9 hours below the average. The sunniest day, 14.1 hours, on the 13th. There were two sunless days.

Rainfall, 4.06 inches, was 1.88 inches above the average. The wettest day, 1.29 inches, occurred on the 1st.

The wind movement for the month was 10,123 miles. The mean daily "run" was 337 miles. The greatest movement in one day, 649 miles, occurred on the 27th, and the highest gust, 62 miles, W.S.W. The prevailing wind at 9 a.m. was W. Winds during the month were rather cold.

A thunderstorm of 15 minutes' duration, occurred on the 1st.

JULY.—Barometric pressure was 2.2 mb. below the average. The highest recorded at 9 a.m. was 1022.5 mb. on the 18th, and the lowest 999.3 mb. on the 8th.

The mean temperature,  $57.7^{\circ}$ , was  $2.1^{\circ}$  below the average. The highest shade temperature,  $69^{\circ}$ , was recorded on the 27th, which was rather low for July. The lowest minimum temperature,  $45^{\circ}$ , was recorded on the 5th, which was the lowest since 1929. The lowest grass minimum,  $41^{\circ}$ , was recorded on the 15th.

Sunshine, 153.5 hours, was 39 hours below the average. The sunniest day, 12.5 hours, was on the 6th. There were 3 sunless days.

Rainfall, 3.61 inches, was .61 inches above the average. The rainiest day, .63 inches, occurred on the 25th. There were 17 rainy days. This was the wettest July since 1932.

The wind movement for the month was 7,845 miles. The daily mean "run" was 253 miles. The greatest movement in one day, 506 miles, occurred on the 9th and the highest gust 51 miles W.N.W. The prevailing wind at 9 a.m. was W.

A short thunderstorm occurred at 7-10 p.m. on the 25th.

AUGUST.—Barometric pressure was 2.2 mb. above the average. The highest recorded at 9 a.m. was 1028.0 mb. on the 1st, and the lowest, 994.9 on the 19th.

The mean temperature,  $60.8^{\circ}$ , was  $1.2^{\circ}$  above the average. The highest shade temperature,  $76^{\circ}$ , was recorded on the 9th. The lowest minimum temperature,  $42^{\circ}$ , was recorded on the 31st. The lowest grass minimum,  $38^{\circ}$ , also occurred on the 31st.

Sunshine for the month, 188.6 hours, was 19.9 hours above the average. The sunniest day, 12.0 hours, occurred on the 4th. There was only one sunless day, the 24th.

Rainfall, 3.90 inches, was .03 inches above the average. The rainiest day, .62 inches, occurred on the 8th. There were 18 rainy days.

The wind movement for the month was 6,648 miles. The daily mean "run" was 214 miles. The greatest movement in one day, 578 miles, occurred on the 16th, with the highest gust 56 miles, W. The prevailing wind at 9 a.m. was N.W.

Early morning fog was recorded on 5 occasions. Three thunderstorms occurred during the month. A shower of hail was recorded during the afternoon of the 24th.

SEPTEMBER.—Barometric pressure was 0.7 mb. below the average. The highest recorded at 9 a.m. was 1027.9 on the 10th, and 1000.04 mb. on the 20th, was the lowest.

The mean temperature, 57.1° F. was 1.5° above the average. The highest shade temperature, 70°, was recorded on the 26th. The lowest minimum, 39°, was recorded on the 15th. The lowest grass minimum, 32°, occurred during the night of the 14th-15th.

Sunshine for the month, 99.1 hours, was 40.2 hours below the average, and was the lowest amount for September on record. The sunniest day, 12.0 hours, occurred on the 2nd. There were 7 sunless days, and 5 days with less than 1 hour.

Rainfall, 1.53 inches, was 1.37 inches below the average. The rainiest day, 0.29 inches, occurred on the 23rd. There were 20 rainy days.

The wind movement for the month was 6,116 miles. The daily mean "run" was 204 miles. The greatest movement for one day, 413 miles, occurred on the 13th, with the highest gust, 42 miles, W., on the same day. The prevailing wind at 9 a.m. was W.

