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COUNTY BOROUGH OF BOOTLE.



ANNUAL REPORT
OF THE
MEDICAL OFFICER OF HEALTH
FOR
1932

F. T. H. WOOD, O.B.E., M.D. (Lond.), B.S., B.Sc., D.P.H.,

**Medical Officer of Health, School Medical Officer, Medical
Officer to the Public Assistance Committee, etc.**

BOOTLE :
BOOTLE TIMES, LTD., 30, ORIEL ROAD.

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CONTENTS.

	Page.		Page.
Introductory	5		
Section I.—Vital Statistics	8		
" II.—General Public Medical Treatment	15		
" III.—Sanitary Circumstances	17		
" IV.—Sanitary Control of the Food Supply	18		
" V.—Prevalence of Notifiable Diseases	26		
" VI.—Tuberculosis	34		
" VII.—Venereal Diseases	40		
" VIII.—Maternity and Child Welfare	43		
" IX.—Health Education	55		
" X.—Nursing Arrangements, Hospitals, and other Institutions available	56		
" XI.—Housing	59		
" XII.—Census Statistics	67		
" XIII.—Blind Welfare	70		
Page.			
Ante-natal Clinics	44, 97	Maternity Home	46
Artificial Pneumo-Thorax Treatment	37	Measles	30
Bacteriological and Pathological Ex-		Meat Inspection	23
aminations	34	Meteorological Data	101
Births	8, 50	Midwives Acts	45, 57
Blind Welfare	70	Milk	20
Boarded-out Children	55	Milk Assistance Scheme	46
Cancer	14	Mortality in relation to Old Age	10
Census Statistics	67	Mortality in relation to Sex	10
Children Act, 1908	54	Neo-Natal Mortality	52
Children under 5 Years	12, 53, 98	Notification of Births Acts	49
Clinics and Treatment Centres	58	" Infectious Diseases	26, 74
Closet Accommodation	18	Nuisances	18
Cross Infection	34	Nurse Children	54
Dairies, Cowsheds, and Milkshops	89	Nursing Homes Registration Act	45
Deaths	9, 73, 75, 76	Ophthalmia of the Newly-born	52
Dental Work	39, 44	Phthisis	36
Diarrhoea	31	Population	8
Diphtheria	28	Post-Natal Supervision	47
Disinfection	90	Public Assistance and Medical Treat-	
District Nurses' Association	56	ment	15
Drainage and Sewerage	17	Puerperal Fever	48
Dysentery	32	Rag Flock Acts	26
Economic Conditions	14	Refuse Disposal	18
Enteric Fever	30	Respiratory Diseases	13
Expectant Mothers	44	Sanatorium, Maghull	37
Factory and Workshops Acts	91	Sanitary Work, Details of	88
Fertilizers and Feeding Stuffs Act	26	Scarlet Fever	27
Food and Drugs Acts	24, 92, 93	Scavenging	18
Hospital for Infectious Diseases	32, 100	Smallpox	26
Hospitals	57	Smoke Abatement	89
Housing	59	Staff	4
Ice Cream	21	Statistical Summary	7
Infant Welfare Clinics	53, 58	Still-births	50
Infant Welfare Visitors' Work	53, 97	Tuberculosis	34, 77-87
Infantile Mortality	11, 50	" Dispensary	36
Infectious Disease	13, 26	" Non-Pulmonary	39
Influenza	20	" Pulmonary	36
Institutional Accommodation	15, 32	Typhoid Fever	30
Leasowe Hospital	39	Unfit Houses	67
Light Treatment	39	Vaccination	17
Linacre Hospital, Phthisis	37	Venereal Diseases Clinic	40
Liverpool Child Welfare Association	55	Vital Statistics	73-76
Local Powers, relating to Public Health	102	Whooping Cough	31
Maternal Mortality	49	Workshops	91
Maternity and Child Welfare	43	X-Ray Examinations	37
Maternity Cases and Public Assistance	46	Zymotic Diseases	13, 26

BOOTLE TOWN COUNCIL 1931-1932.

†*His Worship the Mayor (Mr. Councillor Hankey, J.P.).	
Mr. Alderman Barbour, J.P.	†§*Mr. Councillor Haworth, J.P.
Mr. Alderman Booth.	Mr. Councillor Holden.
Mr. Alderman Gardner.	Mr. Councillor Hort.
Mr. Alderman Harris.	Mr. Councillor Jones, J.P.
Mr. Alderman Hughes.	Mr. Councillor Keenan.
Mr. Alderman Johnston, J.P.	Mr. Councillor D. Kelly.
§*Mr. Alderman King, J.P.	Mr. Councillor J. S. Kelly.
Mr. Alderman Patrick, J.P.	†§*Mr. Councillor Kinley.
Mr. Alderman J. Scott.	*Mr. Councillor Lawton.
§*Mr. Alderman Turner, J.P., M.A., M.D.	*Mr. Councillor Maguire, J.P.
Mr. Alderman Wolfenden.	†Mr. Councillor Mahon, J.P.
Mr. Councillor Abbott.	†Mr. Councillor Marsh.
†§*Mrs. Councillor Ballantyne.	§Mr. Councillor O'Neill.
*Mr. Councillor Baucher.	§*Mr. Councillor Redding.
Mr. Councillor Black.	Mr. Councillor Riley.
Mr. Councillor Burnie.	†§*Mr. Councillor Roberts.
†§*Mr. Councillor H. O. Cullen.	Mr. Councillor Rogers.
Mr. Councillor N. Cullen.	Mr. Councillor W. C. Scott.
Mr. Councillor Eaton.	Mr. Councillor Spence.
†§*Mr. Councillor Fairlie.	†Mr. Councillor Spencer.
†Mr. Councillor Grainger.	†Mr. Councillor Stewart.
Mr. Councillor Hackett.	Mr. Councillor Summers.
	Mr. Councillor Timon.
	Mr. Councillor Webster.

* Member of Health Committee.

§ Member of Maternity and Child Welfare Sub-Committee.

† Member of Housing and Town Planning Committee.

HEALTH COMMITTEE.

Chairman—Mr. Alderman Turner.

Deputy Chairman—Mr. Councillor Fairlie.

MATERNITY AND CHILD WELFARE SUB-COMMITTEE

Chairman—Mr. Alderman Turner.

Deputy Chairman—Mrs. Councillor Ballantyne.

This Committee consisted of members of the Health Committee (as indicated), together with the following representatives of the Bootle Insurance Committee:—

Mr. Councillor O'Neill.

Mrs. E. H. Smith, J.P.

HOUSING AND TOWN PLANNING COMMITTEE.

Chairman—Mr. Alderman Baucher.

Deputy-Chairman—Mr. Councillor Grainger.

STAFF OF THE PUBLIC HEALTH DEPARTMENT.

Medical Officer of Health, Administrative Tuberculosis Officer, and Medical Superintendent of the Corporation Hospitals—

F. T. H. WOOD, O.B.E., M.D., B.S., B.Sc. (Lond.), D.P.H. (Durh.).

Tuberculosis Officer and Deputy Medical Officer of Health—

R. HANNAH, M.C., M.B., Ch.B. (Edin.), D.P.H.

Assistant School Medical Officers and Assistant Medical Officers of Health—

G. P. McCLOSKEY, M.B., B.Ch., B.A.O. (Belf.), D.P.H.

Miss M. B. CLARKE, M.B., Ch.B., D.P.H. (Liverpool).

School Dental Surgeons—

H. B. DAWES, L.D.S.

L. W. SMITH, L.D.S. (part-time).

Corporation Hospital, Linacre Lane.

*Matron—*Miss S. L. BEVAN.

Maghull Sanatorium.

*Matron—*Miss E. HOLDEN, R.R.C.

Maternity Home.

*Matron—*Miss M. W. CLEARY.

Chief Sanitary Inspector, Inspector under the Food and Drugs Acts, and the Housing Acts, etc.—

¹²J. C. PALMER, M.C.

Sanitary Inspectors—

¹²B. J. HOLDEN.

¹W. ROBSON.

¹²H. PARKINSON.

¹²W. E. LEATHER.

*Chief Clerk—*N. LOCKWOOD.

Clerical Staff—

H. A. BROWN, O.B.E. Miss WILSON. Miss THOMPSON. S. ASTLEY. Miss MAXWELL,
Miss BROWN. Miss BEATTIE. Miss GREEN. Miss SMITH. K. MCKENZIE.

*Vaccination Officer (Part-time)—*R. W. JACKSON.

Health Visitors—

¹Mrs. MCKOWEN.

³⁴⁵Mrs. MEREDITH.

³⁴⁵Miss F. M. HUGHES.

³⁴⁷Miss STARK.

¹³⁴⁷Miss SKINNER.

³⁴⁷Miss WILD.

³⁴⁷Miss LYNCH.

School Nurses—

⁷Miss A. HUGHES.

⁷Miss THOMAS.

⁷Miss DAVIES

⁷Miss C. HUGHES

(Orthopaedics).

*Tuberculosis Nurse—*⁷Miss KELLY.

Part-time Officers.

<i>Medical Officer, Ante-Natal Clinic</i>	P. MALPAS, F.R.C.S.
<i>Medical Officer, Maghull Sanatorium</i>	A. HENDRY, M.D.
<i>Medical Officers, Venereal Diseases Clinic .</i>	{ W. L. WEBB, M.B., Ch.B.
<i>Ophthalmic Surgeon</i>	{ Miss R. NICHOLSON, M.B., D.P.H.
<i>Throat Surgeon</i>	E. ALLAN, M.B., Ch.B.
<i>Orthopaedic Surgeon</i>	C. YORKE, F.R.C.S.
<i>Medical Officer, Aural Clinic</i>	B. L. McFARLAND, M.D.
<i>Public Vaccinators</i>	I. A. TUMARKIN, M.B., Ch.B., F.R.C.S.
(also District Medical Officers).	{ A. W. HANLON, M.R.C.S., L.R.C.P.
<i>Pathologist</i>	{ A. V. GLENDINNING, M.B., Ch.B.
<i>Analyst</i>	Professor J. M. BEATTIE.
<i>Veterinary Surgeons</i>	W. H. ROBERTS, M.Sc., F.I.C.
<i>Rat Officer</i>	{ HENRY SUMNER, M.R.C.V.S.
	{ JAMES SUMNER, M.R.C.V.S.
	W. BORROWS.

¹ Certified Sanitary Inspector. ² Certified Inspector of Foods. ³ Certified Health Visitor.
⁴ Certified Midwife. ⁵ Half-time Tuberculosis Visitor. ⁶ Assistant Inspector of Midwives.
⁷ Trained Nurse.

HEALTH DEPARTMENT,

TOWN HALL, BOOTLE.

March 1933.

*To the Mayor, Aldermen and Councillors
of the County Borough of Bootle.*

MRS. BALLANTYNE AND GENTLEMEN,

I have the honour to present the sixtieth Annual Report on the work of the Health Department.

Attention may be directed to the following features of interest during the year:—

- (1) A small rise in the birth-rate to a figure of 22·9 per 1,000 of the population.
- (2) A fall in the death-rate to 13·3 per 1,000 of the population, the fall being due to a decrease in the respiratory death-rate in the first quarter of the year.
- (3) A fall in the infantile mortality rate to 86 per 1,000 births.
- (4) The completion of the Health Centre, which now houses the Tuberculosis Dispensary work for the whole of the Borough, together with the Maternity and Child Welfare and School Medical Service activities for the north half of the town.
- (5) A continuance of the high incidence of both diphtheria and scarlet fever, and the inauguration amongst young children of a scheme of immunisation against the former disease.
- (6) Satisfactory progress with a small extension of the Isolation Hospital, and with the provision of the necessary quarters for the additional staff required.
- (7) The confirmation by the Ministry of Health of the Compulsory Purchase Order made by the Council in respect of the Pleasant View Clearance Area.

- (8) **Consideration of the arrangements** for the institutional accommodation of the sick treated at the expense of the Council in various hospitals and institutions, ending in the decision to enter into a 20-years' agreement with the Liverpool City Council for their reception in Liverpool Institutions.

I have pleasure in recording my indebtedness to the Chairman and members of the Health Committee for the sympathetic reception given to recommendations made for the maintenance and development of the various sections of the work of the Department, and in acknowledging the continued good service of an excellent staff.

I have the honour to be,

Your obedient servant,

F. J. H. Wood.

Medical Officer of Health

STATISTICAL SUMMARY FOR 1932.

Population (Registrar-General's estimate) at mid-year 1932 ...	77,260
Area in Acres (exclusive of Dock Estate—337)	1,610
Population at Census of 1931	76,799

Census.	Per occupied dwelling.	
	No. of persons.	No. of families
1911	5·6	1·12
1921	5·6	1·17
1931	5·03	1·18

Inhabited houses (end of 1932) according to Rate Books ...	15,590
Uninhabited houses (end of 1932) according to Rate Books ...	68

	Total.	Males.	Females.
Live Births—Legitimate ...	1,706	868	838
Illegitimate ...	62	34	28

Total ...	1,768	902	866	Birth Rate	22·9
Still Births, 92.	Rate per 1,000 total (live and still) births				49·4
Deaths	1,027	Death Rate			13·3

	Deaths.	Rate per 1,000 total (live and still) births
From sepsis	4	2·15
From other causes ...	2	1·07
Death Rate of Infants under one year of age per 1,000 live births—Legitimate, 84; Illegitimate, 129; ... Total		86
Deaths from Measles (all ages)		40
Deaths from Whooping Cough (all ages)		16
Deaths from Diarrhoea (under 2 years of age)... ..		26
Death Rate from Respiratory Tuberculosis per 1,000 ...		1·12
Death Rate from all forms of Tuberculosis per 1,000 ...		1·32
Natural increase of the population during the year		741
Number of deaths of Infants (under the age of one year) ...		152

The Rateable Value of the Borough for 1932-33 was £490,912

A Penny Rate on the Borough Fund produced in 1932-33 ... £1,878

In 1932-33 the General Rate was 11/5d. in the pound (excluding water rate and charges).

The cost of the Health Services during 1932-33 is estimated at £30,784 approximately, equivalent to a rate of 1s. 4·4d. in the pound.

COUNTY BOROUGH OF BOOTLE.

ANNUAL REPORT
OF THE
MEDICAL OFFICER OF HEALTH.

I. VITAL STATISTICS.

Population.--At the Census in 1881 the population enumerated was 27,374; in 1891, 49,217; in 1901, 58,556; in 1911, 69,876; and in 1921, 76,487.

The result of the census enumeration of 26th April 1931 gave the population as 76,799, representing a net increase of 312 in the intercensal period of ten years. When it is recalled that the "natural increase" in the population (excess of births over deaths) in the same period amounted to 8,548, it is clear that there had been a large migration from the Borough. In November 1932, the Registrar General issued the volume of "Census of England 1931—County of Lancaster (Part I)," and certain information extracted therefrom, including the ward population figures, is given in the section on p. 67 and in Appendix on p. 72.

In May 1933 the Registrar-General intimated that his estimate of population at mid-year 1932 was 77,260, and this figure has been used in calculation of statistics throughout this report.

Births.—During the year there were registered 1,768 births to Bootle parents, representing a birth-rate of **22·9 per 1,000** of the population, that for England and Wales being 15·3. In 1931 the Bootle birth-rate was 21·6 and for the decennium 1922-1931 it was 24·1. There were 902 males and 866 females. It will be noted that the birth-rate which reached a post-war maximum of 29·7 in the first quarter of 1920

and has then progressively declined, except for a check in 1930, again shows a small rise. The fall in the national birth-rate, which has always been lower than that for Bootle, was however continued.

Period.	BOOTLE.		ENGLAND & WALES.
	Total Births.	Rate per 1,000.	Rate per 1,000.
1881—1890 ...	15,508	36·8	32·4
1891—1900 ...	17,716	33·2	29·9
1901—1910 ...	20,468	32·3	27·2
1911—1920 ...	20,748	27·6	21·8
1921—1925 ...	10,003	26·1	19·9
1926—1930 ...	8,881	23·2	16·7
1931 ...	1,667	21·6	15·8
1932 ...	1,768	22·9	15·3

The illegitimate births numbered 62, and were 3·5 per cent. of the total. In 1931 the total number was 56, and in 1930, 53.

Deaths.—The total number of deaths of Bootle residents during 1932, whether within or without the Borough, was 1,027; this figure includes 80 (excluding 48 deaths of “non-residents”) who died in Institutions within the Borough, 355 who died in Poor Law Institutions, 73 who died in hospitals outside the Borough, and 9 who died in mental hospitals, making a total of 565 deaths in Institutions. The death-rate for 1932 was, therefore, **13·3 per 1,000** of the population, as compared with 14·8 in 1931 and 12·3 in 1930. The decrease in the death-rate was for the most part due to a diminished mortality from respiratory diseases in the first quarter of the year.

The death-rate in Bootle for the decennium 1921-1930 was 13·5, and for 1911-1920, 17·1. The crude death-rate of the 118 great towns of England and Wales during 1932 was 11·8, compared with 12·3 in 1931. The table below demonstrates a continuance of the general downward trend of both national and local death rates since the beginning of the century.

Period.	BOOTLE.		ENGLAND & WALES.
	Total Deaths.	Rate per 1,000.	Rate per 1,000.
1881—1890 ...	8,260	19·9	19·1
1891—1900 ...	10,942	20·6	18·2
1901—1910 ...	11,400	17·8	15·4
1911—1920 ...	12,470	17·1	14·3
1921—1925 ...	5,230	13·7	12·2
1926—1930 ...	5,106	13·3	12·1
1931 ...	1,140	14·8	12·3
1932 ...	1,027	13·3	12·0

The death-rate during the first quarter of the year was 16·0, during the second, 13·7; the third, 10·4; and the fourth, 13·0.

The number of deaths which occurred in institutions was 565, *i.e.*, 55·0 per cent. of the total deaths, as compared with 48·3 per cent. in 1931, and 57·2 per cent. in 1930.

Mortality in Relation to Sex.—There were 540 deaths of males, and 487 of females. This represents a male excess mortality of approximately 16·9 per cent. after allowing for the smaller proportion of males in the population. The causes chiefly accounting for male excess are in order of importance, pneumonia, violence, tuberculosis, nephritis, arterio-sclerosis, measles, scarlet fever, and cancer.

Mortality in Relation to Old Age.—It is common knowledge that the population as a whole is ageing, which is merely another way of stating the fact that people are surviving until later ages. The following table demonstrates this fact, and shows that the number of people surviving to the age of 65 and over has increased to such an extent this century that 34·1 per cent. of the deaths in Bootle at the present day are of persons aged 65 or over, whereas in the first five years of this century the contribution to the general death-rate made by persons over 65 was only 14·8 per cent

Period.	DEATHS.		Percentage over 65 Years.
	Total.	Over 65 Years.	
1901—1905 ...	5,671	849	14·8
1906—1910 ...	5,729	923	16·1
1911—1915 ...	6,259	1,197	19·1
1916—1920 ...	6,211	1,304	21·0
1921—1925 ...	5,230	1,352	25·8
1926—1930 ...	5,106	1,533	30·1
1931 ...	1,140	396	34·7
1932 ...	1,027	349	34·1

An examination of the ages at death of individuals in this age-group shows that there were 97 deaths at years 65 to 70, 113 deaths at years 70 to 75, 77 at years 75 to 80, 40 at years 80 to 85, 18 at years 85 to 90, and 4 at years 90 to 95.

Infantile Mortality.—There were 152 deaths of infants, compared with 159 in 1931, 141 in 1930, and 138 in 1929. The infantile mortality rate was **86 per 1,000** births, compared with 95 in 1931, 79 in 1930, and 83 in 1929, and 90·3 in the decennium of 1922-1931.

The rate of infantile mortality amongst males was 84, and amongst females 88. Throughout England and Wales the rate of infantile mortality was 65 per 1,000 births, and in the 118 great towns it was 68.

