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COUNTY BOROUGH OF BIRKENHEAD.



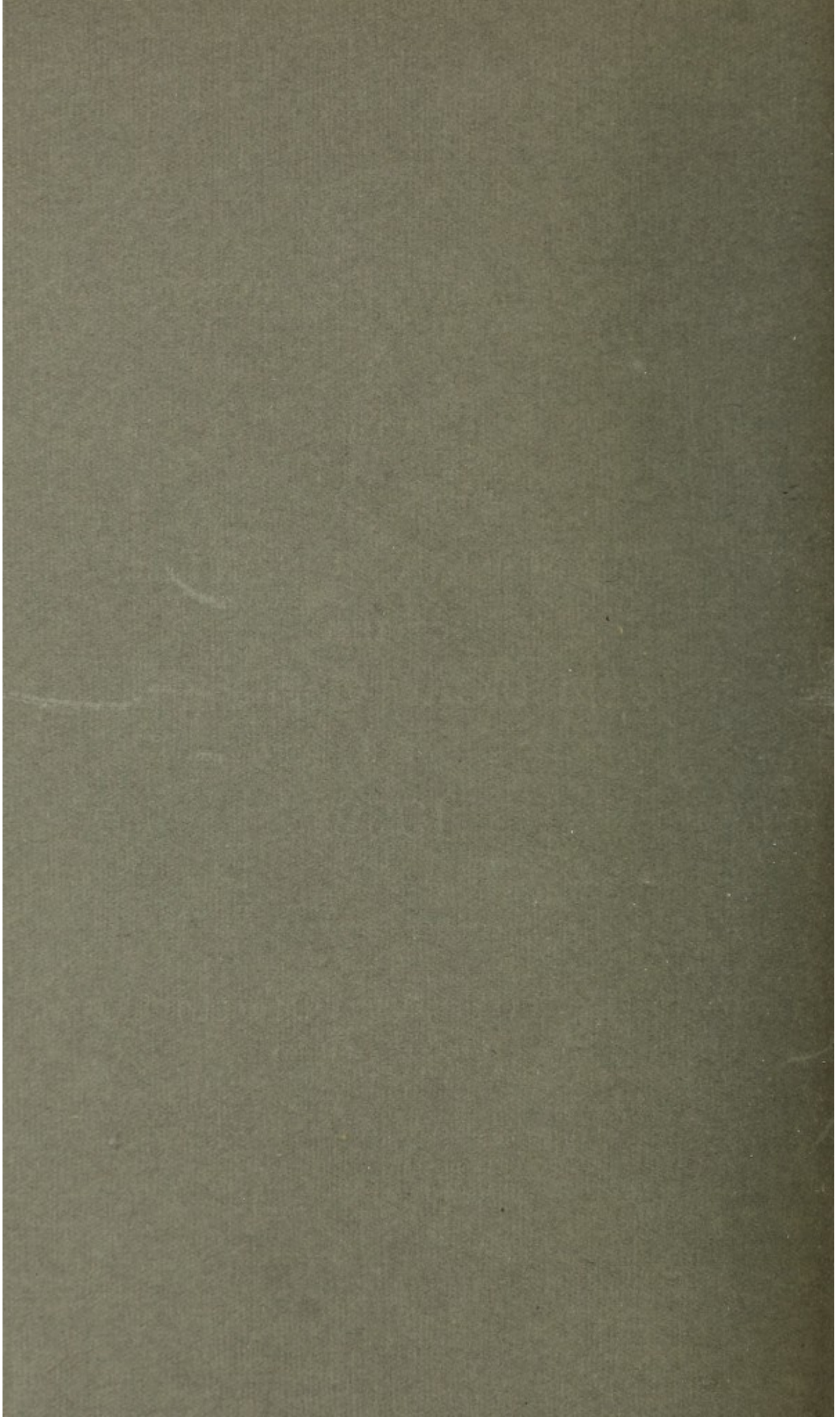
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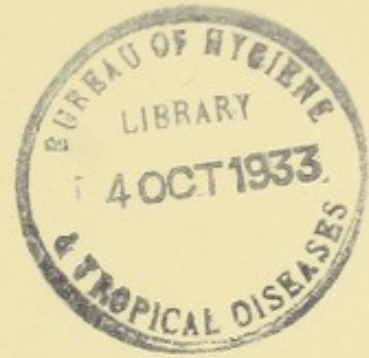
D. MORLEY MATHIESON, M.A., M.D. (Edin.), Ch.B., D.P.H.

Medical Officer of Health;

Chief Medical Officer for the Municipal Tuberculosis, Mental Deficiency,
Maternity and Child Welfare, &c., Schemes, and for the School Medical Service
and Medical Adviser to the Public Assistance Committee.

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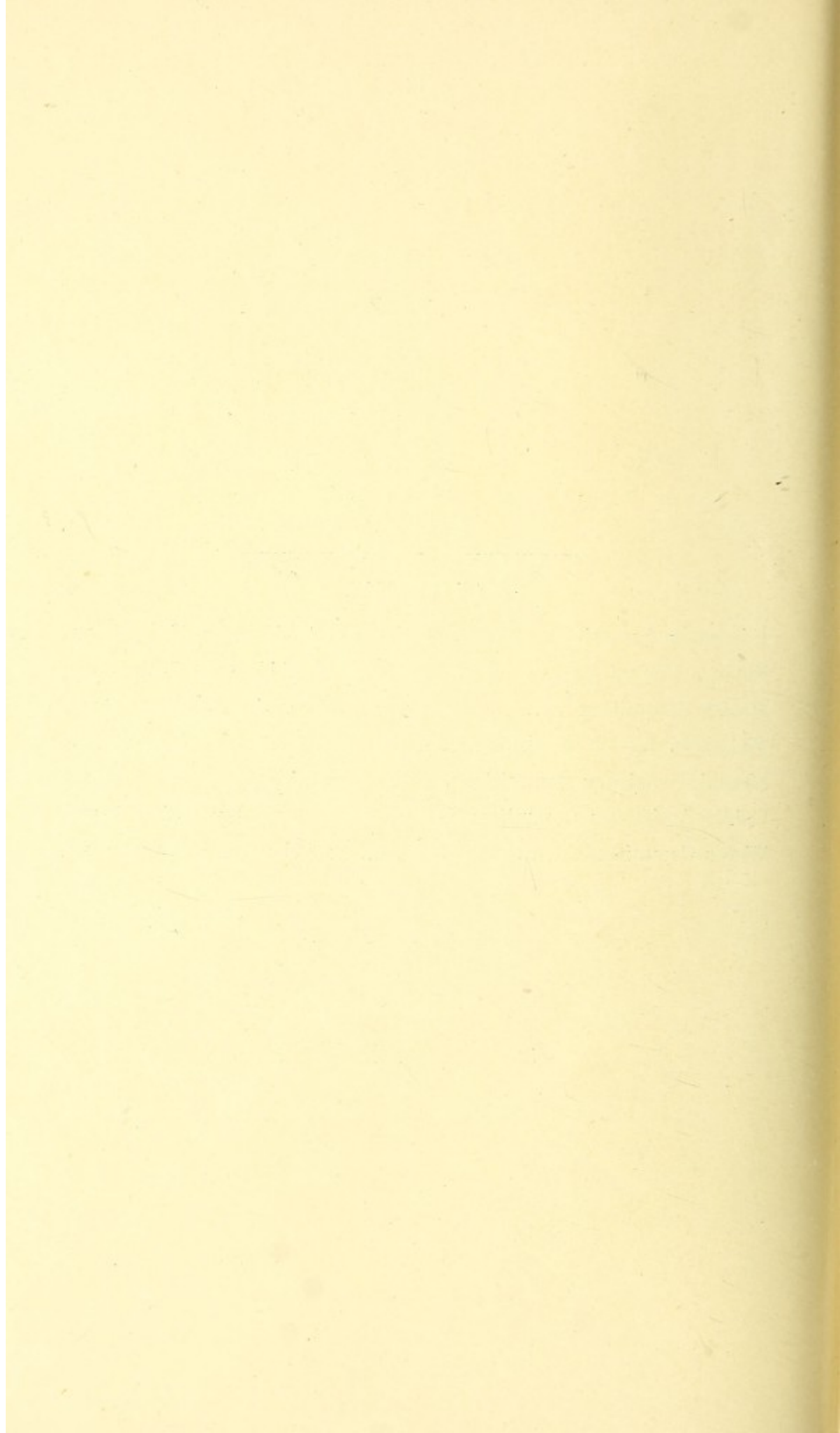
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CHAIRMEN OF COMMITTEES

(31/12/1932).

Education Committee	Alderman NAYLOR, J.P.
Finance Committee	Alderman CLARKE, J.P.
Health Committee	Councillor Miss WORRALL.
Maternity and Child Welfare Committee ...	Coun. Mrs. MERCER, J.P.
Mental Deficiency Committee	Councillor Mrs. GOSSAGE, J.P.
Public Assistance Committee	Councillor BAKER.
Water Committee	Alderman FLETCHER, J.P.



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PREFACE.

The infantile mortality rate for the year was 71 per 1000 births—the second lowest rate which has been recorded for the Borough (page 3). This rate is, however, still above that of the country as a whole (65 per 1,000 births) and in itself is an indication that the Council's provision of infant welfare services should not be weakened but rather increased.

The birth-rate has shown a slow but progressive decline during the last decade (page 1). The rate for 1932 (17.7 births per 1,000 of the population) is the lowest annual rate which has been put on record. The rate for England and Wales was 15.3 per 1,000.

The general death-rate for the Borough was 11.6 per 1,000 population; compared with a rate of 12.0 per 1,000 for England and Wales. Tuberculosis is still one of the main causes of death, accounting for nearly one-tenth of the mortality. It will continue to be a primary factor in the death-rate so long as adequate facilities are not available for patients coming out of sanatoria. These patients are not likely to maintain their improvement unless they return to homes which have a reasonable supply of fresh air and sunlight and sufficient accommodation to allow the patient to have a separate sleeping room.

At the Infectious Diseases Hospital (page 33) the work continues to extend. It will be seen that 60 patients suffering from measles or whooping cough were admitted to hospital during 1932. It is the policy of the Health Committee to use the available accommodation more than in the past for these diseases and on the other hand to admit only the more urgent cases of scarlet fever.

The activities of the Municipal Laboratory (page 40) continue to grow. These activities, which affect, directly or indirectly, the health and life of every member of the community, are still being carried on under severe handicap. A scheme for the provision of centralised premises in which this and other technical sections of the work of the Department could be carried on under conditions in keeping with their great importance was maturing towards the end of 1931, when the national financial crisis occurred, and it was decided to hold up all new developments. It is to be hoped that the way will soon be clear for a comprehensive scheme such as the Health Committee have had in mind now for several years.

The extension of the Borough, which will take place on 1st April, 1933, will add considerably to the responsibilities of the department. It will be necessary, for example, to make additional provision for school medical inspection; for infant welfare clinics and ante-natal work; for housing supervision; and for the inspection of dairy cattle in the farms in the added areas.

The date provisionally suggested for the transfer of Birkenhead Infirmary from the Public Assistance Committee to the Health Committee is 1st April, 1933.

The work of a Public Health Department in a large Borough—and Birkenhead stands among the first 30 in the Registrar-General's list of 243 towns in England and Wales—has in recent years rapidly increased in extent and, what is perhaps not sufficiently realised in its scientific complexity. Problems have to be faced and handled daily which were not thought of a decade ago. The work calls increasingly for organisation and combination of effort and the greatest facility for consultation between the different sections of the department—which are staffed with workers highly trained for their special services. I should like to place on record my appreciation of the efficiency and loyalty with which members of the staff have carried out their duties during the past year; of much kindly help and assistance which has been given by the chief officials of other departments; and of the unflagging interest which has been shown by the various Committees under whose control the department is administered.

SHORT STATISTICAL SUMMARY.

1932.

Area of the Borough	5,995 acres, or 9.3 square miles
Estimated population (at midsummer, 1932)	147,700
Number of persons per acre (density of population)	24.6
Number of houses in Borough at end of 1932	31,845
Number of inhabited houses at time of census, 1931.....	30,493
Number of families or separate occupiers at time of census, 1931	35,577
Rateable value, April, 1932	£915,911
Estimated product of penny rate, 1932-1933	£3,550
Birkenhead rates, 1932-1933	11/2 in the £
Birth-rate per 1,000 of the population	17.7
Death-rate ,, ,,	11.6
Average death-rate for the last ten years	12.2
Tuberculosis death-rate per 1,000 of the population	1.14
Infantile mortality rate (per 1,000 births)	71
Average number of children in elementary schools	22,933
Number of elementary school children medically inspected during year	8,375

ADMINISTRATION.

General administrative arrangements.—The detailed arrangements made by the local authority for dealing with various branches of health work—*e.g.*, maternity and child welfare, tuberculosis, etc.—are set out in the appropriate sections of this report.

Staff.—The staff engaged on the work of the department consisted at the end of 1932 of the following:—

Medical Officer of Health and Chief Administrative Medical Officer:

D. MORLEY MATHIESON, M.A., M.D. (Edin.), Ch.B., D.P.H.

Assistant Medical Officers:

MARY A. S. DEACON, M.B.E., M.B., B.S., D.P.H.

F. G. FOSTER, M.A., M.D., Ch.B., D.P.H.

ANNA MAY WILLIAMS, M.B., Ch.B., D.P.H.

J. MORRISON RITCHIE, M.A., M.B., Ch.B., D.P.H.

J. M. DAVIDSON, M.D., Ch.B., D.P.H.

*RUTH I. HODGSON, M.B., Ch.B.

Dental Surgeons:

P. WILSON SMITH, L.D.S., R.F.P.S.

EVELINE M. WARLOW, L.D.S.

W. G. WALCH, L.D.S.

Veterinary Officer:

H. BURROW, M.R.C.V.S., D.V.S.M.

Bacteriologists and Pathologists:

J. MORRISON RITCHIE, M.A., M.B., Ch.B., D.P.H. (Assistant Medical Officer).

*Professor J. M. BEATTIE, M.A., M.D.

Analyst:

*W. H. ROBERTS, M.Sc., F.I.C.

Orthopaedic Surgeon:

*T. HARTLEY MARTIN, M.B., Ch.B.

Inspectors:

ALFRED LONGSTAFF (Chief Inspector and Inspector under the Food and Drugs Acts).

N. HANCOCK (Housing Inspector), W. H. TILSTON, J. CROSHAW, G. WILLS, T. OVERSBY, A. GREENFIELD, L. PINGUEY, G. H. BIRCH, G. H. WILLIAMS (District Sanitary Inspectors), F. DUGGINS (Workshops, Food and Drugs, etc., Inspector), W. S. EDWARDS (Infectious Diseases Inspector), J. JACKMAN (Common Lodging Houses Inspector), ARCHBELL CARNIE (Meat Inspector), A. W. HAYDOCK W. CAMERON, A. T. HAUGHTON (Assistant Meat Inspectors).

Matron, Isolation Hospital:

Miss L. LIGGINS.

Matron, Thingwall Sanatorium:

Miss I. R. MILLAR.

Health Nurses:

Miss K. NIXON (Chief Health Nurse).

Mrs. L. E. FLETCHER (Health Nurse and Inspector of Midwives).

Miss A. G. ADAMS, Miss J. BEATTIE, Miss A. G. EVANS, Miss C. E. FOX, Miss M. M. GRAHAM, Miss E. HENDLEY, Miss M. JONES, Miss J. McDONALD, Miss G. F. PARKINSON, Miss L. PEACE, Miss E. RAMAGE, Miss B. SHEPHERD, Miss E. A. SMITH, Miss A. I. STEELE, Miss L. WILSON, Miss A. WILLIAMS, Mrs. C. B. WILLIAMS.

Clerks :

W. M. CAVERS (Chief Clerk). J. OWEN (Senior Clerk).
 J. BENNETT, N. WILSON, R. BAKER, J. CHALLINOR, C. MARTIN, F. OWENS;
 A. BARNETT, A. C. HORNE (Junior Clerks); Mrs. L. PRICE, Miss W.
 CALLOWAY, Miss C. L. WESTON, Miss P. LLOYD, Miss E. SHEPHERD,
 Miss I. STEWART, Miss D. STEPHENS, Miss A. GRAY (Female Clerks);
 D. K. ASHTON, S. BURGE, W. BROADHURST (Office Boys).

School Teacher, Thingwall Sanatorium :

Mrs. E. M. PRENDERGAST.

Public Vaccinators :

*H. LAIRD PEARSON, M.R.C.S., L.R.C.P.
 *H. CRESSWELL PIERCE, M.A., M.R.C.S., L.R.C.P.
 *R. A. GRANT, F.R.C.S., M.B., CH.B.

Vaccination Officers :

*O. R. LOCKEY.
 *E. R. OWENS.

Other Staff :

NURSING STAFF, ISOLATION HOSPITAL—23.
 DOMESTIC STAFF, ISOLATION HOSPITAL—17.
 MALE STAFF, ISOLATION HOSPITAL—6.
 NURSING STAFF, THINGWALL SANATORIUM—7.
 DOMESTIC STAFF, THINGWALL SANATORIUM—6.
 MALE STAFF, THINGWALL SANATORIUM—3.
 ASSISTANTS ON MEAT INSPECTION WORK—2.
 LABORATORY ASSISTANTS—2.
 MALE ORDERLY (VENEREAL DISEASES CLINIC)—1.
 HOME TEACHER (BLIND)—1.

*Not whole-time officers.

SUPERANNUATION SCHEME.

The Local Government and Other Officers' Superannuation Act, 1922, was adopted by the Birkenhead Corporation in June, 1923, and came into operation on 1st August, 1923.

The number of posts in the Corporation service designated as "established posts" for the purposes of the Act was 1,906, of which 1,711 were actually filled at the date on which the Act came into force, and 195 were additional posts. Since the commencement of the scheme 395 new posts have been created, making a total of 2,301.

Medical examinations carried out during 1932.—(a) During the past year 66 examinations of selected applicants for designated posts were carried out.

Department.	Designated Posts
Education	8
Gas	3
Libraries	2
Medical Officer's	7
Parks and Cemeteries	2
Public Assistance	1
Surveyor's	5
Town Clerk's	2
Tramways	26
Treasurer's	10
Total examinations	66

NOTE.—In addition to the above there were 11 re-examinations during 1932.

(b) During 1928 special arrangements, as set out in my annual report for that year, were made for the medical examinations of certain tramways employees engaged in a temporary capacity.

During the year 20 employees were medically examined under these arrangements.

POPULATION, BIRTHS, AND DEATHS.

POPULATION.

Census Population, 1931.—The preliminary report of the Registrar-General with regard to the 1931 Census was issued at the end of June, 1931; and the population of Birkenhead is recorded in this report as 147,946.

The final report of the Registrar-General issued early in 1933 gives the recorded population as being 147,803, a difference of 143.

Mid-year Population, 1932.—The Registrar-General's estimate for the population of the Borough as at mid-year, 1932, was 147,700.

Extension of Boundaries.—The population of the parishes which will come within the Borough on 1st April, 1933, as ascertained at the Census, 1931, was:—

Bidston	...	...	...	...	506
Noctorum	...	...	...	...	473
Upton	...	...	...	...	2,559
Woodchurch	...	...	...	...	113
Arrowe (whole parish)	...	...	...	...	91
Total	...	...	...	...	3,742

BIRTHS.

Births registered during 1932, and birth-rate.—During the year 2,615 births belonging to the Borough were *registered*. (This total includes 57 Birkenhead births registered in other areas and transferred to Birkenhead, and excludes 124 births belonging to other areas which occurred in Birkenhead and were transferred to the areas concerned. Among the latter are numerous births which occurred at the Birkenhead Maternity Hospital and the Birkenhead Infirmary.)

This corresponds to a birth-rate of 17.7 per 1,000 of the population.

Birth-rate in recent years.—The birth-rates since 1922 are as follows:—

1922	.....	23.1	per 1,000
1923	.....	21.4	„
1924	.....	21.1	„
1925	.....	20.5	„
1926	.....	20.4	„
1927	.....	18.2	„
1928	.....	18.5	„
1929	.....	18.9	„
1930	.....	17.8	„
1931	.....	18.4	„
1932	.....	17.7	„

Comparison of birth-rate with rates for country generally—

	Per 1,000 of population.	
	Live births	Still births
England and Wales	15.3	0.66
118 County Boroughs and Great Towns (including London)	15.4	0.70
126 Other Towns (1931 adjusted populations, 20,000-50,000)	15.4	0.69
London	14.2	0.51
Birkenhead	17.7	0.90

Sex-distribution of births.—Of the 2,615 births, 1,369 were males and 1,246 females; a proportion of 1,098 : 1,000.

Legitimacy.—Of the 2,615 births registered, 110 were illegitimate, a percentage of 4.2.

Registration of stillbirths.—Under Section 7 of the Births and Deaths Registration Act, 1926, the birth of every stillborn child* must be registered by the Registrar in a register of stillbirths. The Registrar-General has kindly furnished me with the numbers of stillbirths registered during 1932 in Birkenhead. The total number was 138. In addition, there were 4 inward transfers. There were 13 stillbirths registered in Birkenhead belonging to other areas. Thus the nett number of stillbirths belonging to the Borough was 129, classified as follows:—

*i.e., born dead after the twenty-eighth week of pregnancy.

Legitimate—Males	67
Females	54
Illegitimate—Males	2
Females	6
	129

The stillbirth rate was 49 per 1,000 births.

Births notified during 1932.—During the year, 2,783 births were notified in the Borough under the Notification of Births Acts, 1907 and 1915. Of these 135 were stillbirths, leaving a total of 2,648 live births. This total includes births which occurred in the Birkenhead Maternity Hospital, the Birkenhead Infirmary, and the Birkenhead General Hospital, many of which were transferable to other areas.

The following is an analysis of the above births:—

Births in Public Institutions:—		
Birkenhead Maternity Hospital	420	(38 stillbirths)
Birkenhead Infirmary	280	(14 ,,)
Other births (including those in nursing homes):—		
Notified by doctors	234	(11 stillbirths)
Notified by midwives	1848	(72 ,,)
Notified by parents	1	(— ,,)
	2783	(135 ,,)

Un-notified births.—The Registrars reported 55 cases of un-notified births, 12 of these were attended by medical practitioners, 32 by both certified midwives and doctors, 8 by the Maternity Hospital staff, 1 by the Infirmary staff, and 2 by the General Hospital staff.

Deaths.

Death-rate.—1,711 deaths occurred during the year; the total figure includes 112 deaths of Birkenhead residents which occurred outside the Borough, but excludes 220 deaths of non-residents which occurred in the area. This gives a death-rate of 11.6 per 1,000.

Deaths in recent years.—The death-rates since 1922 are as follows:—

1922	13.6 per 1,000
1923	11.0 „
1924	11.9 „
1925	12.1 „
1926	11.1 „
1927	12.6 „
1928	12.3 „
1929	13.9 „
1930	11.7 „
1931	13.4 „
1932	11.6 „

Seasonal deaths.—The following gives the deaths for each quarter of the years 1931 and 1932:—

	No. of deaths	
	1931	1932
First quarter.....	647	525
Second quarter.....	480	404
Third quarter.....	347	358
Fourth quarter.....	516	424
Totals	1990	1711

Sex-distribution of deaths.—Of the total deaths 862 were males and 849 females, a proportion of 1,015 : 1,000.

Uncertified deaths.—In 1932 there were 3 uncertified deaths belonging to the area.

Coroner's inquests.—Coroner's inquests were held regarding 110 deaths—that is, in 6.4 per cent. of the total deaths during the year.

The Coroners' (Amendment) Act, 1926.—This Act came into force on 1st May, 1927. During the year 48 deaths (2.8 per cent. of the total deaths during the year) were registered without the Coroner holding an inquest.