Early morning fog was recorded on the 7th and 19th. Much mist or slight mist was recorded early mornings and late evenings.

OCTOBER.—Barometric pressure was 3.8 mb. below the average. The highest recorded at 9 a.m. was 1025.4 mb. on the 20th, and the lowest 979.0 mb. on the 4th.

The mean temperature, 51.8°, was 1.6° above the average. The highest shade temperature, 62°, occurred on the 1st, and the lowest minimum, 33°, on the 29th. The lowest grass minimum, 30°, occurred on the 29th.

Sunshine for the month, 90.8 hours, was 10.1 hours below the average. The sunniest day, 7.6 hours, occurred on the 14th. There were two sunless days.

Rainfall, 7.19 inches, was 3.51 inches above the average, and was the wettest October since 1903. The rainiest day, 1.12 inches, occurred on the 3rd, and 1.07 inches fell on the 8th. There were 26 rainy days.

The wind movement for the month was 11,669 miles. The daily mean "run" was 377 miles. The greatest movement for one day was 749 miles on the 3rd, with a gust of 88 miles, W.N.W., at 7-5 a.m. on the 4th. Moderate or fresh gales occurred on the 2nd, 3rd and 4th. The prevailing wind at 9 a.m. was W.

Fog occurred on the mornings of 24th, 25th and 29th.

Showers of hail were recorded on the 5th and 6th.

A short, sharp thunderstorm was recorded at 4-55 p.m. on the 7th.

NOVEMBER.—Barometric pressure was 5.5 mb. below the average. The highest recorded at 9 a.m. was 1029.6 mb. on the 16th and the lowest 964.6 on the 23rd.

The mean temperature,  $49.1^{\circ}$  was  $5.7^{\circ}$  above the average, and was the warmest November on record. The highest shade temperature,  $60^{\circ}$ , occurred on the 11th and 12th, and the lowest minimum  $35^{\circ}$  on the 22nd. The lowest grass minimum,  $27^{\circ}$ , was recorded on the 22nd.

Sunshine for the month, 58.4 hours, was 0.4 hours above the average. The sunniest day, 5.9 hours, was on the 1st. There were five sunless days.

Rainfall, 5.04 inches, was 1.56 inches above the average, and was the wettest November since 1931. The rainiest day, .76 inches, occurred on the 12th. There were 24 rainy days.

The wind movement for the month was 11,066 miles. The daily mean "run" amounted to 369 miles. The greatest movement for one day, 641 miles, was recorded on the 1st. The highest gust occurred on the 23rd, when 65 miles was recorded from W.N.W. The prevailing wind was W.S.W.

Fog was recorded on the 5th, 15th and 21st.

A short, slight thunderstorm occurred on the 23rd at 10-30 p.m.

Sleet was recorded on the 2nd and 24th.

Hail was recorded on nine occasions, chiefly during the last 12 days of the month, which was rather a squally period.

Ground frost occurred on the 27th.

DECEMBER.—Barometric pressure was 1.9 mb. above normal. The highest recorded at 9 a.m. was 1031.7 mb. on the 25th and the lowest 984.1 mb. on the 1st.

The mean temperature,  $45.6^{\circ}$  was  $4.6^{\circ}$  above the average, and was the warmest December since 1934.

The highest shade temperature,  $52^{\circ}$ , occurred on the 11th, 12th, and 14th, and the lowest minimum,  $23^{\circ}$ , on the 19th.

The lowest grass minimum,  $18^{\circ}$ , occurred on the 19th. A short spell of cold weather with ground frost, occurred from the 18th to the 25th.

Sunshine for the month was 53.6 hours, being 16.2 hours above the average, and was the sunniest December on record. The sunniest day, 6.0 hours, occurred on the 21st. There were 12 sunless days.

Rainfall, 3.69 inches, was .13 inches above the average. The rainiest day, .97 inches, occurred on the 4th. There were 21 rainy days.