The great decline in the infantile mortality rate began substantially in the decennium 1901-1910, during which period active measures were first instituted to secure such a reduction. The following table has accordingly been prepared to demonstrate in terms of lives saved what in fact such a decline really means.

DEATHS OF INFANTS UNDER ONE YEAR.			
Years.	Actual recorded Deaths.	Number which would have been recorded had the rate of mortality observed over 1901-10* still prevailed.	Difference.
1911—1915 ...	1434	1596	— 162
1916—1920 ...	1031	1474	— 443
1921—1925 ...	912	1480	— 568
1926 ...	187	276	— 89
1927 ...	141	269	— 128
1928 ...	186	258	— 72
1929 ...	138	246	— 108
1930 ...	141	265	— 124
1931 ...	159	247	— 88
1932 ...	152	262	— 110

*Rate of mortality 1901-1910 was 148 per 1,000 births.

From the above table it will be seen that in the last decennium 1921-1930 Bootle saved 1,089 infant lives over and above what it was saving in the relatively good decennium 1901-1910, with further savings of 88 and 110 during the two subsequent years.

Thirty-eight children died before they were a week old, and a total of 58, or 38·2 per cent., of all the deaths under one year, occurred in children under the age of one month. This is a neo-natal mortality rate of 32·8 per 1,000.

Young Child Mortality.—In 1932 there were 88 deaths of children aged 1 to 5 years, as compared with 72 in 1931, 64 in 1930, and 106 in 1929. The principal causes were—measles 29; respiratory diseases 18, whooping cough 10; accidents 4; diphtheria 4; scarlet fever 4; tuberculosis 4; meningitis 4; and diarrhoea 2.

Uncertified Deaths.—Sixty-six deaths (45 of residents and 21 of non-residents) were the subject of a Coroner's inquest, while in 19 cases the death was registered without certification by a medical man or the Coroner; this is equivalent to 1·9 per cent. of deaths uncertified, as compared with 0·9 per cent. in the country generally.

CAUSES OF DEATH.

The causes of death, classified according to age, are shown in the table on page 75. It will be seen from the table that the principal certified causes of death were:—

Year 1932.	No. of Deaths.	Proportion per 1,000 Deaths	
		Bootle, 1932.	England & Wales, 1931.
Bronchitis, pneumonia and other respiratory diseases	172	167	130
Diseases of heart and circulation ...	132	129	255
Tuberculosis (all forms)	102	99	73
Cancer, malignant diseases	94	92	121
Epidemic diseases	102	99	29
Prematurity and congenital debility ...	54	53	34
Diseases of the nervous system	74	72	82
Violence	39	38	44

Epidemic Diseases.—The epidemic diseases (excluding influenza) were responsible for 102 deaths, as compared with the average of 76·5 during the preceding ten years. There were 40 deaths from measles as contrasted with 13 in 1931; 13 deaths from diphtheria, as against 14 in 1931; 16 deaths from whooping cough, as against 20; 5 deaths from scarlet fever, as against 1 in the previous year; and 2 deaths from enteric fever as against none in 1931. The deaths from diarrhoea and enteritis were 26, as against 21 during 1931; all were of children under two years of age.

Respiratory Diseases.—Owing to the virtual absence of influenza and to the less inclement weather of the first quarter of the year, the death-rate from respiratory diseases reverted to its usual level from the high figure of the previous year. Pneumonia was responsible for 119 deaths, bronchitis for 40, and other respiratory diseases for 13, making the total deaths from respiratory diseases (excluding tuberculosis) 172, or 16·7 per cent. of the total deaths at all ages, as compared with 243, or 21·3 per cent., in 1931. Influenza was entered as a cause of death in 8 cases, as against 18 in the preceding year.

Cancer.—Cancer was registered as the cause of death in 94 cases, as compared with 113 in the preceding year. This represents a cancer death-rate of 1·21 per 1,000 of the population as compared with 1·01 during the years 1911 to 1920, with 0·78 per 1,000 during the first ten years of this century, and with 0·55 during the ten years 1891 to 1900. As previously pointed out, although there are fallacies in assuming that this striking rise in cancer mortality represents in fact a doubling of the incidence of malignant disease during the last thirty years, there is little or no doubt that a substantial increase is occurring.

ECONOMIC CONDITIONS.

Valuable information as to economic conditions having a bearing on the health of the town is obtained from data kindly supplied by the Clerk to the Public Assistance Committee, by the Managers of the three Employment Exchanges situated in Bootle, and by the Clerk to the Bootle Insurance Committee.

It appears that during the year 1932 £64,999 were expended in outdoor relief, including £24,765 to unemployment cases (comparable figures for 1931 were £47,865 and £9,767). Further, the annual return of persons in receipt of Poor Relief on the night of 1st January 1933 shows 455 persons to have been in receipt of institutional relief, of whom 108 were persons not suffering from sickness, accident, or bodily or mental infirmity, and 5,659 persons to have been in receipt of domiciliary relief, of whom 3,279 were relieved otherwise than on account of unemployment. The total number of persons in receipt of Poor Relief on 31st December 1932 was equivalent to 780 per 10,000 of the population.

The average number of adult males on the "live" unemployed registers in the last week of each month during the year was estimated to be 7,013 as compared with 7,598 during 1931, and the average numbers of women and juveniles were 756 and 916 respectively, as compared with 1,091 and 626 for 1931; it should be noted, however, that the figure for juveniles in 1932 includes an unknown number resident outside the Borough.

As regards National Health Insurance, the total number of insured persons in the Borough on 1st October 1932 was 32,335, or 41·9 per cent. of the total population. There was a further increase in the

number of prescriptions made up during the year for the insured population. It will be recalled that this figure rose from 50,738 in 1921 to 136,660 in 1931, with a corresponding increase in the annual cost of medicines from £1,955 to £4,289 12s. 10d.; while this year the experience is 146,128 prescriptions at a cost of £4,595 10s. 11d.

II. GENERAL PUBLIC MEDICAL TREATMENT.

This report has to review for the third year the administration of the medical services transferred to the Council on the dissolution of the West Derby Union. Their control remains with the Public Assistance Committee, although in November 1931 the Council delegated to the Health Committee the powers contained in Part I of the Local Government Act, 1929, with respect to the provision of hospital accommodation.

The Health Committee instructed the Medical Officer of Health to submit reports on the general question of providing on one site an institution, suitably divided, in which could be accommodated all the sick now being treated by, or at the expense of, the Council in twelve or more hospitals. A preliminary report was submitted in January 1932 and was referred to a special sub-committee for detailed consideration. Further reports, accompanied by estimates of cost of such provision prepared by the Borough Treasurer, were subsequently submitted, but continued consideration was rendered unnecessary by the decision of the Council in March 1933 to prolong the agreement with the Liverpool City Council for reception of sick persons chargeable to Bootle for a period of 20 years expiring in 1950.

Institutional Accommodation for the Sick.—It was reported last year that agreement on certain financial and medical points had not been reached with Liverpool in connection with the reception of Bootle sick into the transferred hospitals. In February 1933, however, the heads of agreement were settled and, as mentioned above, provision is made for the agreement to have a tenure of twenty years.

During the year the total admissions to the transferred hospitals numbered 3,137, of which figure, it may be noted, 1,122 were admissions on the orders of medical superintendents or masters, implying urgent conditions in which it was inadvisable to go through the ordinary routine of application to a Relieving Officer. In the form in which weekly returns are received it is not easy to ascertain with certainty the

number of sick persons (hospital or infirmary patients) as contrasted with those not in need of medical service, but it appears that the weekly totals of persons chargeable to Bootle in transferred institutions (including able-bodied adults) varied from 399 in April to 328 in October.

The following table, prepared by the Medical Officer of Health of Liverpool at the request of the Ministry of Health, gives a classification of such sick on 31st December 1932:—

CLASSIFICATION OF SICK IN INSTITUTIONS.

Classification of Wards.	Beds			Total
	Men	Women	Children under 16 years of age	
1. Medical	50	40	9	99
2. Surgical	45	17	—	62
3. Chronic Sick*	3	7	—	10
4. Children	—	—	58	58
5. Venereal	8	—	—	8
6. Tuberculosis	10	2	—	12
7. Infectious	—	—	11	11
8. Maternity	—	15	—	15
9. Mental—				
(a) Lunacy Act, 1890—				
(i) Short Stay	—	—	—	—
(ii) Long Stay	9	14	—	23
(b) Mental Treatment Act				
(i) Voluntary	—	—	—	—
(ii) Temporary	—	—	—	—
10. Mental defectives	12	9	3	24
11. Other	15	1	1	17
Totals	152	105	82	339

* Patients needing hospital treatment because they are suffering from some chronic disease; also aged infirm persons whose medical and nursing needs approximate to those of chronic patients

DOMICILIARY MEDICAL ATTENDANCE.

The administration of medical out-relief included in the functions transferred to the Council on 1st April 1930 is controlled by the Public

Assistance Committee acting through the Medical Officer of Health. For this purpose the Borough is divided into two districts, remaining under the charge of the District Medical Officers transferred from the late West Derby Union.

Persons in receipt of relief who are aged, infirm, or permanently disabled, with the exception of those entitled to National Health Insurance Benefits, are given a card entitling them to permanent medical relief upon production of the card by themselves or other person on their behalf. Persons not chargeable who make application to the Relieving Officers for medical relief in respect of themselves or family are given notes which entitle them to a month's medical treatment, which treatment is renewed as necessary upon further application. In each case, other than those admitted to Hospital, a prescription is given for medicines, etc., by the District Medical Officer following examination at the Surgery at Cyprus Grove Relief Station, or at the home of the applicant; the medicines, etc., are supplied at the attached Dispensary.

Examination of the returns of surgery consultations and home visits during the year showed the weekly average to have been 111 surgery consultations and 10 home visits in District No. 1, and 94 consultations and 9 visits in District No. 2.

VACCINATION.

According to information supplied by the Vaccination Officer, 1,220 successful primary vaccinations and one successful re-vaccination were performed during the year ended 30th September 1932, as compared with the previous year's figures of 1,177 and 4 respectively.

Appendix 17 presents the Annual Return of the Vaccination Officer respecting vaccination of children whose births were registered from 1st January to 31st December 1931, inclusive.

III. SANITARY CIRCUMSTANCES.

Drainage and Sewerage.—The Sewerage System is entirely by discharge into the River Mersey, with drainage areas and outfalls as described in the last Report.

It may be recalled that following upon the presentation of the report of the Scientific Committee appointed by the Mersey Docks and Harbour Board in May 1927, to investigate the effects of the discharge

of crude sewage into the Mersey, which report suggested that such discharge favoured the formation of more, and more solid, sandbanks, the local authorities concerned with Bootle in the matter agreed to invite the Department of Scientific and Industrial Research to investigate the problem, and that Department now has the matter in hand.

Closet Accommodation and Scavenging.—Every house, with the exception of 3 in the outlying parts of Orrell, is provided with one water closet or more, the conversion of middens having been completed in 1910. Similarly all houses are provided with ashbins, the conversion of ashpits having been completed in 1932.

SANITARY INSPECTION OF THE DISTRICT.

The staff for this work consists of the Chief Sanitary Inspector with four assistants, one of whom is engaged principally on special duties mainly in connection with food inspections.

Nuisances.—On page 88 will be found a tabular statement showing the number of inspections made, and notices served by the Chief Sanitary Inspector. It will be noted that the number of nuisances for which notices were served on owners and occupiers was 5,461, as against 4,635 in 1931; the other work done under the Housing Acts is set out in the Housing Section of this report on pages 59 to 67.

IV. SANITARY CONTROL OF THE FOOD SUPPLY.

One of the Sanitary Inspectors holding the special Food Certificate of the Royal Sanitary Institute is engaged for the greater part of his time on work connected with the food supply, the sanitary supervision of which is undertaken in order to secure cleanliness in the preparation and distribution of foodstuffs, and to diminish the risk of possible infection thereof with disease-producing bacteria.

Milk Supply.—That portion of the milk supply of the Borough not brought by rail or road is derived from cows kept in shippens, of which there are now 18 in the town; the cows number approximately 284, a decrease from the pre-war figure of about 550. All the shippens received the careful attention of the Inspector, who paid 126 visits to them during the year.

Cleanliness of Milk.—It may be recalled that the Ministry of Health has recognised certain grades of milk, and has prescribed bacteriological standards, which have to be complied with. The recognised grades in

order of safety as regards cleanliness and freedom from tuberculous infection are "Certified," "Grade A (tuberculin tested)," and "Grade A," and although there are in Bootle no dairymen holding licences to produce any of these designated milks, they are easily obtainable by purchasers willing to pay the necessarily higher price; for several years past a portion of the supply at the Isolation Hospital has been taken in the form of "Grade A (tuberculin tested)," and there is a small demand for the same safe milk on the part of private customers.

With the object of promoting the cleanliness and safety of the local supply, bacteriological examination of samples has been continued, 37 milks having been examined, and the results obtained may be summarised thus. In 9 instances the standard of "Certified" milk and in 7 instances that of "Grade A" milk was reached, and the three pasteurised samples came well within the requirements of the Ministry of Health as to the bacteriological content of milk sold under that designation. Only in five instances was the milk considered to be really dirty, and the general results show a gratifying improvement since the beginning of systematic bacteriological examinations in 1925. The following table illustrates this progress; the "very satisfactory" correspond to "Certified" standard, the "satisfactory" to "Grade A" standard, whilst the "very dirty" represent milks in which the *Bacillus Coli* was present in 1/10,000 c.c. or in which the total bacterial count exceeded 2,000,000 per c.c.

CLEANLINESS OF MILK.

Year	No. of Samples.	Percentage of Samples			
		Very satisfactory	Satisfactory	Dirty	Very dirty
1924	12	—	—	25	75
1925	28	4	7	43	46
1926	28	25	18	25	32
1927	30	23	13	28	36
1928	32	16	19	40	25
1929	32	28	28	31	13
1930	34	24	32	29	15
1931	44	34	27	28	11
1932	37	32	19	36	13

Milk and Tuberculosis.—The results of the bacteriological examination of the 37 samples mentioned above showed that two samples were infected with tubercle bacilli. In one case the milk was produced in a Bootle shippon housing 18 cows, and the infected cow, having been identified by the Council's Veterinary Surgeon, was slaughtered and was found on post-mortem examination to have generalised tuberculosis. In the other case the milk was produced at a farm in Lancashire; the County Medical Officer was notified and he later reported that the animal producing this milk had been discovered and had been slaughtered under the Tuberculosis Regulations.

Milk, Tuberculosis, and Pasteurisation.—The available evidence lends no support to the view that tuberculosis in cattle has undergone any appreciable diminution during the course of the last ten years, and it is known that the proportion of cattle reacting to the tuberculin test is approximately 40 per cent. and that the average proportion of samples of mixed milk containing tubercle bacilli is 6·7 per cent.

Hitherto official action has proceeded on the assumption that the elimination of open cases of tubercle should be sufficient to eradicate the disease, but although this is probably correct there is very little justification for the further assumption that the early detection of open cases of tuberculosis in cattle is by any means possible in practice. The difficulties of making such a diagnosis in the cow are often very considerable as is illustrated by a recent occurrence in Bootle. On July 1st six samples were submitted for bacteriological examination; on August 3rd a report was received that one had contained living tubercle bacilli: the Council's Veterinary Surgeon was then requested to re-examine the cattle of the cowkeeper concerned (having previously examined them in March and in May), and gave as his opinion that the infected cow was one of two beasts, from each of which a further sample was submitted for a shorter test (which is authoritative only when supported by animal inoculation); on August 5th a positive report was received in respect of one, which was slaughtered by arrangement with the cowkeeper and was found to be heavily affected with tubercular lesions. On the basis of 40 bacteriological examinations annually, and a month's delay in reporting, it is obvious that it is possible for tubercular milk to be sold for considerable periods without it being suspected by the cowkeeper or detected by the officers of this Department.

It seems clear, both from laboratory and from field work, that the only method of guaranteeing milk free from tubercle infection is the building up of tuberculosis-free herds, a matter involving considerable

time and requiring very careful control. It was with the knowledge that such a statement presents a fair picture of milk in relation to tuberculosis that support was given by the Health Committee during the year to proposals that Parliament should confer permissive powers upon the larger urban authorities to require the efficient pasteurisation of all milk sold in their area which is not drawn from tuberculosis-free cows. Attention is especially drawn to the requirement of efficiency in pasteurisation inasmuch as a considerable amount of milk is already subjected to heat treatment by the trade in order to ensure a longer keeping period, and such heat treatment is sometimes considered to be pasteurisation.

There can, of course, be no question but that the consumption of milk containing tubercle bacilli causes consumption in human beings, and it may be noted that in Bootle during 1932 there were 58 new cases and 15 deaths from non-pulmonary tuberculosis and it is estimated that at least one-third were of bovine origin; the treatment of such cases in Leasowe Hospital and elsewhere involves the Corporation in an annual expenditure of about £1,000.

It having been established that the ordinary methods of supervision by the Veterinary Surgeon and the Health Department cannot guarantee a milk supply free from tubercle bacilli and that efficient pasteurisation will however kill such tubercle bacilli in milk, it remains to enquire what harm, if any, is done to the milk by such pasteurisation. On this point reference may be made to the considered pronouncement of the Ministry of Health that pasteurisation subject to careful operation and scientific control "ensures a milk which is not only safe for consumption but also retains its food value practically unimpaired by the heat to which it is subjected."

As it is estimated that only about one quarter of the Bootle milk supply is derived from locally-kept cows, and as only a very small proportion of the remainder has hitherto been sold as "pasteurised" i.e., subject to heat treatment under official control, it is satisfactory to note that one distributor installed modern pasteurisation plant at his premises in November 1932 and has since been granted a licence to sell his product as "pasteurised."

Preparation of Ice Cream.—Bootle Corporation Act, 1930, Section 21, requires the registration of persons and premises used for the manufacture, etc., of ice cream, and gives powers for revocation of the registration of such persons if the Corporation is satisfied that the public health is, or is likely to be, endangered by any act or default of such persons.

At the end of the year the registrations totalled:—

PREMISES—

For the manufacture for sale and sale of ice cream	56
For the sale only of ice cream	48

PERSONS—

For the manufacture for sale and sale of ice cream	56
For the sale only of ice cream	49

These special powers of supervision were obtained because of the necessity of ensuring the wholesomeness of milk products eaten largely by children, and during last season 187 visits of inspection were made to registered premises, and 19 samples were obtained and submitted for bacteriological examination as affording the most reliable index of the degree of cleanliness reached in the production of the ice cream.

The following table sets out the results of such examination, those samples which failed to reach the standard set for "Grade A" milk being entered as unsatisfactory. Suitable communications were addressed to the purveyors of the unsatisfactory samples.

CLEANLINESS OF ICE CREAM.

No.	B. Coli present in:—	Bacteria per c.c.	Source of Supply.	Remarks.
1.	—	28,000	Small general shop.	
2.	1/10 c.c.	72,000	Dairy	
3.	—	16,200	Large manufacturer.	
4.	—	2,280	Do.	
5.	—	6,600	Small confectioner.	
6.	1/10,000 c.c.	"Innumerable"	Do.	Unsatisfactory
7.	1 c.c.	7,800	Dairyman and Confectioner	
8.	1/10 c.c.	18,000	Ice-cream vendor: shed	
9.	1/10,000 c.c.	2,040,000	Small general shop	Unsatisfactory
10.	1 c.c.	90,000	Do.	
11.	1/100 c.c.	15,600	Do.	Unsatisfactory
12.	1/100,000 c.c.	6,900,000	Confectioner	Unsatisfactory
13.	1/100,000 c.c.	2,700,000	Small general shop	Unsatisfactory
14.	1/100,000 c.c.	960,000	Dairyman and Confectioner	Unsatisfactory
15.	1/100 c.c.	432,000	Large manufacturer	Unsatisfactory
16.	1/100 c.c.	72,000	Ice-cream vendor: private house	Unsatisfactory
17.	1/100,000 c.c.	630,000	Dining rooms	Unsatisfactory
18.	—	76,000	Dairyman	
19.	1/10 c.c.	37,200	Large manufacturer	

Inspection of Meat and other Foods.—There is no slaughter-house in the Borough.