Causes of death.—A new international list of causes of death was issued in 1931, and was adopted as from 1st January, 1932.

Detailed causes of death during 1932, compiled in this department, are not published in this report. Table P. 1 (pages 6 to 7), prepared by the Registrar-General, shows the causes of death of Birkenhead residents, sub-classified according to sex and age.

Infantile mortality.—There were 185 deaths of infants under 1 year old. This corresponds to an infantile mortality rate of 71 per 1,000 births.

There were 12 deaths in illegitimate infants under 1 year old; giving an illegitimate mortality rate of 109 per 1,000. The causes of infant deaths, and the ages at which death occurred are shown in Table P 2 (page 8).

The corresponding rates for each year since 1922 are given below:—

1922	95
1923	62
1924	91
1925	92
1926	85
1927	95
1928	80
1929	86
1930	86
1931	86
1932	71

The main causes of infant deaths during the past two years are shown below:—

	No. in 1931	No. in 1932
(a) Pneumonia (all forms)	56	28
Bronchitis	12	3
Whooping cough	10	5
Measles	6	1
(b) Diarrhœa and enteritis	25	31
Premature birth	57	50
(c) All other causes	71	67
	237	185

Deaths from tuberculosis.—Tuberculosis was responsible for 9.8 per cent. of all the deaths recorded in the Borough in 1932. The deaths from the disease were as follows:—

Deaths from tuberculosis of the lungs	140
Deaths from other forms of tuberculosis.....	29
	169

This gives a tuberculosis death-rate of 1.14 per 1,000 of the population.

Of the 140 deaths from respiratory tuberculosis during 1932, 124 occurred in individuals between 15 and 65 years old—that is, of a wage-earning age.

This subject is further dealt with in the “ Tuberculosis ” section of this report.

Deaths from certain epidemic diseases.—The seven “ principal epidemic diseases ” caused 59 deaths, as follows:—

Diarrhœa and enteritis (under 2 years).....	33
Whooping cough	8
Measles	4
Scarlet Fever	1
Diphtheria (including membranous croup)	11
Fever (enteric, typhus and, simple continued)	2
Smallpox	0

This corresponds to a death-rate from all these diseases of 0.4 per 1,000 of the population.

Deaths from other notifiable infectious diseases.—Pneumonia caused, in its various forms, 152 deaths; erysipelas caused 4; acute poliomyelitis caused 1; acute poliomyelitis caused 1; cerebro-spinal fever caused 2.

Deaths from cancer.—The following table shows the cancer death-rate in Birkenhead as compared with the country generally:—

Year	BIRKENHEAD			ENGLAND AND WALES
	Population	Number of deaths from cancer in Birkenhead	Rate per 100,000 population	Rate per 100,000 population
1901	111,377	91	81	}
1902	113,231	66	58	
1903	115,117	78	68	
1904	117,034	83	70	
1905	118,982	94	79	}
1906	120,964	101	83	
1907	122,978	90	73	
1908	125,026	101	80	
1909	127,108	91	71	}
1910	129,227	115	89	
1911	131,377	114	86	
1912	135,521	126	92	
1913	135,740	107	70	}
1914	137,906	114	82	
1915	140,291	121	85	
1916	142,622	140	98	
1917	144,993	144	99	}
1918	147,403	154	104	
1919	149,853	181	121	
1920	152,345	186	122	
1921	147,800	186	125	121
1922	149,200	172	115	123
1923	151,400	179	118	127
1924	154,100	179	116	130
1925	155,500	199	129	133
1926	158,000	204	129	136
1927	158,500	206	130	137
1928	159,200	229	145	142
1929	157,600	214	136	143
1930	157,600	228	144	145
1931	148,500	206	138	148
1932	147,700	197	133	151

Comparison of Birkenhead death-rates with those for country generally.—In Table P 3 (page 9) Birkenhead rates are shown together with those for the country generally. The latter are provisional figures kindly supplied by the Registrar-General. Non-civilians are included in the figures for England and Wales, but not for other areas.

TABLE P 1.

Deaths: causes, sex, and ages (as compiled by the Registrar-General).

Causes of death	Sex	Allages	Ages												
			0—	1—	2—	5—	15—	25—	35—	45—	55—	65—	75—		
All causes	Male	861	108	19	14	27	38	33	61	95	151	182	133		
	Female	850	75	20	12	19	43	51	57	83	114	154	222		
1 Typhoid and paratyphoid fevers	Male	2	..	..	..	2	..	..	..	..	..	..	..
	Female	..	..	..	..	..	..	..	..	..	..	..	..
2 Measles	Male	2	..	..	..	..	..	..	..	..	..	..	..
	Female	..	..	..	..	..	..	..	..	..	..	..	..
3 Scarlet fever	Male	..	..	..	..	..	..	..	..	..	..	..	..
	Female	1	..	1	..	..	..	..	..	..	..	..	..
4 Whooping cough	Male	3	1	1	..	..	..	..	..	..	..	..	..
	Female	6	2	..	..	..	..	..	..	..	..	..	..
5 Diphtheria	Male	3	..	2	1	..	..	..	..	..	..	..	..
	Female	7	..	2	4	..	..	..	..	..	..	..	..
6 Influenza	Male	13	..	..	..	2	1	1	2	3	2	1	2
	Female	10	..	..	..	..	..	..	..	2	2	..	6
7 Encephalitis lethargica	Male	..	..	..	..	..	..	..	..	..	..	..	..
	Female	..	..	..	..	..	..	..	..	..	..	..	..
8 Cerebro-spinal fever	Male	1	..	..	..	..	..	..	..	..	..	..	..
	Female	1	..	..	..	..	..	..	..	..	..	..	..
9 Tuberculosis of respiratory system	Male	73	1	..	..	1	6	14	20	16	8	6	1
	Female	66	..	..	..	3	17	17	11	8	7	3	..
10 Other tuberculous diseases	Male	14	1	1	1	7	3	..	..	..	1	..	..
	Female	15	..	2	2	3	3	1	2	1	..	..	1
11 Syphilis	Male	5	2	..	..	..	..	..	1	..	2	..	..
	Female	1	..	..	..	..	..	..	..	1	..	..	..
12 General paralysis of the insane, tabes dorsalis	Male	3	..	..	..	..	..	..	2	..	..	1	..
	Female	1	..	..	..	..	..	..	1	..	..	..	..
13 Cancer, malignant disease	Male	108	..	..	..	1	1	1	6	17	26	44	13
	Female	91	..	..	..	..	..	2	6	17	22	21	23
14 Diabetes	Male	9	..	..	..	1	1	..	1	1	6	..	..
	Female	11	..	..	..	1	1	..	..	3	4	2	..
15 Cerebral hemorrhage, etc.	Male	33	..	..	..	..	..	..	1	1	13	11	6
	Female	41	..	..	..	..	..	..	..	..	8	13	18
16 Heart disease	Male	137	..	..	..	4	4	2	1	2	34	46	35
	Female	201	..	..	..	2	6	4	6	10	29	60	84
17 Aneurysm	Male	2	..	..	..	..	..	..	..	..	2	..	..
	Female	4	..	..	..	..	..	..	..	..	2	1	..

18	Other circulatory diseases	35	Male	...	...	...	...	...	1	4	6	11	13
		35	Female	...	...	...	...	...	...	2	5	7	20
19	Bronchitis	26	Male	3	...	...	...	...	2	4	4	5	8
		28	Female	20	10	4	7	13	1	1	...	10	11
20	Pneumonia (all forms).....	96	Male	15	10	4	5	7	5	7	9	5	10
		75	Female	4	...	...	...	1	...	1	...	1	...
21	Other respiratory diseases	4	Male	...	...	...	...	...	2	...	3	1	1
		4	Female	...	...	...	...	...	...	2	3	1	...
22	Peptic ulcer	8	Male	...	...	...	...	...	...	...	3	...	2
		5	Female	19	2	...	...	...	...	...	1	...	1
23	Diarrhoea, etc.	22	Male	12	2	1	...	...	...	1	1	...	1
		17	Female	...	...	1	...	...	...	1	1	...	...
24	Appendicitis	5	Male	...	...	...	...	...	2	1	...	1	...
		7	Female	...	...	...	...	...	...	1	...	2	...
25	Cirrhosis of liver	4	Male	...	...	...	...	...	...	1	...	2	1
		...	Female	...	...	...	...	...	...	2	...	...	...
26	Other diseases of the liver, etc.....	3	Male	1	...	...	...	...	...	3	...	...	2
		5	Female	...	...	...	...	...	...	3	...	2	...
27	Other digestive diseases	15	Male	3	...	...	...	...	2	1	2	2	4
		16	Female	1	1	...	...	...	3	2	2	4	4
28	Acute and chronic nephritis.....	42	Male	...	...	...	...	...	1	5	11	14	10
		42	Female	...	...	...	...	...	2	5	12	8	3
29	Puerperal sepsis.....	2	Female	...	...	...	...	...	1	1	...	...	...
30	Other puerperal causes.....	9	Female	...	...	...	...	...	3	...	...	...	...
31	Congenital debility, premature birth, mal- formations, etc.	49	Male	49	...	...	...	...	5	...	...	...	...
		33	Female	33	...	...	...	...	...	...	...	...	...
32	Senility	26	Male	...	...	...	...	...	...	...	...	4	22
		24	Female	...	...	...	...	...	...	...	1	2	21
33	Suicides	15	Male	...	...	...	...	...	3	4	6	2	...
		7	Female	...	...	...	...	...	2	1	2	5	6
34	Other violence	33	Male	1	1	3	2	3	3	3	2	2	4
		22	Female	2	1	2	1	2	2	2	3	2	4
35	Other defined diseases	70	Male	8	5	6	9	2	9	2	14	9	10
		59	Female	4	...	...	...	...	9	9	5	11	8
36	Causes ill-defined, or unknown.....	...	Male	...	...	...	...	...	...	...	...	...	...
		2	Female	...	...	...	...	...	...	...	1	...	1

TABLE P 2.

Infant deaths: causes and ages.

Causes of death	Under 4 weeks				Total under 4 weeks	Over 4 weeks & under 3 months				Total under 1 year
	Under 1 week	1-2 weeks	2-3 weeks	3-4 weeks		3-6 months	6-9 months	9-12 months		
All causes.....	53	9	13	5	80	29	35	26	15	185
Smallpox ..	..	..	..	..	..	..	..	..	..	..
Chickenpox ..	..	..	..	..	..	..	1	..	..	1
Measles ..	..	..	..	..	..	..	1	..	..	1
Scarlet fever ..	..	..	..	..	..	..	..	..	..	..
Whooping cough.....	..	..	..	..	..	..	3	1	1	5
Diphtheria ..	..	..	..	..	..	..	..	..	..	..
Influenza ..	..	..	..	..	..	..	..	..	..	..
Tuberculosis of central nervous system ..	..	..	..	..	..	..	..	1	..	1
Tuberculosis of intestines and peritoneum ..	..	..	..	..	..	..	..	..	..	..
Meningitis (not tuberculous) ..	..	..	..	..	..	..	..	1	2	3
Convulsions ..	3	2	..	..	5	..	..	..	..	5
Bronchitis (all forms).....	..	..	..	..	..	1	1	1	..	3
Pneumonia (all forms) ..	..	..	..	..	..	4	6	11	7	28
Diarrhoea and enteritis ..	..	1	1	1	3	9	12	3	4	31
Gastritis ..	1	..	..	..	1	2	..	..	..	3
Syphilis ..	..	..	..	..	..	2	..	..	..	2
Rickets ..	..	..	..	..	..	..	..	..	..	..
Injury at birth ..	4	..	..	..	4	..	..	..	..	4
Atelectasis ..	3	..	1	..	4	..	..	..	..	4
Congenital malformations.....	1	1	2	..	4	1	2	1	..	8
Premature birth ..	33	3	5	2	43	4	3	..	..	50
Atrophy, debility and marasmus ..	3	1	1	1	6	4	4	1	..	15
Other causes.....	5	1	3	1	10	2	2	6	1	21
Totals..	53	9	13	5	80	29	35	26	15	185

Nett live births in the year—

Legitimate 2505
 Illegitimate 110

Nett deaths in the year—

Legitimate infants 173
 Illegitimate infants ... 12

TABLE P 3.
Death-rates: comparison with rest of country.

	Annual death rate per 1000 civilian population								Rate per 1000 births		Percentage of total deaths				
	All causes	Typhoid and Paratyphoid fevers	Smallpox	Measles	Scarlet fever	Whooping cough	Diphtheria	Influenza	Violence	Diarrhea and enteritis (under 2 years)	Total deaths under 1 year	Certified by Registered Medical Practitioners	Inquest cases	Certified by Coroner after P.M. No Inquest	Uncertified causes of death
England and Wales	12.0	0.01	0.00	0.08	0.01	0.07	0.06	0.32	0.53	6.6	65	91.1	6.2	1.8	0.9
118 County Boroughs and Great Towns including London (census population exceeding 50,000)	11.8	0.00	0.00	0.11	0.01	0.08	0.07	0.28	0.48	8.9	69	91.3	5.9	2.3	0.5
126 Smaller Towns (1931 adjusted populations 20,000 to 50,000)	10.8	0.00	...	0.06	0.01	0.06	0.03	0.31	0.42	4.5	58	91.9	5.8	1.3	1.0
London	12.3	0.00	0.00	0.19	0.02	0.08	0.07	0.27	0.53	12.6	66	89.4	6.2	4.4	0.0
Birkenhead	11.6	0.01	...	0.03	0.00	0.06	0.08	0.15	0.54	12.6	71	90.8	6.4	2.8	0.0

WATER SUPPLY, FOOD, AND DRUGS.

At the end of the year the staff engaged on meat inspection consisted, in addition to the Veterinary Officer (Mr. Harold Burrow), of one meat inspector, three assistant inspectors, and two detention officers.

The Chief Sanitary Inspector, Mr. Alfred Longstaff, was responsible throughout the year for the taking of all samples of milk and other food stuffs, and of drugs, for chemical and bacteriological examination. A special Food and Drugs Inspector also devotes the greater part of his time to this work.

The chemical analysis of samples has been carried out, under a temporary arrangement, by Mr. W. H. Roberts, M.Sc., F.I.C., City Analyst, Liverpool.

The bacteriological examination of samples has been dealt with in the Municipal Laboratory.

THE WATER SUPPLY.

With the exception of Prenton Ward, all the Borough is supplied with water from the Corporation Waterworks at Alwen. The supply for Prenton comes from the West Cheshire Water Board.

The consumption of water in Birkenhead from the Alwen supply during the year ending 31st December, 1932, was 1,481,981,000 gallons.

Bacteriological examinations.—The bacteriological examination of the Alwen water supply is carried out in the laboratory in the Department. (The procedure followed was indicated in my annual report for 1923.)

During the past year, bacteriological examinations have been made in connection with:—

53 samples of tap water in Birkenhead.

12 samples of water from the Alwen Reservoir, before filtration.

26 samples of water at Alwen, after passing through the filtration apparatus.

The latter tests provide a very useful and sensitive check on the efficacy of the filtration process.

MILK SUPPLY.

The question of the milk supply was discussed fully in my annual report for 1927. During the past year still further improvement has been noticeable in the cleanliness of the milk sent into the Borough—a result which is due to the vigorous steps taken by the Health Authority.

Dairy farms.—Milk is supplied to the Borough chiefly from farms in Cheshire, Shropshire, Denbighshire and Flintshire.

(a) *Farms, etc., outside the Borough.*—During the year 346 samples of milk from outside farms were taken by the Veterinary Officer. Of these 39 (11.3 per cent.) were found to contain tubercle bacilli. Forty-six visits were paid by the Veterinary Officer, under the provisions of the Milk and Dairies (Consolidation) Act, 1915, to milk producers' farms outside the Borough in connection with milk samples which proved, upon examination at the Municipal

Laboratory, to be tuberculous. These visits were made in company with the County Veterinary Inspectors of the districts concerned, and 1,764 cows were examined. Samples from all cows suspected to be affected with tuberculosis were taken for examination by the County Authorities. Thirty-seven cows on the farms inspected were found to be giving tuberculous milk and were slaughtered.

(b) *Farms, etc., within the Borough.*—There were at the end of the year 15 cowsheds within the boundaries of the Borough, 12 of these being in the extended area.

During the year, under the provisions of Part IV. of the Milk and Dairies Order, 1926 (an Order made by the Minister of Health) quarterly examinations were made by the Veterinary Officer of all dairy cows within the Borough. At the end of the year there were 15 cowsheds at farms within the Borough with a combined total of 260 dairy cows supplying milk. 74 visits in all were paid to these farms, and 1,435 inspections of cows were made. 27 samples of milk were taken from cows showing induration of the udder, and these were examined microscopically for the presence of tubercle bacilli. In four cases the result was positive and the affected cows were immediately slaughtered. 19 cows were discovered to be suffering from affections detrimental to the milk supply, and the use of their milk for human consumption was prohibited.

Milkshops and the retail sale of milk.—There are 147 registered milkshops in Birkenhead. In addition, the following are registered for retailing milk within the Borough—87 farmers resident outside Birkenhead, 4 “purveyors” of milk, and the owners of the 15 cowsheds within the Borough referred to in the preceding paragraph.

Applications for registration.—During the year 18 applications for registration—Milk and Dairies (Amendment) Act, 1922—have been received from persons desiring to retail milk within the Borough. 17 of these have been placed on the register. In the remaining case the applicant was persuaded to abandon his application, the premises being unsuitable.

Sale of “Graded” milk.—Under the Milk (Special Designations) Order, 1923, the following licences were granted:—

6 licences to persons other than producers to retail *certified milk* within the Borough.

6 licences to bottle and sell *Grade A (Tuberculin Tested) milk*.

6 licences to sell *Grade A (Tuberculin Tested) milk*.

8 licences to bottle and sell *Grade A milk*.

10 licences to sell *Grade A milk*.

1 licence to sell *Pasteurised milk*.

1 licence to produce *Grade A milk*.

In connection with the licence granted to the producer of *Grade A milk* within the Borough, the Veterinary Officer visited the premises quarterly during the year, 290 dairy cows being examined. Among these were 7 cows detected to be suffering from conditions requiring their exclusion from the herd, and were removed immediately.

The chemical and physical examination of milk.—During the year 256 samples of milk were taken for chemical analysis.

The bacteriological examination of milk.—191 samples of milk were examined in the Municipal Laboratory during the year, 163 of these samples were satisfactory and 28 were not satisfactory.

Suitable action was taken with regard to the unsatisfactory samples.

OTHER FOODS : DRUGS

Abattoirs in Birkenhead.—Particulars regarding these — the abattoir within the Woodside Lairages and the Corporation abattoir at Tranmere—were given in my annual report for 1920.

Meat inspection at Lairages and Abattoir.—The Veterinary Officer reports that during the year there were killed 48,153 oxen, 909 calves, 5,914 pigs, 13,476 sheep, a total of 68,452.

All animals slaughtered at the abattoir at Tranmere, at Wallasey Stage, and at Nos. 4 & 5 Sheds, Wallasey; and a considerable proportion of the animals slaughtered at Woodside Lairages were examined by the meat inspection staff.

The following statement is a summary of the meat, etc., condemned by the meat inspection staff at the lairages and abattoir during the year and surrendered by the owners for destruction. Formal seizure was necessary in one case and a magistrate's order for the destruction of the meat was obtained:—

The total number of carcasses seized was 447, weighing 160,264 lbs.

199 of these were seized on account of tuberculosis, their aggregate weight being 99,329 lbs. The remainder was seized on account of transit injuries, dropsy, sepsis, etc.

The number of parts of carcasses seized was 1,175, weighing 43,235 lbs.

Of these 867 were seized on account of tuberculosis; their aggregate weight being 33,536 lbs.

The total weight of offal seized was 425,440 lbs.

Inspection of meat and other foods at shops.—During the year 5,128 visits have been paid by the Inspectors to premises within the Borough. The total amount of foodstuffs condemned at the shops was 7,594 lbs.

Total weight of condemned meat and other foods during 1932.—The total weight of beef, mutton, pork and veal condemned at the slaughter-houses at the lairages and abattoir was 628,939 lbs. This, together with 7,594 lbs. of meat and food condemned at shops, gives a total of 636,539 lbs. (284 tons, 3 cwts., 1 qr., 9 lbs.) of food condemned within the Borough during the year.

Examination of imported sheep for caseous lymphadenitis.—During the year 2,608 imported sheep carcasses have been received into the Borough on licence from the Port of London Sanitary Authority. A 10% proportion of these were examined for caseous lymphadenitis, and 4 carcasses were found affected and were condemned.

Sale of Food Order, 1921, Merchandise Marks Act, 1926, and Agricultural Produce (Grading and Marking) Act, 1928.—Attention was given to these Acts and Orders in so far as they relate to the sale of foodstuffs.

Prosecutions.—During the year legal proceedings were instituted against one greengrocer for four offences with regard to the non-marking of tomatoes and apples and a fine of 10s. was inflicted for each offence.

Proceedings were also taken in 2 cases in connection with diseased or unsound food. Fines of £4 and £2 were imposed respectively.

Samples taken under Food and Drugs Acts.—During the year 518 samples were taken. Of these 259 were formal and 259 informal. 256 were samples of milk.

The articles sampled are set out in the following table:—

TABLE F 1.
Samples taken during 1932.

Article	No. samples taken formally	No. samples taken informally	Article	No. samples taken formally	No. samples taken informally
Milk	255	1	Pickles .....	...	2
Cream and tinned cream	5	Meat paste .....	...	1
Butter	17	Fish paste .....	...	2
Cheese	8	Black treacle .....	...	1
Wrapped cheese	3	Minced meat .....	...	2
Margarine	1	15	Crystallised fruit .....	...	1
Lard	12	Glace cherries .....	...	3
Dripping	5	Candied peel .....	...	1
Tea	4	Sultanas .....	...	3
Coffee	4	Raisins .....	...	1
Cocoa	3	Non-alcoholic wine .....	...	1
Condensed milk	8	Extract of malt & cod liver oil .....	..	1
Jam	7	Essence of almonds .....	...	1
Marmalade	2	Ground almonds .....	...	3
Lemon cheese	1	Borax and honey .....	...	1
Preserves	1	Herbal tea .....	...	1
Honey	1	Eucalyptus & menthol Tablets .....	...	1
Chocolates and sweets	6	Iodised throat tablets .....	...	1
Confectionery	7	Tincture of iodine	1	2
Sugar	2	Medicine .....	...	2
Sausages	1	13	Invalid food .....	...	1
Brawn	1	Olive oil .....	...	7
Minced beef	5	Syrup of linseed and liquorice .....	...	1
Beef suet with rice flour	1	Castor oil .....	...	5
Tinned fruits	2	Syrup of figs .....	...	1
Tinned fish	1	8	Liquid extract of castor oil .....	...	1
Tinned vegetables	2	Epsom salts .....	...	3
Tinned meat	1	Glauber Salts .....	...	2
Tinned pork and beans	2	Liquorice powder .....	...	1
Polony	1	Glycerine .....	...	3
Salmon creme	3	Saffron .....	...	1
Potted shrimps	1	Powdered cinamon .....	...	5
Fish cakes	1	Aspirin tablets .....	...	1
Pudding	1	Nerve powder .....	...	1
Rice	4	Vaseline .....	..	2
Cornflour	3	Zinc ointment .....	...	3
Barley	1	Sulphur ointment .....	...	1
White pepper	11	Sulphur tablets .....	...	1
Mustard mixture	1	Camphorated oil .....	...	2
Self-raising flour	4			
Diabetic loaf	1			
Sauces	2			
Vinegar	2			
Egg substitute powder	3			

Samples analysed formally 259
 Samples analysed informally 259

Total samples analysed during the year 518

Of the total number of samples analysed

- 24 samples of milk.
- 4 samples of sausages.
- 2 samples of tinned sardines.
- 2 samples of jam.
- 3 samples of margarine.
- 1 sample of tinned pork and beans.
- 2 samples of rice
- 1 sample of ground cinnamon.
- 2 samples of tincture of iodine.
- 1 sample of zinc ointment.

were reported adulterated, and proceedings were taken in respect of:—
8 samples of milk.