The wind movement for the month was 10,013 miles. The daily mean "run" amounted to 323 miles. The greatest movement for one day, 621 miles, was recorded on the 18th. The highest gust, 81 miles, S.S.W., occurred on the 1st. The prevailing wind for the month was S.S.E.

Fog was recorded on 7 days.

Hail occurred on 3 days.

Snow fell on the 19th, 20th and 25th.

Sleet was recorded on the 25th, 26th and 31st.

Ground frost was recorded on 7 nights.



## INDEX.

	PAGE		PAGE
Aerodrome ... ..	133	Common Lodging Houses	113
Agricultural Produce (Grading and Marking) Act, 1928 ... ..	133	Congenital Malformations	27, 28
Ambulance facilities ... ..	60	Contraception ... ..	9, 15, 93
Ancillary treatment ... ..	41	Consultations ... ..	39, 44
Animals slaughtered ... ..	124	Contacts, T.B.— ... ..	39
Ante-Natal Clinics and Treatment ... ..	77, 78	Convalescent Home Treatment ... ..	83
Area of Borough ... ..	11	Convulsions ... ..	27, 28
Area of Foreshore ... ..	11	Costs, Maintenance ... ..	57
Area of Wards ... ..	11	Cowsheds ... ..	119, 120, 121
Artificial Pheumo-thorax Treatment ... ..	41	Cremation ... ..	134
Artificial Sunlight... ..	94	Dairies ... ..	119, 120
Ash Receptacles ... ..	107	Deafness ... ..	91, 92, 93
Bacteriological Laboratory and reports, etc. ... ..	56, 123	Deaths ... ..	13, 17, 18, 19
Births ... ..	13, 15, 25	Death Rates ... ..	13, 17
Birth Control ... ..	93	Deaths in Wards ... ..	12
Birth Rate... ..	13, 14, 15, 16, 17	Deaths, Causes of ... ..	19, 20
Blindness—Prevention of..	97, 98	Deaths under One Year ... ..	13
Borough Rate ... ..	11	Density of Population ... ..	11
Bronchitis ... ..	23, 27, 28	Dental Treatment... ..	78, 79, 93
Cancer Deaths, etc. ... ..	21, 22, 23, 24	Diarrœha Deaths ... ..	13
Caravans ... ..	126	Diphtheria ... ..	33, 55, 56
Cattle, Inspection of ... ..	122	Disinfection ... ..	60
Census Population ... ..	11	Discharges ... ..	56, 57
Cerebro-Spinal Meningitis	29, 30, 31	Disinfestation ... ..	114, 115, 116, 117
Cesspools ... ..	106, 107	Dispensary Tuberculosis	39, 43, 44
Chickenpox ... ..	35, 55	District Nursing ... ..	65
Child Birth ... ..	13	Doctor's Fees ... ..	69, 81
Children Act, 1908 ... ..	87, 88, 89	Dried Milk ... ..	96
Circulatory System (Deaths)	23	Encephalitis Lethargica ... ..	29, 30
Clinics ... ..	10, 96	Enteric Fever ... ..	29, 31, 32, 55, 56
		Entrants—Municipal Service	97
		Erysipelas ... ..	30, 31, 55, 56
		Estimated Population ... ..	11
		Expectant Mothers ... ..	78, 79
		Factory and Workshops Act ... ..	109, 110, 112