There are 91 butcher's shops in the Borough which were regularly inspected, 677 visits being made during the year. On 29 occasions unsound meat was found in shops at the time of visit, and a part of this unfit food was from carcasses dressed in the country which had not been previously inspected. In these cases the authorities concerned were notified, and in others warnings were issued to the respective vendors, and the unsound meat was allowed to be surrendered.

At one shop it was necessary to effect a seizure of unsound meat, which was subsequently condemned by a magistrate. Legal proceedings were instituted, and the defendant was convicted and fined £5.

It was also necessary on several occasions to warn carriers of meat regarding the necessity for the use of clean wrappers and overalls.

There are 40 shops in the Borough from which fresh fish is sold, to which 227 visits were made during the year.

The trade of fish frying is carried on at 62 shops, to which 126 visits of inspection were made during the year. There are no byelaws in force in the Borough with respect to these premises, which on the whole were maintained in a satisfactory condition.

The amount of unsound food detected is shown in the table below; all was voluntarily surrendered, except in one instance as reported above.

	Tons.	Cwts.	Qrs.	Lbs.
Meat	—	9	3	0
Meat, canned	—	9	1	13
Fruit and Vegetables	—	9	2	14
Fruit and Vegetables, canned ...	1	3	0	23
Condensed Milk	2	8	2	21
Bread	—	4	3	0
Cheese	—	—	—	18
Fish, canned	—	2	0	22
Fish, fresh	—	—	3	12
Total ...	5	8	2	11

Food Factories.—There are thirteen food factories in the town; they received 176 visits of inspection. Forty-four premises are now registered under the Bootle Corporation Act, 1920, as used for the preparation of potted or preserved foods.

Bakehouses.—There are 18 bakehouses (6 being underground), and 22 confectionery bakehouses. One hundred and sixty-five visits of inspection were paid to them during the year; their general condition is good.

Sale of Food and Drugs Acts.—The Public Analyst is Mr. W. H. Roberts, M.Sc., F.I.C.

Table 10 on page 92 shows that 242 samples were taken, of which 18, or 7.44 per cent., were adulterated or not up to standard. One hundred and thirty-eight of these were taken informally, and in cases where adulteration was detected formal samples were subsequently obtained in order that the necessary legal action might be instituted. One hundred and fifty-six samples of milk were obtained, of which 52 were taken informally; in the other 104 cases, however, the procedure prescribed by the Act was adopted. Sixteen of the milk samples (15 formal and 1 informal) were found to be adulterated.

Thirteen of the sixteen milk samples not up to standard were of milk produced outside the district. The total number of samples obtained of milk produced outside the district and taken in course of delivery was 75.

Action was taken as follows respecting the fifteen formal milk samples reported upon adversely:—

1. Legal proceedings were instituted in the following cases:—

(a) For selling milk with a deficiency in milk fat of 6 per cent., the vendor was fined 20s. with £1 1s. costs.

(b) Against one vendor on three counts for selling milk containing 6 per cent., 6 per cent., and 3 per cent. of added water respectively;

(c) Against one vendor on two counts for selling milk which had been deprived of 11 per cent. and 7 per cent. of milk fat;

(d) Against one vendor on two counts for selling milk which had been deprived of 26 per cent. and 13 per cent. of milk fat;

(e) Against one vendor for selling milk deprived of 11 per cent. of milk fat.

In each of the above eight cases the samples were of milk taken in the course of delivery from farms outside the district to local retailers, and the defence went to great trouble to bring forward a chain of evidence to show that the milk when delivered in Bootle had not been tampered with and was as it came from the cow. This, in the present state of the law, is a valid defence, and all the summonses were dismissed. This position is regrettable, and until new legislation is passed making it an offence to sell milk of an inferior quality, even though it be as it comes from the cow, one cannot hope for success in securing a desirable standard for the consumer.

(f) Against a vendor for selling milk which had been deprived of 23 per cent. milk fat. He obtained the milk from one of the vendors referred to in the preceding paragraph; his defence was to plead a warranty which was accepted and the case was withdrawn.

2. In two instances where samples of milk produced locally were found to be not quite up to standard "appeal to cow" samples were taken and showed on analysis a similar result. The respective producers were advised to try other methods of milking and feeding, and further samples taken subsequently were found to be up to the standard required.

3. In two cases of slight adulteration the vendors were cautioned and in one other case no action was deemed necessary.

The Public Analyst has kindly supplied the results of the analysis of every sample of milk submitted to him from Bootle, and it is interesting to note that, including the samples returned "not genuine," the average amount of fat was 3.60 per cent., and of non-fatty solids 8.82 per cent., the minimum standard fixed by the Board of Agriculture in the Sale of Milk Regulations, 1901, being 3 per cent. fat and 8.5 per cent. non-fatty solids, below which figures milk is presumed to be not genuine.

Nine samples of condensed milk were submitted to the Analyst who certified that they were all genuine and correctly labelled as provided by the Public Health (Condensed Milk) Regulations, 1923-1927.

*Public Health (Preservatives, etc., in Food) Regulations,*³ 1925-1927.—A reference to the table on page 93 shows that 206 samples were examined under these Regulations for the presence of preservatives, including 156 of milk and 4 of cream.

One vendor was cautioned in respect of not exhibiting statutory labels declaring the presence in sausages of a preservative which was found to be present.

Fertilizers and Feeding Stuffs Act, 1926.—No sample of fertilizers or feeding stuffs was obtained during the year.

Rag Flock Acts, 1911 and 1928.—There are no premises in the Borough where rag flock is manufactured, sold, or used.

V. PREVALENCE OF NOTIFIABLE DISEASES.

Zymotic Diseases.—During the year there were 102 deaths from the seven principal zymotic diseases, viz., smallpox, measles, whooping cough, diphtheria, scarlet fever, diarrhoea, and fever (including typhoid, enteric, and typhus). This is a death rate of 1·32 per 1,000 of the population; it compares with a decennial rate for 1921-30 of 0·99.

The number of cases of infectious diseases notified during the year is briefly summarised below, and fuller detail is given in Table 3, page 74.

There was no notification of smallpox, cholera, plague, typhus fever, relapsing or continued fever, trench fever, malaria, or encephalitis lethargica.

	Cases notified.	Cases admitted to hospital.	Deaths.
Typhoid Fever	8	8	2
Diphtheria	228	218	13
Scarlet Fever	227	173	5
Puerperal Fever	2	2	4
Puerperal Pyrexia	30	25	2
Ophthalmia Neonatorum	14	3	1
Erysipelas	40	27	5
Infantile Diarrhoea (under two years)—voluntarily notifiable	43	1	26
Influenzal Pneumonia	8	5	—
Acute Primary Pneumonia	236	108	67
Cerebro-spinal Meningitis	2	2	—
Polio-myelitis	2	—	—
Tuberculosis—			
(a) Pulmonary	154	111	87
(b) Non-Pulmonary	58	33	15

SCARLET FEVER.

Two hundred and twenty-seven cases were notified, being a rate of 2·93 per 1,000 of the estimated population, compared with 3·7 in 1931 and 4·6 in 1930, and a rate of 2·05 per 1,000 for England and Wales. The total of notifications showed a decrease from the experience of 1931, with the highest incidence in the first quarter of the year. The type of disease was again severe, and there were five deaths from scarlet fever during the year; this is equivalent to a mortality rate of 0·06 per 1,000 of the population, as compared with 0·01 per 1,000 for England and Wales. The Table below shows that Bootle, in common with other areas in South West Lancashire, has usually returned higher scarlet fever mortality-rates than the country as a whole, although it has experienced proportionately the same improvement during the last thirty years.

Period.	BOOTLE.		England & Wales.
	No. of Deaths.	Rate per 1,000.	Rate per 1,000.
1891-1900 ...	202	0·37	0·16
1901-1910 ...	160	0·25	0·11
1911-1920 ...	70	0·11	0·05
1921-1925 ...	36	0·09	0·03
1926-1930 ..	22	0·05	0·01
1931 ...	1	0·01	0·01
1932 ..	5	0·06	0·01

In each of 25 houses two cases of scarlet fever occurred, in five houses there were three cases, and in one house four cases.

Return Cases.—During 1932 there were 14 instances in which the discharge of scarlet fever cases from the hospital was followed by the recurrence of a new case or cases in the home. The return case rate was equivalent to 6·1 per cent. of those discharged as compared with 0·9 per cent. in 1931. The isolation periods of the patients giving rise to return cases varied from 23 to 78 days, with an average of 35; and intervals between discharge and the onset of the second case were 2 to 17 days, with an average of 10. There was, in addition, one instance of a return case following the release from isolation of a case of scarlet fever nursed at home.

Hospital Accommodation.—One hundred and seventy-three Bootle cases, or 76 per cent. of the cases notified, were treated in Linacre Hospital, with 5 deaths.

Use of Scarlatinal (Anti-Streptococcal) Antitoxin.—Dr. Hannah reports that of 214 cases treated to a termination during the year, 70 received injections of scarlet fever anti-streptococcal serum.

Five deaths occurred, none of which was in the series treated by antitoxin. It should be noted, however, that antitoxin was not usually given where complications were already present when the case came under treatment.

The average stay in hospital of the recovered cases was in the case of antitoxin-treated patients 35.3 days, and in others 47.25 days. When, however, from the total figures is deducted the number of cases which showed complications before coming under treatment, or in which lengthened stay in hospital was due to conditions which could not be regarded as normal in scarlet fever (*e.g.*, cross-infections, concurrent infections, and carriers of the diphtheria organism), there were left 62 cases treated by antitoxin. In these 62 serum-treated cases the average stay in hospital was 33.2 days, and 10 (16 per cent.) developed complications; and in 97 cases not treated by serum the average stay in hospital was 36.9 days, and 34 (35 per cent.) developed complications.

DIPHTHERIA.

The increase in the number of notified cases of diphtheria first noted during 1927 was sustained during the year under review, during which 228 cases were notified, as against the average of 112 recorded for the ten years ended 1926. The incidence was 2.94 per 1,000 of the estimated population, and the case fatality was 5.7 per cent. Two hundred and eighteen cases, or 96 per cent. of those notified, were removed to hospital. Tracheotomy was performed in four instances during the year, with two recoveries.

The occurrence of a secondary case of diphtheria in an infected household was recorded on nineteen occasions, the occurrence of a third case on three occasions, and the occurrence of a fourth case on one occasion.

The table which follows demonstrates an appreciable reduction in diphtheria mortality locally as well as nationally during the last forty years, although the local experience has been unsatisfactory during the last four years:—

Period.	BOOTLE.		England & Wales.
	No. of Deaths.	Rate per 1,000.	Rate per 1,000.
1891-1900 ...	136	0·24	0·32
1901-1910 ..	120	0·18	0·19
1911-1920 ...	132	0·18	0·14
1921-1925 ..	32	0·08	0·09
1926-1930 ...	39	0·09	0·08
1931 ...	14	0·18	0·07
1932 ...	13	0·17	0·06

Prevention of Diphtheria.—In May a report was submitted to the Health Committee, outlining the position as regards the incidence of diphtheria and recommending action to develop the use of preventive inoculation amongst the young child population of the Borough. It was pointed out that in 1930 there had been 249 notified cases of diphtheria with 12 deaths, and in 1931 205 cases with 14 deaths, and that 25 per cent. of the cases occurred below the age of 5 years and 45 per cent. between the ages of 5 and 10 years.

It was recommended, therefore, that appropriately worded letters describing the method of protection and its results should, with the approval of the Education Committee, be distributed to the children in infants' departments, school by school, and that in the case of children bringing request slips that the series of inoculations should be given by the Assistant Medical Officers on the school premises. Further, it was recommended that similar explanatory letters should be distributed as opportunity permitted to the parents of children below school age, and that one hour weekly should be set aside for an immunisation clinic at each of the two Centres. As a third method of approach it was decided to make a similar offer of immunisation against diphtheria of each child patient admitted to Linaere Hospital with scarlet fever.

The following tabular statement shows the numbers of children who completed the series of inoculations between September and the end of the year, and the response may be considered as very satisfactory. It is expected that the children at present in the infants' departments will have been dealt with by the middle of 1933, after which the campaign will be continued in respect of children below 5 years of age and of children on entering school at the age of 5 years, as well as of hospital patients.

Place of Treatment.	Total.
Elementary Schools	466
Infant Clinics	143
Linacre Hospital	24
Total ...	633

OTHER ZYMOTIC DISEASES.

Enteric Fever.—Eight patients were notified during the year as suffering from fevers of the enteric group. Apart from establishment of the fact that one patient contracted the disease abroad, it was not possible to discover the source of infection. Twice during the year, however, two cases occurred in adolescents, in each instance the patients being brothers in whose cases the dates of onset of illness suggested a common source of infection.

Influenza.—Eight notifications of influenzal pneumonia were received, and 8 deaths from influenza were recorded. These figures are indicative of the freedom of the town from influenza in an epidemic form.

Measles.—During 1932 measles caused 40 deaths, compared with 13 in 1931, and an average of 19·5 during the ten years ended 1931. The Bootle death-rate from this cause was 0·52 per 1,000, compared with 0·08 throughout England and Wales.

Complete information as to the incidence of measles is not now available, but during the year 179 cases occurring in school children were reported under the Bootle Corporation Act, 1920.

The sanitary measures for the control of measles on the accepted lines of notification, isolation, disinfection and quarantining of contacts, are disappointing inasmuch as cases are infectious in their early catarrhal stage before the disease is recognised as measles, and Public Health activity is accordingly limited to such steps as will postpone the age of attack (and hence diminish the case fatality rate), and to the provision of nursing assistance in cases where serious lung complications supervene. There is still much to be done in educating the public up to the knowledge of the fact that measles and whooping-cough (so-called minor infectious diseases) are responsible year by year for many preventable deaths.

The table which follows sets out the reduction in the mortality from measles which has occurred throughout England and Wales since 1890; it also shows that although some degree of reduction has been obtained locally the measles death rate for Bootle is still high, and comparison with the corresponding tables for scarlet fever and diphtheria demonstrates the greater importance of measles as a killing disease.

Period.	BOOTLE.		England & Wales
	No. of Deaths.	Rate per 1,000	Rate per 1,000.
1891-1900 ...	165	0·30	0·41
1901-1910 ...	294	0·45	0·31
1911-1920 ...	266	0·37	0·28
1921-1925 ..	112	0·27	0·12
1926-1930 ...	85	0·20	0·10
1931 ...	13	0·17	0·08
1932 ...	40	0·52	0·08

Whooping Cough.—Whooping Cough caused 16 deaths during 1932 compared with 20 in 1931 and 17 in 1930. The death-rate was 0·21 per 1,000 of the population, compared with 0·07 throughout England and Wales.

Diarrhoea.—Deaths from this disease numbered 26, or a rate of 0·34 per 1,000 of the population as compared with 0·27 last year. All of the deaths occurred in children under the age of two years, giving a rate per 1,000 births of 14·7 in Bootle, as compared with 6·6 throughout England and Wales.

The arrangements instituted in previous years by which this disease is notifiable during the third quarter of the year were continued, and 43 notifications were received, as compared with 28 in 1931 and 54 in 1930. The receipt of these notifications enabled instruction on the necessary sanitary precautions against the spread of infection to be given by the Infant Welfare Visitors, as well as nursing attention to be given by the Bootle District Nurses' Association.

Dysentery.—In January two children were admitted to the Bootle General Hospital with symptoms thought to be due to food poisoning; subsequent examination, however, showed that the illness was due to the dysentery bacillus, but enquiries as to the possible source of infection of the children proved negative.

LINACRE ISOLATION HOSPITAL.

Linacre Isolation Hospital, by arrangement with the respective Authorities, receives cases of infectious diseases from the urban districts of Litherland and Formby, as well as from the borough.

The year 1932 showed a small decrease in cases admitted, the total being 535 as against 539 in 1931. The following table gives particulars of the cases admitted to the infectious disease wards, while particulars of cases in which the diagnosis was revised are given in Appendix 18, page 100.

In the last Annual Report it was stated that, following upon repeated demonstrations of the inadequacy of the provision for infectious disease, plans for the erection of an additional 12-bed pavilion at Linacre Hospital had been submitted to the Ministry of Health. Upon receipt of the Ministry's approval the extension was proceeded with, in conjunction with the provision of accommodation for the necessary additional nursing and domestic staff, and it is hoped that the new beds will be available for use in May 1933. It should, however, again be stated that this small extension will not suffice to receive even the cases of scarlet fever and diphtheria which may occur in epidemic times, nor will it accommodate cases of non-notifiable infectious disease—such as measles and whooping cough—save in exceptional circumstances.

CASES TREATED IN THE INFECTIOUS DISEASE WARDS, LINACRE HOSPITAL.

DISEASE.	No. in hospital on 1st. January 1932.			No. admitted during the year.			No. discharged during the year			No. died during the year.			No. remaining in hospital 31st. December 1932							
	Bootle	Lither- land	Formby Total	Bootle	Lither- land	Formby Total	Bootle	Lither- land	Formby Total	Bootle	Lither- land	Formby Total	Bootle	Lither- land	Formby Total					
Scarlet Fever.	25	3	—	145	45	1	191	152	42	1	195	3	1	—	4	15	5	—	20	
Scarlet Fever complicated by other Disease.	5	—	—	11	1	—	12	13	1	—	14	1	1	—	1	2	—	—	—	2
Admitted as Scarlet Fever but diagnosis revised.	1	—	—	17	2	—	19	17	2	—	19	1	1	—	—	—	—	—	—	—
Diphtheria.	12	4	—	151	65	1	217	125	53	—	178	12	8	—	20	26	8	1	—	35
Diphtheria complicated by other disease.	2	—	—	5	5	—	10	6	5	—	11	1	—	—	1	—	—	—	—	—
Admitted as Diphtheria but diagnosis revised.	4	1	—	62	15	2	79	64	15	1	80	1	1	—	2	1	—	—	1	2
Other Diseases	—	—	1	6	1	—	7	6	1	1	8	—	—	—	—	—	—	—	—	—
TOTALS	49	8	1	397	134	4	535	383	119	3	505	19	10	—	29	44	13	—	2	9

Cross Infection.—The following cases of cross infection arose during the year. Two cases of scarlet fever developed diphtheria; three cases developed whooping cough; four cases developed measles; six cases developed chickenpox; and two cases of erythema admitted as scarlet fever developed scarlet fever. One case of diphtheria admitted as a case of scarlet fever developed scarlet fever; and four cases of diphtheria developed scarlet fever.

Health of Staff.—There was less staff sickness than usual during the year. Two nurses, one with diphtheria (bacteriological), and one with cellulitis of hand, were warded for 34 and 41 days respectively; and one wardmaid with diphtheria for 37 days.

During the year eight nurses were Schick-tested and Dick-tested to determine their susceptibility to diphtheria and scarlet fever. Of these, two re-acted positively to the Schick-test and one to both Schick and Dick test; all were immunised. One nurse immunised and afterwards found Schick negative developed diphtheria, which however was only bacteriological.

Bacteriological Laboratory Work—

Examinations required.	Positive result.	Negative result.	No. of Specimens examined.
Swabs for Diphtheria ...	547 ...	4277 ...	4824
Sputa for Tubercle Bacilli	240 ...	681 ...	921
	787	4958	5745

In addition, 58 samples of milk, 577 specimens for venereal disease, and 103 miscellaneous specimens (including 19 of ice cream) were examined by Professor Beattie in the Pathological Department of the Liverpool University.