With reference to the remaining samples reported adulterated it was decided, after consideration of the circumstances, that it was inadvisable to institute proceedings.

Particulars of the defects found in those samples with regard to which proceedings were taken, and the result of the proceedings, are set out in Table F 2.

TABLE F 2.

Samples with reference to which proceedings were taken.

Nature of adulteration and result of proceedings.

Date	Article	No. of sample	Adulteration	Fine inflicted
Feb. 10	Milk	81	7% deficient in fat.....	Dismissed
June 2	Milk	263	10% deficient in fat.....	Withdrawn on payment of 10/6 costs
June 2	Milk	264	13% deficient in fat.....	10/- and 10/6 costs
June 30	Milk	300	7% deficient in fat.....	Dismissed
July 20	Milk	310	11% deficient in fat	Dismissed
Aug. 18	Milk	352	6% added water	£2 and 10/6 costs
Nov. 17	Milk	457	9% added water	Dismissed
Dec. 19	Milk	510	6% deficient in fat.....	Dismissed

TUBERCULOSIS.

ADMINISTRATIVE ARRANGEMENTS.

The arrangements made by the Birkenhead Corporation for dealing with tuberculosis in the area include:—

(a) The provision of a dispensary or clinic, opened in 1913. (This clinic is used on one half-day each week in connection with cases from the area of the administrative county of Chester).

(b) The provision of garden shelters for suitable cases at a small rent.

(c) The retention since August, 1914, of twelve beds at Leasowe Hospital for cases of surgical tuberculosis in children.

(d) A joint arrangement with the Cheshire County Council, and the Councils of the County Boroughs of Wallasey, Chester, Stockport and Stoke-on-Trent, for the provision of a sanatorium at Burntwood.

(e) The provision of a residential institution at Thingwall, Birkenhead.

(f) The treatment of tuberculous out-patients by artificial pneumothorax at the Birkenhead Infirmary.

(g) The visitation of tuberculous in-patients at the Birkenhead Infirmary by the Clinical Tuberculosis Officer.

The Corkhill Fund.—Under the will of the late Mr. John Lloyd Corkhill, of Birkenhead, a sum of money was provided for the assistance of persons suffering from consumption. By arrangement with the trustees, persons applying for help from the charity are examined at the municipal clinic, where appropriate treatment is decided upon.

PREVALENCE OF, AND MORTALITY FROM, TUBERCULOSIS.

Notifications.—The total number of primary cases of tuberculosis notified during 1932 was 328—236 respiratory and 92 non-respiratory. An analysis of these cases with reference to age and sex will be found in Table T 1 (page 21).

Mortality.—The total number of deaths, certified as due to tuberculosis, of patients who had previously been notified as suffering from the disease was 148—131 respiratory and 17 non-respiratory.

The total number of deaths, certified as due to tuberculosis, of patients who had *not* previously been notified as suffering from tuberculosis was 21—9 respiratory and 12 non-respiratory.

Adding these together, the total number of deaths certified as due to tuberculosis was as follows:—

Respiratory	140
Non-respiratory	29
	<hr/>
	169

An analysis of the tuberculosis mortality for the past ten years will be found in Table T 2 (page 22).

An analysis of the tuberculosis mortality during 1932 with reference to age and sex will be found in Table T 3 (page 22).

Number of known cases.—After making deductions for patients who had died during the year, or who had permanently left the district,

or whose names have been taken off the register as provisionally cured, the total number of known cases of tuberculosis in Birkenhead at the end of 1932 was as follows:—

	Insured	Not Insured	Total
Respiratory Male ...	304	100	404
Female ..	126	235	361
Non-respiratory Male	19	199	218
Female ...	49	211	260
Total... Male	323	299	622
Female ...	175	446	621
Total	498	745	1243

CASES DEALT WITH THROUGH THE TUBERCULOSIS CLINIC.

Attendances of patients at the clinic.—During the year 2,306 examinations were made. Of these 818 were *first* examinations (*i.e.*, examinations of patients who had not been seen previously at the clinic).* In addition to attendances made for the purpose of medical examination, 1,164 other attendances were made by patients for weighing, interview, advice or certification, and by patients' relatives in connection with questions arising as to treatment, removal, home conditions, etc.

* This number includes contacts.

Examination of patients who were notified for the first time during 1932.—Of the 328 new patients notified in 1932, 224 were examined at the clinic during the year. The remaining 104 were not referred to, did not attend at, or had been previously examined at, the clinic.

Classification of new cases.—The 580 new patients who attended during the year were classified as follows:—

	*Adults	Children	Total
Classed as suffering from respiratory tuberculosis	Males ...	4	86
	Females	11	99
Classed as suffering from other forms of tuberculosis	Males ...	27	37
	Females	26	36
Classed as non-tuberculous	Males ...	75	150
	Females	58	157
Classed as "suspect"	Males ...	4	6
	Females	5	9
Total...	Males	110	279
	Females	100	301
Total	370	210	580

* All patients of fifteen years and upwards are classed as adults.

Examination of contacts.—238 persons who had been in close contact with known cases of tuberculosis were examined either at the clinic or at their homes, and were classified as follows:—

		*Adults	Children	Total
Classed as suffering from respiratory tuberculosis	Males ...	—	1	1
	Females	1	1	2
Classed as suffering from other forms of tuberculosis	Males ...	—	1	1
	Females	—	1	1
Classed as non-tuberculous.....	Males	24	74	98
	Females	48	87	135
Classed as "suspect"	Males	—	—	—
	Females	—	—	—
Total...	Males ...	24	76	100
	Females	49	89	138
Total.....		73	165	238

* All patients of fifteen years and upwards are classed as adults.

HOME VISITING ; DISINFECTION ; COMPULSORY TREATMENT ; ETC.

During the year the health nurses paid 321 first visits and 3,097 re-visits to the homes of patients.

The number of houses disinfected after death or removal of patients was 150.

Spitting flasks are provided free of charge to patients.

The compulsory removal to hospital for a period not exceeding 3 months of a person suffering from pulmonary tuberculosis in an infectious state and whose condition is a danger to other members of the house is provided for by the Public Health Act, 1925 (Sec. 62).

The power to prevent a person suffering from tuberculosis of the respiratory tract from entering upon any employment or occupation in connection with a dairy which would involve the milking of cows, the treatment of milk, or the handling of vessels used for containing milk, is given to a Local Authority under the Public Health (Prevention of Tuberculosis) Regulations, 1925.

It was not found necessary during the year to make use of the above powers in Birkenhead.

THINGWALL SANATORIUM.

Patients dealt with.—At the commencement of the year there were 36 patients in the Sanatorium. There were 77 admissions during the year. These were classified as follows:—

Tuberculosis of bones and joints	8
" abdominal glands or peritoneum	23
" cervical and other glands	13
" lungs (all non-infectious cases)	1
For observation and diagnosis	32

75 patients were discharged or transferred to other institutions; no deaths occurred. The condition on discharge may be summarised as follows:—

Disease quiescent	29
Improved	20
No material improvement	5
Found after observation not to be suffering from tuberculosis	21

There were 38 patients under treatment at the end of the year.

Average duration of stay. For the patients discharged during the year the average length of stay in the sanatorium was 23 weeks.

CESHIRE JOINT SANATORIUM.

The Cheshire Joint Sanatorium was opened on the 6th November, 1923, for 50% of the approved bed accommodation.

The approved accommodation for Birkenhead cases (32 beds) is now available.

Patients dealt with.—At the beginning of the year 32 Birkenhead patients were under treatment. During the year 51 Birkenhead patients were admitted, and 52 were discharged; 31 patients remained under treatment at the end of the year.

	Men	Women	Children (under 15)	Total
In Sanatorium January 1, 1932	18	14	—	32
Admitted during year	28	23	—	51
Discharged or left Sanatorium during year	29	23	—	52
Died in Sanatorium	—	—	—	—
In Sanatorium December 31, 1932 ...	17	14	—	31

The following table shows the classification, length of stay, and result of treatment of the cases discharged during the year:—

Classification prior to entering Sanatorium*	Condition on discharge from Sanatorium	DURATION OF STAY IN SANATORIUM								Totals	
		Under 3 months		3 to 6 months		6 to 12 months		Over 1 year			
		M	F	M	F	M	F	M	F	M	F
T. B. minus	Quiescent	—	—	—	—	—	1	—	—	—	1
	Improved	1	1	1	2	3	1	—	1	5	5
	No material improvement	—	1	—	—	—	—	—	1	—	2
	Died	—	—	—	—	—	—	—	—	—	—
T. B. plus Group I.	Quiescent	—	—	—	—	1	1	—	1	1	2
	Improved	—	—	—	—	—	—	2	1	2	1
	No material improvement	—	—	1	1	—	—	—	—	1	1
	Died	—	—	—	—	—	—	—	—	—	—
T. B. plus Group II.	Quiescent	—	—	—	—	—	—	—	—	—	—
	Improved	1	1	1	1	9	3	4	2	15	7
	No material improvement	1	1	1	—	2	2	—	—	4	3
	Died	—	—	—	—	—	—	—	—	—	—
T. B. plus Group III.	Quiescent	—	—	—	—	—	—	—	—	—	—
	Improved	—	—	1	—	—	—	—	—	1	—
	No material improvement	—	—	—	—	—	1	—	—	—	1
	Died	—	—	—	—	—	—	—	—	—	—

*Explanation of group nomenclature: Patients suffering from pulmonary tuberculosis are divided into groups which may briefly be defined as follows:—

T. B. minus—cases in which tubercle bacilli have never been demonstrated in the sputum, etc.

T. B. plus, Group I—cases in which tubercle bacilli have at any time been demonstrated with slight constitutional disturbance and where the physical signs are of very limited extent.

T. B. plus, Group II—all cases which are neither slight nor advanced and which cannot be placed in Group I. or III.

T. B. plus, Group III—cases with profound systemic disturbance or constitutional deterioration, marked impairment of function, either local or general, and with little or no prospect of recovery.

It should be noted that a patient originally in Group T. B. minus must be transferred to Group T. B. plus at any stage in the course of treatment if and when tubercle bacilli are found, while on the other hand a patient who is once placed in Group T. B. plus can never be transferred to Group T. B. minus.

A full explanation of the Groups will be found in Memorandum 37 T issued by the Ministry of Health in September, 1925.

LEASOWE HOSPITAL.

The twelve beds reserved by the Corporation at Leasowe Hospital for cases of *surgical tuberculosis* among Birkenhead residents have been in occupation throughout the year.

There were 12 cases in hospital at the beginning of the year; 6 new cases have been admitted during the year, and 6 have been discharged or died; leaving 12 patients in hospital at the end of December.

The localisation of the disease in the 18 patients under treatment during the year was as follows:—

Tuberculosis of spine	5
" hip	8
" knee	2
" ankle	1
" intestines	1
" hand	1

The 6 cases discharged or died were as follows:—

Tuberculosis of hip.....	}	1	No material improvement
		2	Quiescent
" knee.....		2	Quiescent
" spine.....		1	Quiescent
		—	
		6	
		—	

BIRKENHEAD INFIRMARY

By arrangement with the Public Assistance Committee, patients attending the tuberculosis clinic may be sent to the Birkenhead Infirmary for examination with X-rays. Here also artificial pneumothorax treatment is carried out by Dr. Foster, the tuberculosis officer; who also visits the wards in the Infirmary allotted to tuberculous patients.

(a) **X-ray examinations.**—During the year 51 patients were sent from the clinic for X-ray examination at the Infirmary; and the help with diagnosis and selection of suitable treatment obtained from these examinations was of the highest value. This number might, with great advantage to patients, have been largely exceeded had funds permitted; and it is to be hoped that at an early date more generous provision will be possible for this work.

In some areas every patient attending the tuberculosis clinic is examined by X-rays.

In the "Report of Proceedings for 1930-31 of the Joint Tuberculosis Council" (issued following on a visit paid to Canada and the United States by fifty tuberculosis specialists) the following statement appears:—

"Some of us were shocked at first to find our colleagues replacing the stethoscope by the radiograph, but we have now come to believe that a good chest radiograph is essential in every case and that no expert should attempt a final diagnosis of chest diseases, a prognosis, or plan a treatment campaign without the advantage of a good film."

(b) **Artificial pneumothorax treatment.**—During 1932 there were 305 screenings performed, and 257 refills given; included in the latter being 4 primary inductions. The treatment was carried out twice weekly at the Infirmary. Dr. Foster reports:—"The faith that the patients undergoing this form of treatment have in it is remarkable, and it is even difficult to persuade some of them to discontinue it when the time comes to do so. Most patients feel better mentally and physically while undergoing treatment. A feeling of euphoria and confidence is engendered which undoubtedly assists them in their fight against the disease."

(c) **Sanocrysin.**—Permission was obtained from the Committee to exhibit this drug to suitable patients. So far two patients are receiving Sanocrysin, and are apparently improving. Great caution has to be observed in using this drug, which is a preparation of gold salts given intravenously, as reactions are of common occurrence and frequently severe.

(d) **General.**—The tuberculosis wards at the Infirmary receive mainly advanced cases of tuberculosis. During the past year, however, the tuberculosis officer has been able to make increased use of the

accommodation for the purpose of observation, noting the response to short spells of treatment in patients of the T.B.+ category. It is usually possible to judge after a month whether a patient of this type will be suitable or not for transfer to a sanatorium.

Again, it is of great advantage to place an early case in an institution pending a vacancy at a sanatorium, as initial treatment and complete rest in bed can be instituted at once. The patient then enters on sanatorium treatment in much better condition than he would have been had he remained at home, probably under-nourished and in unhygienic surroundings, retrogressing, and a danger to others.

NON-PULMONARY TUBERCULOSIS IN ADULTS.

No beds are reserved by the Corporation for the institutional treatment of non-pulmonary ("surgical") tuberculosis in adults, that is in persons over fifteen years of age. The number of such cases is not large, and considerable assistance has been given in the past by the Corkhill Charity Trustees in finding accommodation for some, at least, of the cases in suitable institutions.

Some years ago the Corporation approached the Committee of the Leasowe Hospital with the suggestion that provision might with advantage be made at that institution for adults as well as children, and offered to make use of beds in the event of this suggestion being taken up. The Committee could not, however, see their way clear to take such a step at that time.

It is certainly desirable that the Corporation should have at its disposal beds for this class of case; and it is to be hoped that some solution will be found in the near future.

TABLE T 1.

New cases notified for first time during the year.

PRIMARY NOTIFICATIONS												
Age periods.....	C-1	1-5	5-10	10-15	15-20	20-25	25-35	35-45	45-55	55-65	65 and up	Total
Respiratory—Males	—	1	1	5	5	19	34	22	15	9	7	118
Females	—	1	3	11	18	18	34	15	12	4	2	118
Non-respiratory—Males	—	8	16	7	3	3	3	—	1	—	—	41
Females	—	14	12	11	5	1	6	1	—	—	1	51
Totals.....	—	24	32	34	31	41	77	38	28	13	10	328

TABLE T 2.

Deaths from tuberculosis during the past ten years.

	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Deaths from tuberculosis of the lungs—										
Number	109	136	123	122	155	150	164	141	144	140
Rate per 1000	0.72	0.88	0.79	0.77	0.98	0.95	1.04	0.89	0.97	0.95
A Males—										
Number	67	75	61	68	97	82	93	83	83	72
Rate	0.44	0.48	0.39	0.43	0.61	0.52	0.58	0.52	0.55	0.48
B Females—										
Number	42	61	62	54	58	68	71	58	61	68
Rate	0.28	0.40	0.39	0.34	0.37	0.43	0.46	0.36	0.42	0.46
Deaths from other forms of tuberculosis—										
Number	43	51	35	39	45	43	39	29	36	29
Rate per 1000	0.28	0.33	0.22	0.24	0.28	0.27	0.24	0.18	0.24	0.19
A Males (all ages)										
Number	21	25	17	18	28	28	18	11	17	15
Rate	0.14	0.16	0.10	0.11	0.18	0.18	0.11	0.06	0.11	0.10
B Females (all ages)										
Number	22	26	18	21	17	15	21	18	19	14
Rate	0.14	0.17	0.11	0.13	0.10	0.09	0.13	0.11	0.13	0.09
C Children (un. 5 yrs)										
Number	20	26	22	24	22	21	19	8	22	6
Rate	0.13	0.17	0.13	0.15	0.13	0.13	0.12	0.05	0.14	0.04
Deaths from tuberculosis (all forms)—										
Number	152	187	158	161	200	193	203	170	180	169
Rate per 1000	1.00	1.21	1.15	1.02	1.26	1.22	1.29	1.07	1.21	1.14
<i>Rate per 1000 England & Wales</i>	1.00	1.06	1.03	0.96	0.97	0.93	0.96	0.89	0.89	0.83

TABLE T 3.

New cases and mortality during 1932.

Ages	*NEW CASES				DEATHS			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	M.	F.	M.	F.	M.	F.	M.	F.
0.....	1	—	1	—	1	—	1	—
1.....	1	1	10	14	—	2	3	2
5.....	1	3	19	14	—	—	4	2
10.....	5	11	7	11	1	2	3	1
15.....	5	18	5	5	1	5	1	4
20.....	20	19	5	1	5	12	2	1
25.....	35	37	3	6	15	17	—	1
35.....	24	15	—	3	19	11	—	2
45.....	19	12	1	—	16	8	—	—
55.....	9	6	—	—	8	7	1	—
65 and upwards.....	8	2	—	2	6	4	—	1
Totals.....	128	124	51	56	72	68	15	14

* Includes all primary notifications and also all other new cases of tuberculosis which came to the knowledge of the Medical Officer of Health during the year.

VENEREAL DISEASES.

ADMINISTRATIVE ARRANGEMENTS.

The diagnosis and treatment of cases of venereal diseases have been carried on at the Municipal Clinic at the Birkenhead General Hospital for the past fifteen years. The new premises at the Hospital, to which reference was made in my report for 1930, have proved very satisfactory and have conferred additional privacy on patients attending the clinic.

At this clinic, Dr. Foster, assisted by Dr. Davidson, has dealt with the male patients, and Dr. Deacon, assisted by Dr. Williams, with the female patients.

The appointment of a full-time male venereal diseases orderly was made during 1931.

The total number of attendances at the clinic this year showed an increase of over 1,000 as compared with 1931. The increase in total attendances may be attributed to the more frequent use made of the Clinic for intermediate treatment; and the mid-day clinic sessions for irrigations have also been well attended.

Of the 533 new cases, 358 were residents of Birkenhead, 25 were from Cheshire County, 14 from Wallasey, 5 from Liverpool and 106 from India, Burma and Ceylon.

At the special clinic for children which was opened at No. 9, Hamilton Square in 1926, Dr. Deacon has been in attendance during the year. At this clinic the number of new cases seen during the year was 44 as compared with 70 in the previous year; the attendances numbered 941 as compared with 979, a decrease of 38.

GENERAL NOTES.

Cases dealt with.—(a) General Hospital clinic. During the year 955 persons, comprising 573 males and 382 females, were dealt with at the clinic as out-patients.

The total attendances of out-patients was 12,312; the number of in-patient days was 204.

New patients numbered 322 males and 211 females; of these 175 were non-residents of Birkenhead. As is usual in sea-ports sailors of many nationalities were treated at the clinic. Natives of Germany, Australia, Ireland, Norway, Lithuania, Sweden, India, Burma and Ceylon attended during the year.

(b) Hamilton Square clinic.—During the year 153 children (76 males and 77 females) were dealt with at the clinic as out-patients, the total attendances made being 941.

The new cases seen numbered 44, and were diagnosed as follows:—

Syphilis (congenital in all cases)	14
No venereal disease.....	30

Bacteriological work.—(a) 609 smears were examined—24 at the clinic and 585 at the municipal laboratory—for the presence of gonococci, 18 specimens for the detection of spirochætes were examined at the clinic, and 6 specimens of cerebro-spinal fluid were examined at the municipal laboratory by the colloidal gold test.

(b) At the University of Liverpool, Professor Beattie examined 1,331 specimens, 539 of these being sent from the municipal clinic at the Birkenhead General Hospital, 58 from the Hamilton Square clinic, and 734 from private medical practitioners and hospitals in the area. Of the specimens sent, 1,330 were for the Wassermann reaction and 1 was for the detection of gonococci.

Special cases.—There were 2 cases of arsenical dermatitis during the year, both in males. One was of an extremely severe type as, in addition to total desquamation, the patient also lost all his hair and his nails. The skin of the soles of his feet exfoliated in one complete piece and has been preserved in the Municipal Laboratory.

There were 2 cases of gonococcal vulvovaginitis in children, aged 2 and 2½ years. These children were from separate families who lived in the same house and, as the parents were healthy, it is presumed that the condition occurred by using the same lavatory seat.

Treatment of Birkenhead patients carried out at other treatment centres.—So far as has been ascertained from official returns which have been received from other areas, Birkenhead patients attended other treatment centres as shown in Table V 3.

Issue of arsenobenzene compounds.—Arsenobenzene compounds were issued during the year by the Medical Officer of Health to the Medical Officers of the treatment centres at the General Hospital and at No. 9, Hamilton Square, to the Medical Officer, Birkenhead Infirmary, to eight approval local practitioners.

TABLE V I.

Statement showing the services rendered at the Venereal Diseases Clinic at the Birkenhead General Hospital during the year, classified according to the diseases dealt with.