## INDEX—continued.

	PAGE		PAGE
Fish and Chip Shops	112, 113	Maternal Mortality	... 13, 94
Food and Drugs Acts	135, 136, 137, 138, 139	Maternity Cases— Residential Accommodation	... 60, 83
Food Supply	... 124, 132, 133	Maternity and Child Welfare	5, 13, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87
Foreshore, Area of	... 11	Maternity and Child Welfare Sub-Committee	5
Foxton Dispensary	... 64	Maternity Accommodation Advisory Sub-Committee	6
General Statistics	... 11	Maternity Wards	... 83
Health Committee	... 4	Measles	... 13, 33, 55, 56
Health General Sub-Com- mittee	... 4	Medical Charities Fund	... 21
Home Helps	... 79, 80, 81	Medical Help	... 81
Home Visiting	... 38, 44, 96	Medical Relief by Public Assistance Committee	... 63, 64
Hospital	... 60, 61, 62	Meteorology	... 140 to 150
Hospital Accommodation	60, 61, 62	Midwives, Midwives Act, 1936	66, 67, 68, 69, 70, 71, 72, 73
Houses, Empty	... 11, 126, 127	Milk (Special Designations) Order, 1922	... 119
Houses, Inhabited	11, 126, 127	Milk	118, 119, 120, 121, 122, 125
Housing Statistics	11, 126, 127 128, 129, 132	Mumps	... 55
Hydro-Cyanic Acid Gas	114, 115, 116	Municipal Midwives	67, 68, 69, 70, 71, 72, 73
Ice Cream	... 119, 123	Notifications	29, 30, 31, 32, 33, 34, 35
Illegimate Births	... 15, 16, 17	Nursed-out Children	87, 88, 89
Immunisation, Diphtheria	9, 33, 34	Nursing Home Registration	86
Infant Mortality	13, 25, 26, 27, 28	Nursing-in Cases	... 69
Infantile Deaths	... 25, 26, 27	Offensive Trades	... 113
Infant Welfare Clinic	... 9, 84	Officers	... 6, 7, 8
Infectious Diseases	... 29, 30, 31, 32, 33, 61	Ophthalmia Neonatorum	35, 89, 90
Infectious Diseases Hos- pital	... 9, 56, 57, 77	Orthopædic Scheme	... 84, 85
Infirmery—Kirkham	... 63	Out-door Relief	... 63
Inquests	... 12	Overcrowding	... 130, 131, 132
Isolation Ward	... 82	Pasteurised Milk	78, 84, 118, 119
Ladies Sick Poor Assoc- iation	... 65	Penny Rate	... 11
Leaflets—Infectious Diseases	58, 59	Persons per Acre	... 11
Legitimate Births	... 13	Phthisis	... 56
Maintenance Costs	... 57	Population Census	... 11
Manchester and Salford Charities (Medical) Fund	21		

## INDEX—continued.

	PAGE		PAGE
Population, Density ...	11	Sewerage ... ..	105, 106, 107
Population of Wards ...	11	Shops Act ... ..	117, 118
Poliomyelitis ...	29, 30, 31	Slaughter-houses ...	124
Post-Natal Clinic ...	78	Slum Clearance ... ..	128
Pneumonia ... ..	23	Smallpox ... ..	33
Premature Births	25, 27, 28	Smoke Abatement ...	108
Prosecutions ...	138, 139	Sputum Examination	40, 44, 46
Public Assistance Com- mittee Hospital		Staff ... ..	6, 7, 8
Accommodation ...	63	Stillbirths ... ..	13
Publicity—Post Office ...	98	Sunlight Clinic ... ..	94
Public Assistance Com- mittee Medical Relief ...	63	Tents, Vans and Sheds ...	126
Public Health Services ...	9	Theatres and Music Halls	117
Public Vaccinators ...	65	Toddlers' Clinic ... ..	9
Puerperal Pyrexia and Sepsis		Tuberculosis Sub-Com- mittee ... ..	5
	13, 33, 56	Tuberculosis 5, 10, 21, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 56	
Radium Treatment ...	21	Tuberculosis Order, 1925...	122
Rateable Value ... ..	11	Vaccination, Public ...	65
Rats and Mice Destruction	114	Venereal Diseases	
Refuse Collection ... ..	106		10, 99, 100, 101, 102, 103
Rent Restriction Act ...	113	Verminous Premises	
Rotheln ... ..	29, 30, 31		114, 115, 116, 117
Sale of Food and Drugs Acts		Veterinary Surgeon's Report	122
	135, 136, 137, 138, 139	Victoria Hospital ... ..	21, 60
Sanatorium ... ..	9, 56, 57, 77	Vital Statistics ... ..	11, 12, 13
Sanatoria ... ..	40, 41, 43, 44, 45	Vital Statistics, Other Towns	12
Sands Inspection ... ..	113	Wards, Area of ... ..	11
Sanitary Circumstances ...	104	Wards, Population ... ..	11
Sanitary Inspection 107, 108, 109		Wards, Statistics ... ..	12
Sanitary Defects ... 107, 108, 109		Water Supply ... ..	104
Scarlet Fever ... ..	34, 55, 56	Weakly Babies ... ..	95
Scavenging ... ..	106	Welfare Centres ... ..	74, 75, 76
Schools, Closure of ... ..	55	Whooping Cough, Deaths, etc. ... ..	13, 55
Schools, Exclusion ... ..	55	Workshops ... ..	110, 111, 112
Sediment Test ... ..	121	X-ray Examination	21, 40, 44
Sepsis, Deaths from ...	13		
Serum Treatment ... ..	33		