VI. TUBERCULOSIS.

Notification Register.—The Tuberculosis Notification Register contains the names of all persons notified as suffering from tuberculosis since the first operation of the Public Health (Tuberculosis) Regulations, 1911, after making corrections by the removal of names of those who have died, left the district, have been cured, or have been pronounced not to be suffering from tuberculosis. The register now includes 324

males and 249 females suffering from pulmonary tuberculosis, and 131 males and 133 females suffering from non-pulmonary tuberculosis, making a total of 837 cases.

Deaths.—The number of deaths caused by tuberculosis during 1932 was 102, or one death in every ten, giving a death-rate from this cause of 1·32 per 1,000 of the population, as compared with 1·59 in 1931 and 1·41 in 1930; it was 1·46 for the ten years ended 1931.

This represents a resumption of the decline in the tuberculosis mortality-rate recently recorded in Bootle, and set out in the following table:—

Period.	BOOTLE.		England & Wales.
	No. of Deaths.	Rate per 1,000.	Rate per 1,000.
1891-1900 ...	1106	2·17	2·01
1901-1910 ...	1127	1·76	1·65
1911-1920 ...	1370	1·82	1·42
1921-1925 ...	652	1·70	1·08
1926-1930 ...	572	1·49	0·94
1931 ...	123	1·59	0·89
1932 ...	102	1·32	0·84

New Cases.—Mortality rates are of course a more accurate measure of the amount of tuberculosis in a community, but taken over a series of years the figures of notified cases in any one area enable inferences to be drawn as to the trend of incidence of the disease therein, and it is satisfactory therefore to be able to record that the total number of cases coming to the knowledge of the Medical Officer of Health during 1932 was 212, thus comparing favourably with the figures of 319, 309, 257, 274, 259, 246, and 242 in the years from 1925 onwards.

Dispensary Register.—For several years past a register has been maintained of all cases of tuberculosis receiving public medical treatment. This Dispensary Register contains the names of all persons attending at, or seen in connection with, the Dispensary for diagnosis or for treatment of tuberculosis, including patients under general supervision (whether or not accompanied by domiciliary treatment), and patients or observation cases in residential institutions and contacts. On December 31st 1932 the number of persons so classified and on the register was 642, as against 635 on January 1st 1932.

PULMONARY TUBERCULOSIS.

Incidence.—One hundred and fifty-four new cases suffering from pulmonary tuberculosis came to the knowledge of the Medical Officer of Health during 1932. The age and sex distribution of the patients will be found on the return on pages 86 and 87. The number includes 16 cases not formally notified. The numbers notified in the four preceding years were 208, 180, 189, and 184 respectively. In the case of seven the first intimation was obtained from the death returns, while in 17 other cases notification was made at intervals of less than three months before death. The non-notified deaths, therefore, numbered 8.0 per cent. of the total of 87 deaths from pulmonary tuberculosis. Enquiry into these non-notified cases showed the omission to be on the part of institution medical officers in 3 instances, and private practitioners in the remaining 4 cases.

Deaths.—During the year 87 deaths were certified to be due to pulmonary tuberculosis, representing a rate of 1.12 per 1,000 of the population, as compared with 1.49 in 1931 and 1.07 in 1930.

Tuberculosis Visitors: Home Visitation.—Four tuberculosis visitors, one of whom assists in the medical work of the Dispensary, and three of whom are engaged also on work in connection with Maternity and Child Welfare, are responsible for the sanitary supervision of the homes of notified and suspected cases. Every effort is made by the Visitors to make their calls helpful to the comfort of the patient and a stimulus to the care exercised in preventing infection of others in the household. The visits totalled 2,497 (1,851 of which were for dispensary purposes) in the year under review.

Tuberculosis Dispensary.—The Dispensary is the central element of the tuberculosis scheme, and serves as a clearing house from which some cases are transferred to sanatorium, others to hospital, and others to their own medical attendant for domiciliary treatment, while a certain proportion remain in attendance at the Clinics held five times weekly and receive necessary treatment therefrom. Considerable advantage has followed from the removal of this work from the old unsuitable premises in Irlam Road to the central and conveniently planned Health Centre in the North Recreation Ground.

During the year 242 new cases, of whom 111 were sent by private practitioners and 33 by the School Medical Officer for opinion preliminary to notification, were examined at the Dispensary. Attention continued to be paid to securing the attendance for examination of contacts of notified cases, and during the year 126 were so examined.

The total attendances at the Dispensary during the year numbered 6,084, as compared with 6,060 in 1931; 593 specimens of sputum were examined, giving a positive result in 68 cases.

During the year 58 insured patients were referred to their panel doctor for treatment, and touch was kept with them by means of the insurance practitioners' quarterly reports and through the medium of the Tuberculosis Visitor; 313 report forms (G.P. 36) were sent out, and 178 were returned completed.

Radiographic Examinations.—Of recent years there has been an appreciable increase in the use of radiology in diagnosis and treatment of tuberculosis, and the cases so examined in Bootle numbered 165 last year. These cases were sent by arrangement to the Lancashire County Council's Tuberculosis Dispensary at Seaforth, and to the Bootle General Hospital for the necessary examination and report.

The Annual Returns of the Ministry of Health show the number of radiographic examinations per 100 notified cases and contacts to have been as follows:—

	1926	1927	1928	1929	1930	1931	1932
County Boroughs ...	24	25	30	36	44	(not known)	
Bootle ...	2	3	9	15	26	25	45

Maghull Sanatorium.—During the year 45 patients were admitted to the Institution with an average length of stay of 209 days for the 41 cases discharged during the year. Information is given in Section (G) on Form T.145 of the Ministry of Health on pages 77 to 81 of the results of treatment in Maghull Sanatorium and Linacre Hospital during the year.

Linacre Hospital Tuberculosis Pavilion.—During 1932, 70 Bootle cases were admitted to the Pavilion, the average length of stay of the 64 cases discharged (including 14 deaths) during the year being 108·4 days.

Artificial Pneumo-Thorax Treatment.—Treatment by induction of artificial pneumo-thorax, in order to secure collapse of the affected lung, was adopted at Linacre Hospital first in 1924, and since that date twelve cases have been considered suitable for this treatment. A tabular statement gives the results so obtained.

RESULTS OF ARTIFICIAL PNEUMOTHORAX TREATMENT.

Beginning of treatment	Cessation of treatment	Length of treatment	Other treatment given	Condition to date	Time since treatment ceased
2/5/24	5/12/24	7 months	Hospital.	Not examined recently; known to be working	8 years
18/7/25	25/4/27	21 months	Hospital	Not examined recently; known to be working	5½ years
23/7/26	28/2/27	7 months	Hospital	Artificial pneumothorax not satisfactory; dead	—
11/12/26	—	6 years	Sanatorium	Still under treatment in Sanatorium	—
19/12/28	28/11/31	3 years	Sanatorium and Hospital	Disease developed in contra-lateral lung, double pneumothorax tried for a short period, but given up owing to signs of cardiac embarrassment; patient now in hospital.	—
18/10/29	9/1/32	27 months	Hospital	After re-expansion of lung patient developed secondary pleural effusion, and was re-admitted to hospital in August 1932, where occasional air replacements are being given	—
23/10/29	25/9/30	11 months	Hospital	Developed general tuberculosis; dead	—
17/9/30	9/1/32	16 months	Hospital	Treatment ceased owing to development of adhesions; general condition good	12 months
22/10/32	—	—	Hospital	Came under treatment with massive pleural effusion causing cardiac failure; fluid withdrawn and air replaced, and artificial pneumothorax being continued	—
11/11/32	—	—	Hospital	Progress satisfactory; transferred to Ventnor Pulmonary Hospital for continuation of treatment	—
11/11/32	—	—	Hospital	Progress satisfactory; treatment being continued	—
14/12/32	24/2/33	2 months	Hospital	Satisfactory pneumothorax not got, and contra-lateral lung affected; treatment abandoned	—

NON-PULMONARY TUBERCULOSIS.

During the year 58 new cases of non-pulmonary tuberculosis were notified, as compared with 58 in 1931, namely:—23 glands, 20 bones and joints, 7 meningitis, 5 abdominal, 2 abscess, and 1 kidney; and there were 15 deaths registered. The agreement with the Leasowe Hospital for Children for the maintenance of beds for children suffering from non-pulmonary tuberculosis remained in force, and six cases were admitted during the year, and six cases were discharged; seven cases were still in the Hospital at the end of the year.

The scheme for admission to general hospitals of cases of non-pulmonary tuberculosis, and for payment by the Council of the charges for maintenance and treatment in cases recommended or approved by the Tuberculosis Officer, was continued; during the year eighteen such patients were admitted.

Dental Treatment.—During the year nine cases received dental treatment.

Public Health (Prevention of Tuberculosis) Regulations, 1925.—No action was taken under the above Regulations relating to tuberculous employees in the milk trade.

Public Health Act, 1925. Section 62.—No action was taken under the above Section dealing with the compulsory removal of cases of tuberculosis to hospital.

ARTIFICIAL LIGHT TREATMENT.

The scheme of artificial light treatment confined to exposure of patients to general irradiation from carbon arc lamps, which was commenced at Linacre Hospital in October 1925, was continued during the year, the place of treatment, however, being transferred to the Health Centre in June. The staff, plant and working method were as described in previous reports.

The operation time was approximately 217 hours. The attendances made by patients totalled 2,461, of which 566 were made by patients referred under the Tuberculosis Scheme and 1,895 by patients referred under the Maternity and Child Welfare Scheme.

The attached tabular statement classifies conditions for which treatment was administered and the results obtained in the period under review.

RESULTS OF ARTIFICIAL LIGHT TREATMENT.
(a) TUBERCULOSIS

	Under Treatment 1st Jan., 1932	New Cases	Discharged			Ceased to attend	Under treatment, 31st Dec. 1932
			Much Improved	Im-proved	Station-ary		
Tubercular Cervical Glands... ..	6	7	5	4	1	—	3
Tuberculosis of Bones	1	1	1	—	—	—	1
Lupus	2	1	1	—	1	1	—

(b) MATERNITY AND CHILD WELFARE.

	Under Treatment 1st Jan. 1932	New Cases	Discharged			Ceased to attend	Under treatment, 31st Dec. 1932
			Much Improved	Im-proved	Station-ary		
Rickets	21	55	—	12	1	32	31
Marasmus	1	1	1	—	—	1	—
Debility	2	8	—	2	1	1	6
Malnutrition	6	10	—	2	—	7	7
Totals	39	83	8	20	4	42	48

VII. VENEREAL DISEASES.

The Council's scheme for the treatment and control of venereal diseases provides for the maintenance of a treatment centre at the Bootle General Hospital and for the conduct of pathological examinations at the University of Liverpool. In addition payment is made for services rendered to Bootle residents attending the venereal diseases treatment centres of the Liverpool City Council. At the Council's Bootle Hospital treatment centre four clinics for men and two clinics for women and children are held weekly.

The Annual Statistical Report of the Medical Officer of the Treatment Centre will be found on pages 94 to 96. It shows 440 persons under treatment on 31st December 1932, as against 556 on 1st January 1932, and a small increase in new cases, the figures being 344 as contrasted with 332 in 1931.

The total attendances for treatment made at the centre during the year show a decrease from 31,246 to 25,605; the figure includes 8,729 attendances made between clinic days for the treatment of gonorrhoea at the irrigation centre. The average attendance at the male clinics was 121, and at the female clinics was 11. In-patient days totalled 1,154 as against 585 during the previous year. During 1932 116 cases were discharged on completion of treatment and observation, as contrasted with 114 during 1931, and 77 during 1930.

The Table below is a statement of the number of cases presenting themselves for treatment during the last five years:—

BOOTLE VENEREAL DISEASES CLINIC.

	1928	1929	1930	1931	1932
New Cases (total)	439	386	372	332	344
New Cases (syphilis)	107	70	65	64	76
Total attendances (excluding Irrigation Department)	10883	14045	14193	15502	16876
Irrigation Department attendances	5766	10455	11895	15744	8729
In-patient Days	609	656	749	585	1154
No. discharged after completion of observation and treatment	4	43	77	114	116
No. who ceased to attend after completion of treatment, but before final tests as to cure	57	65	18	121	170

Bootle residents accounted for 43 per cent. of the cases under treatment at the Bootle Hospital Centre, the Authorities contributing the next largest number of cases being the Lancashire County Council with 20 per cent., and Liverpool with 10 per cent.

Against this attendance of outsiders at the Bootle Centre there may be set off the user of Liverpool centres by Bootle residents, and the following table summarizes the available information as to the total number of cases among Bootle residents dealt with at the various local centres for the first time during 1932.

	NEW CASES—BOOTLE RESIDENTS.					
	Syphilis	Soft Chancre	Gonor- rhoea	Other Condi- tions	Total	Total Attend- ances
Stanley Hospital ...	12	1	13	14	40	1787
Seamen's Dispensary ...	5	1	33	4	43	2345
Royal Infirmary ...	4	—	10	8	22	969
Royal Southern Hospital	1	—	1	—	2	69
David Lewis N. Hospital	2	—	1	—	3	96
Bootle General Hospital	32	3	86	26	147	13486
Total ...	56	5	144	52	257	18752

The following table sets out the change in incidence of the venereal diseases locally, in so far as it can be measured by records of new cases presenting themselves for treatment at the Bootle Centre:—

	NEW CASES.					
	SYPHILIS.			GONORRHOEA.		
	Males.	Females.	Total.	Males.	Females.	Total.
1920	177	48	225	211	5	216
1921	156	44	200	176	2	178
1922	126	57	183	154	5	159
1923	134	52	186	147	9	156
1924	123	37	160	199	10	209
1925	76	16	92	153	4	157
1926	81	21	102	137	4	141
1927	47	20	67	151	5	156
1928	79	28	107	216	23	239
1929	59	11	70	186	35	221
1930	51	14	65	190	34	224
1931	48	16	64	160	20	180
1932	53	23	76	185	25	210

When the Table is examined it will be noted that there has been a large decrease in the number of new cases of syphilis since 1920, but only a slight decrease in the number of cases of gonorrhoea which presented themselves for treatment; it is probable that the figures represent a real fall in the incidence of syphilis.

An attempt has been made to estimate the incidence of venereal disease in one section of the population in Bootle by examining the blood in the placentae of a series of patients delivered at the Municipal Maternity Home. One hundred and fifty-four specimens of blood were examined for the Wassermann reaction and all proved negative, with the implication that the patients were free from syphilitic infection. It is interesting to contrast this with the examination of blood of patients attending the Ante-Natal Clinics at the Edinburgh Royal Infirmary and at the Ante-Natal Clinics in Cardiff (reported in 1927), which gave 6·5 per cent. and 3·5 per cent. positive Wassermann reactions respectively; further, Cruickshank in a Medical Research Council Report in 1924 on the examination of 1,350 placental bloods derived from the Glasgow hospital class reported 4·2 per cent. Wassermann positive reactions, although he pointed out that the value of a negative reaction in the new-born is considerably less than the value of a similar reaction in the adult or even in older children.

Educational propaganda work was continued throughout the year by the Merseyside Boroughs Health Education Committee, consisting of representatives of the Health Committees of the four Merseyside Boroughs with their respective Medical Officers of Health.

VIII. MATERNITY AND CHILD WELFARE.

The outstanding feature of the year in connection with Maternity and Child Welfare was the opening on 7th June of the Health Centre, North Recreation Ground, by Sir George Newman, Chief Medical Officer, Ministry of Health. This building dispensed with a number of centres scattered through the north of the town in which the Health Committee, Education Committee, and the Maternity and Child Welfare Sub-Committee were conducting various health activities, and provided in suitable surroundings a specially-designed centre in which could proceed with efficiency and comfort the Tuberculosis Dispensary work for the whole of the Borough, as well as the activities of the School Medical Service and the Maternity and Child Welfare Service in the northern half of the town.

It is difficult to say which section of the work gained most from the transfer, and the appreciation of the public using the Centre was expressed not only directly, but indirectly in increased attendances.

ANTE-NATAL WELFARE

Home Visiting of Expectant Mothers.—The usual efforts to improve the general management of pregnancy by instruction in the personal hygiene of the expectant mother have been continued, and the Health Visitors paid 1,111 home visits to expectant mothers during the year.

Ante-Natal Clinics.—The ready use of the facilities provided at the Ante-Natal Clinics in Bootle for medical supervision during pregnancy is well known to the Council, and this position was again improved upon during 1932. It may be recalled that the first Ante-Natal Clinic was established in Bootle in 1920, in which year expectant mothers equivalent to 8 per cent. of the total number of births came under public medical supervision. During 1932 four Ante-Natal Consultations were held each week, and in all 890 new cases attended, corresponding to 50·3 per cent. of the total registered births; in addition, 180 cases carried over from the preceding year continued under supervision, and a total of 4,814 attendances was made, with an average of 24 persons per consultation.

At the end of the year an examination was made of the adequacy of the ante-natal supervision obtained by the above patients as judged by the degree of advancement in pregnancy at the patient's first visit and by the number of visits paid. It was found that 43 per cent. of the patients made their first visit during the sixth or seventh months, and that less than 5 per cent. delayed attendance until the ninth month; further, 70 per cent. made three or more visits and only in 18 per cent. was the supervision limited to one consultation.

Dental Treatment of Expectant and Nursing Mothers.—This work has been in the nature of extractions, fillings, and the supply of artificial dentures, and during the year 97 cases (71 in 1931) were treated at an estimated cost of £54 6s. 0d., of which the patients' contributions were assessed at £22 13s. 0d. Seventeen cases were carried forward to 1933.

The opening of the Health Centre in June enabled a much-needed extension of the Dental Service to be effected, and on the appointment of a whole-time Dental Surgeon by the Education Committee it was arranged that his services should be available for expectant and nursing mothers on one half-day weekly. This arrangement dated from June

13th, and was accompanied by an alteration in the method of executing the dental mechanical work involving a considerable reduction in cost to the Committee and to the patients. It is gratifying to note that this important section of health work can now be extended with but a small increase in cost to the Local Authority.

MATERNAL WELFARE.

Nursing Homes Registration Act, 1927.—There is one Nursing Home proper within the Borough, as well as seven Maternity Homes, on the register. Bye-laws governing the conduct of these Nursing Homes were made by the Council in November 1931.

The Practice of Midwives.—The number of midwives resident in Bootle on the local roll is 27, as against 20 in the preceding year; seven others, resident outside the district, have also given notice of their intention to practise in the Borough; all are trained. The above figures do not include midwives practising in local Municipal Maternity Homes.

Regulations of the Central Midwives' Board require medical help to be sought by the midwife in all cases of illness of the patient, or the child, or of any abnormality occurring during pregnancy, labour, or lying-in, and 358 records of sending for medical help were received. Twenty-three of the calls were on account of abnormalities during pregnancy, 260 during labour, 18 during the puerperal period, and 57 for conditions affecting the child.

As from 1st April 1922, the Council accepted responsibility for the payment of midwives' fees in approved necessitous cases. Applications in respect of this service are considered with full information as to the family income and outgoings, and are granted only on satisfactory evidence that the applicant is not entitled to maternity benefit under the National Insurance Acts. During the year 19 applications were granted, as compared with 30 during 1931.

Under the 1918 Act the Local Supervising Authority is responsible for the payment of fees to doctors called in by midwives, and with the continuance of unemployment in the town the number of such accounts received, in respect of cases where the doctor himself was unable to recover the fee, remained high; 275 accounts, totalling £402 13s. 6d., were sent in, as compared with 251 accounts, totalling £373 2s. 0d., in 1931. In respect of this sum, the contributions to be recovered from the patients were assessed at £79 4s. 6d.

Milk Assistance Scheme.—The Council's Milk Assistance Scheme, under which dried milk is granted on the Clinic Medical Officer's recommendation, to infants, and to expectant and nursing mothers, in necessitous cases falling within a certain income scale, continued in force. In all, milk to the value of £545 7s. 1d., and emulsion to the value of £3 16s. 6d., making a total of £549 3s. 7d., was granted by the Council to infants and to nursing and expectant mothers, on the advice of the Medical Officer.