	Syphilis		Soft chancre		Gonorrhoea		Conditions other than venereal		Totals		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	T's.
1. Number of cases on 1st January under treatment or observation	113	115	2	—	94	34	18	1	227	150	377
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	11	16	—	—	13	5	—	—	24	21	45
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	15	3	—	—	—	—	—	—	15	3	18
" secondary	—	1	—	—	—	—	—	—	—	1	1
" latent in 1st year of infection	1	1	—	—	—	—	—	—	1	1	2
" all later stages	39	39	—	—	—	—	—	—	39	39	78
" congenital	3	4	—	—	—	—	—	—	3	4	7
Soft Chancre	—	—	5	—	—	—	—	—	5	—	5
Gonorrhoea, 1st year of infection	—	—	—	—	96	27	—	—	96	27	123
" later	—	—	—	—	22	4	—	—	22	4	26
Conditions other than venereal	—	—	—	—	—	—	111	130	111	130	241
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	14	2	1	—	15	—	—	—	30	2	32
Totals of Items 1, 2, 3 and 4 ..	196	181	8	—	240	70	129	131	573	382	955
5. Number of cases discharged after completion of treatment and final tests of cure	1	2	1	—	39	—	113	126	154	128	282
6. Number of cases which ceased to attend before completion of treatment and were, on first attendance, suffering from:—											
Syphilis, primary	7	1	—	—	—	—	—	—	7	1	8
" secondary	—	1	—	—	—	—	—	—	—	1	1
" latent in 1st year of infection	2	—	—	—	—	—	—	—	2	—	2
" all later stages	9	37	—	—	—	—	—	—	9	37	46
" congenital	—	3	—	—	—	—	—	—	—	3	3
Soft Chancre	—	—	—	—	—	—	—	—	—	—	—
Gonorrhoea, 1st year of infection	—	—	—	—	39	17	—	—	39	17	56
" later	—	—	—	—	12	7	—	—	12	7	19
7. Number of cases which ceased to attend after completion of treatment but before final tests of cure	2	2	—	—	16	—	—	—	18	2	20
8. Number of cases transferred to other centres or to institutions, or to care of private practitioners	54	8	3	—	43	4	—	—	100	12	112
9. Number of cases remaining under treatment or observation on 31st December	121	127	4	—	91	42	16	5	232	174	406
Total of Items 5, 6, 7, 8 and 9 (These totals should agree with those of Items 1, 2, 3 and 4)	196	181	8	—	240	70	129	131	573	382	955

TABLE V I.—(continued)

	Syphilis		Soft Chancre		Gonorrhœa		Conditions other than venereal		Totals		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	T'ls.
10. Number of cases in the following stages of syphilis included in Item 6 which failed to complete one course of treatment—											
Syphilis, primary	4	—	—	—	—	—	—	—	4	—	4
,, secondary	—	1	—	—	—	—	—	—	—	1	1
,, latent in 1st year of infection.....	1	—	—	—	—	—	—	—	1	—	1
,, all later stages	1	19	—	—	—	—	—	—	1	19	20
,, congenital	—	1	—	—	—	—	—	—	—	1	1
11. Number of attendances—											
(a) For individual attention of the medical officers.....	1292	1621	30	—	1548	917	262	255	3132	2793	5925
(b) For intermediate treatment, e.g. irrigation, dressing.....	157	83	—	—	5167	704	208	68	5532	855	6387
Total attendances...	1449	1704	30	—	6715	1621	470	323	8664	3648	12312
12. In-patients —											
(a) Total number of persons admitted for treatment during the year	3	2	—	—	5	2	—	1	8	5	13
(b) Aggregate number of "in-patient days" of treatment given.	52	23	—	—	35	82	—	12	87	117	204
13. Pathological Work.—											
	Microscopical		Serum Tests								
	for Spirochetes	for Gonococci	Wassermann	Others for Syphilis	for Gonorrhœa						
(a) Number of specimens examined at and by the medical officer of the treatment centre	18	24	—	—	—						
(b) Number of specimens from patients attending at the centre sent for examination to an approved laboratory...	—	585	539	6	—						

TABLE V 2.

Statement showing the services rendered at the Venereal Diseases Clinic at the Birkenhead General Hospital during the year, classified according to the areas in which the patients resided.

	Birkenhead	Australia	Bristol	Burma	Carnarvonshire	Ceylon	Cheshire	Cumberland	Denbighshire	Denmark	Flintshire	Germany	India	Ireland	Kent	Latvia	Lithuania	Liverpool	London	Manchester	Newcastle-on-Tyne	Norway	Plymouth	Scotland	Southport	South Shields	Sweden	Walsley	Yorkshire	Total		
A. Number of persons from each area dealt with during the year, at or in connection with the out-patient clinic for the first time, and found to be suffering from—																																
Syphilis	76	-	-	5	-	4	-	-	-	1	-	-	30	-	1	1	-	2	1	-	-	-	1	-	-	-	-	-	-	122		
Soft chancre	1	-	-	2	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	6			
Gonorrhoea	99	-	-	1	-	4	13	1	-	-	1	1	19	2	1	-	-	3	1	-	1	1	-	1	1	1	13	-	164			
Conditions other than venereal	182	-	-	2	-	-	11	-	1	-	-	-	38	1	1	2	-	-	-	-	-	1	-	-	1	-	-	1	241			
Total	358	-	-	10	-	8	25	1	1	1	1	1	88	3	3	3	-	5	2	-	1	1	1	1	2	1	14	1	533			
B. Total number of attendances at the out-patient clinic of all patients residing in each area	10059	84	1	42	4	23	712	6	1	4	54	2	314	16	13	3	1	296	99	1	1	5	5	1	6	3	514	1	12312			
C. Aggregate number of "in-patient days" of all patients residing in each area	197	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	204			
D. Number of doses of arsenobenzene compounds given in the out-patient clinic and in-patient department to patients residing in each area	1476	-	-	7	-	-	75	-	-	-	-	-	55	14	10	1	-	22	1	1	-	-	2	-	1	1	25	-	1691			

TABLE V 3.

Statement showing particulars of Birkenhead cases treated at Venereal Diseases Clinics in other areas.

Name of town	No. of patients	Disease	Attendances at out-patient clinic	No. of in-patient days	No. of doses of arseno. benzene compounds given in the out-patient clinic and in-patient department
Liverpool					
(David Lewis Northern Hos.)	7	Syphilis 4 Gonorrhœa 3	} 297	—	90
(Stanley Hos.)	2	Gonorrhœa 2	10	--	—
(Royal Infirm.)	8	Syphilis 3 Gonorrhœa 4 Conditions other than venereal 1	} 414	—	46
(Seamen's Dispensary)	42	Syphilis 6 Soft chancre 2 Gonorrhœa 26 Conditions other than venereal 8	} 1579	—	93
(Royal Southern Hospital)	2	Gonorrhœa 1 Conditions other than venereal 1	} 248	116	8
Wallasey	2	Gonorrhœa 2	72	—	—
Greenwich ...	2	Gonorrhœa 2	27	—	—
South Shields ...	1	Gonorrhœa 1	2	—	—

OTHER INFECTIOUS DISEASES.

INFECTIOUS DISEASES WHICH ARE NOTIFIABLE.

The infectious diseases which (in addition to tuberculosis already dealt with) were compulsorily notifiable to the Medical Officer of Health at any time during the past year are set out in Tables I 1 and I 2 below.

TABLE I 1.

Infectious diseases other than tuberculosis notified during 1932 ;
showing seasonal incidence.

Disease	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Smallpox	—	—	—	—	—	—	—	—	—	—	—	—	—
Scarlatina	12	12	7	8	9	9	12	10	14	18	19	18	148
Diphtheria and membra- nous croup	22	20	17	22	19	18	20	17	13	28	20	43	259
Erysipelas	9	7	11	10	2	9	4	1	5	7	8	12	85
Typhus fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Typhoid fever	—	1	—	—	1	—	3	2	1	5	2	—	15
Continued fever.....	—	—	—	—	—	—	—	—	—	—	—	—	—
Relapsing fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebro-spinal meningitis	—	—	1	—	1	—	1	—	—	—	—	1	4
Encephalitis lethargica (acute).....	—	—	—	—	—	—	—	—	1	—	—	—	1
Polio-encephalitis (acute)	—	—	—	—	—	—	—	—	—	—	1	—	1
Poliomyelitis (acute)....	—	—	—	—	—	—	—	—	2	2	1	—	5
Puerperal pyrexia	3	—	3	1	1	2	—	4	4	—	1	1	20
Puerperal fever	2	4	1	—	—	—	—	—	—	—	—	—	7
Ophthalmia neonatorum	2	2	3	1	1	1	2	3	—	2	—	3	20
Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—
Pneumonia	60	23	30	23	25	22	19	5	21	15	13	32	288
Malaria	1	1	1	—	1	—	—	—	—	—	2	1	7
Dysentery	—	—	—	—	—	—	—	—	—	—	—	—	—
Trench fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	111	70	74	65	60	61	61	42	61	77	67	111	860

TABLE I 2.

Infectious diseases other than tuberculosis notified during 1932; showing ages.

Disease	und. 1 yr.	1-2 yrs.	2-3 yrs.	3-4 yrs.	4-5 yrs.	5-10 yrs.	10-15 yrs.	15-20 yrs.	20-35 yrs.	35-45 yrs.	45-65 yrs.	65 yrs. up	Total.
Smallpox	—	—	—	—	—	—	—	—	—	—	—	—	—
Scarlatina	—	1	4	12	14	13	67	17	11	8	1	—	148
Diphtheria and membra- nous croup	3	11	12	19	16	102	51	18	24	2	1	—	259
Erysipelas	5	1	—	—	—	2	3	2	13	18	29	12	85
Typhus fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Typhoid fever	—	—	—	—	—	3	1	2	7	1	1	—	15
Continued fever.....	—	—	—	—	—	—	—	—	—	—	—	—	—
Relapsing fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebro-spinal meningitis	1	1	1	—	—	—	—	1	—	—	—	—	4
Encephalitis lethargica (acute).....	—	—	—	—	—	—	—	—	1	—	—	—	1
Polio-encephalitis (acute)	—	—	—	—	—	1	—	—	—	—	—	—	1
Poliomyelitis (acute) ..	—	—	—	3	—	2	—	—	—	—	—	—	5
Puerperal pyrexia	—	—	—	—	—	—	—	1	14	5	—	—	20
Puerperal fever	—	—	—	—	—	—	—	1	4	2	—	—	7
Ophthalmia neonatorum	20	—	—	—	—	—	—	—	—	—	—	—	20
Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—
Pneumonia.....	28	37	14	9	7	16	20	23	48	33	32	21	288
Malaria	—	—	—	—	—	1	—	—	5	—	1	—	7
Dysentery	—	—	—	—	—	—	—	—	—	—	—	—	—
Trench fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	57	51	31	43	37	140	142	65	127	69	65	33	860

Case-rates of certain diseases.—The case-rates of certain diseases for Birkenhead, and for England and Wales, per 1,000 living, are set out below:—

	Case-rate per 1,000 living.	
	Birkenhead	England and Wales
Smallpox	0.00	0.05
Scarlet fever	1.00	2.12
Diphtheria	1.75	1.08
Enteric fever	0.10	0.06
Puerperal pyrexia	0.13	0.14
Puerperal fever	0.05	0.05
Erysipelas	0.57	0.36

Encephalitis lethargica.—One case was notified during the year.

Cerebro-spinal fever.—Four cases were notified during the year.

Smallpox.—No cases of smallpox were notified in Birkenhead during the year.

Smallpox was present in many parts of England and Wales throughout the year; 2,070 cases being notified. The Registrar-General's returns show the prevalence and mortality to have been as set out below:—

Year	Smallpox in England and Wales.	
	Number of cases	Deaths
1924	3,792	13
1925	5,365	9
1926	10,205	19
1927	14,769	49
1928	12,433	53
1929	10,975	39
1930	11,855	28
1931	5,665	9
1932	2,070	3

DISINFECTION.

Books.—141 Public Library books were collected from infected houses and disinfected.

Dwellings.—304 house-disinfecting notices were served; 495 houses or parts of houses were disinfected during the year.

Bedding and clothes.—Infected bedding and clothes were collected from 465 dwellings and disinfected. In 34 further cases infected or discarded bedding and clothes were destroyed.

Visits and revisits paid to houses, etc., by the Infectious Diseases Inspector.—2,207 visits and revisits to property were made during the year in connection with disinfection after infectious diseases (including tuberculosis).

VACCINATION.

Public vaccination.—In connection with the coming into force of the provisions of the Local Government Act, 1929, the duties in connection with public vaccination have been transferred to the Local Authority, who have empowered the Health Committee to administer the Vaccination Acts within the Borough.

Information relative to the number of persons successfully vaccinated and re-vaccinated at the cost of the rates by the Medical Officers of the Poor Law Institutions and the Public Vaccinators during the year ended 30th September, 1932, is given below:—

Name of District	Name of Medical Officer or Public Vaccinator	No. of successful primary vaccinations of persons:—			No. of successful re-vaccinations, <i>i.e.</i> , of persons who had been successfully vaccinated at some previous time.
		Under 1 year of age	1 year and upwards	Total	
Birkenhead	Dr. H. C. Pierce	649	4	653	5
Tranmere	Dr. H. L. Pearson	517	9	526	11
Birkenhead Infirmary and Institution	Dr. G. J. French	6	—	6	1
	Total ..	1,172	13	1,185	17

The following is the latest completed information relative to vaccination in the Borough and relates to children whose births were registered from 1st January to 31st December, 1931, inclusive, viz.:—

	Birkenhead District	Tranmere District	Prenton District	Whole Borough
No. of births	1,585	1,196	19	2,800
Successfully vaccinated	900	710	13	1,623
Insusceptible	19	12	1	32
Had smallpox	—	—	—	—
Number in respect of whom statutory declarations of conscientious objection have been received	411	341	3	755
Died unvaccinated	83	65	—	148
Postponements, removals, or cases not found, etc.	172	68	2	242
Total No. of certificates and copies of certificates of successful primary vaccination of children received during the calendar year 1932	840	826	—	1,666
No. of statutory declarations of conscientious objection actually received by the Vaccination Officers irrespective of the dates of birth of the children under 14 to which they relate during the calendar year 1932	374	339	—	713
No. of cases successfully vaccinated after the declaration of conscientious objection had been made	—	—	—	—
No. of copies of certificates of successful primary vaccination sent to Vaccination Officers of other districts during 1932 ...	6	87	—	93

Public Health (Smallpox Prevention) Regulations, 1917.—No primary vaccinations or revaccinations were performed by the Medical Officer of Health during the year.

ISSUE OF DIPHTHERIA ANTITOXIN.

During the year, in accordance with the provisions of the Diphtheria Antitoxin (outside London) Order, 1910, diphtheria antitoxin was issued to 8 medical practitioners; a total of 160,000 units was given out.

IMMUNISATION AT CLINICS AGAINST DIPHTHERIA.

Since 1926 facilities have been offered to the mothers attending the infant welfare clinics to have their children immunised against diphtheria.

During the year ended 31st December, 1932, 96 children were presented at the various clinics for the first of a course of immunising injections. Of these, 52 completed the course before the end of the year, 29 had 2 injections and 15 had 1 injection. In addition, 19 children whose treatment was commenced in 1931 were given their final injections, making a total of 71 children completing the course in 1932. From the date of the commencement of the treatment in 1926 until the end of 1932, 545 children have received the full course of 3 or more injections.

Children who have received less than 3 injections cannot be said to have full opportunity of complete immunisation. Experience indicates that about 80% of cases who have had a full course will be immune, while the remaining 20% may require a further short course of treatment.

Details of treatment carried out in 1932 are set out below:—

Clinic	1 injection	2 injections	3 or more injections	Total	1931 cases completed	Total
Hamilton Square	12	23	39	74	19	93
North	—	—	4	4	—	4
St. Paul's Road	1	3	2	6	—	6
Mount Grove	2	3	7	12	—	12
Total	15	29	52	96	19	115

(Note.—For immunisation carried out at the Fever Hospital see page 35.)

HOME NURSING.

The arrangement made between the Corporation and the Birkenhead District Nursing Society, dating from 1st July, 1919, provides for the home nursing of cases of influenza and pneumonia. During the year 1932 the Society's nurses paid 2,017 visits in respect of 83 cases.

INFECTIOUS DISEASES HOSPITAL.

Cases treated during 1932.—At the beginning of the year there were 33 patients in the Infectious Diseases Hospital.

During the year there were 517 patients admitted to the Wards, so that the total number of cases treated during 1932 was 550, involving a total number of in-patient days of 16,276, or 29.5 days per patient.

There were 461 discharges and 24 deaths during the year; leaving 65 patients in hospital on 31st December, 1932.

The diseases treated, together with the sex of the patients and particulars as to recoveries and deaths, are shown below:—

TABLE I 3.

Patients sent in as suffering from	In hospital at beginning of year	Admitted during year	Died during year	Discharged during year	Remaining in hospital at end of year
Scarlet fever .....M.	4	64	1	57	10
F.	4	72	1	66	9
Diphtheria.....M.	11	121	5	108	19
F.	12	128	8	113	19
Enteric fever .....M.	0	11	2	8	1
F.	0	10	0	9	1
Cerebro spinal fever .....M.	0	2	2	0	0
F.	0	2	2	0	0
Erysipelas .....M.	0	10	1	9	0
F.	0	13	1	9	3
Measles .....M.	0	26	0	24	2
F.	0	17	0	16	1
Whooping cough .....M.	2	10	0	12	0
F.	0	7	0	7	0
Impetigo.....M.	0	5	0	5	0
F.	0	6	0	6	0
Other diseases .....M.	0	5	0	5	0
F.	0	8	1	7	0
Totals	33	517	24	461	65

The hospital was unusually busy throughout the year, the number of cases admitted being 151 in excess of the number admitted during 1931. This was accounted for partly by the effort made to admit to hospital complicated cases of measles and whooping cough, and partly by an all-round increase in the incidence of the ordinary notifiable infectious diseases. A notable increase occurred in the number of cases of erysipelas admitted, viz. 23, as against 1 case admitted during 1931.

Diphtheria.—Of 249 cases admitted to the diphtheria wards, 168 were finally diagnosed as suffering from diphtheria. The addition of one case erroneously diagnosed as enteric fever brings the diphtheria total to 169.

Of the remainder 18 were "carriers," and 63 were found to be suffering from diseases other than diphtheria or from no disease. The corrected diagnosis in these cases was as follows: tonsillitis (40), catarrhal laryngitis (6), scarlet fever (3), broncho-pneumonia (3), peritonsillar abscess (2), Vincent's angina (2), rhinorrhœa, mumps, ophthalmitis, measles and poliomyelitis. Two cases were suffering from no disease.

There were 11 deaths ascribed to diphtheria. The mortality calculated on actual clinical cases was 7.1%—a reduction of 1.9% on the figures for 1931.

Of cases found not to be suffering from diphtheria, one died—a case of acute polio-encephalitis.

Of the 11 cases dying of diphtheria, 3 died within 24 hours of admission, one was suffering from severe scarlet fever in addition to diphtheria, and one from extensive burns.

13 cases were admitted suffering from laryngeal obstruction; in 5 of these there was no clinical evidence of diphtheria; 3 required the operation of tracheotomy, and of these 2 died.

Tonsillectomy.—9 cases who proved to be persistent carriers of virulent bacilli required the operation of tonsillectomy before being discharged from hospital.

Duration of illness before admission to hospital.—The average duration of illness before admission was 4.15 days.

Days in hospital.—The average length of stay in hospital of all cases suffering from diphtheria was 47.64 days.

Complications.—The paralysis rate, excluding cardiac cases, was 14.2 per cent.

Table showing age and sex of diphtheria patients:—

Age-period in years	0-1 yrs.	1+ yrs.	2+ yrs.	3+ yrs.	4+ yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-29 yrs.	30-39 yrs.	40+ yrs.	Totals
Recovered	M. ...	1	1	4	3	33	19	4	3	2	...	70
	F. ...	5	2	8	6	35	17	4	8	2	...	87
Died	M. ...	1	...	2	...	1	1	...	...	...	...	5
	F. ..	...	1	...	...	5	1	...	..	...	...	7
Totals ...	...	7	4	14	9	74	38	8	11	4	...	169

Hospital death-rate 7.1 per cent.

Immunisation.—The immunisation of members of the staff and patients suffering from diseases other than diphtheria has been continued. In addition, other children (e.g., the brothers or sisters of patients) have been immunised at the request of parents. The following table shows the work done at the hospital during the year 1932 as regards testing for susceptibility (Schick testing) and immunisation of those shown to be susceptible. This work is also carried on at the school and child welfare clinics.

	Tested	Positive	Negative	Immunisation		
				Completely immunised	Partially immunised	Immunisation in progress
Staff	15	10	5	10	...	...
Patients {	Over 15.....	12	2	10	1	1
	{ 15 & under.....	126	74	52	63	11
Totals	153	86	67	74	12	...
Re-Schicked.....	18	3	15	...	...	...

Scarlet fever.—During the year there were 136 cases admitted to the hospital notified as suffering from scarlet fever. The diagnosis was confirmed in 126 cases. The addition of 3 cases, erroneously diagnosed as suffering from diphtheria, brings the scarlet fever total to 129. The corrected diagnosis in the 10 mis-diagnosed cases was as follows: tonsillitis (5), measles (2), no disease (2), and pityriasis rubra.

There were 2 deaths. The case mortality was 1.55 per cent. Of the cases dying, one developed broncho-pneumonia, and the other suffered on admission from extensive scalds.

No septic cases occurred.

The following are the principal complications which were noted:—

Rhinitis	...	...	9 cases or 7.37 per cent.
Lafe adenitis	...	...	9 ,, 7.37 ,,
Otorrhœa	...	...	7 ,, 5.74 ,,
Arthritis	...	...	2 ,, 1.64 ,,
Nephritis	...	...	1 ,, 0.82 ,,

The average length of stay in hospital of cases of scarlet fever discharged cured during the year was 30.77 days. The usual period of isolation for uncomplicated cases was 28 days (calculated from the onset of the disease).

Table showing age and sex of scarlet fever patients:—

Age-period in years		1-0 yrs.	1+ yrs.	2+ yrs.	3+ yrs.	4+ yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-29 yrs.	30-39 yrs.	40+ yrs.	Totals
Recovered	M.	...	1	8	5	9	24	8	2	2	1	...	60
	F.	1	2	3	7	4	31	7	7	3	1	1	67
Died	M.	...	1	...	...	...	...	...	...	...	...	...	1
	F.	...	...	...	1	...	...	...	...	...	...	...	1
Totals		1	4	11	13	13	55	15	9	5	2	1	129

Hospital death-rate 1.55 per cent.

During the year there were no "return cases."

The routine use of antitoxin serum in cases of scarlet fever has been discontinued without any adverse effect. On the contrary, the incidence of complications shows an appreciable fall, and the length of stay in hospital has not been increased. Serum is still administered in severe and complicated cases.

Other diseases.

Enteric fever.—The diagnosis was confirmed in 12 out of 21 cases admitted to the wards notified as suffering from enteric fever, including the case of a nurse doing temporary duty in the hospital.

Of the nine cases misdiagnosed or sent in for observation, 5 were suffering from no disease, and the others were suffering from poli-encephalitis, cholecystitis, diphtheria, and malaria.

—The infecting organism was the bacillus typhosus in 11 cases, and the bacillus paratyphosus B. in one case. One case proved to be an infection by an "O" strain of bacillus typhosus.

There were 2 deaths, both young adult males who died following intestinal perforation. Both were bacillus typhosus infections.

Table showing age and sex of enteric fever patients:—

Age-period in years	0-4 yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-29 yrs.	30-39 yrs.	40-49 yrs.	50-59 yrs.	60+ yrs.	Totals
Recovered	M. ...	1	1	1	1	...	...	...	...	4
	F. ...	2	...	...	1	2	1	...	...	6
Died	M. ...	...	...	1	1	...	...	...	...	2
	F. ...	...	...	...	...	...	...	...	...	...
Totals ...	...	3	1	2	3	2	1	...	...	12

Hospital death-rate 16.6 per cent.

Erysipelas.—There were 23 cases admitted to the wards notified as suffering from erysipelas. The diagnosis was confirmed in 19 cases. The remaining four were suffering from herpes (1 case) and dermatitis (3 cases).

There were 2 deaths—children aged 2 months and 7 months respectively.

The majority of the cases were facial in origin.

Table showing age and sex of erysipelas patients:—

Age-period in years	0-1 yrs.	1+ yrs.	2+ yrs.	3+ yrs.	4-9 yrs.	10-14 yrs.	15-19 yrs.	20-29 yrs.	30-39 yrs.	40-49 yrs.	50-59 yrs.	60+ yrs.	Totals
Recovered	M. ...	1	...	...	...	...	1	...	2	...	1	3	8
	F. ...	2	...	...	1	...	...	1	1	...	1	3	9
Died	M. ...	1	...	...	...	...	...	...	...	...	...	...	1
	F. ...	1	...	...	...	...	...	...	...	...	...	...	1
Totals ..	4	1	...	...	1	...	1	1	3	...	2	6	19

Hospital death-rate 10.5 per cent.

Measles.—There were 43 cases admitted to the wards as suffering from measles, most of the cases being sent by the Relieving Officers. The diagnosis was confirmed in 40 patients. In addition there were 2 cases of measles misdiagnosed as scarlet fever and 1 case notified as diphtheria. This makes a total of 43 cases suffering from measles. The corrected diagnosis in 3 cases was as follows: rubella (1), impetigo (1), no disease (1). Four cases were admitted as suffering from measles and broncho-pneumonia. There were few other complications.