INDEX—continued

	PAGE		PAGE
Legitimate Births	14	Population, District	17
Maintenance	15	Registration of Deaths	18
Medical and Surgical	16	Registration of Deaths from	19
Childbirth	16	Tuberculosis	20
Diphtheria	16	Typhoid	21
Epidemic Typhus	16	Typhus	22
Scarlet Fever	16	Typhus	23
Typhoid	16	Typhus	24
Typhus	16	Typhus	25
Typhus	16	Typhus	26
Typhus	16	Typhus	27
Typhus	16	Typhus	28
Typhus	16	Typhus	29
Typhus	16	Typhus	30
Typhus	16	Typhus	31
Typhus	16	Typhus	32
Typhus	16	Typhus	33
Typhus	16	Typhus	34
Typhus	16	Typhus	35
Typhus	16	Typhus	36
Typhus	16	Typhus	37
Typhus	16	Typhus	38
Typhus	16	Typhus	39
Typhus	16	Typhus	40
Typhus	16	Typhus	41
Typhus	16	Typhus	42
Typhus	16	Typhus	43
Typhus	16	Typhus	44
Typhus	16	Typhus	45
Typhus	16	Typhus	46
Typhus	16	Typhus	47
Typhus	16	Typhus	48
Typhus	16	Typhus	49
Typhus	16	Typhus	50
Typhus	16	Typhus	51
Typhus	16	Typhus	52
Typhus	16	Typhus	53
Typhus	16	Typhus	54
Typhus	16	Typhus	55
Typhus	16	Typhus	56
Typhus	16	Typhus	57
Typhus	16	Typhus	58
Typhus	16	Typhus	59
Typhus	16	Typhus	60
Typhus	16	Typhus	61
Typhus	16	Typhus	62
Typhus	16	Typhus	63
Typhus	16	Typhus	64
Typhus	16	Typhus	65
Typhus	16	Typhus	66
Typhus	16	Typhus	67
Typhus	16	Typhus	68
Typhus	16	Typhus	69
Typhus	16	Typhus	70
Typhus	16	Typhus	71
Typhus	16	Typhus	72
Typhus	16	Typhus	73
Typhus	16	Typhus	74
Typhus	16	Typhus	75
Typhus	16	Typhus	76
Typhus	16	Typhus	77
Typhus	16	Typhus	78
Typhus	16	Typhus	79
Typhus	16	Typhus	80
Typhus	16	Typhus	81
Typhus	16	Typhus	82
Typhus	16	Typhus	83
Typhus	16	Typhus	84
Typhus	16	Typhus	85
Typhus	16	Typhus	86
Typhus	16	Typhus	87
Typhus	16	Typhus	88
Typhus	16	Typhus	89
Typhus	16	Typhus	90
Typhus	16	Typhus	91
Typhus	16	Typhus	92
Typhus	16	Typhus	93
Typhus	16	Typhus	94
Typhus	16	Typhus	95
Typhus	16	Typhus	96
Typhus	16	Typhus	97
Typhus	16	Typhus	98
Typhus	16	Typhus	99
Typhus	16	Typhus	100