Institutional Provision for Maternity Cases—As is the case elsewhere an increasing number of mothers choose to go into public institutions for confinement, and last year 258 patients were delivered in Walton Hospital at the cost of the Public Assistance Committee, and 163 patients were delivered in the Municipal Maternity Home; in addition 35 patients were delivered in voluntary hospitals. The total of 456 represents 26 per cent. of the births registered during the year.

Maternity Home.—During the year 1932, 169 patients were admitted to the Maternity Home, the average duration of stay being 14 days; admissions in 1931 numbered 153. Five cases were treated for ante-natal supervision, 117 cases were delivered by the nursing staff, 46 cases were delivered by doctors, and 1 case was transferred for confinement to the Liverpool Maternity Hospital. Medical assistance was called in by the matron on 14 occasions during labour, 17 times for conditions after labour, including 14 occasions of ruptured perineum, and five times on account of the condition of the infant. One case was notified as puerperal fever and was transferred to Walton Hospital. Four cases were notified as puerperal pyrexia, one of which was transferred to the Bootle General Hospital suffering from pelvic cellulitis. There were no cases of ophthalmia neonatorum or of pemphigus. All the cases but two left the institution with their babies being breast fed.

Cases delivered by forceps numbered 14, or 8.6 per cent., as compared with 29.5 per cent. in a recently prepared examination of 14,614 cases delivered in private medical practice.

There were 6 foetal deaths (still-born or dying within 10 days of birth) in 5 of which the child was still-born, while in the other instance the infant died 48 hours after birth from congenital atelectasis.

In a number of cases where no defect was found requiring treatment it was apparent that the patient's mind was much relieved by the knowledge that her symptoms were not serious.

The disposal of cases needing treatment was as follows:—13 cases were referred to Hospital, 2 cases to Convalescent Homes, 2 cases to their own Doctor, 12 cases to the Mothers' Welfare Clinic, 13 cases to the Dental Clinic, and 1 case to her own Dentist.

The Mothers' Welfare Clinic referred to above is conducted by a voluntary association in Liverpool for the purpose of giving advice on conception control to cases referred by medical practitioners. The Council's medical officers, acting in conformity with the memorandum of the Ministry of Health on this subject limited their references to cases in which pregnancy would be detrimental to health, and amongst such cases were included the following:—

- i. Age 23. Six pregnancies in six and a half years; anaemia; husband unemployed.
- ii. Age 37. Ten pregnancies in 14 years; nine children living; very anaemic and debilitated; weak abdominal wall; husband unemployed.
- iii. Age 20. Severe heart disease and anaemia; one baby recently died of marasmus; refused hospital for confinement and had to receive medical help (was subsequently referred from the Welfare Centre to the Royal Infirmary as suitable for sterilisation. At present in Crofton Convalescent Home). Husband unemployed.
- iv. Age 27. Husband epileptic; five children; youngest six months, eldest 10 years; all children subject to fits.
- v. Age 24. Very severe heart disease; three children, all living; youngest 11 months; husband unemployed.

Puerperal Infection.—Thirty cases of puerperal pyrexia and two cases of puerperal fever were notified during the year. Four deaths were registered from puerperal fever, and two from other diseases and accidents of pregnancy and parturition.

During the year two cases of maternal death during pregnancy and parturition occurred, the causes of death being registered respectively as (1) anaemia, cortical necrosis of kidneys, toxæmia of pregnancy, concealed hæmorrhage, and (2) broncho-pneumonia, pyelonephritis. The circumstances of the confinements were investigated by the Medical Officer of Health, who received the full co-operation of the medical attendants concerned and confidential reports, not identifying the patients, were sent to the Departmental Committee on Maternal Mortality set up by the Ministry of Health.

The six deaths thus classified to pregnancy and childbirth give a maternal mortality rate of 3·39 per 1,000 (live) births, and the following table shows that although there have been wide fluctuations in this rate, the local experience has been somewhat more favourable than that of the country as a whole.

MATERNAL MORTALITY.

(Classification as in use since 1911).

Period.	BOOTLE.		ENGLAND & WALES.
	No. of Deaths.	Rate per 1,000 Births.	Rate per 1,000 Births.
1911-1920	66	3·13	4·07
1921-1925	31	3·10	3·90
1926	2	1·08	4·12
1927	10	5·50	4·11
1928	3	1·72	4·43
1929	5	3·01	4·33
1930	6	3·35	4·40
1931	7	4·20	4·11
1932	6	3·39	4·24

INFANT WELFARE.

Notification of Births Acts.—The number of live births notified under these Acts was 1,694, or 99·0 per cent., of the total number of births (namely, 1,711) actually registered within the Borough; of the 1,694 notifications 274 were of births to parents who normally resided outside the Borough. 1,665 notifications were received from midwives and 29 from doctors and parents. In addition there were 75 still-births notified (including 11 to non-Bootle residents).

The babies were visited shortly after birth by the Infant Welfare Visitors, unless it was considered that suitable advice could be obtained from other sources. A summary of the work of the Infant Welfare Visitors is given on page 97.

Births Registered.—The number of live births registered in the district was 1,711, from which 302 are to be deducted as born in Bootle to residents of other districts, and to which are to be added 359 births to Bootle parents temporarily out of the town; the corrected figure is therefore 1,768. Of the number registered 62 were illegitimate.

Still-births.—The number of still-births registered in the district was returned by the Registrar-General as 78; this figure corrected for 25 inward and 11 outward transfers gives a net total for the year of 92, as compared with 64 for 1931. As full an investigation as possible has been obtained in respect of each such case, and 25 of the foetuses were forwarded for pathological examination.

To obtain a complete picture of the true position as to infant mortality the still-births (which include deaths of infants both before birth and during the act of birth) should be added to the deaths of infants in their first twelve months of independent existence, and the following table is given with that end in view:—

Year.	DEATHS OF INFANTS.					
	Still Births.		Post-Natal.		TOTALS.	
	No.	Rate	No.	Rate	No.	Rate
1926	63	32	187	100	250	129
1927	58	31	141	78	199	106
1928	53	29	186	107	239	133
1929	65	38	138	83	203	118
1930	84	45	141	79	225	120
1931	64	38	159	95	223	134
1932	92	52	152	86	244	138

Infant Deaths.—There were 152 deaths of infants under the age of 12 months, which total expressed as a rate per 1,000 births gives an infant mortality rate of 86, compared with 95 during 1931.

The trend of infant mortality in recent years is set out in the table below:—

Years.	BOOTLE	England and Wales
1901-05	166	138
1906-10	130	117
1911-15	133	110
1916-20	103	91
1921-25	91	76
1926-30	89	68
1931	95	66
1932	86	65

This modest improvement in the infantile mortality rate is largely due to a recovery from the figure of high mortality during the first four weeks after birth which was recorded last year; this age-group in itself was responsible for an infantile mortality rate of 32·8 per 1,000 births as compared with 40·8 per 1,000 during the preceding year, and thus for a decrease of 8·0 per 1,000 in the general infantile mortality rate. A comparison of the causes of death in the whole age-group below one year in 1932 and 1931 demonstrates the same thing in another way in that "congenital malformation" and "premature birth" were found to be responsible for 41 deaths in 1932 as against 52 deaths in 1931.

The highest infantile mortality rate was experienced in the first quarter of the year owing to the higher incidence of respiratory disease; the number of deaths then recorded was 58 as compared with 40, 24 and 30 respectively during the remaining quarters of the year.

The infantile mortality rate was uneven throughout the various Wards; the approximate rates were:—118 in Mersey, 110 in Knowsley, 74 in Linacre, 70 in Orrell, 69 in Derby, and 65 in Stanley.

The rate of infantile mortality amongst legitimate infants was 84 per 1,000 births and amongst illegitimate infants it was 129. Contrary to the usual experience the mortality rates for males and females were equal both during the first four weeks and in the subsequent months. The most important of the causes of death, which are given in detail on page 76, were bronchitis and pneumonia 33; prematurity 27; enteritis 24; congenital malformation 14; atrophy, debility, and marasmus 11; convulsions 9; whooping cough 6; and measles 6.

Neo-Natal Mortality.—Thirty-eight children died before they were a week old, and a total of 58, or 38·2 per cent. of all the deaths under one year, occurred in children under the age of one month. This is a neo-natal mortality rate of 32·8 per 1,000 births.

DEATH-RATES PER 1,000 BIRTHS, OF INFANTS UNDER FOUR WEEKS.

Years.	BOOTLE.	ENGLAND AND WALES.
	Deaths per 1,000 Births.	Deaths per 1,000 Births.
1906—1910	37·0	40
1911—1915	39·2	39
1916—1920	32·3	37
1921—1925	34·2	33
1926—1930	32·7	32
1931	40·8	32
1932	32·8	—

Public Health (Ophthalmia Neonatorum) Regulations, 1926—Fourteen cases of ophthalmia neonatorum were notified during the year, compared with 5 in 1931 and 17 in 1930, the rates per 1,000 births being 7·9 for 1932, 3·0 for 1931, and 7·2 for 1930. The disposal of the cases and the results are shown in the table below:—

Notified.	Cases.		Vision Unimpaired.	Vision Impaired.	Still under Treatment at end of year.	Total Blindness.	Deaths.
	Treated.						
	At Home.	In Hospital.					
14	11	3	13	—	—	—	1

No action under the Public Health Act, Section 66, for the prevention of blindness or for the treatment of persons suffering from disease or injury to the eyes has been taken other than a continuance of the arrangements already made with St. Paul's Eye Hospital, Liverpool, for the reception of new-born infants suffering from inflammation of the eyes, with their mothers.

Home Visitation of Infants.—There are seven officers on the health visiting staff, of whom one devotes her time to general clinic supervision and to certain special duties, two give half their time to tuberculosis visiting, and another gives one-quarter of her time to the School Medical Service; the establishment is, therefore, equivalent to $5\frac{1}{2}$ visitors giving their whole time to Maternity and Child Welfare duties. This staff allowed on the average of the payment of four visits to each infant under one year, two visits each to infants in their second year, and one visit to each child between the ages of two and five years. In all, 16,654 visits were paid, as compared with 15,445 during 1931.

Infant Welfare Clinics.—The baby clinic is not concerned with acute illness beyond referring such cases for treatment to private practitioners or to the hospital. Its basic function is the giving of advice to mothers of healthy and apparently healthy babies not only on feeding but on the general hygiene of infant life; all the other activities of the baby clinics, such as weighing and the distribution of milk and simple medicaments, are subsidiary to the inculcation of the principles of mothercraft.

There are at present six Infant Consultations held weekly at two Centres. The number of new infants presented for examination and advice at such Centres during the year was 1,424, as compared with 1,426 during 1931, and 1,340 during 1930; of these, 1,002 were infants under the age of one year, and 402 were over that age. The total attendances throughout the year decreased to 22,963 from 23,308 during 1931. The average attendance at each meeting varied from 49.3 at the Thursday morning session at the Health Centre to 97.0 at the Wednesday afternoon session at the Health Centre.

YOUNG CHILD WELFARE.

The need for care and supervision of the child during the period following early infancy is now well recognised, and for some years past parents have been encouraged to avail themselves of the facilities offered for this purpose at the Infant Clinics, and in special cases at the School Clinics.

The main business of the child of this age is the formation of good and regular habits. Breathing, sleeping and eating are all processes which can be disordered by wrong management, and advice on these points is found to be the most frequently required during consultations at the Clinics.

Detection of slight deviations from the normal leads to the prevention of disease and defects, and Dr. Clarke illustrates the value of such supervision by reference to two cases where weakness of the legs was noticed in children who had already been walking well. These proved to be early cases of infantile paralysis and the patients were sent for orthopaedic treatment to prevent crippling in later years. In the same way hearing and sight are preserved by early attention to defects such as otorrhoea and squint which tend to be disregarded by a mother busy with a younger baby.

Advantage was taken of the facilities for treatment at the various specialist School Clinics; for example, fifteen cases were seen by the Ophthalmic Surgeon and glasses were ordered for nine as a result of examination. Further, the help of the Liverpool Child Welfare Association was enlisted in providing tonics and convalescent treatment in special cases.

Two hundred and twenty-seven children who were within three months of attaining the age of three years were given a full examination similar to the medical inspection of school children. Of these, 53 per cent. were found to have defects requiring treatment or observation (cp. school entrants 50·6 per cent.). Appendix 16 on page 98 sets out the physical conditions found to require treatment or observation in this group of 3-year-olds, and it may be noted here that the state of nutrition was considered to be good or above average in 20 per cent., average in 70 per cent., and poor in the remaining 10 per cent. In 58 instances, i.e., 25·5 per cent., some evidence of rickets was noted, and in 28 instances the bony changes were such as to require special treatment or observation. Of the total of 227 children 162 had previously attended Infant Clinics and a comparison of the physique of these children with the 65 who had not so attended was attempted; the numbers were, however, small and no significant differences emerged.

Nurse Children.—At the end of the year new powers in respect of the reception of children for reward were conferred on the Council by the coming into force of the Children and Young Persons Act, 1932. important differences from the powers contained in the Children Act, 1908, include:—

- (a) The raising of the age under which the reception of children for reward must be notified from seven to nine years.
- (b) Notification of reception of a child to be before, instead of after, reception.
- (c) The scope of the work of the Infant Life Protection Visitor has been extended to cover not only the nursing, but also the general health and wellbeing of the child.

The number of such children supervised by the Health Visitors was 15 on 31st December last.

Boarded-out Children.—At the end of the year the same five children were on the Register of Children boarded out by the Council under Part VI. of the Public Assistance Order 1930, as at the end of 1931. All cases on the Register were visited at regular intervals by the School Nurses, who paid five visits to each during the year. The rules contained in the Order have been observed, and the reports on the homes and general conditions relating to the children have continued satisfactory throughout the year.

The Liverpool Child Welfare Association.—This Association has continued to send workers one morning each week to the School Medical Offices to facilitate the arrangements for dealing with recommendations of the medical staff of the Council or private doctors for the provision of surgical appliances, cod liver oil, extra nourishment, or convalescent home treatment, to infants and school children.

IX. HEALTH EDUCATION.

Efforts to improve the general standard of the health of the people, to prevent ill-health, and to encourage personal physical well-being, are amongst the most important duties of the Health Department. The time has long since passed when legislation and administration had to be directed to the prevention of gross insanitary circumstances, and there is a growing realisation of the fact that the maintenance of health is a personal matter, and the avoidance of disease and disability is increasingly becoming the duty of the individual rather than of the State. But organised effort is necessary if the citizen is to possess the requisite knowledge for the maintenance of his own health and that

of his family, and it is a matter for regret, therefore, that the activities of the Merseyside Boroughs Health Education Committee were curtailed during the year. This Joint Committee, on which this Authority, together with the Health Committees of Liverpool, Birkenhead, and Wallasey, is represented, had worked for some years through a whole-time medical lecturer, but in June the Committee was informed that the financial contribution of the Liverpool City Council had been reduced; as the other constituent Authorities made consequential reductions the policy of the Committee suffered revision, and amongst other action taken it was decided to terminate the engagement of the medical Lecturer-Organiser and to discontinue the publication of the monthly journal "Better Health."

A curtailed programme of work was, however, continued, and during the year some 26 meetings attended by 2,910 persons were addressed on health subjects in Bootle.

During the circulation of the local edition of 1,100 copies of the journal "Better Health" a supplementary page was supplied by the medical staff of the Health Department, and the subjects so dealt with were:—

- W. Cancer—the only cure.
- Food—its uses and abuses.
- How to spend £1 on food to best advantage.
- Health of the Bootle school child in 1931.

X. NURSING ARRANGEMENTS, HOSPITALS AND OTHER INSTITUTIONS AVAILABLE FOR THE DISTRICT.

Professional Nursing in the Home.—The services of the Bootle District Nurses' Association are available for the nursing in their own homes of patients suffering from puerperal fever, measles, whooping cough, epidemic diarrhoea, ophthalmia neonatorum, pneumonia, and poliomyelitis; information as to cases requiring such attention is mainly derived from the health visiting staff, and the financial arrangements with the Association provide for payment by the Council of an annual retaining fee of £35, together with a charge of 8d. per visit in approved cases. The classification of such work by the District Nurses' Association follows:—

	Carried over from 1931.	New Cases.	Total.	Transferred for treat- ment to			Im- proved.	Under treat- ment at end of 1932.
				Total Visits.	Hospital.	Died.		
Worms ...	—	51	51	385	1	—	50	—
Discharges from eyes ...	2	23	25	340	—	—	24	1
Pneumonia ...	—	19	19	274	2	2	12	3
Measles ...	—	7	7	72	1	1	5	—
Diarrhoea ...	—	6	6	65	1	1	4	—
Tuberculosis ...	—	2	2	35	—	1	—	1
Whooping cough ...	—	2	2	28	—	—	1	1
Other diseases ...	1	9	10	166	1	—	9	—
	3	119	122	1365	6	5	105	6

Midwives.—Thirty-four midwives, excluding those practising in local municipal maternity homes, signified their intention to practise within the district during the year commencing 1st January 1932. Apart from the staff of the Municipal Maternity Home, there is no direct employment of or subsidy to practising midwives, although responsibility is accepted for the payment of the midwife's fee in such cases as are sanctioned by the Maternity and Child Welfare Sub-Committee after consideration of the patient's income, size of family, etc.

Hospitals.—The Bootle General Hospital (100 beds) is the only hospital situate within the Borough boundary, but the Liverpool voluntary hospitals (both general and special) are also attended by Bootle residents.

The information contained in the following table, kindly furnished by the secretarial staffs of the respective hospitals for the latest period of twelve months for which figures are available, demonstrates the extent of such use:—

BOOTLE PATIENTS IN VOLUNTARY HOSPITALS.

	No. of In-Patients.	Average Duration of Stay.
Bootle General Hospital ...	952	21 days
Liverpool Stanley Hospital ...	189	23 "
Royal Infirmary, Liverpool ...	118	18 "
Royal Liverpool Children's Hospital	72	21 "
Women's Hospital, Liverpool ...	56	16 "
David Lewis Northern Hospital, Liverpool ...	49	18 "
St. Paul's Eye Hospital, Liverpool	41	9 "
Liverpool Eye, Ear, and Throat Infirmary ...	37	9 "
Royal Southern Hospital, Liverpool	30	10 "
Liverpool Hospital for Consumption	6	35 ..

Other institutional accommodation for the sick is obtained, as explained elsewhere in the Report, by agreement with the Liverpool City Council for reception into their institutions of sick persons, resident in the borough, for whom other provision is not at the time available.

Clinics and Treatment Centres.—The following is a statement of Clinics and Treatment Centres under the control of the Local Authority:—

1. *Infant Consultations*—

<i>Health Centre, Knowsley Road</i>	Monday, 1-45 p.m.
	Wednesday, 1-45 p.m.
	Thursday, 10-30 a.m.
	Thursday, 1-45 p.m.
<i>School Medical Offices, Balliol Road</i>	Tuesday, 1-45 p.m.
	Wednesday, 10-30 a.m.

2. *Ante-Natal Clinics*—

<i>Health Centre, Knowsley Road</i>	Tuesday 1-45 p.m.
	Friday, 10-30 a.m.
	Friday, 1-45 p.m.
<i>School Medical Offices, Balliol Road</i>	Tuesday, 10-30 a.m.

3. *School Clinics*—

Health Centre, Knowsley Road—

Minor Ailments Clinic	Daily, 9 a.m.
Dental Clinic	Monday, 9-30 a.m.
	Tuesday, 9-30 a.m. & 1-45 p.m.
	Wednesday, 9-30 a.m. and 1-45 p.m.
	Saturday, 9-30 a.m.

School Medical Offices, Balliol Road—

Inspection Clinic	Daily, 9 a.m. to 9-30 a.m. Also Wednesday from 2 p.m. to 4 p.m.
Minor Ailments Clinic	Daily, 8-30 a.m.