There were no deaths.

Table showing age and sex of measles patients:—

Age-period in years	0-1 yrs.	1+ yrs.	2+ yrs.	3+ yrs.	4+ yrs.	5-9 yrs.	10-14 yrs.	15-20 yrs.	20+ yrs.	Totals
Recovered										
M.	5	5	6	3	6	1	..	..	26
F.	6	1	2	2	5	...	...	1	17
Died										
M.
F.
Totals	11	6	8	5	11	1	...	1	43

Hospital death-rate, nil.

Whooping cough.—There were 17 patients admitted to the wards as suffering from whooping cough; 6 of these as “whooping cough and broncho-pneumonia.” The majority were sent in by the Relieving Officers.

All were suffering from whooping cough.

There were no deaths.

Table showing age and sex of whooping cough patients:—

Age-period in years	0-1 yrs.	1+ yrs.	2+ yrs.	3+ yrs.	4-9 yrs.	10+ yrs.	Totals
Recovered							
M.	1	6	2	1	...	...	10
F.	2	1	2	1	1	...	7
Died ...							
M. ....	...	...	...	...	...	...	...
F. ....	...	...	...	...	..	...	...
Totals ..	3	7	4	2	1	...	17

Hospital death-rate, nil.

Cerebro-spinal meningitis.—There were 4 cases admitted to hospital notified as cerebro-spinal meningitis. The diagnosis was confirmed in 3 cases, all children under 18 months old. All died. The fourth case, a child of 5 years, was found to be suffering from pneumococcal meningitis. This case also died.

Chickenpox.—Seven cases were admitted as chickenpox during the year. One of these proved to be suffering from impetigo. All recovered.

Impetigo.—Eleven cases were admitted as “impetigo.” Of these, 2 cases were found to be suffering from dermatitis. All recovered.

Mumps.—One case of mumps was admitted and discharged cured.

Broncho-pneumonia.—One case was admitted—an infant moribund at the time admission, who died within a few hours.

Scabies.—One case was admitted and discharged cured.

Ringworm.—One case was admitted and discharged cured.

Acute anterior poliomyelitis.—One case was admitted misdiagnosed as "encephalitis lethargica," suffering on admission from extensive paralysis. This case was later transferred to the Birkenhead Infirmary.

Influenza.—One case was admitted misdiagnosed as "typhus fever" and discharged cured.

Staff.—Dr. S. Canter acted as temporary resident assistant medical officer at the hospital from the 1st January until Dr. J. M. Davidson took up duties as resident assistant medical officer on 18th July.

The general health of the staff was satisfactory. As regards infectious diseases, three nurses contracted scarlet fever, and one diphtheria, in the course of their duties. The nurse who contracted diphtheria had been immunised some years before, and had apparently lost her immunity.

Owing to the number of nurses commencing training who are susceptible to scarlet fever, it would appear desirable to immunise all Dick-positive reactors immediately on admission to hospital. This is now being done.

One nurse doing temporary duty in the hospital contracted enteric fever.

Training of nurses.—Courses of instruction for the examinations of the General Nursing Council have been continued. During the year five nurses completed their training. Of these, three sat the State Examination and passed, one elected to take up general training without sitting the examination, and one, who was too young to sit the examination, has remained on the staff.

E. P. Smith memorial fund.—Two cases, both of enteric fever, received assistance from this fund during the year.

MUNICIPAL LABORATORY.

ADMINISTRATIVE ARRANGEMENTS.

Dr. J. Morrison Ritchie has been in charge of the work carried out at the Municipal Laboratory throughout the year. The staff now consists of Dr. Ritchie as Bacteriologist, one senior and one junior laboratory assistant.

The work of the laboratory covers a wide field, and is of the highest importance to the general public health. Many branches of laboratory work are based on scientific discoveries made within the last few years.

The work carried out for the Infectious Diseases Hospital, Thingwall Sanatorium, and Tranmere Infirmary includes general bacteriological, pathological and biochemical examinations; ward visits; lectures to nurses, and consultations with medical staff.

The bacteriological supervision of the Corporation water supply from Alwen is carried out at the laboratory. Food poisoning outbreaks are investigated. Clinical material from suspected cases of enteric, tuberculosis, typhus, anthrax, diphtheria, etc., is examined. The milk supply of the Borough is kept under observation.

EXAMINATIONS CARRIED OUT AT THE LABORATORY.

Examination of Clinical Material:—The nature and number of examinations of clinical material made at the municipal laboratory during 1932 are shown in the following table:—

Examination	Total
Sputa for <i>B. tuberculosis</i> (371 positive)	1696
Cultures for <i>B. diphtheriae</i> (495 positive)	3114
Diphtheria virulence tests (16 positive)	36
Blood tests (Widal) against enterica group (19 positive)...	105
Weil-Felix test	1
Urine for <i>B. typhosus</i>	67
Faeces for <i>B. typhosus</i>	78
Smears for gonococci (188 positive)	596
General examinations (1) Bacteriology	1694
(2) Biochemistry	1254
(3) Pathology	547
Vaccines issued	65
Milk, graded, bacterial counts of	195
Milk, samples for tubercle bacilli (43 positive)	407
Water examinations	105
Total	9960

Bacteriological examinations of water.—Examinations of the Alwen water supply were carried out at the laboratory during the year, on the lines indicated in my annual report for 1924. In all, 91 complete bacteriological examinations were made, samples being taken from the mains, and from the Alwen reservoir before and immediately after filtration. In addition, 14 specimens from other sources were examined.

Bacteriological examination of milk.—(A) *The testing of graded milks.*—During the year the regular bacteriological examination of milk was carried out. 195 samples were examined. The work is undertaken primarily because of the introduction into the Borough of "designated milks" as laid down in the Milk (Special Designations) Order, 1923. These milks are:—

- (1) Certified milk.
- (2) Grade A (tuberculin tested) milk.
- (3) Grade A milk.
- (4) Pasteurised milk.

The bacteriological examinations consist of:—

- (a) The enumeration of the micro-organisms present per cubic centimetre.
- (b) Examination for the presence of *B. coli* in specified quantities of milk.

The examination of certified milk is carried out at the request of, and for, the Ministry of Health, who grant licences for the production of this milk.

The Grade A milks are examined for the Corporation, who grant the licences for the retailing of this class of milk.

In addition to the designated milks, other samples of milk have been examined from time to time, but no routine examination is carried out on ordinary milk, for which no standard of bacteriological purity has been laid down.

(B) *The examination of milk for tubercle bacilli.*—The procedure followed in connection with the examination of milk for tubercle bacilli was explained in my 1927 report. During 1932, 407 samples were examined for tubercle bacilli.

Out of these 407 samples, living tubercle bacilli were found in 43. After making allowance for duplicates this means that living tubercle bacilli were found in over 10 per cent. of the samples examined. As much of the tuberculosis found in children is due to such milk, the importance of this branch of the work can hardly be over-emphasised.

Infective meningitis.—During 1932, the diagnosis of four cases of cerebrospinal meningitis were confirmed by the Laboratory. In addition, one case of meningitis was found to be pneumococcal in origin, and another to be tuberculous.

Typhoid and paratyphoid.—Typhoid and paratyphoid B. were both present in Birkenhead during the year. As in a number of cases of typhoid there was a history of the patient having eaten shellfish, it is hoped that during 1933 it will be possible to arrange for the routine examination of shellfish retailed in the area. This question, like that of milk supply discussed below, is intimately bound up in the larger question of premises and staff.

Food poisoning.—One case of food poisoning of some years' standing was diagnosed at the Laboratory. The patient had complained of vague malaise for a long time, and on examination of his blood his

condition was found to be due to *B. ærtrycke*, one of the food-poisoning group of organisms.

Dysentery.—One case of dysentery was diagnosed at the Birkenhead Infirmary during the year.

Diphtheria.—There was a serious outbreak of diphtheria at the Birkenhead Infirmary in the early part of the year. Over 700 swabs were examined and several virulent carriers among staff and patients were found.

Streptococcal infections.—The streptococcus has been much to the fore during the year. One case of streptococcal septicæmia following an insect bite was recorded during August. In an outbreak of tonsillitis in a school, out of 52 children examined, 19 were found to be harbouring streptococci of hæmolytic types, 5 non-hæmolytic streptococci, and only 28 were altogether clear.

Malaria.—Several cases of malaria occurred towards the end of the year. Both malignant and benign tertian parasites were found in one patient; rather an unusual finding in this country.

Veterinary work.—Work done in conjunction with the Veterinary Officer has included the preparation of vaccines for the horses belonging to the Corporation. One of these, in February, was prepared for an animal which was in the last stages of septic infection, and was on the point of being marked down for slaughter as useless. The horse recovered as a result of the vaccine, has been doing a full day's work for months past, and is now worth £30.

Milk.—The milk supply of the Borough continues to show a high percentage of tuberculosis. Out of 407 samples coming into the Borough, 43, or 10.6 per cent., contained living bacilli. An effort is made to get round each farm twice a year, and with the accommodation and staff available it is not possible to do more. With so much tuberculous milk coming in, however, this is scarcely sufficient. It will be obvious that any one of these 43 milk supplies might be bringing virulent tuberculosis into the Borough for six months on end before being sampled and stopped.

Water.—Special investigations into the water supply of Birkenhead were made during the year, and the Alwen supply continues to be of a high degree of bacteriological purity.

Lectures.—In connection with the Birkenhead Infirmary, a course of lectures was given to the nursing staff on bacteriology, pathology, and biochemistry, in connection with the examinations for the State Certificate of the General Nursing Council.

Museum.—A beginning has been made towards the formation of a museum of pathological material. Many valuable specimens are dealt with both at the Birkenhead Infirmary and by the Veterinary Officer, and it is a gain to those concerned that these can now be preserved for all time.

Comparison with previous years.—Below is set out a comparison between the work done in the Laboratory in 1930, 1931, and 1932:—

Nature of Specimens.	1930	1931	1932
Sputa for <i>B. tuberculosis</i>	482	1473	1696
Cultures for <i>B. diphtheriae</i>	1514	1994	3114
Diphtheria virulence tests	18	20	36
Blood tests (agglutination)	32	39	106
Smears for gonococci	84	511	596
General bacteriological examinations ...	120	742	1839
General biochemical examinations ...	—	257	1254
General pathological examinations ...	—	152	547
Vaccines issued	—	29	65
Milk, graded, bacterial counts	93	161	195
Milk, samples for tubercle bacilli ...	99	421	407
Water, bacteriological examinations ...	87	97	105
Total ...	2529	5896	9960

Laboratory accommodation.—While the laboratory equipment is most up-to-date and practically complete, the premises available are not only inadequate, but are so restricted as to interfere with the work and entail repetitions and waste of material and time. The question of the provision of new premises has been under consideration for some time, but no final decision had been reached at the end of the year.

MENTAL DEFICIENCY.

ADMINISTRATIVE ARRANGEMENTS.

Cases of mental deficiency fall into two categories—

- (a) Those which can be dealt with under the Mental Deficiency Acts, 1913 and 1927; for these the Mental Deficiency Acts Committee is responsible.
- (b) Those which can be dealt with under the Education Act, 1921; for these the Education Committee is responsible.

CASES COMING WITHIN THE PROVISIONS OF THE MENTAL DEFICIENCY ACTS, 1913 to 1927.

The definition of cases coming within the provisions of the above Acts was given in full in my report for 1930.

During the past year 32 new cases came under the care of the Mental Deficiency Acts Committee.

7 cases were sent to institutions by judicial orders, and 3 were admitted to institutions at the instance of their parents.

6 cases were placed under supervision pending institutional vacancies arising; 26 cases were placed under home supervision; 3 cases died during the year; 5 cases were discharged from institutions.

16 first visits and 248 re-visits were paid to the homes of mental defectives by the Health Nurses.

At the end of 1932 there were under the care of the Mental Deficiency Acts Committee 442 cases, as set out in the following table:

In institutions (placed by the Mental Deficiency Acts Committee under judicial orders)—

	Males	Females	Total
Birkenhead Institution	12	2	14
Chester Institution	0	1	1
Royal Albert Institution (Lancaster).....	7	2	9
Sandlebridge Colony (Cheshire)	2	3	5
Stoke Park Colony (Bristol).....	2	3	5
Royal Hostel (Surrey)	1	0	1
Whittington Hall (Chesterfield)	0	3	3
Cranage Hall Certified Institution	0	11	11
	<hr/>	<hr/>	<hr/>
	24	25	49

In institutions (placed by the Birkenhead Public Assistance Committee, or by parents; not under judicial order)—

Birkenhead Institution	11	2	13
Royal Albert Institution (Lancaster).....	4	1	5
	<hr/>	<hr/>	<hr/>
	15	3	18

In Rampton State Institution (placed by Board of Control—cases which have become too violent for retention in ordinary institutions)

	<hr/>	<hr/>	<hr/>
	2	2	4

Under home supervision—	Males	Females	Total
(a) Cases discharged from institutions ...	2	1	3
(b) Cases which should be in institutions	33	18	51
(c) Others (including ex-Special School cases, 216 in number)	198	116	314
Under Guardianship	2	1	3
	<hr/>	<hr/>	<hr/>
	235	136	371
	<hr/>	<hr/>	<hr/>
Total	276	166	442

Scarcity of Institutional accommodation.—It will be seen that in the above table 51 cases at present under home supervision are classed as cases which should be in institutions. Adding to these the 18 cases which are in institutions but are not under order, and for which provision should be made by the Local Mental Deficiency Authority, there is a total of 69 cases, as at the end of 1932, for whom institutional accommodation should be provided. The majority of these cases are of a low-grade type.

The difficulties which have been experienced in endeavouring to discover accommodation for these cases, and the urgent need for the provision of adequate local accommodation, have been fully discussed in previous annual reports.

In September, 1932, the first instalment of the accommodation at Cranage Hall Certified Institution, Holmes Chapel, became available. The Board of Control certified the Institution for the reception of 62 high-grade feeble-minded patients over the age of 16 years; the number of beds allocated to Birkenhead being 16. At the end of the year 11 Birkenhead cases were in the institution.

Occupation Centre.—The question of the provision of an occupation centre in Birkenhead for mentally defective persons under home supervision was under consideration during the year. Negotiations for the acquirement of suitable premises for this purpose were in progress at the end of the year.

CASES DEALT WITH UNDER THE EDUCATION ACT, 1921.

The definition of cases coming within the provisions of the above Act was set out in my annual report for 1930.

CASES COMING WITHIN THE PROVISIONS OF THE BLIND PERSONS ACT, 1920.

The following classes of persons are included in the category of mental defectives by the Ministry of Health for the purposes of the Blind Persons Act, 1920:—

Blind persons suffering from epilepsy, fits or nervous disability.

WELFARE OF THE BLIND.

GENERAL FACTS REGARDING BLIND PERSONS IN BIRKENHEAD.

Number and ages of blind persons.—The total number of blind persons in Birkenhead coming within the scope of the Blind Persons Act, 1920, on 31st December, 1932, was 324; of these 181 were males and 143 females.

Age.	M.	F.	Total.
0—5	—	—	—
5—16	6	1	7
16—21	9	3	12
21—30	11	8	19
30—40	10	9	19
40—50	24	16	40
50—60	25	17	42
60—70	41	37	78
Over 70	55	52	107
Total ...	181	143	324

Decertification.—As a result of further optical examination 10 persons (5 males and 5 females) were decertified.

Blind persons who are otherwise defective.—Sixty of the blind persons on the register were handicapped in addition by other physical or mental defects:—

	M.	F.	Total
Mentally defective	10	3	13
Deaf	12	7	19
Deaf and Dumb	1	1	2
Otherwise physically defective...	14	12	26
	37	23	60

Children under 16 years of age.—These numbered 7; 6 boys and 1 girl; 4 boys and 1 girl were attending schools for the blind; 1 boy was awaiting admission to such a school; and 1 boy, who was under 7, was not in any school or institution.

Conditions as regards employment.—The following table shows the position of blind persons in the area over the age of 16 with reference to employment:—

	M.	F.	Total.
Employed	17	4	21
Trained but unemployed	4	2	6
Under training	4	3	7
Not trained, but probably trainable	7	7	14
Probably unemployable	143	126	269
	175	142	317

The occupations of the employed blind in the area were as follows:—

	M.	F.	Total.
Agents, collectors, etc.	1	—	1
Basket & cane workers, brush makers, mat makers... ..	11	2	13
Home teacher	—	1	1
Newsvendor	1	—	1
Tuners	2	—	2
Miscellaneous	2	1	3
	—	—	—
Total	17	4	21
	—	—	—

Home Teacher.—Miss Halliwell paid 2,086 visits to blind persons, including 881 visits for the purpose of teaching Braille.

Home visiting by Health Nurses.—The Health Nurses paid 27 first visits and 18 revisits to blind persons in the area.

Wireless Sets.—22 wireless sets, received from the British "Wireless for the Blind" Fund, were distributed during the year, making a total of 189 sets so distributed.

Financial assistance to blind persons.—At the end of the year 211 blind persons (120 males and 91 females) were in receipt of financial assistance under the scheme of the Council for the Welfare of the Blind.

HOUSING AND GENERAL SANITATION.

ADMINISTRATIVE ARRANGEMENTS.

The staff engaged on the work of housing and general sanitary inspection consisted, at the end of the year, of the Chief Inspector, one housing inspector, and eight sanitary inspectors.

The eight sanitary inspectors are required to devote approximately half their time to the work of housing inspection.

GENERAL.

Area of the Borough.—The area of the Borough (land and inland water) was at the time of the 1931 census 5,995 statute acres. This area is largely built over, or otherwise occupied, by domestic buildings, docks, factories, railway stations, and sidings, etc.

Number of dwelling houses in the Borough.—The approximate number of dwelling houses of all descriptions within the Borough, excluding institutions, on 31st December, 1932, was 31,845.

New dwellings, erected, 1921-1932.—The new dwellings erected in the Borough between the date of the 1921 census and the end of 1932 were as follows:—

(1) Between the date of the 1921 census and 31st December, 1931—		
(a) With State assistance under the Housing Acts, 1919-1925		
(i) By the Local Authority.....	2175	
(ii) By other bodies or persons	609	
(b) Other	786	
	—	3570
(2) During 1932—		
(a) With State assistance under the Housing Acts, 1919-1925		
(i) By the Local Authority.....	130	
(ii) By other bodies or persons	0	
(b) Other	175	
	—	305
		—
	Total	3875
		—

In addition to the above, 3 houses were converted into 6 flats, making a further nett gain of 3 houses.

No houses were erected during the year which did not comply with the building byelaws.

Uninhabited property.—The following is a return of uninhabited property in Birkenhead for the past year:—

Districts	Half-year ended 30th June, 1932					Half-year ended 31st Dec., 1932				
	Private houses	Shops	Cottages	Dock cottag's	Total	Private houses	Shops	Cottages	Dock cottag's	Total
Birkenhead	36	30	—	—	66	35	32	—	—	67
Cloughton and Oxtou	132	6	—	—	138	135	18	—	—	153
Tranmere, Rock Ferry, and added areas	120	10	1	—	131	138	19	2	—	159
Total ..	288	46	1	—	335	308	69	2	—	379

The total uninhabited and unoccupied property, 31st December, 1931, was 298, so that there was an increase of 81 at the end of 1932 as compared with the previous year.

ADMINISTRATIVE ACTION TAKEN IN CONNECTION WITH HOUSING AND GENERAL SANITATION.

(a) Housing: action taken under Housing and Public Health Acts.

During the twelve months ending December 31st, 1932, the following work was carried out by the department under the provisions of the Housing and Public Health Acts, and Regulations:—

1. Inspection of Dwelling-houses during the Year:—

- (1) (a) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts) 8481
- (b) Number of inspections made for the purpose... 47004
- (2) (a) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925 939
- (b) Number of inspections made for the purpose... 16307
- (3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation 19
- (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..... 863

2. Remedy of Defects during the Year without Service of Formal Notices:—

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

3. Action under Statutory Powers during the Year:—

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

- (1) Number of dwelling-houses in respect of which notices were served requiring repairs 863

(2) Number of dwelling-houses which were rendered fit after service of formal notices:—	
(a) By owners	915
(b) By local authority in default of owners	—
B.— <i>Proceedings under Public Health Acts:</i>	
(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	4026
(2) Number of dwelling-houses in which defects were remedied after service of formal notices:—	
(a) By owners	3812
(b) By local authority in default of owners	—
C.— <i>Proceedings under Sections 19 and 21 of the Housing Act, 1930:</i>	
(1) Number of dwelling-houses in respect of which Demolition Orders were made	—
(2) Number of dwelling-houses demolished in pursuance of Demolition Orders	—
D.— <i>Proceedings under Section 20 of the Housing Act, 1930:</i>	
(1) Number of separate tenements or underground rooms in respect of which Closing Orders were made	—
(2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit	—
E.— <i>Proceedings under Section 3 of the Housing Act, 1925:</i>	
(1) Number of dwelling-houses in respect of which notices were served requiring repairs	—
(2) Number of dwelling-houses which were rendered fit after service of formal notices:—	
(a) By owners	—
(b) By local authority in default of owners	—
(3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close	—
F.— <i>Proceedings under Sections 11, 14, and 15, of the Housing Act, 1925:</i>	
(1) Number of dwelling-houses in respect of which Closing Orders were made	—
(2) Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit	12
(3) Number of dwelling-houses in respect of which Demolition Orders were made	—
(4) Number of dwelling-houses demolished in pursuance of Demolition Orders	35

NOTE.—Sections 11 to 15 of the Housing Act, 1925, have been repealed by the Housing Act, 1930, but the proviso to Section 64 of the Act of 1930 continues in force any Closing Orders and Demolition Orders made before the operation of the Act (15th August, 1930), and houses subject to those Orders must continue to be dealt with under the relative provisions of the Act of 1925.

(b) **Housing: actual defects in domestic dwellings dealt with under (a) above.**

The following is a summary of sanitary improvements effected at dwelling-houses during the year under the provisions of the Housing and Public Health Acts.—

General Repairs—

Roofs repaired	1098
Chimney stacks pointed or repaired	219
Rainwater gutters repaired or renewed	608
Down spouts repaired or renewed	377
Down spouts disconnected from drains	22
Walls pointed or repaired	1883
Lighting improved	18
Ventilation improved	185
Windows repaired	695
New sash cords provided	1896
Window fasteners renewed	633
Windows made to open	292
Firegrates repaired	868
Ovens repaired or renewed	266
Plastering to firegrates repaired	534
Hearthstones repaired or renewed	200
Floors relaid or repaired	1200
Skirting boards repaired or renewed	263
Wall plaster repaired	2017
Ceiling plaster repaired	679
Walls cleansed	208
Ceilings cleansed	164
Doors repaired	787
Door fasteners repaired or renewed	1119
Sinks repaired or renewed	196
Sink waste pipes repaired	307
Sink waste pipes trapped	37
Washing boilers repaired	312
Washing boilers—new pans provided	74
Washing boilers—firegrates repaired	179
Washing boilers—flues repaired	85
Dampness remedied	236
Nuisances from animals abated	27
Yard surfaces relaid or repaired	816
Yard surfaces—proper means of drainage provided	3
Sufficient water supply provided	25

Drainage—

New drains constructed	21
Old drains reconstructed	67
Drains repaired	196
Drains disconnected from sewer	8
Drains—inspection chambers provided	9
Drains ventilated	19
Drains cleansed	717
Self-cleansing gullies provided	49
Number of excavations made for the purpose of testing the condition of house drains	51
Number of smoke tests applied to drains of houses reconstructed under the supervision of this department	314
Number of water tests applied to drains	25
Number of smoke tests applied to the drains of new houses, in conjunction with the Borough Engineer and Surveyor's department	191

Water closets—

Roofs repaired	390
Walls repaired	408
New basins fixed	179
Connections repaired	480
Cisterns repaired or renewed	158
New flush pipes fixed	14
Provided with a sufficient supply of water	126
Doors repaired or renewed	372
Seats repaired or renewed	87

Ashpits—

Provided with roofs	—
Provided with doors	1
Roofs repaired	2
Walls repaired	15
Cemented inside	—
Abolished	520
Ashbins provided	1610

Miscellaneous—

(not included above)	1990
----------------------------	------

(c) General sanitation exclusive of housing.