Eye Clinic	Monday and Wednesday, 1-30 p.m.
Dental Clinic	Monday, 2 p.m. Thursday, 9-30 a.m. and 2 p.m.
Throat Clinic	As found necessary.
Remedial Exercises Clinic	Daily.
Rheumatism Clinic	Wednesday, 2 p.m.
Orthopaedic Clinic	As found necessary.
Aural Clinic	As found necessary.
4. <i>Tuberculosis Dispensary</i> —	
<i>Health Centre, Knowsley Road</i>	Daily, 2 p.m. (except Thursday); Wednesday, 7 p.m.
5. <i>Venerical Diseases Clinic</i> —	
<i>Bootle General Hospital, Derby Road.</i>	
Males	Monday, 5 p.m. Tuesday, Wednesday, and Friday, 6 p.m.
Females	Wednesday, 12 noon. Thursday, 5-30 p.m.
6. <i>Other Clinics and Day Nurseries</i> —	
<i>Health Centre, Knowsley Road.</i>	
Artificial Light Treat- ment Clinic	Daily, 10 a.m.
M. and C. W. Dental Session	Friday, 1-30 p.m.
<i>Day Nurseries.</i>	Nil.

XI.—HOUSING.

Housing Progress during 1932—During 1932 one hundred and seventy-six houses were erected under municipal housing schemes, and fifty-seven houses were erected by other bodies and persons. The table below demonstrates the progress made with new municipal housing provision during recent years:—

Number of houses completed during	1920	...	26
”	”	”	1921 ... 76
”	”	”	1922 ... 200
”	”	”	1923 ... Nil.
”	”	”	1924 ... 2
”	”	”	1925 ... 98
”	”	”	1926 ... 74
”	”	”	1927 ... 182
”	”	”	1928 ... 305
”	”	”	1929 ... 346
”	”	”	1930 ... 356
”	”	”	1931 ... 286
”	”	”	1932 ... 176
			—
			2127
			—

Housing Applications—A revision of the existing register of applications for municipal houses was undertaken in March 1933, and fresh applications were invited, it being stated that the normal conditions which the Housing Committee considered should qualify an applicant for registration were:—

(a) Ability to pay the rent of the house suitable to the applicant's requirements.

(b) Residence in Bootle of the applicant or his wife for at least three years prior to the date of registration.

(c) Applicant's family to consist of at least three persons (self, wife, and one child), and to be living in rooms.

By 14th March 1933, when it might be considered that ample opportunity had been given for completion of new applications 911 forms had been returned.

Housing Needs in light of Census Statistics, 1931.—During the year the Housing Committee called for a special report on the existing need for new houses as demonstrated by the late Census, and the question was examined from several points of view. It is perhaps appropriate to record here the opinion presented that although an analysis of the Census statistics casts valuable light on the housing

conditions existing, yet it, as may well be expected, gives no reliable indication of remaining needs. The position was examined from the point of view of the house shortage, calculated firstly on the basis of limiting occupation to one family per dwelling; secondly, on the basis of limiting multiple occupation to houses of more than four or five rooms; and, thirdly, on the basis of limiting occupation to two persons per room. The conclusion was arrived at that consideration of these factors in turn gave varying estimates of housing needs which it was not possible to unify, and the opinion was expressed that the compilation of a register of applicants for new houses, if such register is comprehensive and is compiled after examination of the necessities in each case, was superior as a guide to housing needs. Attention was, however, particularly drawn to the important information officially presented of an appreciable reduction in the size of the family as affording a needed amplification of unqualified statements that the population is stationary, for it was insisted that the housing unit in the community is the family and not an arbitrary number of individuals, and that it was accordingly possible for a continuing demand for new houses to be genuinely warranted in spite of a stationary or even of a declining population figure.

Howe Street Improvement Area.—In the last Annual Report reference was made to the steps which had been taken respecting 36 houses in Howe Street, which were included in the area declared by resolution of the Council in December 1931 to be an Improvement Area.

The passing of this resolution placed on the Council certain obligations, the more important of which were:—

1. The service of notices under the Housing Act, 1930, Sec. 17, on the persons having control of the houses, requiring them to carry out certain works to render them fit for habitation.
2. The provision of houses for persons whose displacement was rendered necessary to abate the overcrowding existing at the time the resolution was passed.
3. The making of Byelaws for preventing and abating overcrowding in the area, and generally for securing the improvement and subsequent maintenance of a proper standard of housing conditions therein.

It is now possible to report that the whole of the work which owners were called upon to execute under the Housing Act, Sec. 17, was satisfactorily completed during the year, the work done being generally of a high standard. Acknowledgment is made of the helpful attitude of the owners, who incurred much expense in acceding to the demands necessarily made upon them.

In respect of their obligations to displaced persons whom it was necessary to re-house, the Council originally allotted seven houses in Fernhill Road for re-housing purposes, but on further inspections being made, after the Byelaws had been approved by the Minister of Health on September 19th 1932, it was found that only four families required displacing to relieve the overcrowding then existing, and these families were duly granted the tenancy of Corporation houses. When particulars were first obtained and it was decided to declare this area to be an Improvement Area it was found that in 14 of the 36 houses there were three or more families in residence; owing, however, to action taken by the Corporation and by the owners there was, at the end of the year under review, not one house in which there were more than two families.

As the Byelaws were only approved by the Minister of Health on September 19th, it is premature to form any definite conclusion as to their effect, although reports received following frequent re-inspections which have been made lead one to think that no great difficulty will be met with in securing their observance.

Housing Act, 1930, Sec. 17.—During the year a total of 247 houses was inspected under the above Section, the property being distributed in Wards as follows:—Knowsley Ward 165, Linacre Ward 60, Mersey Ward 16, Stanley Ward 6.

The method of procedure adopted subsequent to inspection was to submit to the respective owners an informal schedule of the repairs required, at the same time suggesting an interview with the Chief Sanitary Inspector either on the site or at the office to discuss details. This method has continued to meet with very satisfactory results, as can be inferred when it is pointed out that only in respect of 12 houses was it necessary to serve statutory notices.

In the report for 1931 it was stated that during the year statutory notices had to be served in respect of 28 houses. In 16 instances these were complied with during the year under review, but in the remaining 12 cases the owner made no attempt to comply with the notices, and it was necessary for the Corporation to arrange for the carrying out of this work and to recover from him the expenses incurred.

In many instances the work carried out has been of an expensive nature and great improvements have been effected. This is notably the case in respect of three blocks of property in Derby Road in which, in addition to reconditioning, increased lighting has been obtained to landings and staircases; further, in each house the offshoot at the rear has been converted into a scullery, in which wash-up sink, water supply and food store have been provided, and in two blocks a portion of each of the offshoot buildings which was obstructive of light and air movement has been taken down.

A row of houses in Church View is at present in course of being reconditioned, and in several of these houses also dilapidated and obstructive offshoots and outbuildings at the rear of the premises have been demolished, resulting in increased light and air movement to the rest of the property.

In the quinquennial statement prepared in December 1930 in compliance with the Housing Act, 1930, it was stated that the estimated number of houses to be repaired under Section 17 within the next five years was 1,171, and the progress made in this regard by December 31st 1932 can be summarised as follows:—

Number of houses inspected	...	...	...	...	...	522
" " " in respect of which informal notices were served	...	...	...	...	...	522
" " " at which work was completed as a result of informal notice	...	...	...	...	...	260
" " " in respect of which Statutory notices were served	...	...	...	...	...	40
" " " at which work was completed as a result of Statutory notices	...	...	...	...	...	40
" " " at which work was in progress	...	...	...	...	...	147
" " " at which work not completed	...	...	...	...	...	75

Houses-let-in-Lodgings.—The new Bye-laws relating to Houses-let-in-Lodgings have now been in force since May 1931, and it is possible to form some conclusion as to the results obtained.

The Bye-laws apply to houses in which three or more families are residing, and place upon the owner, the principal tenant, and the sub-tenants certain responsibilities, the more important of which are as follows:—

1. *Upon the Owner.*—The provision, adequate for the use of and readily accessible to each family, of:—
 - (a) water-closet accommodation.
 - (b) a supply of water for domestic use.
 - (c) accommodation for washing clothes.
 - (d) accommodation for the storage of food.
 - (e) accommodation for the preparation and cooking of food.
2. *Upon the Principal Tenant.*—
 - (a) the prevention of overcrowding and intermixing of sexes.
 - (b) the cleanliness of all rooms, stairways, etc., which are for common use.
3. *Upon the Sub-tenants.*—The maintenance of cleanliness of all rooms, etc., used solely by himself.

The type of house to which attention has hitherto been confined has been of the larger variety, containing three floors and readily accommodating three or more families. The principal tenants of these houses are mostly of the working class who cannot afford to pay a high rent, and it is force of circumstances rather than any desire to profiteer that has been the cause of subletting.

Since the Bye-laws came into force 114 houses have been inspected thereunder, and particulars have been taken of the persons in residence. Of these houses 45 were found to be housing more than two families, and not to comply with the requirements of the Bye-laws, and informal action was taken in each case to have these requirements carried out. Experience showed, however, that in practically every case the principal tenant was responsible for the subletting, and that the owner was not disposed to incur the expense of carrying out the requirements of the notices calling for structural improvements. Instead, the owner adopted the method of negotiating with the principal tenant for the

reduction of the number of families in each house to two, so that the Bye-laws did not apply. This method achieved what the owner desired in 29 instances out of the 45. One disadvantage of this procedure is that in some cases statutory action was required, and a considerable period elapsed before the number of families was reduced, and furthermore there is always the danger of the house being again let to more than two families; this did indeed happen in three instances, although when the owners were informed of the fact the new sub-tenants were somewhat expeditiously got rid of. It is pleasing to report, however, that in 14 houses the subletting was not disturbed, and the respective owners went to considerable expense in providing additional amenities and in carrying out other work to meet the requirements of the Bye-laws.

In respect of headings 2 and 3, setting out the obligations of the principal tenant and of the lodgers, very little difficulty is experienced in seeing that the requirements are carried out. Frequent periodical inspections are made of all the houses found to be Houses-let-in-Lodgings to see that overcrowding does not take place and that a reasonable standard of cleanliness is kept up, and in no instance has it been necessary to take statutory action.

The position on December 31st 1932, can be summarised as follows, the figures including those mentioned in the last Annual Report:—

Number of houses inspected	...	...	...	...	...	114
" " " found to be Houses-let-in-Lodgings	...	...	...	...	...	45
" " informal notices served	...	...	...	...	...	45
" " notices complied with by carrying out the structural requirements	...	...	...	...	...	14
" " notices complied with by reduction of number of families	...	...	...	...	...	29
Number still in abeyance	...	...	...	...	...	2

Clearance Area.—Previous reports have detailed successive stages in dealing with the property comprised within the Pleasant View Clearance Area, and report was made last year of the Local Enquiry held in September 1931, by the Inspector of the Ministry of Health. On 13th August 1932, intimation was received that the Minister of Health had confirmed the Order made by the Council for the purpose

of the compulsory purchase of lands in and adjoining the Clearance Area, subject to a minor modification. The present position is that specific proposals have been furnished to the Ministry for the re-housing of the persons to be displaced from the area.

HOUSING STATISTICS.

I. *Inspection of Dwelling-houses during the Year.*

(1) (a) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	1913
(b) Number of inspections made for the purpose	7097
(2) (a) Number of dwelling-houses (included under subhead (1) above) which were inspected, and recorded under the Housing Consolidated Regulations, 1925	247
(b) Number of inspections made for the purpose	4549
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	—
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	1611

II. *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	961
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III. *Action under Statutory Powers during the Year.*

A. Proceedings under Sections 17, 18 & 23 of the Housing Act, 1930—

(1) Number of dwelling-houses in respect of which notices were served requiring repairs	12
(2) Number of dwelling-houses which were rendered fit after service of formal notices—	
(a) by owners	28
(b) by Local Authority in default of owners	12

B. Proceedings under Public Health Acts—

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	521
(2) Number of dwelling-houses in which the defects were remedied after service of formal notices—	
(a) by owners	483
(b) by Local Authority in default of owners	4

C. Proceedings under Sections 19 & 21 of the Housing Act, 1930—	
(1) Number of dwelling-houses in respect of which Demolition Orders were made	Nil
(2) Number of dwelling-houses demolished in pursuance of Demolition Orders	Nil
D. Proceedings, under section 20 of the Housing Act, 1930—	
(1) Number of separate tenements or underground rooms in respect of which Closing Orders were made	Nil
(2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit	Nil
E. Proceedings under section 3 of the Housing Act, 1925—	
(1) Number of dwelling-houses in respect of which notices were served requiring repairs	Nil
(2) Number of dwelling-houses which were rendered fit after service of formal notices—	
(a) by owners	Nil
(b) by Local Authority in default of owners	Nil
(3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declaration by owners of intention to close	Nil
F. Proceedings under sections 11, 14 and 15 of the Housing Act, 1925—	
(1) Number of dwelling-houses in respect of which Closing Orders were made	Nil
(2) Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit ...	Nil
(3) Number of dwelling-houses in respect of which Demolition Orders were made	Nil
(4) Number of dwelling-houses demolished in pursuance of Demolition Orders	Nil

XII. CENSUS STATISTICS.

Size and Occupation of Dwellings.—In Bootle there were 14,856 structurally separate occupied dwellings; there were 5·29 rooms per dwelling, 1·18 families per dwelling, 4·28 persons per family, and 0·95 persons per room. There was an increase of 1,536 dwellings as defined above, and an increase of 1,816 private families since the Census of 1921. 7,128 persons, or 9·53 per cent. of the population, were returned as living more than two persons to a room as contrasted with 8,692 in 1921 and 6,283 in 1911—this is the standard commonly applied, in the absence of a legal definition, to determine overcrowding.

Notwithstanding the large increase in all families the number of "overcrowded" families has been reduced by 733 and the population therein by 1,564.

The meaning of the ratio of 1·18 (the average private families per occupied dwelling) may be appreciated better by the following analysis of the total private families in the Borough:—

	Number.	Per cent.
Families living in single occupation of separate premises	12,695	72·7
Families living two to a dwelling...	3,600	20·6
Families living three or more to a dwelling	1,171	6·7
	17,466	100·0

Size of Families.—The average number of persons per family in Bootle, given above as 4·28, indicates a further diminution in the size of the family from 4·80 in 1921 and 4·97 in 1911. The bearing of this alteration on the question of housing needs is commented on as follows by the Registrar General.

“ So far, therefore, as the reduction in the over-all average person per room density is due to a transfer of population from the larger to the smaller families, the reduction only partially reflects a real improvement in housing conditions. Stated conversely, the continued break-up of families into smaller units has made the population harder to house by reducing the population of those types of family which are more economically housed, and increasing those which are less economically housed. The continued reduction in the average size of the family has thus in itself amortized a portion of the additional housing provision made within the last ten years, some portion of that provision having been absorbed in coping with the effect of changes adverse in themselves to the maintenance of satisfactory housing conditions.”

Average Number of Persons per Room.—For the whole of England and Wales in 1921 this figure was 0·91; in Lancashire in 1931 it was 0·86, in Liverpool 0·93, and in Bootle it was 0·95.

The important information in this connection emerging from the Census return is that 1,566 persons were living more than 3 persons per room, and 5,562 between 2 and 3 persons per room.

Average.	1931.	1921.	LANCASHIRE 1931.
Rooms per dwelling (occupied and vacant)	5·29	5·38	4·70
Private families per occupied dwelling	1·18	1·17	1·07
Rooms occupied per family ...	4·50	4·58	4·39
Persons per room	0·95	1·05	0·86
Persons per private family ...	4·28	4·80	3·78

Size and Occupation of Dwellings.—There were 682 occupied dwellings consisting of 1—3 rooms which were occupied as to 622 by one private family, as to 55 by two families, and as to 5 by three or more families.

There were 9,422 dwellings consisting of 4—5 rooms, occupied as to 8,232 by one private family, as to 1,069 by two private families, and as to 121 by three or more private families; these two sub-divisions represent 68 per cent. of the total dwellings in Bootle, and house 58 per cent. of the total private families.

The following table shows the percentage of private families occupying from one room upwards:—

Unit of Occupation (Rooms)	Private Families.			
	Number, 1931.	Increase or Decrease (—) 1921-31.	Distribution per cent.	
			1931.	1921.
1	851	+ 84	4·9	4·1
2	1942	+205	11·1	11·0
3	1739	+174	10·0	10·8
4	3582	+374	20·5	16·9
5	5341	+568	30·5	32·3
6—7	3069	+315	17·6	18·9
8—9	763	+ 74	4·4	4·9
10 & over	179	+ 22	1·0	1·1
Total	17,466	+1,816	100·0	100·0

“ This table may be regarded as exhibiting, as closely as can be expected from any statistics derived from the population census, the range of effective economic demand in the matter of house room; 26·0 per cent. of the families are satisfied with, or unable to command more than, the limited housing accommodation represented by units of 1, 2, or 3 rooms, 51·0 per cent. occupy 4 or 5 room units, and in 23·0 per cent. of families the provision is in excess of 5 rooms.”

These facts can be put in another way by stating that 851 private families, consisting of 2,020 persons, occupy 851 rooms in all; and further, 1,942 private families, consisting of 6,101 persons, occupy 3,884 rooms in all.

“ The strong contrast between the distribution of demand as inferred from the range of occupations and the actual supply of separate dwellings is illustrated in the following comparisons of dwellings and units of occupations” :—

Number of Rooms.	Units of Occupation Inhabited by Individual Families.*		Structurally separate Dwellings.	
	Number.	Per cent.	Number.	Per cent.
1—3	3,959	23·8	682	4·6
4—5	8,715	52·5	9,422	63·4
6 or more	3,937	23·7	4,752	32·0
Total ...	16,611	100·0	14,856	100·0

* Exclusive of units in the occupation of single person families.

XIII. BLIND WELFARE.

The working of the scheme made by the Council on the passing of the Blind Persons Act, 1920, remains as described in the last Annual Report, with the exception that at the end of the year the Council decided that no one shall be entered on the Register of Blind Persons until after certification by a recognised Ophthalmic Surgeon. At the same time the opportunity was taken to adopt the special form of report

and certificate recommended for uniform use throughout the country, together with change-over to a new registration card in order to secure uniformity of records.

During the year 1932, 32 persons were considered for admission to the register of blind persons, and after examination 23 were accepted. Eight persons have died and two have removed from the area, leaving a total on the register at the end of 1932 of 133 persons, as compared with 120 last year.

The age and sex classification of the 133 persons referred to is as follows:—

Age Group.			Males.		Females.		Total.
0—5 years	...	...	3	...	2	...	5
5—16	..	...	4	...	2	...	6
16—21	..	...	4	...	—	...	4
21—30	..	...	5	...	8	...	13
30—40	..	...	5	...	4	...	9
40—50	..	...	5	...	6	...	11
50—60	..	...	10	...	13	...	23
60—70	..	...	14	...	17	...	31
Over 70 years	...	...	13	...	18	...	31
			—		—		—
	Totals	...	63		70		133
			—		—		—

A return furnished by the Home Teaching Society in December 1932 showed that they were then assisting 84 unemployable blind with money grants at a total weekly cost of £51 8s. 3d., the amount of relief being given varying from 2/6 to 25/- weekly, with the full amount of 25/- being paid in 7 cases. In addition one person was entered as undergoing training and three as being employed at Blind Workshops.

During the year 19 applications for the certification of blindness in order to take advantage of the Wireless Telegraphy (Blind Persons Facilities) Act, 1926, were granted.

APPENDIX I.
WARD POPULATION STATISTICS AT CENSUS, 1931.