The following shows, in summarised form, the work carried out by the Sanitary Inspection staff in connection with matters other than the condition of domestic dwellings:—

Number of smoke observations taken	21
Number of smoke nuisances from factory and other chimneys reported to the Health Committee	—
Number of schools specially examined by the sanitary inspectors	93
Number of cowsheds inspected.....	48
Number of inspections of dairies and milkshops	522
Number of inspections <i>re</i> offensive trades	262
Number of sewer ventilators inspected	90
Number of street gullies inspected	72
Number of caravans inspected	21
Number of caravans re-inspected	126
Number of back passages inspected	190
Number of investigations regarding the keeping of pigs, fowls, and other animals	112
Miscellaneous inspections (not included above)	792

(d) Theatres, Music Halls, &c.

(Ministry of Health Circular No. 120, dated 25th August, 1920).

72 visits were made to theatres, music halls and other places of entertainment, with a view to ascertaining whether conditions as to ventilation, structure of dressing rooms, &c., were satisfactory.

(e) Rats and mice.

The following is a summary of the work carried out by the district inspectors under the provisions of the Rats and Mice (Destruction) Act, 1919:—

No. of premises inspected	217
No. of visits and re-visits	344
No. of notices served on occupiers	193
No. of notices served on owners	98
No. of premises satisfactorily dealt with	206
No. of premises still under observation or where work is being carried out.....	11

(f) Inspection of lodging houses, &c.

During the year the inspector of common lodging houses, &c. paid regular visits to common lodging houses, and houses let in lodgings and to the Corporation tenement dwellings.

Registered common lodging houses (11 in number):

Day inspections	2945
Night inspections	110
Insanitary conditions reported and dealt with	26
Houses let in lodgings (333 in number):	
Day inspections	2508
Night inspections	—
Insanitary conditions reported and dealt with	208
Corporation tenement dwellings (132 in number):	
Number of visits	3390
Insanitary conditions reported and dealt with	103

FACTORIES, WORKSHOPS AND WORKPLACES.**FACTORY AND WORKSHOP ACTS, 1901 AND 1907.**

The Factory and Workshop Act, 1901 (s. 132), requires the Medical Officer of Health in his annual report to the Council to report specifically on the administration of that Act in workshops and work-places. The following is a summary of the work carried out during the year.

1.—Inspection of factories, workshops and workplaces.

Premises	No. of		
	Inspections	Written notices	Prosecutions
Factories (including Factory Laundries)	17	—	—
Workshops (including Workshop Laundries) ...	648	60	—
Workplaces (other than Outworkers'premises) ..	19	—	—
Total.....	684	60	—

2.—Defects found in factories, workshops and workplaces.

Particulars	No. of defects			Number of prosecutions
	Found	Remedied	Referred to H.M. Inspector	
<i>Nuisances under the Public Health Acts*—</i>				
Want of cleanliness	62	62	—	—
Want of ventilation	—	—	—	—
Overcrowding	—	—	—	—
Want of drainage of floors	—	—	—	—
Other nuisances.....	23	23	—	—
Sanitary accommodation—				
Insufficient	1	1	—	—
Unsuitable or defective	14	14	—	—
Not separate for sexes	—	—	—	—
<i>Offences under the Factory & Workshops' Acts—</i>				
Illegal occupation of underground bake-house (s. 101).....	—	—	—	—
Other offences	13	13	—	—
(Excluding offences relating to outwork and offences under the Sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops Transfer of Powers) Order, 1921.)				
Total.....	113	113	—	—

*Including those specified in sections 2, 3, 7 and 8 of the Factory and Workshop Act, 1901, as remediable under the Public Health Acts.

Home work.—Lists were received from employers as follows:—

From employers sending twice in the year—4 lists (9 workmen).

From employers sending once in the year—3 lists (2 contractors, 6 workmen).

In each case the work handled was the making of wearing apparel.

Registered workshops.—The workshops on the register at the end of the year were:—

Bakehouses	59
Confectioners	49
Boot repairers	45
Cabinet making and upholstery	23
Dressmaking	21
Millinery	9
Tailoring	25
Laundries	18
Joinery and carpentry	22
Saddlery and harness making	6
Smiths	10
Wagon repairers	5
Motor and cycle repairers	16
Other workshops	40
	348

Other matters.

Workshops removed from the register	37
New workshops opened and placed on register	16
Underground bakehouses discontinued	—
Number of underground bakehouses on the register at the end of the year	21
Instances of failure to affix abstract dealt with	9

RAG FLOCK ACT, 1911.

Pursuant to the provisions of the above Act, 13 visits were made.

At the time of these visits the rag flock being used or stored on the premises was to all appearance in a satisfactory condition; no samples were, therefore, taken for the purpose of analysis.

POISONS AND PHARMACY ACT, 1908, AND ORDERS, 1909.

Visits were made to 3 shops and premises in the Borough, in which insecticides containing poison were likely to be kept for sale, but no infringement of the Act was reported.

HEALTH EDUCATION.

During the year the activities of the Merseyside Boroughs Health Education Committee had, in the interests of economy, to be considerably curtailed. As a result the applications of many organisations for the services of the Lecturer-Organiser (Dr. John Hall, M.A.) had to be refused; and publication of the magazine "Better Health" was discontinued after August.

Dr. Hall gave 37 lectures to audiences totalling approximately 3,500; in addition, Dr. Foster gave two lectures to audiences totalling 330.

Films were shown to 700 school children at the North Health Clinic, and a demonstration was given to about 200 girls at the unemployment centre by the cinemator van of the Health and Cleanliness Council.

About 700 copies of an official brochure on the various health services of the Council, produced by Messrs. Ed. J. Burrow & Co., of Cheltenham, have been distributed to churches, schools, trade union branches and other organisations.

MATERNITY AND CHILD WELFARE.

ADMINISTRATIVE ARRANGEMENTS.

Infant welfare and postnatal clinics are held at Hamilton Square, St. Paul's Road, Mount Grove, and at the North Health Clinic in Park Road West. The Hamilton Square Clinic was opened in 1916; the St. Paul's Road Clinic in 1919; the Mount Grove Clinic in 1923; and the North Health Clinic at the end of 1929.

Staff.—The executive staff engaged on maternity and child welfare work at the end of the year consisted of Dr. Deacon (Hamilton Square antenatal and postnatal clinics); Dr. Williams (North antenatal and postnatal clinics); Dr. Davidson (Mount Grove postnatal clinic); and Dr. Hodgson (St. Paul's Road postnatal clinic).

In addition to the part-time services of the Chief Health Nurse and the whole time service of the Inspector of Midwives, the equivalent of the whole time of seven nurses was available for infant welfare work during the year.

INSPECTION AND SUPERVISION OF MIDWIVES.

Work under this section is concerned with the administration of the Midwives' Acts, 1902 and 1918; the visiting of the homes of midwives, inspecting their instruments, etc., advising them on the details of their work and on their duties as set out in the above Acts, and in the rules issued by the Central Midwives' Board.

Number of midwives.—During the year 1932, 76 midwives entered their names on the local register as practising in the Borough. 4 midwives left the district and 1 died during the year and their names have been removed from the register accordingly. 2 midwives gave notice of change of addresses.

Of the 76 midwives, 72 were trained and 4 untrained.

Number of cases attended by midwives.—The cases attended by midwives alone (no doctor being in attendance) numbered 2,268; over three-quarters of the total births in the Borough.

Visits of inspection.—The Inspector of Midwives paid 133 quarterly and 63 special visits of inspection. She also paid 29 visits to the homes of midwives, but was unable to obtain access.

Interviews in office.—38 midwives were interviewed during the year.

Cases of puerperal fever and puerperal pyrexia in practice of midwives.—The inspector investigated 12 cases of puerperal fever and puerperal pyrexia.

Cases requiring medical help.—451 cases were notified by midwives in which medical aid had been called in, as against 469 last year. The inspector made 255 special enquiries regarding cases requiring medical help.

Notifications received from midwives.—35 cases of stillbirths were notified; 8 cases were notified of infants receiving artificial feeding; 4 cases were notified in which deaths (3 infants and 1 mother) had occurred in the practice of midwives.

Supply of silver nitrate to midwives.—Supplies of a colloid preparation of silver nitrate are issued to midwives at cost price. No requests were made for this during the year.

Ophthalmia neonatorum.—20 cases were notified during the year.

Notified	Treated at home	Treated in hospital	Vision unimpaired	Vision impaired	Total blindness	Deaths
20	18	2	20	—	—	—

Employment of, or subsidy to, practising midwives by the local authority.—No practising midwives are employed or subsidised by the Birkenhead Local Supervising Authority.

HOME VISITING OF EXPECTANT MOTHERS, MOTHERS, AND YOUNG CHILDREN.

Home visiting.—The following is a summary of the visits paid by the health nurses in connection with expectant mothers, mothers, and young children:—

- 2539 routine first visits were paid to infants.
- 5185 routine revisits were paid to infants under 1 year.
- 13371 routine visits were paid to children over 1 year and under 5 years old.
- 32 first visits and 27 revisits were paid in connection with the investigation of stillbirths.
- 20 cases of ophthalmia neonatorum were visited and kept under supervision.
- 74 first visits were paid to expectant mothers.
- 17 revisits were paid to expectant mothers.
- 229 visits were made in connection with deaths of infants.
- 5604 visits were made in connection with miscellaneous matters.

POSTNATAL CLINICS.

The main features of the work carried out at these clinics were set out in my annual report for 1923.

At the end of the year the clinics were being held as follows:—

Hamilton Square clinic: Monday and Wednesday afternoons, 2 to 5 p.m.

St. Pauls Road clinic: Tuesday and Thursday afternoons, 2 to 5 p.m.

Mount Grove clinic: Friday afternoon, 2 to 5 p.m.

North clinic: Wednesday and Thursday afternoons, 2 to 5 p.m.

The following table gives an indication of the work done at the clinics during the year:—

	Hamilton Sq. (101 sessions)		St. Paul's Road (94 sessions)		Mount Grove (51 sessions)		North (104 sessions)	
	1st visits	Re- visits	1st visits	Re- visits	1st visits	Re- visits	1st visits	Re- visits
Attendances made by infants under 12 months	330	5237	308	3317	160	2187	374	4597
Attendances made by children aged 1—2 years.....	18	844	28	477	13	592	26	1042
Attendances made by children aged 2—5 years.....	18	252	14	246	14	183	38	541
Examinations of children by Doctor.....	361	5646	350	2477	191	1424	422	3095
Mothers advised by Doctor re- garding their own health...	15	7	237	38	36	9	30	2

Voluntary workers—I have again to express appreciation of the valuable services given at the various clinics by voluntary workers, who give up a great deal of their time for this purpose.

Supply of Milk.—Dried milk was sold at the clinics to suitable cases.

During the year supplies of milk were given free under the Milk (Mothers and Children) Order, 1921, to

- 372 expectant mothers
- 148 nursing mothers
- 317 children.

Milk is given only to—

- (a) Nursing mothers who are actually suckling their children ;
- (b) Expectant mothers in the last three months of pregnancy ;
- (c) Children up to nine months whose mothers are unable to nurse them ;

and to these only when the doctors at the clinics have satisfied themselves, by a medical examination of the cases on whose behalf the applications have been made, that the supply is essential on grounds of health.

ANTENATAL CLINICS.

As has been previously stated, antenatal clinics were held throughout the year, twice weekly (Tuesday morning 9.30 a.m. to 12.30 p.m. and Thursday afternoon 2 to 5 p.m.) at Hamilton Square, and once weekly (Monday afternoon 2 to 5 p.m.) at the North Clinic. Clinics were held on 152 occasions ; the number of patients dealt with being 916 and the total number of attendances made being 4,131. Of this total 177 patients carried over from 1931 made 719 attendances.

Condition with regard to pregnancy.—The condition with regard to pregnancy of the 739 new cases at the time of their first visit was as follows:—

- (a) 169 were in their first pregnancy.
- (b) 442 were in their second or subsequent pregnancy (138 of these patients had attended the clinic during a previous pregnancy ; 51 during two previous pregnancies ; 12 during three previous pregnancies ; 1 during four previous pregnancies ; 1 during five previous pregnancies ; and 1 during six previous pregnancies.

(c) 128 were not pregnant.

Abnormalities.—The abnormalities or diseases found to be present in the new cases who attended the clinics during 1932 were as follows:

(a) Women who came to the clinics in their first pregnancy

Abnormality or disease.	No. of cases
Breech presentation	3
Albuminuria	7
Venereal diseases	2
Caesarean section	1
Other defects	4

(b) Women who came to the clinics in their second or subsequent pregnancy

Abnormality or disease.	No. of cases
Varicose veins	6
Venereal diseases	19
Breech presentations	5
Albuminuria	20
Hydramnios	4
Prolapsed uterus	1
Caesarean section	1
Cancer	1
Other defects	16

Progress of pregnancies.

(1) *New cases.*

(a) Of the 169 women who came in their first pregnancy 121 were delivered before the end of 1932, having 61 boys and 61 girls (including 1 set of twins and 5 still-born children).

3 left the district.

44 were not delivered before the end of the year.

1 had a miscarriage.

(b) Of the 442 women in their second or subsequent pregnancy 305 were delivered before the end of the year, having 166 boys and 142 girls (including 3 sets of twins and 17 stillborn children).

9 had miscarriages.

1 left the district.

125 were not delivered before the end of the year.

2 women died.

(2) *Cases carried forward from 1931 (177 patients).*

(a) Of the 45 women who came in their first pregnancy 38 were delivered during the year, having 21 boys and 17 girls.

4 left the district.

3 were non-pregnant.

(b) Of the 132 women in their second or subsequent pregnancy 110 were delivered during the year, having 61 boys and 51 girls (including 2 sets of twins and 2 still-born children).

4 had miscarriages.

5 left the district.

13 were not pregnant.

Attendances at clinics.—Below are set out the details of attendances at the clinics:—

HAMILTON SQUARE CLINIC.

(104 Sessions.)

	First pregnancy	Subsequent pregnancy	Non-pregnant	From 1931	Total
Patients	127	330	101	140	698
Attendances	619	1819	166	567	3171

NORTH CLINIC.

(48 Sessions.)

	First pregnancy	Subsequent pregnancy	Non-pregnant	From 1931	Total
Patients	42	112	27	37	218
Attendances	156	618	34	152	960

Maternity outfits.—3 outfits were lent out and returned during the year.

ARTIFICIAL SUNLIGHT TREATMENT.

Artificial sunlight treatment was given to cases attending at the North Health Clinic. 71 sessions were held during the year. 30 cases attended for the first time. Treatment was given on 536 occasions; Dr. Williams being in charge of this work.

INFANT LIFE PROTECTION.

At the end of the year the names of 41 children were entered on the register in accordance with the provisions of Part I of the Children Act, 1908, as having been taken by persons to keep for reward. 7 children were in St. Faith's Home, and 34 in charge of foster parents at private dwellings.

The Health Nurses paid 23 first visits and 373 revisits to these children.

OTHER PROVISION MADE BY THE LOCAL AUTHORITY.

Cases dealt with at Maternity Hospital.—During the year 18 cases were admitted into the Maternity Hospital under the terms of the agreement; the number of bed days being 349.

Cases dealt with by the Birkenhead District Nursing Society.—During the year the Society's nurses paid 845 visits to 44 cases, under the agreement between the Society and the Corporation. In addition 795 visits were paid to 71 cases in children under 5 years of age not included in the agreement.

Cases of confinements attended by medical practitioners.—In 285 cases where doctors were called in to difficult cases of confinement the doctors' fees were paid by the Corporation under the provisions of the Midwives Act, 1918. Recovery of the full amount of fees paid was made in 21 cases, and of half the fees in 3 cases.

Temporarily necessitous cases attended by midwives.—In 78 cases where midwives attended temporarily necessitous cases of confinement the midwives' fees were paid by the Corporation under the provisions of the Maternity and Child Welfare Act, 1918. Recovery of the fees was made in 2 cases.

AGENCIES ASSISTED BY THE LOCAL AUTHORITY.

The Corporation gives financial support to certain institutions, etc., for general services rendered in connection with maternity and child welfare work.

Birkenhead and Wirral Invalid Children's Association.—Arrangements are made by this association to send children to convalescent homes, and to provide massage treatment for cases of infantile paralysis, etc. During the year 1932, 33 children were sent to convalescent homes by the Association.

St. Faith's Home for Mothers and Babies.—Here accommodation is provided for unmarried mothers and their children—20 cots for babies and 14 beds for mothers. The number of cases admitted to the Home during the year was as follows:—

Expectant mothers	10
Mothers and babies	3
Babies	17

Birkenhead Maternity Hospital.—There are 31 beds provided at the hospital, including 3 isolation and 2 labour beds. The number of cases admitted during the year was 481.

4 beds are provided for delicate babies. 19 babies were admitted during the year.

At the maternity and child welfare clinic held in connection with the hospital the following attendances were made during the year:—

Antenatal clinic: 1st visits 629; Revisits 1,647.

Postnatal clinic: children under 1 year—
1st visits 316; Revisits 2,101.
children 1—5 years—
1st visits -; Revisits 118.

St. Elizabeth's Convent.—At the maternity and child welfare clinic held here in connection with this Institution the following attendances were made during the year—

Antenatal clinic: 1st visits 28; Revisits 46.

Postnatal clinic: children under 1 year—
1st visits 94; Revisits 611.
children 1—5 years—
1st visits 23; Revisits 328.

The grants made by the Corporation to the above voluntary associations providing maternity and child welfare services under section 101 of the Local Government Act 1929 are as follows :—

	£
Birkenhead and Wirral Invalid Children's Association	40
St. Faith's Home for Mothers and Babies	650
Birkenhead Maternity Hospital—	
(a) Hospital treatment of delicate babies	100
(b) Infant Welfare Centre	90
(c) District midwifery	22
St. Elizabeth's Convent	50

AGENCIES NOT PROVIDED OR ASSISTED BY THE LOCAL AUTHORITY.

Other agencies whose work in Birkenhead touches the welfare of mothers and infants, but which are not provided or assisted by the Birkenhead Corporation, are the following:—

The Birkenhead and Wirral Children's Hospital.

The Charity Organisation Society.

The Society for the Prevention of Cruelty to Children.

The Gynæcological Clinic at the General Hospital.

NURSING HOMES.

No new applications for registration were made during the year.

No orders were made cancelling registration.

Applications were received and granted for exemption from registration—from the Birkenhead General Hospital, the Birkenhead and Wirral Children's Hospital, and the Birkenhead Maternity Hospital.

The total number of Nursing Homes registered in the Borough at the end of the year was 11.

MATERNAL MORTALITY.

During 1932 the deaths of 4 women who died in the Borough from causes associated with pregnancy and childbirth were investigated by the Inspector of Midwives.

The causes of the deaths were as follows:—

Post partum haemorrhage	3
Puerperal convulsions	1

2 of the deaths took place in hospitals and 2 occurred at the homes of the patients.

The ages at which deaths occurred were 24 years, 28 years, 32 years, and 41 years.

In 3 of the cases midwives were in attendance on the patients.

HEALTH OF SCHOOL CHILDREN**STAFF**

The Medical Staff engaged in carrying out School Medical Service duties during the year consisted of Dr. Deacon, Dr. Williams, Dr. Foster, Dr. Ritchie, Dr. Davidson, Dr. Canter and Dr. Hodgson. The two latter were engaged respectively on temporary and part-time duties.

Mr. P. Wilson Smith, L.D.S., Dental Surgeon, and Miss E. M. Warlow, L.D.S. and Mr. W. G. Walch, L.D.S., Assistant Dental Surgeons, have been responsible for dental inspection and treatment throughout the year.

MEDICAL INSPECTION AND TREATMENT**(ELEMENTARY SCHOOLS)****(A) INSPECTION**

Number of elementary schools and school children.—The number of elementary schools in the borough is:

Council Schools	20	
Voluntary Schools	18	Total 38

The recognised accommodation of these schools was :

Council Schools	16,354	
Voluntary Schools	11,377	Total 27,731

The average number of scholars on the rolls was :

Council Schools	13,109	
Voluntary Schools	9,824	Total 22,933

The average attendance was:

Council Schools	12,000	
Voluntary Schools	8,859	Total 20,859

Children inspected.—The following elementary school children (excluding those seen at clinics) were medically inspected during the year:

1. At Routine Inspections	7559
3. At Routine Inspections at the Cloughton Road Council	
3. At Routine Inspections at the Cloughton Road Council School	45
4. Candidates for the School Camp	241
5. As prospective entrants to the Birkenhead Institute, the Girls' Secondary School, Park High School, Rock Ferry High School, Higher Tranmere High School for Girls, The Convent Secondary School, St. Francis Xavier's College and the Catholic Institute	295
6. Suspected of mental defect	72
7. Under the Employment of Children Bye-laws	47
Total	8375

Re-examination of defective children.—During the year 2,060 re-examinations of defective children were made in the schools by the Assistant Medical Officers.

Co-operation of parents.—Parents attended at the examination of 5,534 (73.2 per cent.) of the 7,559 children dealt with at routine inspections.

Attendance of parents at these examinations still continues to be satisfactory.

1923	60.1%
1924	62.9%
1925	66.7%
1926	68.1%
1927	70.2%
1928	71.2%
1929	74.4%
1930	76.4%
1931	74.9%
1932	73.2%

Vaccination.—In the ordinary inspections children were examined as to vaccination marks. Of the 7,559 children examined

1924 (25.4%) showed no marks
3043 (40.3%) showed one mark.
716 (9.5%) showed two marks
184 (2.4%) showed three marks
1692 (22.4%) showed four or more marks

The following figures show the percentage of children examined year by year during the last ten years who were found to have been vaccinated:

Year	Percentage
1923	78.2
1924	78.9
1925	77.1
1926	76.6
1927	78.6
1928	79.3
1929	77.9
1930	76.8
1931	76.1
1932	74.6

Infectious diseases.—Enquiry was made at each inspection as to the infectious diseases from which the children had suffered in the past. The information elicited is summarised in Table S 6.

Defects found requiring medical or dental treatment.—Of the 7,771 children inspected at routine and special inspections, 991 were found to have defects requiring medical attention. The defects found were as follows :

	Code Groups	Special Cases
<i>Skin Diseases</i>		
Ringworm	2	—
Scabies	7	—
Impetigo	9	6
Other diseases	8	3
<i>Eye Defects</i>		
Defective vision and squint (for further details see Table S 2)	297	60
External eye disease	13	8
<i>Ear Defects</i>		
Defective hearing	9	1
Ear disease	14	4

<i>Nose and Throat Defects</i>		
Enlarged tonsils	94	9
Enlarged tonsils and adenoids	9	2
Adenoids	36	—
Other defects	5	1
<i>Teeth Defects</i>	364	3
<i>Pulmonary Tuberculosis</i>		
Definite	—	—
Suspected	5	—
<i>Non-Pulmonary Tuberculosis</i>		
Glands	—	—
Other forms	1	—
<i>Other Defects or Diseases</i>	117	22

A full statement regarding the defects found, setting out the number of defective children, is given in Table S 2. In Table S 5 the defective children are classified according to the schools attended.

(B) TREATMENT

The parents or guardians of all children found at routine examinations to be defective are informed immediately of the need for medical advice or treatment and are urged to consult their family doctors regarding the defects in question. They are later visited at their homes by the Health Nurses, the Assistant Medical Officers making periodical re-examinations in the schools to ascertain what action has been taken.

During the past year the Health Nurses paid 1,135 visits to the homes of defective children in connection with "following up"—976 first visits and 159 re-visits; and 2,060 re-examinations of defective children were made by the Assistant Medical Officers. In addition, the Nurses paid 129 special visits.

Treatment of children found, at medical inspections held during 1932, to be suffering from defects which required medical attention.—As has been stated above, 991 out of 7,771 children examined at routine and special inspections in elementary schools during 1932 were found to be suffering from defects requiring medical attention; of these 91 children suffering from defects, 358 or 36.1 per cent. received treatment before the end of the year.

Details of the various types of ailment treated will be found in Table S 4.

Treatment at the Eye Clinic.—Children who were found by the Assistant Medical Officers to require spectacles, and whose parents were not in a position to secure the necessary attention privately, were seen at the Eye Clinic by Dr. Williams.

The large number of *re-examinations* carried out during the year is worthy of note. A certain proportion of these cases attended on the instructions of Dr. Williams given at the Eye Clinic or of the Assistant Medical Officers at routine inspections in schools; but a large number were brought by parents of their own initiative for the purpose of having glasses repaired, or because they appreciated the importance in certain types of visual defect of periodical re-examination.

Care is taken to secure that, so far as can be judged without any elaborate system of investigation, only those parents who are not in a position to obtain private attention to their children's eyes are allowed to avail themselves of the facilities provided at the clinic.

During the year 465 new cases were examined, 792 children attended for re-examination, and 723 pairs of spectacles were supplied. The total cost of all the spectacles which were ordered during the year was £139 13s. 3d., of which the parents were required to pay £117 10s. 10d. The total sum collected during the year (including arrears from previous years) was £117 11s. 5d.

The following is a summary of the visual defects of new cases for whom spectacles were prescribed during the year :

First Eye	Second Eye	
Hypermetropia	Hypermetropia	120
Hypermetropia	Normal	2
Hypermetropia	Hypermetropic astigmatism	17
Hypermetropia	Mixed astigmatism	2
Hypermetropic astigmatism	Hypermetropic astigmatism	71
Hypermetropic astigmatism	Mixed astigmatism	8
Hypermetropic astigmatism	Normal	3
Hypermetropic astigmatism	Myopic astigmatism	3
Hypermetropic astigmatism	Myopia	1
Myopia	Myopia	87
Myopia	Normal	7
Myopia	Myopic astigmatism	3
Myopic astigmatism	Myopic astigmatism	11
Myopic astigmatism	Mixed astigmatism	2
Myopic astigmatism	Normal	2
Mixed astigmatism	Mixed astigmatism	6

345

95 children who were submitted to refraction were found to be emmetropic and not in need of spectacles.

The following conditions were also recorded among the new cases who attended the clinic :

Corneal nebulae	6
Nystagmus	2
Coloboma of choroid	1
Congenital cataract	1
Ptosis	1
Injury	2
Amblyopia	17

The new cases of strabismus noted during the year were as follows :

Convergent: Right eye, 41; left eye, 50; alternating, 10.
Divergent: Right eye, 1; alternating, 1.

Blind and partially blind children

(1) *Totally blind children*

At the beginning of 1932 there were 6 *totally blind* children of school age on the register. During the year the name of 1 child was removed, and the names of 2 children were added, leaving 7 at the end of the year. Of these 7 children, 5 were in attendance at certified schools for the blind, 1 was awaiting admission, and 1, who was under 7 years of age, was at home.

(2) *Partially blind children*

At the beginning of 1932 there were 49 *partially blind* children of school age on the register. During the year the names of 11 children were removed (5 on their becoming over school age, 5 on account of removal from the town, and 1 by reason of being certified as totally blind), and 3 new cases were added. At the end of 1932 there were 41 cases on the register. Of these children 2 boys and 8 girls were attending ordinary schools, and 1 boy was not in attendance at any school. 16 boys and 14 girls were in attendance at the myope class held at Hemingford Street Council School.

Myopia	6
Myopic astigmatism	20
Myopic astigmatism and microphthalmos	1
Corneal nebulae	6
Hypermetropic astigmatism and nystagmus	4
Hypermetropia and nystagmus	3
Congenital cataract	1
	—
	41
	—

Of the 27 children in the myopic group who were on the register in 1931, and who were re-examined during 1932, the visual condition of 13 had grown worse.

Treatment at the General School Clinic.—Details of the work of this clinic, where cases of external eye disease, ear inflammation, skin disease, etc., are treated, will be found in Table S 4.

The number of children who received treatment at the clinic was 2,446; the total attendances numbered 12,993.

Treatment of otitis media by zinc ionisation.—Owing to changes in the medical staff and absence through sickness it was not possible to continue this form of treatment.

Treatment of orthopædic defects.—In November, 1925, a municipal orthopædic clinic was opened at the premises then occupied by the Birkenhead and Wirral Invalid Children's Association in Albion Street. Later the clinic was removed to the Association's new premises at 43 Hamilton Square. The main features of the orthopædic scheme are dealt with below:

1. *Examinations carried out at the clinic by the orthopædic surgeon.*—At the clinic the orthopædic surgeon has attended on 23 occasions during the year. The after-care sister made 64 attendances.

The clinic deals with all forms of crippling disease in children. The cost of the clinic is distributed as follows:

- (a) Tuberculous cases (all ages): Health Committee.
- (b) Non-tuberculous cases under school age: Maternity and Child Welfare Committee.
- (c) Non-tuberculous cases of school age: Education Committee.

During 1932, 132 new cases were dealt with, as compared with 127 in the previous year:

Tuberculous cases	2
Non-tuberculous cases—	
Under school age	88
Of school age	38
Over school age	4
	132

There were 777 re-examinations made, as compared with 578 in 1931:

Tuberculous cases	87
Non-tuberculous cases—	
Under school age	293
Of school age	377
Over school age	20
	777

The average number of cases seen by the surgeon per session was 39.5.

Dr. Hartley Martin draws attention to the increasing number of cases seen by him per session; he suggests that the number of sessions held may have to be increased, as the demands made upon the staff in seeing so many cases are too onerous and exacting.

In the following table Dr. Hartley Martin sets out a classification of cases dealt with, and shows the results of treatment:

Diagnosis	Remaining at end of 1931	1932			Remaining at end of 1932			Discharges 1932					Died
		New cases						Cured	Relieved	Left district	Refused treatment	Unsuitable	
		School age			School age								
		Under	Of	Over	Under	Of	Over						
Infantile Paralysis ...	31	2	2	...	3	26	2	...	1	1	2	...	...
Spastic Paralysis	21	1	3	...	3	13	4	...	2	1	2	...	...
Rickets	96	28	7	..	46	41	2	20	...	11	9	...	2
Osteitis and Arthritis :													
(a) Tuberculous	49	1	1	...	1	30	6	3	5	4	2	...	...
(b) Non-Tuberculous ..	6	1	1	...	...	2	...	4	...	1	...	1	...
Congenital Deform. ...	28	2	...	...	9	17	1	...	1	1	1	...	...
Acquired Deform.	67	21	8	2	28	30	2	20	8	7	3	...	...
Diagnosis	3	33	17	2	15	1	...	...	...	...	1	38	...
Totals	301	89	39	4	105	160	17	47	17	26	20	39	2

2. *Massage and remedial exercises.*—Massage and remedial exercises as prescribed by Dr. Martin were provided by the Invalid Children's Association. (There are two whole-time masseuses on the Association's staff.)

Attendances for massage and remedial exercises were made by clinic cases as follows:

Tuberculous cases	—
Non-tuberculous cases—	
Under school age	620
Of school age	2719
Over school age	60

In addition to the above, 2,276 attendances were made by non-clinic cases (that is to say, cases sent to the Association by orthopædic surgeons attached to voluntary hospitals, etc.).

3. *Surgical apparatus—splints, etc.*—These are provided by the Association, the number of cases dealt with during the past year being as follows:

Clinic cases	109
Non-clinic cases	103

4. *Milk, tonics, convalescence, after-care.*—Most useful work is also done by the Association in providing milk, tonics, etc., for patients for whom these have been prescribed by the orthopædic surgeon and other doctors, and in following up and helping patients who have passed through the stage of active treatment:

	Clinic cases	Non-clinic cases
Children supplied with milk	252	617
Children supplied with tonics	215	180
Children sent to convalescent homes and country hospitals	100	130

5. *Children's Hospital, Leasowe.*—Of the 433 cases that have been on the register of the orthopædic clinic and regarded as suitable for treatment during the past year, 37 (or 8.5%) required hospital treatment and were admitted to the Children's Hospital, Leasowe. These cases comprise :

	Cases	Stay in Hospital Days	
		Min.	Max.
Congenital deformities	6	56	270
Rickets	27	42	354
Spastic paralysis	1	119	119
Acquired deformities	2	53	128
Infantile paralysis	1	83	83

The total number of days in hospital was 3,565 (9.7 beds occupied throughout the year).

In addition to the above, 12 cases were referred to the hospital for X-Rays examination.

6. *Thingwall Sanatorium.*—At this institution children suffering from orthopædic defects of tuberculous origin are treated. Many are cases who have passed through a course of treatment at Leasowe Hospital, or are awaiting admission to that institution.

Treatment by Ultra-Violet Rays.—Treatment of conditions such as debility, skin affections and certain forms of tuberculosis is provided both at the North Health Clinic and by the Invalid Children's Association in their premises in Hamilton Square. In both cases the carbon-arc is the type of lamp in use.

At the North Health Clinic a total of 51 children of school age made 693 attendances during the year. The types of case and results of treatment are as follows:

	Improved	Not Improved	Still under treatment at end of year	Total
Debility	18	7	6	31
Tuberculosis	5	3	4	12
Skin	1	1	1	3
Other conditions ...	2	2	1	5
Total	26	13	12	51

At the Invalid Children's Association premises, 5 children of school age made 49 attendances during the year:

	Improved	Not Improved	Still under treatment at end of year	Total
Rickets	—	1	1	2
Bow Legs	1	—	—	1
Debility	1	—	—	1
Alopecia	1	—	—	1
Total	3	1	1	5

In addition 803 attendances were made by children below and above school age.

Treatment of enlarged tonsils and adenoids.—Operations were performed at the Birkenhead Infirmary upon 210 children under the Committee's scheme for the provision of this treatment.

Treatment of uncleanliness.—The average number of visits paid during 1932 by the Health Nurses to each school in the Borough was 19; the total examinations numbering 78,824.

The number of individual children found by the Health Nurses to require attention was 3,791, as compared with 3,251 in 1931. In every case the parents were informed. In 6 cases of persistent neglect notices were served on the parents; 1 of these cases was compulsorily cleansed. The Nurses paid 100 visits to the homes of children (55 first visits, 45 re-visits).

It should be borne in mind that the standard of cleanliness set in Birkenhead is very high; a large proportion of the children reported as "requiring attention" being cases where only a few nits are present.

DENTAL INSPECTION AND TREATMENT (ELEMENTARY SCHOOLS)

(A) INSPECTION

Scope of past year's work.—The work of dental inspection and treatment was concerned with the inspection and treatment of children born in the years 1919, 1920, 1921, 1922, 1923, 1924, 1925 and 1926.

Number inspected.—11,537 children were dentally inspected during the year as follows:

Aged six years	742
Aged seven years	1369
Aged eight years	1513
Aged nine years	1629
Aged ten years	1744
Aged eleven years	1698
Aged twelve years	2046
Aged thirteen years	796
	<hr/>
	11537
	<hr/>

The figures for the preceding year (1931) were:

Aged five years	543
Aged six years	1378
Aged seven years	1493
Aged eight years	1467
Aged nine years	1552
Aged ten years	1705
Aged eleven years	1642
Aged twelve years	573
	<hr/>
	10353
	<hr/>

Number requiring dental treatment.—Of the 11,537 children inspected, 8,644 (74.8%) were selected as requiring treatment, the parents being advised to obtain this treatment privately, or, if unable to do this, at the Dental Clinic.

Cleanliness of teeth.—The children examined were classified according to cleanliness of teeth as follows:

Clean	5837
Fairly clean	4408
Dirty	1292
	<hr/>
	11537
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Condition of gums.—The following figures show the condition of the gums of the children examined:

Gums healthy	8521
Gums inflamed	2160
Gums septic	856
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	11537
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Condition of bite.—This was found to be as set out below:

Bite good	7167
Bite fair	3374
Bite bad	996
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	11537
	<hr/>

(B) TREATMENT

Notices were sent to the parents of the 8,644 children found to require dental treatment, with the following results :

Refused to have treatment done or did not reply ...	618	(7.1%)
Stated that treatment would be obtained privately	1502	(17.4%)
Requested treatment at the Dental Clinic	6524	(75.5%)
	<hr/>	
	8644	
	<hr/>	

Treatment at the Dental Clinic.—Of the 6,524 children for whom treatment at the clinic was requested

4930 were treated before the end of the year
1064 did not attend when sent for
530 were awaiting treatment at the end of the year
<hr/>
6524
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Besides the above 4,930 children treated at the clinic following on inspections held in 1932, the following also received treatment: 399 who had been inspected in 1931 and had not been treated before the end of that year and 1,987 who were brought by parents on their own initiative. The total number of children treated at the clinic during 1932 was therefore:

Following on 1931 inspections	399
Following on 1932 inspections	4930
Brought by parents on their own initiative	1987
	<hr/>
	7316
	<hr/>

Details of treatment carried out.—This was as follows:

Temporary teeth filled	133
Temporary teeth extracted	8335
Permanent teeth filled	4737
Permanent teeth extracted	1924
Total fillings	4870
Total extractions	10259
Anæsthetics—general	24
local	5902
Dressings	1128
Scalings	2256

The total number of attendances at the clinic numbered 9,324 and the number of treatments completed during the year was 6,749. 1,965 parents paid 1s. each and 147 parents 6d. each for treatment, the total amount paid being £101 18s. 6d.

MEDICAL INSPECTION AND TREATMENT

(SECONDARY SCHOOLS AND CONTINUATION SCHOOLS)

The powers and duties of local education authorities with regard to medical inspection and treatment in secondary schools and continuation schools are set out in Section 80 of the Education Act, 1921.

Schools at which medical inspection is carried out.—Medical inspection is arranged for at the following schools:

	No. on Roll.
<i>(a) Provided by the Local Education Authority—</i>	
The Birkenhead Institute (Boys)	484
The Girls' Secondary School	395
Rock Ferry High School (Boys)	373
Park High School (Boys)	324
<i>(b) Not provided by the Local Education Authority—</i>	
The Higher Tranmere High School for Girls	246
The Convent Secondary School	272

There are no continuation schools provided by the local education authority.

Scope of medical inspection.—The existing arrangements provide for the examination once in each year of every child in the schools inspected; and for the re-examination of children found to be defective.

The opinion of the Board of Education in this connection is expressed in Circular 1153: "In view of the many defects that may arise during the critical period of adolescence, the Board attach great importance to arrangements being made for all pupils to come annually, as a matter of routine, under medical supervision."

Birkenhead Institute.—At the annual inspection 421 boys were inspected. 33 were found to have defects requiring medical or dental advice, the defects found being as follows:

Defective teeth	10
Defective vision and squint	20
Nose and throat defects	1
Other defects	2

Girls' Secondary School.—At the annual inspection 377 girls were inspected. 46 were found to have defects requiring medical or dental advice, the defects found being as follows:

Defective teeth	22
Defective vision	17
Heart defect	1
Nose and throat defects	5
Other defects	1

Rock Ferry High School.—At the annual inspection 358 boys were inspected. 22 were found to have defects requiring medical or dental advice, the defects found being as follows:

Defective teeth	13
Defective vision	9

Park High School.—At the annual inspection 308 boys were inspected. 30 were found to have defects requiring medical or dental advice, the defects found being as follows:

Defective teeth	8
Defective vision	16
Nose and throat defects	3
Other defects	3

Higher Tranmere High School for Girls.—At the annual inspection 64 girls were inspected. 3 were found to have defects requiring medical or dental advice, the defects found being as follows:

Defective vision	2
Deformity	1

Convent F.C.J.—At the annual inspection 227 children were inspected. 41 were found to have defects requiring medical or dental advice, the defects found being as follows:

Defective teeth	34
Defective vision	11

CLAUGHTON ROAD COUNCIL SCHOOL FOR MENTALLY DEFECTIVE CHILDREN

A routine inspection of scholars attending the school was carried out. 45 children were examined, of whom 8 were found to have defects requiring medical or dental advice, the defects found being as follows:

Defective teeth	3
Defective vision	3
Nose and throat defects	2

In the early part of the year an examination of all the children in attendance at the school as to their mental condition was carried out. A total of 73 children was examined. Of these 29 were considered to be incapable of deriving further benefit from instruction in the school. They were accordingly withdrawn from attendance and referred to the Mental Deficiency Acts Committee.

In accordance with the revised arrangements for ascertainment, 70 examinations of children suspected to be mentally defective were held at various schools during the year by the Assistant Medical Officers. 2 children, who were not in attendance at school, were examined at the clinic. The results of these examinations are set out below:

Total number examined—Boys	38	
Girls	34	
		72
Number certified as mentally defective—Boys	14	
Girls	12	
		26
Number recommended to continue in attendance at ordinary Elementary Schools—Boys	24	
Girls	22	
		46*

* 17 of these are to be re-examined.

36 children left the school during the year.

(a) on reaching the age of 16 years	4*
(b) before reaching the age of 16 years	
Notified to Mental Deficiency Acts Committee	29
Fit for work	2
Employed at home	1

*3 of these cases were notified to the Local Authority under the Mental Deficiency Acts.

Of the 2 children who left to take up work

- 1 is employed in a coalyard;
- 1 is employed as an errand boy.

School dinners have been provided throughout the year at a cost to the parents of 2d. per day.

Daily average supplied	54
Total cost for the year	£90

The weekly menu was :

<i>Monday</i>	Soup; boiled suet pudding.
<i>Tuesday</i>	Meat and vegetable stew; milk pudding.
<i>Wednesday</i> ...	Meat pie and vegetables.
<i>Thursday</i>	Hotpot; milk pudding.
<i>Friday</i>	Vegetable stew with dumplings.

The school continues to have the use of the recreation ground in Slaty Road during school hours and the facilities thus afforded for school activities in the open air are greatly appreciated.

The Head Mistress and her staff continue to visit and assist the non-notifiable pupils who have passed out of the school.

MISCELLANEOUS

Examination of entrants to the Girls' Secondary School, the Birkenhead Institute, Park High School, Rock Ferry High School, Higher Tranmere High School for Girls, The Convent Secondary School, St. Francis Xavier's College, and the Catholic Institute.—During the year 295 elementary school children were examined with a view to their admission to the above schools. 38 were found to require treatment for 39 defects, the latter being as follows:

Defective teeth	17
Defective vision and squint	12
Other eye defects	1
Nose and throat defects	3
Skin defect	1
Other defects	5

School Camp.—241 children whom the Director of Education had selected as being suitable cases to attend the School Camp held at Dyserth in May were medically examined. After numerous re-examinations by Assistant Medical Officers and cleansing by the Health Nurses of a number of the children, 205 were eventually passed as medically fit, and attended the camp. Two Health Nurses stayed at the camp for the purpose of giving first aid or carrying out any necessary treatment in connection with minor ailments.

Classes for stammering children.—Two examinations, covering a total of 34 children, with a view to admission to or withdrawal from these classes were made.

Provision of meals.—An average number of 930 children received meals each day, the total number of meals provided during the year being 235,368. Meals were supplied five days per week, with the exception of Bank and Public Holidays.

TABLE S 1

Return of Medical Inspections during 1932 (see note *a*)

A.—ROUTINE MEDICAL INSPECTIONS

Number of Code Group Inspections (see note <i>b</i>)	
Entrants	2519
Intermediates	2204
Leavers	2836
	Total
	7559
Number of other routine inspections (see note <i>c</i>)	
	45

B.—OTHER INSPECTIONS

Number of special inspections (see note <i>d</i>)	3904
Number of re-inspections (see note <i>e</i>)	5541
	Total
	9445

NOTES ON TABLE S 1

- (*a*) The return refers to a complete calendar year.
- (*b*) This heading relates solely to the routine medical inspection of the three ordinary age groups, *i.e.*, to medical inspections carried out:
- (i) in compliance with Article 17 of the Consolidated Regulations relating to Special Services—Grant Regulations No. 19;
 - (ii) on the school premises (or at a place specially sanctioned by the Board);
 - (iii) for the purpose of making a report on each child on the lines of the approved Schedule set out in Circular 582.
- (*c*) Under this heading may be recorded *routine* inspections, if any, of children who do not fall under the three code age-groups, *e.g.*, *routine* inspections of a fourth age-group or of other groups of children, as distinct from those who are individually selected on account of some suspected ill-health for "Special" Inspection.

(*d*) A Special Inspection is a medical inspection by the School Medical Officer himself or by one of the Assistant Medical Officers on his staff of a child specially selected or referred for such inspection, *i.e.*, not inspected at a routine medical inspection as defined above. Such children may be selected by the Medical Officer during a visit to the school or may be referred to him by the teachers, health nurses, attendance officers, parents, or otherwise. It is immaterial for the purpose of this heading whether the children are inspected at the school or at the Inspection Clinic or elsewhere. If a child happens to come before the School Medical Officer for special inspection during a year in which it falls into one of the routine groups, its routine inspection is entered in Part A of Table S 1 and its special inspection in Part B. The inspection to be recorded under the heading of special inspections is only the first inspection of the child so referred for a particular defect. If a child who has been specially inspected for one defect is subsequently specially inspected for another defect, such subsequent inspection is recorded as a special inspection and not as a re-inspection.

(*e*) Under this heading are entered the medical inspections of children who as the result of a routine or special inspection come up later on for subsequent re-inspection, whether at the school or at the inspection clinic. The first inspection in every case is entered as a routine or special inspection as the case may be. Every subsequent inspection of the same defect is entered as a re-inspection.

Nothing is included under the head of special inspections or re-inspections except such inspections as are defined above. Attendances for treatment by a nurse or for examinations by anyone other than a doctor on the staff of the School Medical Service are not recorded as medical inspections. If, however, at any such attendance, a child is also examined by a member of the authority's medical staff, this is recorded as a special inspection or re-inspection as the case may be, even if treatment is also given; but such attendance may also of course be recorded as an attendance for treatment.