	Area in Statute Acres.	1921.		1931.		1931.			Persons per Acre.
		Persons.	Persons.	Persons.	Males.	Females.	Rooms Occupied.	Structurally Separate Dwellings.		Persons per Room.
BOOTLE C.B.	1947	76,487	76,770	36,838	39,932	39.4			
Wards:									
Derby	330	14,283	12,352	5,895	6,457	37.4			
Knowsley	335	14,929	13,573	6,621	6,952	40.5			
Linacre	253	16,202	14,478	6,962	7,516	57.2			
Mersey	336	13,073	11,992	5,871	6,121	35.7			
Orrell	483	5,529	13,178	6,384	6,794	27.3			
Stanley	210	12,471	11,197	5,105	6,092	53.3			
1931.	Private Families.	Population in Private Families.	Structurally Separate Dwellings.	Rooms Occupied.	Persons per Room.				
BOOTLE C.B.	17,466	74,756	14,856	78,523	0.95				
Wards:									
Derby	2,965	12,209	2,631	13,802	0.88				
Knowsley	3,007	13,129	2,377	12,070	1.09				
Linacre	3,345	14,109	2,888	14,371	0.98				
Mersey	2,698	11,393	1,872	11,030	1.03				
Orrell	2,813	13,010	2,762	12,533	1.04				
Stanley	2,638	10,906	2,326	14,717	0.74				

VITAL STATISTICS OF WHOLE DISTRICT DURING 1932 AND PREVIOUS YEARS.

YEAR.	Population estimated to middle of each Year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS		NETT DEATHS BELONGING TO THE DISTRICT			
		Un-corrected Number.	Nett.		Number.	Rate.*	of Non-residents registered in the District.	of Residents not registered in the District.	UNDER ONE YEAR OF AGE		AT ALL AGES.	
			Number.	Rate.					Number.	Rate per 1,000 Net Births		Number.	Rate
1	2	3	4	5	6	7	8	9	10	11	12	13
1914.	73,230	2,279	2,321	31.7	1,033	14.1	54	263	286	123	1,242	17.0
1915.	Civil 71,617 Total 74,285	2,023	2,050	27.6	1,054	14.7	62	294	292	142	1,286	17.9
1916.	Civil 71,135 Total 77,396	2,047	2,076	26.8	1,101	15.5	80	258	227	109	1,279	18.0
1917.	Civil 68,871 Total 76,772	1,853	1,873	24.4	1,023	14.1	91	281	187	99	1,213	17.6
1918.	Civil 73,500 Total 80,500	1,781	1,810	22.5	1,224	16.6	63	268	210	116	1,429	19.4
1919.	Civil 77,000 Total 80,500	1,860	1,914	23.9	988	12.7	79	245	184	96	1,154	15.0
1920.	80,029	2,285	2,289	28.6	1,000	12.5	59	195	223	97	1,136	14.2
1921.	76,487	2,142	2,068	27.0	817	10.7	43	236	198	96	1,010	13.2
1922.	6,518	2,144	2,051	26.8	877	11.5	42	258	161	80	1,093	14.3
1923.	7,549	2,159	1,999	26.1	858	11.2	50	262	170	85	1,070	14.0
1924.	76,581	2,078	1,942	25.4	799	10.4	59	226	192	99	966	12.6
1925.	76,612	2,077	1,943	25.4	820	10.7	53	324	188	97	1,091	14.2
1926.	76,643	1,958	1,865	24.3	730	9.5	36	311	187	100	1,005	13.1
1927.	76,674	1,916	1,817	23.7	734	9.6	39	389	141	78	1,034	13.5
1928.	76,705	1,793	1,746	22.8	703	9.2	48	379	186	107	1,033	13.5
1929.	76,737	1,668	1,660	21.6	713	9.3	34	414	138	83	1,093	14.2
1930.	76,768	1,774	1,793	23.4	608	7.9	61	394	141	79	941	12.3
1931.	77,160	1,709	1,667	21.6	731	9.5	55	464	159	95	1,140	14.8
1932.	77,260	1,711	1,768	22.9	638	8.3	48	437	152	86	1,027	13.3

* These rates are based on the uncorrected numbers.
Area of District in acres (land and inland water)—1,947.

INFANT MORTALITY.

1932. Nett Deaths from stated causes at various Ages under 1 Year of Age.

CAUSE OF DEATH.	All Causes		Under 1 week	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 4 weeks.	4 weeks and under 3 months.	3 months and under 6 months.	6 months and under 9 months.	9 months and under 12 months.	Total Deaths under One Year.
	{ Certified	{ Uncertified	...	...	...	...	...	...	...	...	...	...
Small-pox	57	6	8	6	57	28	22	22	20	149
Chicken-pox	1	—	—	—	1	2	—	—	—	3
Measles	—	—	—	—	—	—	—	—	—	—
Scarlet Fever	—	—	—	—	—	—	—	—	—	—
Whooping Cough	—	—	—	—	—	—	—	—	—	—
Diphtheria and Croup	—	—	—	—	—	—	—	—	—	—
Erysipelas	—	—	—	—	—	—	—	—	—	—
Tuberculous Meningitis	—	—	—	—	—	—	—	—	—	—
Abdominal Tuberculosis	—	—	—	—	—	—	—	—	—	—
Other Tuberculous Diseases	—	—	—	—	—	—	—	—	—	—
Meningitis (not Tuberculous)	—	—	—	—	—	—	—	—	—	—
Convulsions	3	—	—	—	3	3	—	—	—	3
Laryngitis	—	—	—	—	—	—	—	—	—	—
Bronchitis	—	—	—	—	—	—	—	—	—	—
Pneumonia (all forms)	1	—	1	1	2	1	—	—	—	4
Diarrhoea	—	—	—	—	—	—	—	—	—	—
Enteritis	—	—	—	—	—	—	—	—	—	—
Gastritis	—	—	—	—	—	—	—	—	—	—
Syphilis	—	—	—	—	—	—	—	—	—	—
Rickets	—	—	—	—	—	—	—	—	—	—
Suffocation, overlying	—	—	—	—	—	—	—	—	—	—
Injury at Birth	—	—	—	—	—	—	—	—	—	—
Atelectasis	2	—	—	—	2	—	—	—	—	2
Congenital Malformations	3	1	2	1	7	5	2	—	—	14
Premature Birth	24	—	—	—	25	2	—	—	—	27
Atrophy, Debility and Marasmus	—	2	1	1	4	4	2	—	—	11
Other Causes	5	1	1	2	9	2	1	—	—	13
Totals			38	6	8	6	58	30	22	22	20	152

Nett Births in the year { legitimate infants ... 1,706 } illegitimate infants ... 62 }
 Nett Deaths in the year { legitimate ... 154 } illegitimate ... 8 }

TUBERCULOSIS SCHEME.
RETURN FOR THE YEAR 1932.

(A) Return showing the work of the Dispensary (or Dispensaries).

DIAGNOSIS.	PULMONARY.				NON-PULMONARY.				TOTAL.				GRAND TOTAL.	
	Adults		Children		Adults		Children		Adults		Children			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
A.—NEW CASES examined during the year (excluding contacts):—														
(a) Definitely tuberculous .	41	33	2	6	4	8	7	15	45	41	9	21		116
(b) Diagnosis not completed	—	—	—	—	—	—	—	—	11	8	4	3		26
(c) Non-tuberculous	—	—	—	—	—	—	—	—	23	27	23	27		100
B.—CONTACTS examined during the year:—														
(a) Definitely tuberculous .	—	5	—	—	—	—	—	3	—	5	—	3		8
(b) Diagnosis not completed	—	—	—	—	—	—	—	—	3	12	6	2		23
(c) Non-tuberculous	—	—	—	—	—	—	—	—	9	23	26	37		95
C.—CASES written off the Dispensary Register as:—														
(a) Recovered	—	5	—	3	2	1	2	6	2	6	2	9		19
(b) Non-tuberculous (including any such cases previously diagnosed and entered on the Dispensary Register as tuberculous)	—	—	—	—	—	—	—	—	39	67	55	66		227
D.—NUMBER OF CASES on Dispensary Register on December 31st:—														
(a) Definitely tuberculous .	238	155	16	21	20	38	63	49	258	193	79	70		600
(b) Diagnosis not completed	—	—	—	—	—	—	—	—	15	13	9	5		42

1. Number of cases on Dispensary Register on January 1st	635	7. Number of consultations with medical practitioners:—	
		(a) Personal	9
		(b) Other	144
2. Number of cases transferred from other areas and cases returned after discharge	11	8. Number of visits by Tuberculosis Officers to homes (including personal consultations)	19
3. Number of cases transferred to other areas, cases not desiring further assistance under the scheme, and cases "lost sight of"	55	9. Number of visits by Nurses or Health Visitors to homes for Dispensary purposes	1851
4. Cases written off during the year as Dead (all causes)	71	10. Number of:—	
		(a) Specimens of sputum, etc., examined	417
		(b) X-ray examinations made in connection with Dispensary work	156
5. Number of attendances at the Dispensary (including Contacts)	6084	11. Number of "Recovered" cases restored to Dispensary Register, and included in A (a) and A (b) above	4
6. Number of Insured Persons under Domiciliary Treatment on the 31st December	172	12. Number of "T.B. plus" cases on Dispensary Register on December 31st	210

(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

APPENDIX 6 (continued).

(C) Number of beds available for the treatment of Tuberculosis on the 31st December in Institutions belonging to the Council.

Name of Institution	For Pulmonary Cases		For Non-Pulmonary Cases		Total
	Adults	Children under 15	Adult	Children under 15	
Linacre Hospital	28	..	...	...	28
Maghull Sanatorium	22	...	...	...	22

(D) 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 Institutions on Jan. 1st	Admitted during the year.	Discharged during the year.	Died in the Institutions.	In Institutions on Dec. 31st
Number of doubtfully tuberculous cases admitted for observation	Adult males	1	1	2	—	—
	Adult females	1	—	1	—	—
	Children	1	4	5	—	—
	Total	3	5	8	—	—
Number of definitely tuberculous patients admitted for treatment	Adult males	23	58	45	9	27
	Adult females	9	61	51	4	15
	Children	9	25	21	1	12
	Total	41	144	117	14	54
GRAND TOTAL	44	149	125	14	54	

APPENDIX 6 (continued).

(E) Return showing the extent of Residential Treatment provided during the year in Poor Law Institutions for persons chargeable to the Council.

		In Insti- tutions on Jan. 1.	Admit- ted dur- ing the year.	Dis- charged during the year	Died in the Institu- tions.	In Institu- tions on Dec. 31.
Number of patients suffering from pulmonary tuberculosis admitted for treatment.	Adult males	12	29	18	15	8
	Adult females	5	22	18	9	—
	Children	2	4	3	1	2
	Total	19	55	39	25	10
Number of patients suffering from non-pul- monary tuberculosis ad- mitted for treatment.	Adult males	5	7	4	2	6
	Adult females	6	8	11	—	3
	Children	6	12	10	3	5
	Total	17	27	25	5	14
GRAND TOTAL		36	82	64	30	24

(F) Return showing the results of observation of doubtfully tuberculous cases discharged during the year from Institutions approved for the treatment of Tuberculosis.

Diagnosis on discharge from observation	For Pulmonary Tuberculosis						For Non-Pulmonary Tuberculosis						Totals		
	Stay under 4 weeks			Stay over 4 weeks			Stay under 4 weeks			Stay over 4 weeks					
	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.
Tuberculosis...	1	...	...	...	...	...	...	...	...	1	...	...
Non- Tuberculosis	1	1	2	...	...	...	...	...	1	1	1	3
Doubtful	2	...	...	...	...	...	...	...	...	2
Totals	2	1	4	...	...	...	...	...	1	2	1	5

APPENDIX 7.

TUBERCULOSIS SCHEME.—

Supplementary Annual Return showing in summary form (a) the condition and (b) the reasons for the removal of all cases written off the Register, first entered on the Dispensary Register as definite cases of

Condition at the time of the last record made during the year to which the return relates.				Previous to 1926.				1926.				1927.						
				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 on 31st December.	Disease Arrested.	Adults	M.	7	2	2	—	4	—	—	2	—	2	2	—	—	—	
			F.	14	—	—	1	1	3	—	—	—	—	1	—	—	—	
	Children			4	—	1	—	1	—	—	—	—	2	—	—	—	—	
	Disease not Arrested.	Adults	M.	19	13	15	3	31	1	1	3	1	5	8	4	3	—	7
F.			11	2	4	2	8	1	—	1	—	1	4	—	2	—	2	
Children			2	—	1	—	1	1	—	—	—	—	—	—	—	—	—	
Condition not ascertained during the year.				10	1	4	—	5	—	—	—	—	—	—	—	—	—	
Total on Dispensary Register at 31st December.				67	18	27	6	51	6	1	6	1	8	17	4	5	—	9
(b) Not now on Dispensary Register and reasons for removal therefrom.	Discharged as Recovered.	Adults	M.					17	—	—	—	—	—	—	—	—	—	
			F.					28	1	—	—	—	—	—	—	—	—	
	Children							24	2	—	—	—	1	—	—	—		
	Lost sight of, or otherwise removed from Dispensary Register.				156	21	1	8	1	10	13	3	5	2	10			
	Dead.	Adults	M.	Total of both classes.				79	12	—	11	16	27	2	2	6	10	18
			F.					44	10	1	5	9	15	2	—	8	11	19
Children							4	3	—	—	1	1	1	—	—	3	3	
Total written off Dispensary Register.				352	49	2	24	27	53	20	5	19	26	50				
Grand Totals				470	55	3	30	28	61	37	9	24	26	59				

PULMONARY TUBERCULOSIS.

at the end of 1932 of all patients remaining on the Dispensary Register; The Table is arranged according to the years in which the patients were pulmonary tuberculosis, and their classification at that time.

Class T.B. minus	1928.				1929.				1930.				1931.				1932.							
	Class T.B. plus				Class T.B. plus				Class T.B. plus				Class T.B. plus				Class T.B. plus							
	Group 1.	Group 2.	Group 3.	Total (Class T.B. plus)	Group 1.	Group 2.	Group 3.	Total (Class T.B. plus)	Group 1.	Group 2.	Group 3.	Total (Class T.B. plus)	Group 1.	Group 2.	Group 3.	Total (Class T.B. plus)	Group 1.	Group 2.	Group 3.	Total (Class T.B. plus)				
1	—	1	—	1	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—				
2	—	—	—	—	2	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—				
3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
5	6	3	1	10	8	4	4	—	8	7	1	14	4	19	14	4	11	4	19	10	1	19	6	26
5	2	2	1	5	6	2	5	—	7	8	—	6	1	7	14	2	10	1	13	15	1	8	10	19
4	—	—	—	—	2	—	—	—	2	—	1	—	—	1	8	—	—	—	—	3	1	1	1	3
3	—	1	1	2	1	—	—	—	—	1	—	—	—	1	3	—	1	—	1	—	—	—	—	—
24	8	7	3	18	20	6	9	—	15	19	2	21	5	28	39	6	22	5	33	28	3	28	17	48
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
14	1	8	1	10	7	1	6	2	9	8	—	3	5	8	8	1	—	3	4	3	—	—	—	—
7	2	12	12	26	8	2	15	8	25	8	—	6	9	15	6	—	4	12	16	2	—	1	3	4
8	—	10	3	13	4	1	3	6	10	4	—	9	5	14	4	—	3	6	9	1	—	—	5	5
2	1	—	1	2	1	1	1	1	3	—	—	—	2	2	4	—	—	2	2	—	—	—	—	—
31	4	30	17	51	20	5	25	17	47	20	—	18	21	39	22	1	7	23	31	6	—	1	8	9
55	12	37	20	69	40	11	34	17	62	39	2	39	26	67	61	7	29	28	64	34	3	29	25	57

TUBERCULOSIS SCHEME.—

Supplementary Annual Return showing in summary form (a) the condition
(b) the reasons for the removal of

Condition at the time of the last record made during the year to which the return relates.				Previous to 1926.				1926.				1927.							
				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 on 31st December.	Disease Arrested.	Adults	M.	—	1	1	—	2	—	—	—	—	—	—	—	—			
			F.	—	—	1	—	1	—	—	—	—	1	—	—	1			
		Children	4	—	1	6	11	—	—	—	1	1	1	—	—	1			
	Disease not Arrested.	Adults	M.	—	—	1	1	—	—	—	1	1	1	—	—	1			
			F.	—	—	2	—	2	—	—	—	1	1	—	—	1	1		
		Children	5	—	—	3	8	1	—	1	—	2	4	—	—	4			
	Condition not ascertained during the year.				2	—	—	—	2	—	—	—	—	1	—	—	1		
	Total on Dispensary Register at 31st December.				11	1	5	10	27	1	—	1	3	5	7	1	—	1	9
	Transferred to Pulmonary				—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	(b) Not now on Dispensary Register and reasons for removal therefrom.	Discharged as Recovered	Adults	M.	—	—	—	5	—	—	—	2	2	—	—	—	—		
F.				—	—	—	6	—	—	—	2	2	—	—	—	—			
Children			—	—	—	—	49	—	9	—	12	21	—	—	—	6	6		
Lost sight of, or otherwise removed from Dispensary Register.				—	—	—	—	100	2	1	3	16	22	3	3	1	5	12	
Dead.		Adults	M.	—	—	—	4	—	—	1	—	1	—	—	—	—	—		
			F.	—	—	—	1	—	—	—	—	—	—	—	—	—	—		
	Children	—	—	—	—	5	3	1	2	1	7	—	—	—	1	1			
Total written off Dispensary Register.				—	—	—	—	170	5	11	6	33	55	3	3	1	12	19	
Grand Totals of (a) and (b) (excluding those transferred to Pulmonary).				—	—	—	—	197	6	11	7	36	60	10	4	1	13	28	

NON-PULMONARY TUBERCULOSIS.

at the end of 1932 of all patients remaining on the Dispensary Register; and all cases written off the Register.

1928.					1929.					1930.					1931.					1932.					
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.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	
—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	1	1	—	—	2	—	—	—	—	—	—
—	—	—	2	2	—	1	—	2	3	1	—	—	1	2	1	—	—	2	3	—	—	—	1	1	
2	2	—	4	8	1	—	—	2	3	—	1	1	6	8	1	5	—	7	13	2	—	—	1	3	
—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	1	—	—	1	2	4	—	—	—	4	
1	—	—	—	1	5	—	1	1	7	—	—	—	—	—	1	—	3	—	4	3	1	2	1	7	
1	—	1	2	4	—	—	1	3	4	4	—	—	4	8	3	—	1	7	11	4	1	—	15	20	
—	—	—	1	1	—	—	1	—	1	2	—	—	—	2	1	—	—	2	3	—	—	—	—	—	
4	2	1	9	16	6	1	3	9	19	7	1	2	11	21	9	6	4	19	38	13	2	2	18	35	
—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	1	—	4	5	—	1	—	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	1	—	5	6	1	2	—	—	3	—	—	—	2	2	—	3	—	3	6	—	—	—	—	—	
—	—	1	—	1	1	—	—	—	1	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	
1	—	—	—	1	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	1	—	—	1	
1	—	—	—	1	1	—	—	—	1	—	1	1	1	3	1	1	—	1	3	3	—	—	—	3	
2	2	1	9	14	3	3	—	2	8	1	1	2	3	7	1	4	—	4	9	3	1	—	—	4	
6	4	2	18	30	9	4	3	11	27	8	2	4	14	28	10	10	4	23	47	16	3	2	18	39	

APPENDIX 8.

Form T. 137/1932.

PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1930.

PART I.—Summary of Notifications during the period from the 3rd January, 1932, to the 31st December, 1932, in the area of the County Borough of Bootle.

AGE-PERIODS	Formal Notifications													Total Notifications
	Number of Primary Notifications of new cases of Tuberculosis													
	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and upwards	Total (all ages)		
Pulmonary, Males ...	1	1	2	4	2	13	20	17	9	5	2	76	98	
Females ..	1	2	2	6	10	9	16	4	9	2	1	62	83	
Non-pulmonary, Males	1	8	2	1	1	2	2	1	...	...	1	19	26
Females ..	...	4	10	7	5	...	1	1	1	2	...	31	38

SUPPLEMENTAL RETURN.

PART II.—New cases of Tuberculosis coming to the knowledge of the Medical Officer of Health during the above-mentioned period, otherwise than by formal notification.

AGE PERIODS	Number of Primary Notifications of new cases of Tuberculosis										Total Cases upwards	
	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65		
Pulmonary Males	1	...	5	...	1	2	1	10
Females	1	2	...	2	1	...	...	...	6
Non-pulmonary Males	...	2	1	2	1	...	...	...	...	...	...	6
Females	1	...	...	...	...	1	...	...	...	...	2

APPENDIX 8 (continued).

The source or sources from which information as to the above-mentioned cases was obtained is stated below:—

SOURCE OF INFORMATION.	No. of Cases.	
	Pulmonary.	Non-Pulmonary.
Death Returns—From Local Registrars	4	5
" " Transferable Deaths from Registrar-General...	3	1
Posthumous notifications ... ..	...	...
"Transfers" from other areas (other than transferable deaths)	2	1
Other sources, if any (specify)—	7	1

PART III.

NOTIFICATION REGISTER.

	Pulmonary.			Non-Pulmonary.			Total Cases
	Males	Females	Total	Males	Females	Total	
Number of cases of Tuberculosis remaining at the 31st December 1932, on the Registers of Notifications kept by the Medical Officer of Health of the County Borough	324	249	573	131	133	264	837
Number of cases removed from the Register during the year by reason <i>inter alia</i> of—							
1. Withdrawal of notification ... ..	...	...	7	...	5	...	..
2. Recovery from the disease ... ..	...	7	7	3	8	11	15
3. Death	55	37	92	10	8	18	110

DISINFECTION : INFECTIOUS DISEASES—

No. of houses disinfected after notifiable infectious diseases	427
„ houses disinfected after pulmonary tuberculosis	156
„ houses disinfected after other diseases	4
„ visits made to infected houses	496
„ re-visits made to infected houses	123
„ houses cleaned in default of or at request of owners	38
„ houses disinfected for verminous conditions	8

All houses assessed at £15 per annum or less are cleaned after infectious disease (i.e., the walls stripped and the ceilings whitened) by the Corporation at their own cost; in cases of phthisis the Corporation strip, when necessary, whatever the rent.

FILTHY HOUSES—

No. of houses reported	Nil
„ intimations sent	Nil
„ houses cleaned	Nil

LIST OF ARTICLES DISINFECTED—

Paillasses	116
Mattresses	41
Beds	422
Bolsters and Pillows	1254
Blankets	1087
Quilts	569
Sheets	641
Carpets	27
Hearthrugs	38
Wearing Apparel	2259
Miscellaneous Articles	466
	<hr/>
	6920
	<hr/>

The figures in the table do not include the ambulance bedding (one bed, one pillow, and three blankets), which is disinfected after the removal of each case.

One hundred and six books were disinfected.

The following articles were destroyed at the request of the owners:—Paillasses, 3; Beds, 15; Pillows and Bolsters, 18; Blankets, 8; Sheets, 5; Quilts, 3; and Wearing Apparel, 20; and Miscellaneous 38.

FLUSHING.

The flushing gang consists of two Corporation workmen and a Liverpool waterman.

No. of private houses at which drains were flushed	10895
No. of passage sewers flushed	492

Drains were flushed at public buildings 61 times.

The drains at the Bootle General Hospital, the Bootle Hospital Nurses' Home, the Bootle Maternity Home (51, Balliol Road), and the Liverpool Maternity Home in Hawthorne Road, were each flushed 12 times during the year.

The amount of water used during the year was 1,980,870 gallons.

APPENDIX 10.

FOOD AND DRUGS (ADULTERATION) ACT, 1928.

SAMPLES TAKEN DURING THE YEAR 1932.

Nature of Article.	Total.	Number of Samples taken for Analysis.		Number found Adulterated.		Percentage Adulterated.	
		Informal	Formal	Informal	Formal	Informal	Formal
Milk	156	52	104	1	15	1·92	14·42
Condensed Milk	9	9	...	..	...	...	...
Cream	4	4	...	...	...	...	...
Butter	15	15	...	...	...	...	...
Margarine	12	12	...	...	...	...	...
Tea	3	3	...	...	...	...	...
Cheese	5	5	...	...	...	...	...
Rice	7	7	...	1	...	14·29	...
Cocoa	4	4	...	...	...	...	...
Sausage	7	7	...	1	...	14·29	...
Lard	2	2	...	...	...	...	...
Coffee	2	2	...	...	...	...	...
Pepper	5	5	...	...	...	...	...
Dripping	2	2	...	...	...	...	...
Vinegar	2	2	...	...	...	...	...
Self-raising Flour	4	4	...	...	...	...	...
Salmon Paste	1	1	...	...	...	...	...
Potted Shrimps	1	1	...	...	...	...	...
Chocolates	1	1	...	...	...	...	...
TOTALS	242	138	104	3	15	2·17	14·42

APPENDIX 11.

THE PUBLIC HEALTH (PRESERVATIVES IN FOOD)
REGULATIONS, 1925-1927.

Year 1932.

Nature of Article.	Number of samples examined for presence of preservative.	Number of samples found correct.
Milk	156	156
Cream	4	4
Condensed Milk	9	9
Butter	15	15
Margarine	12	12
Sausages	7	6
Potted Shrimps	1	1
Salmon Paste	1	1
Chocolates	1	1
Totals	206	205

APPENDIX 12.

RETURN relating to all persons who were treated at the TREATMENT CENTRE at BOOTLE GENERAL HOSPITAL during the year ended the 31st December 1932.

	Syphilis.		Soft Chancre.		Gonor- rhœa		Conditions other than venereal.		Totals.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totals.
1. Number of cases on 1st January under treatment or observation.	141	30	—	—	336	30	8	11	485	71	556
2. Number of cases removed from the register during any previous year which returned during the year under report for treatment or observation of the same infection	25	4	—	—	21	—	—	—	46	4	50
3. Number of cases dealt with for the first time during the year under report (exclusive of cases under Item 4) suffering from:											
Syphilis, primary	26	1	—	—	—	—	—	—	26	1	27
,, secondary	12	5	—	—	—	—	—	—	12	5	17
,, latent in 1st year of infection	5	—	—	—	—	—	—	—	5	—	5
,, all later stages	10	13	—	—	—	—	—	—	10	13	23
,, congenital	—	4	—	—	—	—	—	—	—	4	4
Soft Chancre	—	—	18	—	—	—	—	—	18	—	18
Gonorrhœa, 1st year of infection	—	—	—	—	173	19	—	—	173	19	192
Gonorrhœa, later	—	—	—	—	12	6	—	—	12	6	18
Conditions other than venereal	—	—	—	—	—	—	22	18	22	18	40
4. Number of cases dealt with for the first time during the year under report known to have received treatment at other Centres for the same infection.	22	—	—	—	22	—	—	—	44	—	44
TOTALS OF ITEMS 1, 2, 3 & 4.	241	57	18	—	564	55	30	29	853	141	994
5. Number of cases discharged after completion of treatment and final tests of cure (see Item 15)	13	5	9	—	36	5	19	29	77	39	116
6. Number of cases which ceased to attend before completion of treatment and were, on first attendance, suffering from:—											
Syphilis, primary	21	—	—	—	—	—	—	—	21	—	21
,, secondary	23	—	—	—	—	—	—	—	23	—	23
,, latent in 1st year of infection	8	—	—	—	—	—	—	—	8	—	8
,, all later stages	10	3	—	—	—	—	—	—	10	3	13
,, congenital	—	1	—	—	—	—	—	—	—	1	1
Soft Chancre	—	—	4	—	—	—	—	—	4	—	4
Gonorrhœa, 1st year of infection	—	—	—	—	137	6	—	—	137	6	143
Gonorrhœa, later	—	—	—	—	32	3	—	—	32	3	35
7. Number of cases which ceased to attend after completion of treatment but before final tests of cure (see Item 15)	47	8	1	—	109	5	—	—	157	13	170
8. Number of cases transferred to other centres or to institutions, or to care of private practitioners	6	4	2	—	8	—	—	—	16	4	20
9. Number of cases remaining under treatment or observation on 31st December	113	36	2	—	242	36	11	—	368	72	440
TOTALS OF ITEMS 5, 6, 7, 8 & 9.	241	57	18	—	564	55	30	29	853	141	994

(These totals should agree with those of Items 1, 2, 3 and 4)

APPENDIX 12 (continued).

	Microscopical		Serum Tests		
	for spirochetes.	for gonococci.	Wassermann.	Others for Syphilis.	for Gonorrhoea.
16. Pathological Work:—					
(a) Number of specimens examined at and by the medical officer of the treatment centre	—	278	—	—	—
(b) Number of specimens from patients attending at the centre sent for examination to an approved laboratory	—	123	357	—	—

Statement showing the services rendered at the Treatment Centre during the year, classified according to the areas in which the patients resided.

	Bootle.	Liverpool.	Lancashire.	Various.	Total.
A. Number of cases in Item 3 from each area found to be suffering from:—					
Syphilis	32	5	17	22	76
Soft Chancre	3	1	2	12	18
Gonorrhoea	86	22	45	57	210
Conditions other than venereal	26	6	5	3	40
TOTAL ...	147	34	69	94	344
B. Total number of attendances of all patients residing in each area	13486	5007	6265	847	25605
C. Aggregate number of "In-patient days" of all patients residing in each area	363	54	407	330	1154
D. Number of doses of arsenobenzene compounds given in the out-patient Clinic and In-patient Department to patients residing in each area	586	209	225	79	1099

W. L. WEBB, M.B., Ch.B.,

13th February 1933.

Medical Officer of the Treatment Centre.

APPENDIX 16.

RETURN OF DEFECTS FOUND IN 227 CHILDREN EXAMINED
AT THREE YEARS OF AGE IN 1932.

Defect.	Total.	Ref. for Treat- ment or Observa- tion.	Defect.	Total.	Ref. for Treat- ment or Observa- tion.
Malnutrition	23	17	Respiratory system—		
Uncleanliness	9	8	Bronchial catarrh	8	8
Skin—			Bronchitis	1	1
Impetigo	4	4	Whooping cough	1	1
Other conditions	5	5	Tuberculosis—		
Eyes—			Glands of neck	3	3
Blepharitis	2	2	Nervous system—		
Conjunctivitis	1	1	Fits	1	1
Squint	8	6	Post diphtheritic		
Other conditions	2	2	paralysis	1	1
Ears—			Functional disorders	2	2
Otorrhoea	8	8	Digestive system—		
Earache	2	2	Gastro-enteritis	2	2
Mouth—			Diarrhoea	2	2
Dental caries			Threadworms	17	17
(4 or more)	23	4	Constipation	2	2
Dental caries (1 to 3)	31	2	Acidosis	1	1
Stomatitis	1	1	Anorexia	1	1
Nose and Throat—			Genito-urinary system—		
Enlarged tonsils	12	9	Phimosis	2	2
Adenoids	3	3	Balanitis	2	2
Tonsils and Adenoids..	2	2	Vaginitis	1	1
Mouth breathing	4	3	Undescended testicles .	6	6
Rhinitis	1	1	Enuresis	4	4
Epistaxis	1	1	Other defects—		
Enlarged cervical glands	10	3	Defective speech	12	8
Circulatory system—			Rickets	58	28
Anaemia	5	5	Flat feet	3	3
Functional cardiac			Hernia	3	3
defects	2	2	Synovitis knee	1	1
				293	191

RETURN to be made on or before the 9th of February 1933, by Mr. R. W. Jackson, Vaccination Officer of the Bootle Sub-District of the West Derby Registration District, respecting the Vaccination of Children whose Births were registered from 1st January to 31st December 1931, inclusive.

Registration Sub-Districts comprised in the Vaccination Officer's District.	Number of Births returned in the "Births List Sheets" as registered from 1st Jan. to 31st Dec., 1931.	Number of these Births duly entered by 31st January 1933, in Columns I., II., IV. and V. of the "Vaccination Register" (Birth List Sheets), viz.:					Number of these Births which on 31st January, 1933, remained un-entered in the "Vaccination Register" on account (as shown by "Report Book") of			Number of these Births remaining on 31st January, 1933, neither duly entered in the "Vaccination Register" (columns 3, 4, 5, 6 and 7 of this Return) nor temporarily accounted for in the "Report Book" (columns 8, 9 and 10 of this Return).	*Total number of Certificates of Successful Primary Vaccination of Children under 14 received during the Calendar Year 1932.	Number of Statutory Declarations of Conscientious Objection received by the Vaccination Officer irrespective of the dates of birth of the children to which they relate, during the Calendar Year 1932.
		Col. I. Successfully Vaccinated.	Col. II. Insusceptible of Vaccination.	Col. II. Had Small Pox.	Col. IV. Number in respect of whom Statutory Declarations of Conscientious Objection have been received.	Col. V. Died Unvaccinated.	Post-mortem by Medical Certificate.	Removal to Districts the Vaccination Officers of which have been duly appraised.	Removal to places unknown, or which cannot be reached, and Cases not having been found.			
1	2	3	4	5	6	7	8	9	10	11	12	13
BOOTLE ...	1707	1354	18	—	168	101	8	16	21	21	1635	177
Total ...	1707	1354	18	—	168	101	8	16	21	21	1635	177

9th February, 1933.

R. W. JACKSON, Vaccination Officer.

NOTE.—The total of the figures in columns 3 to 11 should agree with the figure in column 2. Any cases of children successfully vaccinated after the declaration of conscientious objection had been made should be included in column 6 above and not in column 3. The number of such cases should be inserted here:—1.

*The total in this column should be the number of Certificates of successful primary vaccination of children under 14, actually received during the year, including any relating to births registered in previous years. The total thus given should include the Certificates of successful primary vaccination of which copies have been sent to Vaccination Officers of other Districts. The total number of Certificates for the year 1932 sent to other Vaccination Officers should be stated here:—267.

APPENDIX 18.

LINACRE HOSPITAL.—REVISED DIAGNOSES AND COMPLICATIONS.

SCARLET FEVER ADMISSIONS.	Boote	Litherland	Form-by	DIPHTHERIA ADMISSIONS.	Boote	Litherland	Form-by
Re-diagnosed as :—				Re-diagnosed as :—			
Scarlet fever, chickenpox and pertussis	1	—	—	Diphtheria and enteric fever	—	1	—
Scarlet fever and congenital heart disease	1	—	—	Diphtheria and scarlet fever	1	2	—
Scarlet fever and abdominal fistula	1	—	—	Diphtheria, scarlet fever and measles	1	—	—
Scarlet fever and impetigo	1	—	—	Diphtheria and whooping cough	1	1	—
Scarlet fever and chickenpox	3	1	—	Diphtheria and tubercular hip disease	1	—	—
Scarlet fever and pneumonia	2	—	—	Diphtheria and valvular heart disease	1	—	—
Scarlet fever and rickets	1	—	—	Diphtheria and varicella	—	1	—
Scarlet fever and tubercular glands	1	—	—	Diphtheria and chorea	2	1	—
Bronchitis	1	—	—	Bronchitis	1	—	—
Cervical gland abscess	1	—	—	Cerebro-spinal meningitis	1	—	—
Diphtheria	1	1	—	Broncho pneumonia	1	—	—
Erythema	5	—	—	Catarrhal laryngitis	5	—	—
Measles	5	—	—	Faucial ulceration	1	—	—
Thrush	1	—	—	Laryngismus stridulus	1	—	—
Tonsillitis	3	1	—	Measles	2	—	—
				Purpura haemorrhagica	1	—	—
				Quinsy	2	—	—
				Scarlet fever	4	2	—
				Stomatitis	1	—	—
				Enteric fever	—	1	—
				Retro-pharyngeal abscess	39	11	2
				Tonsillitis	1	—	—
				Vincent's angina	—	—	—
Totals	28	3	—	Totals	67	20	2

APPENDIX 19.

METEOROLOGICAL DATA FOR 1932.

Supplied by the Liverpool Observatory and Tidal Institute.

Month	Mean Barometer.	Mean Temperature.	Rainfall.	Mean Cloud.
January ...	30·060 ins.	41·3°	2·350 ins.	6·9
February ...	30·527 ins.	39·6°	0·035 ins.	7·1
March	29·937 ins.	41·4°	1·713 ins.	6·4
April	29·725 ins.	42·6°	2·871 ins.	6·9
May	29·859 ins.	46·9°	3·378 ins.	7·5
June	30·071 ins.	57·3°	1·035 ins.	5·3
July	29·853 ins.	59·3°	3·520 ins.	7·7
August ...	30·083 ins.	61·2°	1·500 ins.	7·1
September ...	29·874 ins.	55·3°	2·646 ins.	6·6
October ...	29·639 ins.	48·6°	5·256 ins.	7·1
November ...	30·029 ins.	45·2°	2·091 ins.	7·4
December ...	30·001 ins.	41·6°	1·343 ins.	7·6
Year	29·972 ins.	48·4°	27·738 ins.	7·0

APPENDIX 20.

LOCAL POWERS RELATING TO PUBLIC HEALTH

(1) ACTS OF PARLIAMENT ADOPTED BY THE COUNCIL.	Dates provisions became operative.
Infectious Disease (Notification) Act, 1889	8 April, 1891
Infectious Disease (Prevention) Act, 1890, sections 5, 6, 14, 16, 17	11 Oct., 1893
Infectious Disease (Prevention) Act, 1890, sections 15, 18, 20 and 21	5 Sept., 1900
Public Health Acts Amendment Act 1890, Part III.	5 Sept., 1900
Public Health Acts Amendment Act, 1907, Section 95	11 Dec., 1908
Public Health Acts Amendment Act, 1907, Sections 22, 23, 24, 33, 35, 44, 50, 51, 52, 53, 54, 57, 61, 62, 63, 64, 65, 69, 70, 71, 72, 73, 74, 75	20 Feb., 1915
Public Health Act, 1925, Sections 13, 14, 15, 16, 17, 18, 19, 21, 22, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 35, 36, 37, 39, 40, 41, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54 and 55	1 Dec., 1926
 (2) BOOTLE CORPORATION ACTS AND ORDERS—	
Bootle Corporation Act, 1890	1 Sept., 1890
Bootle Order, 1897; confirmed by the Local Government Board's Provisional Orders Confirmation (No. 16) Act, 1897, relative to Sanitary Improvements	24 Mar., 1897
Bootle Corporation Act, 1899	8 Aug., 1899
Bootle Corporation Act, 1905	9 Nov., 1905
Bootle Order, 1914; confirmed by the Local Government Board's Provisional Orders Confirmation (No. 6) Act, 1914, relating to the substitution of moveable ashpits for fixed ashpits	13 Mar., 1914
Bootle Corporation Act, 1920	31 Mar., 1921
Bootle Order, 1927; confirmed by the Ministry of Health's Provisional Orders Confirmation (No 4) Act, 1927, relating to the substitution of ashbins for ashpits	24 Mar., 1927
Bootle Corporation Act, 1930	1 Aug., 1930
 (3) BYE-LAWS AND REGULATIONS IN FORCE IN THE BOROUGH—	
Nuisances, 1887	7 Nov., 1887
Slaughter Houses, 1887	26 May, 1887
Common Lodging Houses, 1894	25 June, 1894
Carriage of Offensive Matter through Streets, 1898	26 July, 1898
Hospitals provided by the Corporation, 1904	10 June, 1904
New Streets and Buildings, 1927	31 Oct., 1927
Smoke Abatement Bye-laws, 1930	15 Dec., 1930
Houses let in Lodgings, or occupied by members of more than one family	19 May, 1931
Nursing Homes	10 Dec., 1931
New Buildings	21 April, 1932
Howe Street Improvement Area	21 Sept., 1932