TABLE S 2

A. Return of Defects found by Medical Inspection during the year ended 31st December, 1932

Defect or disease (1)	Routine Inspections		Special Inspections	
	No. of defects		No. of defects	
	Requiring treatment (2)	Requiring to be kept under observation, but not requiring treatment (3)	Requiring treatment (4)	Requiring to be kept under observation but not requiring treatment (5)
<i>Malnutrition</i>	3	3	8	—
<i>Uncleanliness</i>	—	—	—	—
(See Table S 4, Group V.)				
<i>Skin</i> Ringworm—Scalp	2	—	33	—
Body	—	—	41	—
Scabies	7	—	55	—
Impetigo	9	—	241	—
Other diseases (non-tuberculous).....	8	2	192	—
<i>Eye</i> Blepharitis	4	3	85	—
Conjunctivitis	—	1	117	—
Keratitis	—	—	1	—
Corneal opacities	2	—	5	—
Defective vision (excluding squint)...	256	182	108	9
Squint.....	41	9	7	—
Other conditions	7	1	91	—
<i>Ear</i> Defective hearing	9	3	24	—
Otitis media	10	4	131	—
Other ear diseases	4	—	62	—
<i>Nose and throat</i> . Enlarged tonsils only	94	212	224	—
Adenoids only	9	8	16	—
Enlarged tonsils and adenoids.....	36	14	26	—
Other conditions	5	1	241	—
<i>Enlarged cervical glands (non-tuberculous)</i>	—	16	23	—
<i>Defective speech</i>	2	—	1	—
<i>Teeth</i> Dental Diseases	364	1	51	—
<i>Heart and circulation</i> —				
Heart disease—Organic	3	1	4	—
Functional	7	66	12	—
Anæmia	6	3	18	—
<i>Lungs</i> Bronchitis	25	12	97	—
Other non-tuberculous diseases	4	39	97	—
<i>Tuberculosis</i> ... Pulmonary—Definite	—	—	—	—
Suspected.....	5	1	—	—
Non-pulmonary—Glands	—	2	1	—
Spine	—	—	—	—
Hip	—	—	—	—
Other bones and joints	—	1	—	—
Skin	1	—	—	—
Other forms.....	—	—	—	—
<i>Nervous system</i> . Epilepsy	—	1	1	—
Chorea.....	—	3	1	—
Other conditions	1	—	5	—
<i>Deformities</i> Rickets	4	1	—	—
Spinal curvature	1	3	—	—
Other forms	3	2	5	—
<i>Other defects and diseases</i>	58	22	1749	—

TABLE S 2—Continued

B. Number of *individual children* (see note *b*) found at *routine* medical inspection to require treatment (excluding uncleanliness and dental diseases)

Group (1)	Number of children		Percentage of children found to require treatment (see note <i>d</i>) (4)
	Inspected (see note <i>c</i>) (2)	Found to require treatment (3)	
CODE GROUPS:			
Entrants	2519	118	4.7
Intermediates.	2204	151	6.8
Leavers	2836	242	8.5
Total (code groups)	7559	511	6.7
Other routine inspections	45	5	11.1

NOTES ON TABLE S 2.

(a) No individual child is counted more than once in this part of Table S 2, *i.e.*, under B., even if it is found to be suffering from more than one defect.

(b) The figures in this column are the same as those given in Table S 1 A.

(c) The figure in this column is the percentage of the figure in column (3) of that in column (2).

TABLE S 3

Return of all exceptional children in the area (see note a)

Children suffering from the following types of Multiple Defect, <i>i.e.</i> any combination of Total Blindness (see note (b) (1)), Total Deafness (see note (d) (1)), Mental Defect, Epilepsy, Active Tuberculosis, Crippling (as defined in penultimate category of the Table), or Heart Disease.			Boys	Girls	Total
		At certified schools for the blind ...	4	1	5
<i>Blind</i> (including partially blind) (see note b)	(i) Suitable for training in a school for the totally blind.	At public elementary schools (see note c)	-	-	-
		At other institutions	-	-	-
		At no school or institution	2	-	2
		At certified schools for the blind or partially blind	16	14	30
	(ii) Suitable for training in a school for the partially blind.	At public elementary schools (see note c)	2	8	10
		At other institutions	-	-	-
		At no school or institution	1	-	1
		At certified schools for the deaf	11	7	18
<i>Deaf</i> (including deaf and dumb and partially deaf) (see note d)	(i) Suitable for training in a school for the totally deaf or deaf and dumb.	At public elementary schools (see note c)	-	-	-
		At other institutions	-	-	-
		At no school or institution	-	-	-
		At certified schools for the deaf or partially deaf	-	-	-
	(ii) Suitable for training in a school for the partially deaf.	At public elementary schools (see note c)	1	-	1
		At other institutions	-	-	-
		At no school or institution	-	-	-
		At certified schools for mentally defective children	28	26	54
<i>Mentally defective</i>	Feeble-minded (see note e).	At public elementary schools (see note c)	-	-	-
		At other institutions	-	-	-
		At no school or institution	-	-	-
		Notified to the Local Mental Deficiency Authority during the year			
		16 years of age	2	1	3
		Under 16 years of age	18	11	29
		At certified schools for epileptics	1	1	2
		At certified residential open air schools	-	-	-
<i>Epileptics</i>	Suffering from severe epilepsy (see note f)	At certified day open air schools	-	-	-
		At public elementary schools (see note c)	-	-	-
		At other institutions	-	-	-
		At no school or institution	6	2	8
		At public elementary schools	-	-	-
		At no school or institution	-	-	-
<i>Physically defective</i> (see note i)	Active pulmonary tuberculosis (including pleura and intrathoracic glands).	At sanatoria or sanatorium schools approved by the Ministry of Health or the Board	-	-	-
		At Certified Residential Open Air Schools	-	-	-
		At Certified Day Open Air Schools	-	-	-
		At Public Elementary Schools (see note h)	-	-	-
		At other institutions	3	3	6
		At no school or institution	1	1	2

TABLE S 3—Continued

<i>Physically defective (continued) (see note i)</i>	Quiescent or arrested pulmonary tuberculosis (including pleura and intrathoracic glands).	At sanatoria or sanatorium schools approved by the Ministry of Health or by the Board	1	—	1
		At certified residential open air schools	—	—	—
		At certified day open air schools.....	—	—	—
		At public elementary schools (see note <i>h</i>).....	27	30	57
		At other institutions	—	—	—
		At no school or institution	—	—	—
	Tuberculosis of the peripheral glands.	At sanatoria or sanatorium schools approved by the Ministry of Health or the Board.....	3	4	7
		At certified residential open air schools	—	—	—
		At certified day open air schools.....	—	—	—
		At public elementary schools (see note <i>h</i>).....	44	37	81
		At other institutions	1	—	1
		At no school or institution	—	—	—
Abdominal tuberculosis.	At sanatoria or sanatorium schools approved by the Ministry of Health or the Board	6	4	10	
	At certified residential open air schools	—	—	—	
	At certified day open air schools... ..	—	—	—	
	At public elementary schools (see note <i>h</i>)	46	30	76	
	At other institutions	—	—	—	
	At no school or institution	—	—	—	
Tuberculosis of bones and joints (not including deformities due to tuberculosis).	At sanatoria or hospital schools approved by the Ministry of Health or the Board	9	4	13	
	At public elementary schools (see note <i>h</i>).....	22	27	49	
	At other institutions	2	1	3	
	At no school or institution	—	—	—	
Tuberculosis of other organs (skin, etc.).	At sanatoria or hospital schools approved by the Ministry of Health or the Board.....	—	2	2	
	At public elementary schools (see note <i>h</i>)	2	4	6	
	At other institutions	—	—	—	
	At no school or institution	—	—	—	
Delicate Children, <i>i.e.</i> , all children (except those included in other groups) whose general health renders it desirable that they should be specially selected for admission to an Open Air School. (See note <i>j</i> .)	At certified residential cripple schools	—	—	—	
	At certified day cripple schools	—	—	—	
	At certified residential open air schools	—	—	—	
	At certified day open air schools	—	—	—	
	At public elementary schools	10	18	28*	
	At other institutions	—	—	—	
	At no school or institution	—	—	—	
Crippled Children (other than those with active tuberculous disease) who are suffering from a degree of crippling sufficiently severe to interfere materially with a child's normal mode of life.	At certified hospital schools	—	—	—	
	At certified residential cripple schools	1	—	1	
	At certified day cripple schools	—	—	—	
	At certified residential open air schools	—	—	—	
	At certified day open air schools	—	—	—	
	At public elementary schools (see note <i>h</i>)	8	8	16(1)	
	At other institutions (see note <i>k</i>) ..	—	—	—	
At no school or institution (see note <i>k</i>) ..	1	—	1(1)		

TABLE S 3—Continued

<i>Physically defective</i> (continued) (see note i)	Children with heart disease, <i>i.e.</i> , children whose defect is so severe as to necessitate the provision of educational facilities other than those of the public elementary school.	At certified hospital schools	-	-	-
		At certified residential cripple schools	-	-	-
		At certified day cripple schools	-	-	-
		At certified residential open air schools	-	-	-
		At certified day open air schools.....	-	-	-
		At public elementary schools (see note c).....	6	12	18
		At other institutions	-	-	-
	At no school or institution	4	7	1	

*These figures must not be regarded in any way as complete. In the event of an open-air school being established, a rapid survey will be made and suitable cases selected.

NOTES ON TABLE S 3

(a) This Table is a return of all children in the area for whom the Local Education Authority are responsible and who (except in the case of children suffering from epilepsy which is not severe and certain classes of tuberculous and crippled children) have been ascertained to be blind, deaf, defective or epileptic within the meaning of Part V of the Education Act 1921. It is the statutory duty of every Local Education Authority formally to ascertain all defective children in their area irrespective of the actual provision now made for their instruction in Special Schools. It is assumed by the Board of Education that every authority will have a complete list of such children compiled from returns made continuously during the year and kept constantly up to date. In order to secure uniformity, authorities are requested to make up this Table from their list of defective children as it stands on the last day of each calendar year.

Children who are living in residential schools in the area but who come from other areas are not included in this Table; but children are included who are living in residential schools outside the area and who are being maintained there by the authority.

For the purpose of this Table no child is included whose defect has not been ascertained by the School Medical Officer or a medical member of the authority's staff.

The definitions of defective children as given in the Act are as follows:

A blind child is a child who is too blind to be able to read the ordinary school books used by children.

A deaf child is a child who is too deaf to be taught in a class of hearing children in an elementary school.

Mentally and physically defective children are children who, not being imbecile and not being merely dull and backward, are defective, that is to say, children who by reason of mental or physical defect are incapable of receiving proper benefit from the instruction in the ordinary public elementary schools, but are not incapable by reason of that defect of receiving benefit from instruction in such special classes or schools as under Part V of the Act may be provided for defective children.

Epileptic children are children who, not being idiots or imbeciles, are unfit by reason of severe epilepsy to attend the ordinary public elementary schools.

(b) For the purpose of this return the Board require that children who are blind within the meaning of the Act should be divided into two categories, *i.e.*, (1) those who are totally blind or so blind that they can only be appropriately taught in a school or class for totally blind children, and (2) those who though they cannot read ordinary school books, or cannot read them without injury to their eyesight, have such power of vision that they can appropriately be taught in a school or class for the partially blind.

It should be understood that children who are able by means of suitable glasses to read the ordinary school books used by children without fatigue or injury to their vision are not included in this Table.

(c) It should be understood that none of the children in this category should in fact be attending public elementary schools. When the heading is retained, it is merely because at present the insufficiency of Special School accommodation makes it impossible to do better for some of these children than to allow them

NOTES ON TABLE S 3—Continued

to attend the ordinary school, or because there is some other reason which accounts for the temporary attendance of the children at the ordinary school.

(d) Children who are deaf within the meaning of the Act are classified for the purpose of this Table as (1) totally deaf or so deaf that they can only be appropriately taught in a school or class for the totally deaf, and (2) partially deaf, *i.e.*, those who can appropriately be taught in a school or class for the partially deaf.

(e) This category includes only those children for whose education and maintenance the Local Education Authority are responsible, and who are not eligible for notification to the Local Control Authority under the Mental Deficiency Acts.

(f) In this part of the Table only those children are included who are epileptic within the meaning of the Act.

(For practical purposes the Board are of opinion that children who are subject to attacks of major epilepsy in school should be recorded as "severe" cases and excluded from ordinary public elementary schools.)

(g) In this part of the Table are entered the remainder of the epileptic children in the area, *i.e.*, children whose disease is of such a kind as not to unfit them for attendance at an ordinary public elementary school.

(h) Children with "open" tuberculosis are of course promptly excluded from public elementary schools.

(i) The exact classification of physically defective children is admittedly a matter of difficulty. Valuable information, however, will be obtained if School Medical Officers record these defective children as accurately as possible under the selected sub-headings.

(j) Delicate children suffering from rheumatism are included in this category even though it may be considered undesirable to send them to an Open Air School.

(k) The total under this heading is followed by a figure in brackets indicating the number of these children who should be receiving Special School education.

TABLE S 4

Return of Defects treated during the year ended 31st December, 1932
(see note a)

TREATMENT TABLE

Group I.—Minor Ailments (excluding uncleanliness, for which see Group V)

Defect or disease (1)	Number of defects treated, or under treatment during the year		
	Under the Authority's scheme (see note b) (2)	Otherwise (3)	Total (4)
<i>Skin</i> —Ringworm—scalp	33	—	33
body	41	—	41
Scabies	55	1	56
Impetigo.....	235	—	235
Other skin diseases	189	—	189
<i>Minor eye defects</i>	290	5	295
(external and other, but excluding cases falling in Group II.)			
<i>Minor ear defects</i>	212	1	213
(see note c)			
<i>Miscellaneous</i>	1396	25	1421
(<i>e.g.</i> , minor injuries, bruises, sores, chilblains, &c.)			
Total	2451	32	2483

TABLE S 4—Continued

Group II.—Defective Vision and Squint (excluding minor eye defects treated as minor ailments—Group I.)

Defect or disease (1)	Number of defects dealt with			
	Under the Authority's scheme (see note b) (2)	Submitted to refraction by private practitioner or at hospital, apart from the Authority's scheme (3)	Otherwise (4)	Total (5)
Errors of refraction (including squint) (operations for squint should be recorded separately in the body of the report)	856	12	—	868
Other defect or disease of the eyes (excluding those recorded in Group I).....	8	—	—	8
Total.....	864	12	—	876

Total number of children for whom spectacles were prescribed—

(a) Under the Authority's scheme	830
(b) Otherwise	12

Total number of children who obtained or received spectacles—

(a) Under the Authority's scheme	723
(b) Otherwise	11

Group III.—Treatment of Defects of Nose and Throat

Number of defects				
Received operative treatment			Received other forms of treatment (4)	Total number treated (5)
Under the Authority's scheme, in clinic or hospital (see note b) (1)	By private practitioner or hospital, apart from the Authority's scheme (2)	Total (3)		
210	1	211	175	386

Group IV.—Dental Defects

(1) Number of children who were—

(a) Inspected by the Dentist—

Routine age groups—aged 5	—
aged 6	742
aged 7	1369
aged 8	1513
aged 9	1629
aged 10	1744
aged 11	1698
aged 12	2046
aged 13	796
aged 14	—
—	11537

Special (see note (d))

(b) Found to require treatment	11537
(c) Actually treated	8644
	7316

TABLE S 4—Continued

(2) Half-days devoted to—	Inspection	127	
	Treatment	1137	
		—	1264
(3) Attendances made by children for treatment			9324
(4) Fillings	Permanent teeth.....	4737	
	Temporary teeth.....	133	
		;;	— 4870
(5) Extractions	Permanent teeth.....	1924	
	Temporary teeth.....	8335	
		;;	— 10259
(6) Administration of general anæsthetics for extractions		21	
(7) Other operations.....	Permanent teeth.....	920	
	Temporary teeth.....	208	
		—	1128

Group V.—Uncleanliness and Verminous Conditions

(i) Average number of visits per school made during the year by Health Nurses			19
(ii) Total number of examinations of children in the schools by Health Nurses			78824
(iii) Number of individual children found unclean			3791
(iv) Number of children cleansed under arrangements made by the Local Education Authority			1
(v) Number of cases in which legal proceedings were taken—			
(a) Under the Education Act, 1921			—
(b) Under School Attendance Byelaws			—

NOTES ON TABLE S 4

(a) The Table deals with all defects treated during the year, however they were brought to the Authority's notice, *i.e.*, whether by routine inspection, special inspection, or otherwise, during the year in question or previously.

(b) This heading includes all cases that received treatment under definite arrangements or agreements for treatment made by the Local Education Authority and sanctioned by the Board of Education under Section 80 of the Education Act, 1921. Cases, which, after being recommended for treatment or advised to obtain it, actually received treatment by private practitioners, or by means of direct application to hospitals, or by the use of hospital tickets supplied by private persons, etc., are entered under other headings.

(c) The Board request that if any treatment is given for more serious diseases of the ear (*e.g.*, operative treatment in hospital) it should not be recorded here but in the body of the School Medical Officer's Annual Report.

(d) The heading "Specials" in this Table relates to all children inspected by the School Dentist otherwise than in the course of the routine inspection of children in one of the age groups covered by the Authority's approved scheme, namely, to children specially selected by him, or referred by medical officers, parents, teachers, etc., on account of urgency. The number inspected in each age group is separately shown, as well as the total, but under "Specials" only the total number is given.

N B—Groups I—V above cover all the defects for which treatment is normally provided as part of the School Medical Service. The Board request that particulars as to the measures adopted by the Authority for providing treatment for other types of defect (*e.g.*, for orthopædic treatment) or for securing improvement in types of defect which do not fall to be treated under the Authority's own scheme and for which the Authority neither incur expenditure nor accept any responsibility, together with a statement of the effect of the measures taken, should be included in the body of the School Medical Officer's report: such particulars following the headings of Table S 2.

TABLE S 5

Number of children examined at Routine Medical Inspections in the Schools and number found defective in each School

School.	CLASSIFICATION OF DEFECTS														Totals									
	Entrants	Intermediates	Leavers	Total ordinary inspections	Parents present	Number of defective children	Number of defects found	Malnutrition	Skin diseases	Eyes	Ears	Nose and throat	Cervical glands (non-tuberculous)	Defective speech		Teeth	Heart and circulation	Fangs	Tuberculosis (pulmonary)	Tuberculosis (non-pulmonary)	Nervous system	Deformities	Other defects and diseases	
Bidston Avenue	113	107	72	292	256	30	33	—	1	7	1	5	—	—	12	1	—	—	—	—	—	—	6	33
Brassey Street Infants ..	48	64	—	112	98	6	6	—	—	—	2	1	—	—	1	—	—	—	—	—	—	—	2	6
Cathcart Street	104	84	60	248	205	20	23	—	—	8	1	2	—	—	7	1	—	—	—	—	—	—	4	23
Cole Street	83	80	25	188	160	12	15	—	—	4	—	5	—	—	4	—	1	—	—	—	—	—	—	15
Gauby Road	84	75	48	207	156	19	22	—	1	2	2	6	—	—	6	1	2	—	—	—	—	—	2	22
Laird Street	73	79	66	218	175	44	52	—	2	13	—	4	—	—	30	—	1	—	—	—	—	—	2	52
Mersey Park	97	97	68	262	214	9	9	—	—	6	1	2	—	—	—	—	—	—	—	—	—	—	—	9
Mersey Road	55	79	85	219	150	21	21	—	1	9	2	6	3	—	—	—	—	—	—	—	—	—	—	21
Pilgrim Street	82	55	25	162	122	29	31	—	1	8	—	1	—	—	21	—	—	—	—	—	—	—	—	31
Price Street	—	33	—	33	22	3	4	—	—	2	—	1	—	—	1	—	—	—	—	—	—	—	—	4
Rock Ferry	155	117	170	442	312	54	57	—	—	16	—	6	—	1	28	—	1	—	—	—	—	—	4	57
The Dell	92	—	—	92	83	10	11	—	1	2	—	6	—	—	—	1	—	—	—	—	—	—	—	11
The Woodlands	86	60	31	177	143	16	17	—	2	7	—	4	—	—	4	—	—	—	—	—	—	—	—	17
Trinity Street	70	30	11	111	88	8	11	—	1	2	1	2	—	1	—	1	1	—	—	—	—	—	—	11
Well Lane.....	78	78	120	276	197	17	18	—	—	9	1	5	—	—	1	—	2	—	—	—	—	—	—	18
Woodchurch Road	110	128	61	299	254	11	11	—	—	7	—	2	—	—	—	—	—	—	—	—	—	—	—	11
Park Road Temporary	43	43	—	86	65	11	11	—	1	4	—	2	—	—	3	—	1	—	—	—	—	—	—	11
Claughton H.G.	104	78	103	285	229	36	39	—	—	6	—	6	—	—	24	—	1	—	—	—	—	—	2	39

Holy Trinity	107	64	32	203	168	17	19	—	—	7	1	9	—	—	—	1	1	—	—	—	—	—	—	2	23	
Our Lady's	120	96	123	339	269	66	73	1	3	23	3	6	—	—	—	23	3	3	—	—	—	—	—	2	6	73
Oxton	21	12	6	39	23	11	12	—	1	—	1	1	—	—	—	7	—	—	—	—	—	—	—	2	2	12
St. Andrew's	33	29	12	74	70	5	5	—	—	3	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	5
St. Anne's.....	59	52	68	179	137	32	39	—	4	13	—	3	—	—	—	16	2	—	1	—	—	—	—	—	—	39
St. Anne's R.C.	113	92	108	313	210	38	42	—	—	22	2	11	—	—	—	4	—	1	—	—	—	—	1	1	1	42
St. Catherine's.....	44	21	37	102	63	4	4	—	—	2	—	1	—	—	—	1	—	—	—	—	—	—	—	—	—	4
St. James'	62	53	48	163	111	18	20	—	1	4	—	6	—	—	—	8	—	—	—	—	—	—	—	1	—	20
St. John's.....	73	39	100	212	123	25	30	—	—	12	—	1	—	—	—	16	—	—	1	—	—	—	—	—	—	30
St. Joseph's	17	29	19	65	45	4	7	—	—	1	—	1	—	—	—	1	—	2	—	—	—	—	—	1	—	7
St. Laurence's	97	126	157	380	287	34	41	—	—	16	1	7	—	—	—	11	—	—	2	—	—	—	—	4	—	41
St. Luke's.....	53	69	76	198	139	17	19	—	—	8	—	5	—	—	—	2	—	—	—	—	—	—	—	4	—	19
St. Paul's	41	32	25	98	71	6	6	—	1	2	—	1	—	—	—	2	—	—	—	—	—	—	—	—	—	6
St. Werburgh's	102	90	79	271	190	19	22	—	—	10	—	3	—	—	—	8	—	—	—	—	—	—	—	1	—	22
Tranmere H.G.	33	52	32	117	95	7	8	—	1	5	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	8
Brassey Street Central ...	—	—	210	210	138	93	112	—	2	20	2	12	—	—	—	64	3	4	—	1	—	—	—	4	—	112
Conway Street Central ...	—	—	215	215	97	24	26	—	—	12	—	—	—	—	—	12	1	—	—	—	—	—	—	1	—	26
Hemingford St. Central ...	—	—	226	226	106	29	31	—	—	21	—	—	—	—	—	6	—	1	1	—	—	—	—	1	—	31
Temple Road Central	—	—	193	193	119	13	14	—	1	9	—	1	—	—	—	2	—	—	—	—	—	—	—	—	—	14
St. Hugh's Central	—	—	125	125	31	37	46	—	—	7	1	5	—	—	—	22	1	6	—	—	—	—	—	4	—	46
Totals.....	2519	2204	2836	7559	5534	875	990	3	26	310	23	144	—	2	364	16	29	5	1	1	1	1	8	58	—	990

* The number of defects found is in excess of the number of defective children, as one child may have several defects.

TABLE S 6

Past Infectious Diseases (Elementary School Children)

(1) Children aged 3—7

	No. of Cases	Percentage
No Infectious Disease	539	21.4
Measles	1540	61.1
Whooping Cough	1110	44.1
Scarlet Fever	73	2.9
Diphtheria	41	1.6
Chicken Pox	700	27.7
Mumps	353	14.0

(2) Children aged 8—14

	No. of Cases	Percentage
No Infectious Disease	259	5.1
Measles	4583	90.9
Whooping Cough	2941	58.3
Scarlet Fever	330	6.5
Diphtheria	184	3.6
Chicken Pox	2520	50.0
Mumps	1562	30.9

Note.—The same child may have had more than one of these diseases.

